ENT Collection

Question Bank with Answers & Explanations

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31 Topics • 802 Questions

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Part A — All Questions

• [01_Ear] 001 Anatomy Of External Middle And Internal Ear

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[01_Ear] 001 Anatomy Of External Middle And Internal Ear — Quick Jump

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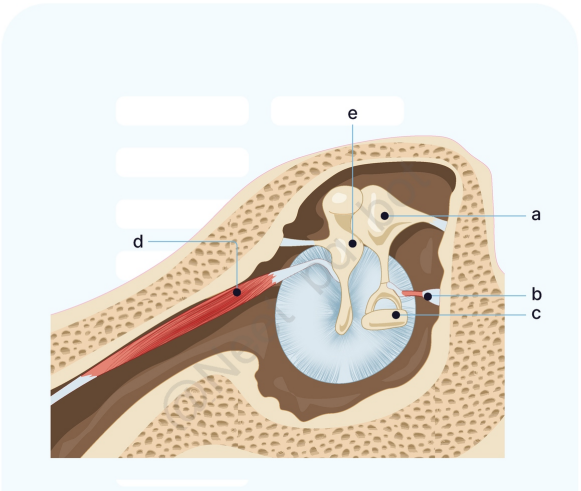
Q1: Label the contents of middle ear appropriately: (Q847697)

A. a-Incus, b-Stapedius, c-Stapes , d-Tensor tympani, e-Malleus

B. a-Incus, b-Stapes, c-Stapedius , d-Tensor tympani, e-Malleus

C. a-Incus, b-Tensor tympani, c-Stapes , d-Stapedius, e-Malleus

D. a-Malleus, b-Stapedius, c-Stapes , d-Tensor tympani, e- Incus



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See Answer in Part B → Q1

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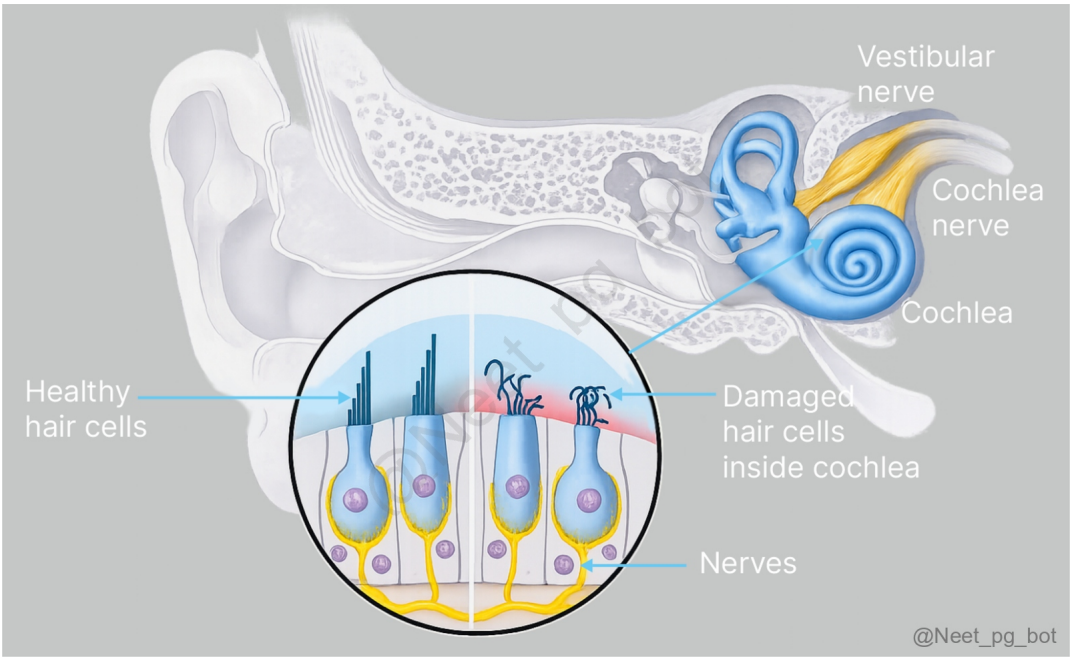
Q2: Furosemide-induced hearing loss occurs primarily by damaging which structure? (Q882297)

A. Outer hair cells in Organ of Corti

B. Na■-K■-2Cl■ cotransporter in stria vascularis

C. Vestibulocochlear nerve

D. Cochlear duct basement membrane



See Answer in Part B → Q2

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Q3: Which of the following statements regarding the development of ear ossicles and inner ear is false? (Q847708)

A. Malleus and incus are developed from first pharyngeal arch

B. Stapes footplate is developed from otic capsule

C. Cochela develops from otocyst

D. A part of the stapes develops from the third pharyngeal arch

See Answer in Part B → Q3

@Neet_pg_bot

Q4: Match the layers of tympanic membrane to the germinal layer from which it developes. Layers of tympanum Germinal layer a.Epithelial layer 1.Ectoderm b.Fibrous layer 2.Endoderm c.Mucosal layer 3.Mesoderm (Q847707)

A. a1,b3,c2

B. a1,b2,c3

C. a3,b2,c1

D. a2,b1,c3

See Answer in Part B → Q4

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Q5: Which of the following structures pass through the internal auditory canal? (Q847705)

A. Facial nerve, cochlear nerve, and trigeminal nerve

B. Cochlear nerve, vestibular nerve, and facial nerve

C. Optic nerve, oculomotor nerve, and facial nerve

D. Glossopharyngeal nerve, vagus nerve, and accessory nerve

See Answer in Part B → Q5

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Q6: A 35-year-old male presents with progressive right-sided hearing loss, intermittent tinnitus, and a sensation of fullness. An audiogram shows significant sensorineural hearing loss. Which structure is most likely affected? (Q847704)

A. Malleus

B. Eustachian tube

C. Organ of Corti

D. Semicircular canals

See Answer in Part B → Q6

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Q7: Which of the following statements correctly identifies the primary ionic components of endolymph and perilymph in the cochlea? (Q847703)

A. Endolymph is high in sodium (Na+), and perilymph is high in potassium (K+).

B. Endolymph is high in potassium (K+), and perilymph is high in sodium (Na+).

C. Both endolymph and perilymph are high in sodium (Na+).

D. Both endolymph and perilymph are high in potassium (K+).

See Answer in Part B → Q7

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Q8: In the cochlea, high-frequency sounds are primarily detected at which location along the basilar membrane? (Q847702)

A. Apex of the cochlea

B. Base of the cochlea

C. Middle of the cochlea

D. Near the helicotrema

See Answer in Part B → Q8

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Q9: Which of the following accurately describes the anatomy and function of the semicircular canals? The lateral, posterior, and superior canals are oriented perpendicular to each other. Each semicircular canal has an ampullated end that contains the crista ampullaris, which detects angular acceleration. The membranous ducts within the bony canals are filled with perilymph and surrounded by endolymph. The crus commune is formed by the non-ampullated ends of the posterior and superior canals and opens into the vestibule. The semicircular canals are located within the bony labyrinth in the frontal bone. (Q847701)

A. 1,2,4

B. 1

C. 1,4

D. 1,2

See Answer in Part B → Q9

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Q10: Which structure in the vestibule of the inner ear contains the structure involved in detecting linear acceleration and deceleration.? (Q847700)

A. Organ of Corti

B. Vestibular aqueduct

C. Semicircular canals

D. Spherical recess

See Answer in Part B → Q10

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Q11: A 45-year-old patient is undergoing a mastoidectomy for chronic mastoiditis. During surgery, the surgeon encounters a structure that obstructs access to the deeper petrosal air cells. What is the most likely anatomical structure causing this surgical challenge? (Q847699)

A. Sigmoid sinus

B. Facial nerve

C. Korner's septum

D. Tegmen tympani

See Answer in Part B → Q11

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Q12: Which of the following describes the posterior boundary of MacEwen's triangle? (Q847698)

A. Temporal line (supramastoid crest)

B. Posterosuperior part of the bony external auditory canal

C. A tangent line drawn from the external auditory canal

D. Tegmen tympani

See Answer in Part B → Q12

@Neet_pg_bot

Q13: Which structure, located in the petrous part of the temporal bone, is responsible for transmitting the facial nerve (VII) and is commonly involved in pathological conditions such as acoustic neuroma affecting the cerebellopontine angle? (Q847685)

A. Tegmen tympani

B. Stylomastoid foramen

C. Internal auditory canal

D. Jugular foramen

See Answer in Part B → Q13

@Neet_pg_bot

Q14: Patient diagnosed with chronic suppurative otitis media has been planned for Tympanoplasty. All among the following are landmarks to identify the commonly injured nerve during this procedure except? (Q847696)

A. Oval window

B. Posterior belly of digastric

C. Processus cochleariformis

D. Incus short process

See Answer in Part B → Q14

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Q15: Patient underwent surgery for cholesteatoma 1 year back, now has presented with similar complaints again. Which among the following is the most common site of residual cholesteatoma? (Q847695)

A. Facial nerve canal

B. Ponticulus

C. Sinus tympani

D. Facial recess

See Answer in Part B → Q15

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Q16: A 6-year old child was brought to clinic with recurrent episodes of upper respiratory tract infection. Child also complains of earache during this episodes. Doctor suspects that a structure exiting from anterior wall in middle ear is responsible for his earache. Arrange the following structures in order related to the wall (superior-to-inferior) 1) Internal carotid artery 2) Pharyngo-tympanic tube 3) Tensor tympani (Q847694)

A. 3-1-2

B. 2-3-1

C. 3-2-1

D. 2-1-3

See Answer in Part B → Q16

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Q17: Which among the following are components of the middle ear cleft? 1) Tympanic plexus 2) Stapedius muscle 3) Mastoid air cells 4) Eustachian tube (Q847693)

A. 1,2,3,4

B. 1,2,3

C. 1,2,4

D. 1,2

See Answer in Part B → Q17

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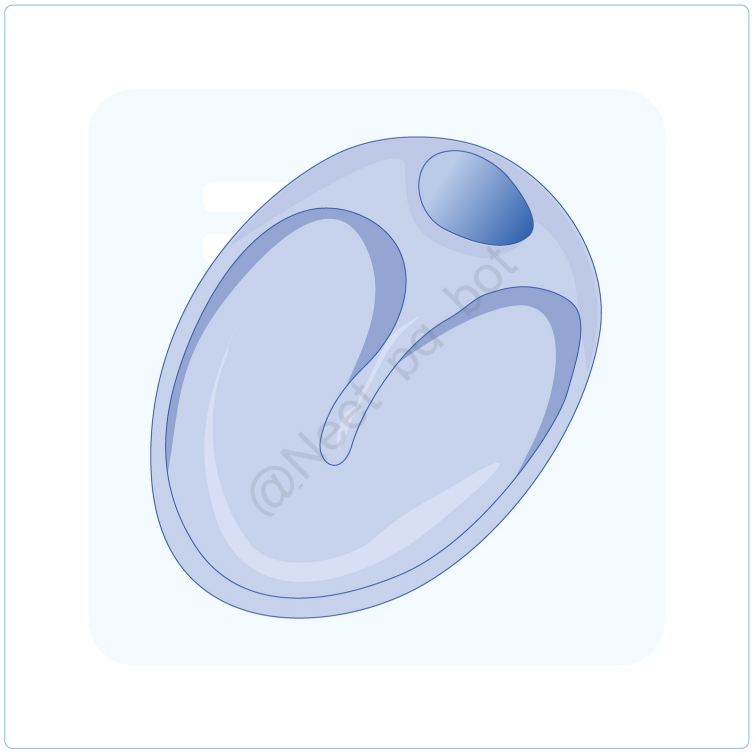
Q18: A 50-year-old woman presents with a perforation of the tympanic membrane. The image is given below. What type of perforation is this? (Q847692)

A. Central

B. Subtotal

C. Posterosuperior

D. Attic



See Answer in Part B → Q18

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Q19: Which of the following statements is false? (Q847691)

A. Pars tensa forms the majority of the tympanic membrane

B. Umbo is central part of pars tensa

C. Sharpnells membrane is pars flaccida

D. None of the above

See Answer in Part B → Q19

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Q20: Which of the following statements on tympanic membrane is false? (Q847690)

A. Partition between the external acoustic canal and the middle ear.

B. The posterosuperior part is more medial than the anteroinferior part.

C. Height 9-10 mm

D. 0.1mm thick

See Answer in Part B → Q20

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Q21: Match the parts of the external ear with the corresponding nerve supply Part Nerve supply a.Lower half of medial and lateral surface of pinna 1.Auricular branch of vagus nerve b.Retroauricular groove of the pinna 2.Facial nerve c.Floor of external auditory canal 3.Greater auricular nerve (Q847689)

A. a3,b2,c1

B. a1,b2,c3

C. a3,b1,c2

D. a2,b3,c1

See Answer in Part B → Q21

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Q22: A 3 year old child presents with swelling and pain in the region of the parotid gland, accompanied by ear discharge. Examination of the external auditory canal (EAC) reveals signs of infection. Which bony anatomical structure is responsible for the spread of infection between the EAC and the parotid gland? (Q847688)

A. Mastoid air cells

B. Foramen of Huschke

C. Isthmus

D. Tympanic membrane

See Answer in Part B → Q22

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Q23: A 10 year old boy presents with ear pain, swelling and redness around the ear. On examination, the external auditory canal is inflamed and furuncles are visible. What part of the external auditory canal is most likely affected? (Q847687)

A. Bony part of the external auditory canal

B. Tympanic membrane

C. Cartilaginous part of the external auditory canal

D. Mastoid air cells

See Answer in Part B → Q23

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Q24: In reconstructive surgical procedures for nasal bridge deformities, if septal cartilage is unavailable, which part of the external ear is most commonly used as an alternative source for cartilage grafts? (Q847686)

A. Lobule

B. Tragus

C. Incisura terminalis

D. Conchal cartilage

See Answer in Part B → Q24

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• [01_Ear] 002 Physiology And Assessment Of Hearing - I

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[01_Ear] 002 Physiology And Assessment Of Hearing - I — Quick Jump

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Q1: A 60-year-old patient presents with hearing issues. During the examination, the audiologist performs the Bing Test and Gelle's Test to assess the type of hearing loss. What would be indicative of conductive hearing loss in the Bing and Gelle tests? (Q847808)

A. Bing: No change; Gelle: No change

B. Bing: Louder; Gelle: Decreased

C. Bing: Louder; Gelle: No change

D. Bing: No change; Gelle: Decreased

See Answer in Part B → Q1

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Q2: A 68-year-old retired librarian has experienced a gradual decline in hearing ability in her right ear. She attributes this issue to ageing and consults an audiologist. The test results show a hearing level of 67 dB in her right ear. What is the grade of her hearing loss? (Q847819)

A. Mild

B. Moderate

C. Moderately severe

D. Severe

See Answer in Part B → Q2

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Q3: A 45-year-old female with a recent upper respiratory infection presented with ear pain, fullness, hearing difficulties, and dizziness, along with increased pressure during flights and bending over. Which of the following tests is most reliable in this condition? (Q847818)

A. Valsalva test

B. Tympanometry

C. Politzer test

D. Toynbee's test

See Answer in Part B → Q3

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Q4: A 7-year-old boy is referred to the ENT clinic for difficulty hearing in noisy environments and discomfort from loud sounds, affecting his school performance. Which of the following indicates cochlear pathology? (Q847817)

A. Absence of stapedial reflex

B. Threshold tone decay >25 dB

C. SISI score 0-20%

D. Presence of recruitment

See Answer in Part B → Q4

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Q5: A 4-month-old was brought to the audiology clinic by his parents due to decreased responsiveness to environmental sounds, such as his name and household noises.

Audiology tests were recommended. Which statement about the test shown in the image is correct? (Q847816)

A. Emissions are generated by inner hair cells

B. Spontaneous emissions are present in all individuals

C. Evaluates hearing in those with cognitive impairments

D. All of the above

See Answer in Part B → Q5

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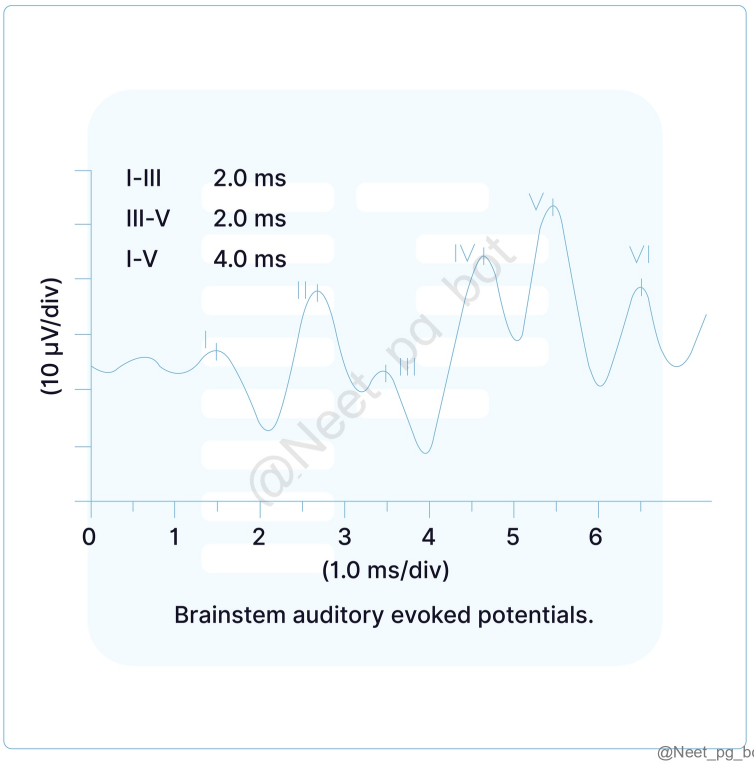
Q6: An infant was brought in due to concerns from her parents about her poor response to loud sounds and reduced reaction to environmental noises compared to her peers. The BERA test shows issues with wave V within the first 10 milliseconds. What site of pathology might this indicate? (Q847815)

A. Cochlear nucleus

B. Superior olivary complex

C. Lateral lemniscus

D. Inferior colliculus



See Answer in Part B → Q6

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Q7: Which of the following is NOT true about Electrocochleography(ECochG)? (Q847814)

A. Measures the electrical potentials generated in the cochlea and 8th cranial nerve

B. A normal SP/AP ratio is greater than 0.3 or 30%

C. Can differentiate cochlear pathology from 8th nerve lesions

D. Investigation of choice for Meniere's disease

See Answer in Part B → Q7

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Q8: A 5-year-old child undergoes acoustic reflex testing during an evaluation for suspected hearing loss. The results indicate the absence of stapedial reflexes at elevated sound levels. Which of the following is the most likely interpretation of this finding? (Q847813)

A. Normal hearing with no middle ear pathology

B. Conductive hearing loss

C. Mild sensorineural hearing loss

D. Lesion in auditory cortex

See Answer in Part B → Q8

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Q9: A 55-year-old patient with a history of chronic otitis media presents with progressive hearing loss. Impedance audiometry is performed. Which of the following findings would be pointing towards an underlying middle ear pathology? (Q847812)

A. Type A tympanogram

B. Type B tympanogram

C. A decreased physical volume of the external auditory canal

D. The presence of a robust acoustic reflex at normal sound intensities

See Answer in Part B → Q9

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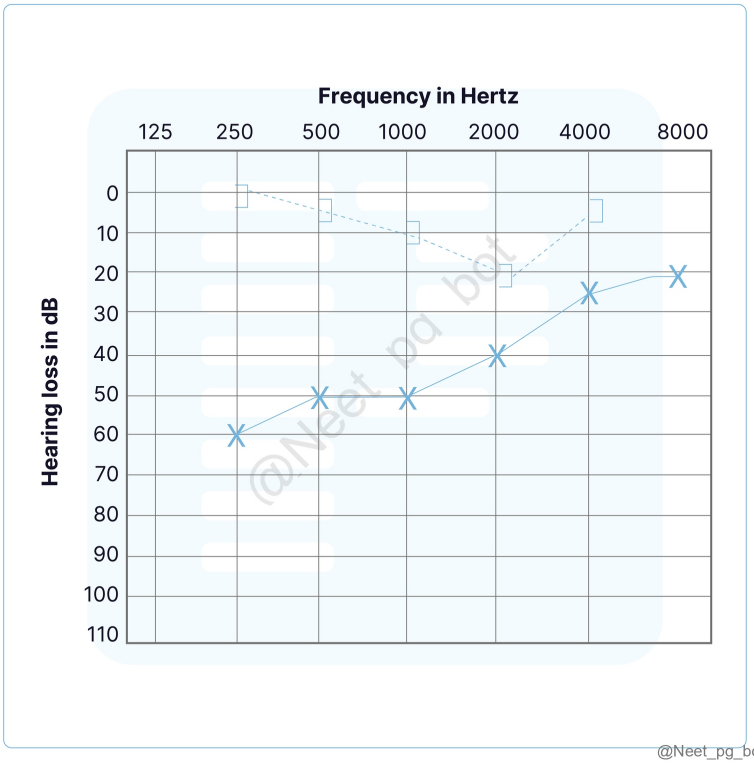
Q10: A 48-year-old woman presents with progressive left ear hearing loss. Audiometry reveals a characteristic dip in the bone conduction curve, more pronounced at 2000 Hz. Which of the following best describes this finding? (Q847811)

A. Carhart's notch

B. Boiler's notch

C. Age-related hearing loss

D. Meniere's disease



See Answer in Part B → Q10

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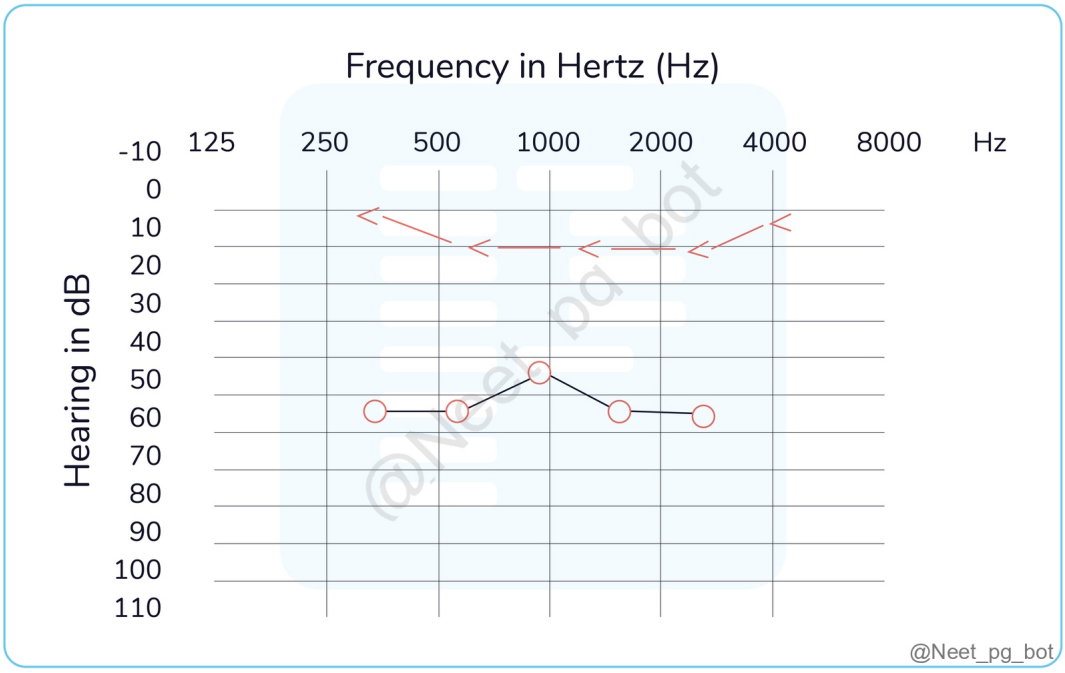
Q11: A 45-year-old patient reports difficulty hearing in the Right ear. Pure tone audiometry is done and the result is given in the image below. Given the audiometric findings, what is the most likely diagnosis? (Q847810)

A. Conductive Hearing Loss

B. Sensorineural Hearing Loss (SNHL)

C. Presbycusis

D. Meniere’s Disease



See Answer in Part B → Q11

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Q12: A 60-year-old patient is being evaluated for hearing loss using various tuning fork tests. What are the expected findings for a patient with sensorineural hearing loss (SNHL)? (Q847809)

A. Rinne: Positive; Weber: Affected ear; Bing: louder

B. Rinne: Positive ; Weber: Better ear ; Schwabach: Shorter

C. Rinne: Negative; Schwabach: Longer; Gelle's: No change.

D. ABC: Same; Weber: Unaffected ear; Bing: No change with occlusion.

See Answer in Part B → Q12

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Q13: Which of the following is the correct sequence of structures involved in the transmission of sound from the external environment? (Q847709)

A. Pinna → Tympanic membrane → Ossicles → Basilar membrane → Organ of Corti → Auditory nerve

B. Tympanic membrane → Pinna → Ossicles → Cochlea → Auditory nerve → Organ of Corti

C. Ossicles → Pinna → Tympanic membrane → Organ of Corti → Cochlea → Basilar membrane

D. Pinna → Cochlea → Ossicles → Tympanic membrane → Auditory nerve → Basilar membrane

See Answer in Part B → Q13

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Q14: A 55-year-old patient with sensorineural hearing loss (SNHL) undergoes hearing tests. The examiner performs the Absolute Bone Conduction (ABC) Test and the Schwabach Test. What are the expected findings of the duration of both tests? (Q847787)

A. Both are Longer

B. Both are Shorter

C. ABC - Longer, Schwabach - Shorter

D. ABC - Shorter, Schwabach - Same as Examiner

See Answer in Part B → Q14

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Q15: A 50-year-old patient presents with hearing loss in the left ear. On examination, the Weber test indicates that the vibrations are lateralised to the left ear. Given the Weber test findings, which of the following conditions could explain these findings? (Q847786)

A. Conductive hearing loss in the left ear

B. Sensorineural hearing loss in the left ear

C. Conductive hearing loss in the right ear

D. Normal hearing in the left ear

See Answer in Part B → Q15

@Neet_pg_bot

Q16: A 55-year-old patient presents with hearing difficulties. During the Rinne test, bone conduction (BC) is significantly better than air conduction (AC) in the right ear. The Weber test shows lateralisation to the right ear. What is the most likely cause of these findings? (Q847785)

A. Sensorineural hearing loss in the left ear

B. Conductive hearing loss in the right ear

C. Conductive hearing loss in the left ear

D. Mixed hearing loss in the right ear

See Answer in Part B → Q16

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Q17: A 60-year-old woman with suspected conductive hearing loss undergoes a Rinne test using different tuning forks. The test reveals a better perception of sound through bone conduction compared to air conduction. Which tuning fork frequency is most likely used in this test? (Q847784)

A. 256 Hz

B. 512 Hz

C. 1024 Hz

D. 2048 Hz

See Answer in Part B → Q17

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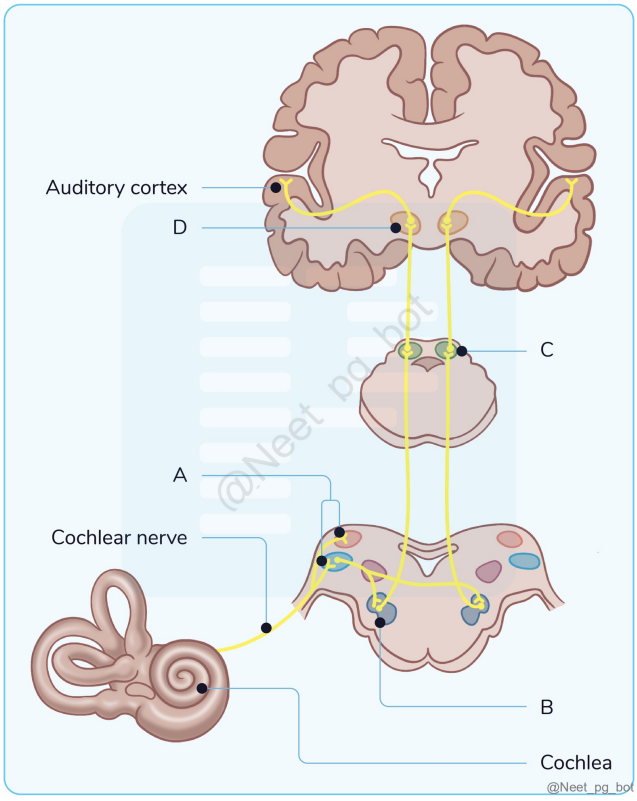
Q18: The image given below of the auditory pathway, depicts auditory signals travelling from the cochlea to the primary auditory cortex and passes through the following structures in sequences A, B, C, and D. Which sequence correctly identifies the order of these structures? (Q847783)

A. A - Cochlear Nucleus; B - Superior Olivary Complex; C - Inferior Colliculus; D - Medial Geniculate Nucleus

B. A - Medial Geniculate Nucleus; B - Cochlear Nucleus; C - Inferior Colliculus; D - Superior Olivary Complex

C. A - Inferior Colliculus; B - Cochlear Nucleus; C - Medial Geniculate Nucleus; D - Superior Olivary Complex

D. A - Superior Olivary Complex; B - Medial Geniculate Nucleus; C - Cochlear Nucleus; D - Inferior Colliculus



See Answer in Part B → Q18

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Q19: A 40-year-old male presents with difficulty localising sounds and a reduced ability to discern speech in noisy environments. He reports no significant hearing loss. Imaging studies reveal normal cochlear and auditory nerve structures, but a lesion is detected in the brainstem. Which structure in the auditory pathway is most likely affected? (Q847782)

A. Cochlea

B. Auditory cortex

C. Superior olivary complex

D. Medial geniculate body

See Answer in Part B → Q19

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Q20: Which of the following best describes the role of the phase difference between the oval and round windows in sound transmission? (Q847781)

A. It amplifies sound waves by 10 dB

B. It prevents the cancellation of sound waves, allowing perilymph movement

C. It ensures simultaneous vibration of the oval and round windows

D. It decreases sound transmission efficiency, reducing hearing sensitivity by 4 dB

See Answer in Part B → Q20

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Q21: A 45-year-old man presents with progressive hearing loss in his right ear. Audiometry reveals sensorineural hearing loss, and an MRI shows no abnormalities in the cochlear nerve. A defect in converting mechanical sound vibrations into electrical signals is suspected. Which of the following structures is most likely affected? (Q847780)

A. Oval window

B. Organ of Corti

C. Tympanic membrane

D. Stapes footplate

See Answer in Part B → Q21

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Q22: What is the total amplification of sound in the auditory system due to impedance matching, considering both the lever action of the ossicles and the area ratio between the tympanic membrane and the oval window? (Q847711)

A. 1.3 times from lever action × 17 times from area ratio = 22.1 times

B. 1.3 times from lever action × 20 times from area ratio = 26 times

C. 1.5 times from lever action × 22 times from area ratio = 33 times

D. 1.2 times from lever action × 18 times from area ratio = 21.6 times

See Answer in Part B → Q22

@Neet_pg_bot

Q23: Which of the following factors is most important in the impedance-matching mechanism of the auditory system, facilitating the transfer of sound from the air-filled middle ear to the fluid-filled cochlea? (Q847710)

A. Acoustic Reflex of the Middle Ear Muscles

B. Area ratio between the tympanic membrane and the oval window

C. Lever action of the malleus and stapes

D. Resonance of the basilar membrane

See Answer in Part B → Q23

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• [01_Ear] 003 Vestibular System Physiology Assessment And Associated Diseases

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[01_Ear] 003 Vestibular System Physiology Assessment And Associated Diseases — Quick Jump

Q1 (p. 35)	*Q2 (p. 35)*	*Q3 (p. 36)*	*Q4 (p. 36)*	*Q5 (p. 37)*	*Q6 (p. 37)*
Q7 (p. 38)	*Q8 (p. 38)*	*Q9 (p. 38)*	*Q10 (p. 39)*	*Q11 (p. 39)*	*Q12 (p. 40)*
Q13 (p. 41)	*Q14 (p. 41)*	*Q15 (p. 42)*	*Q16 (p. 42)*		

Q1: The inner ear, or the labyrinth has a central chamber called the vestibule with a spherical and elliptical recess, each accommodating important structures of the membranous labyrinth. What structure does the elliptical recess accommodate? (Q847738)

A. Saccule

B. Openings of the semicircular canals

C. Oval window

D. Utricle

See Answer in Part B → Q1

@Neet_pg_bot

Q2: A 35-year-old patient presents with complaints of vertigo and dizziness when turning their head side to side. Upon examination, the nystagmus is horizontal. Which of the following is the most likely stimulated structure? (Q847739)

A. Superior Semicircular Canal

B. Lateral Semicircular Canal

C. Posterior Semicircular Canal

D. Utricle

See Answer in Part B → Q2

@Neet_pg_bot

Q3: A 40-year-old male presents with vertigo, nausea, and vomiting. His vertigo worsens with sudden head movements, and he shows signs of horizontal nystagmus. Which of the following best describes the central vestibular connections responsible for his symptoms? (Q847740)

A. Vestibular nuclei efferents to the cerebellum provide motion awareness.

B. The vestibulo-ocular reflex involves CN III, IV, and VI via the MLF.

C. Vestibulospinal fibers connect directly to the cerebellum for balance.

D. The autonomic system plays no role in vestibular disorders.

See Answer in Part B → Q3

@Neet_pg_bot

Q4: A 30-year-old presents with right-sided hearing loss, vertigo, and horizontal nystagmus with fast phase to the right. The nystagmus worsens in darkness and improves with fixation. There is no nausea or vomiting. What is the most likely diagnosis? (Q847741)

A. Central vestibular nystagmus due to a cerebellar lesion

B. Peripheral vestibular nystagmus due to serous labyrinthitis

C. Peripheral vestibular nystagmus due to purulent labyrinthitis

D. Central vestibular nystagmus due to Arnold-Chiari malformation

See Answer in Part B → Q4

@Neet_pg_bot

Q5: Which of the following statements regarding the Fitzgerald-Hallpike manoeuvre is false? (Q847742)

A. The temperature of the water used for stimulation is 44°C for hot water and 30°C for cold water.

B. A gap of 8-10 minutes is maintained between the cold and hot water stimulations to avoid cross-contamination of effects.

C. A normal response to cold water stimulation is horizontal nystagmus towards the ipsilateral side.

D. The test helps to assess vestibular function and can indicate central pathology if directional preponderance is observed.

See Answer in Part B → Q5

@Neet_pg_bot

Q6: While assessing a patient's vestibular function, an ENT surgeon repeatedly presses and releases the tragus of the patient, eliciting a positive response. What would this finding indicate? (Q847743)

A. Cholesteatoma covering the fistula

B. Perilymph fistula

C. Intact bony labyrinth

D. Dead labyrinth

See Answer in Part B → Q6

@Neet_pg_bot

Q7: A 30-year-old woman is being evaluated in the ENT clinic for vertigo when she gets up from bed. Which of the following tests would be useful for diagnosing benign paroxysmal positional vertigo? (Q847744)

A. Dix-Hallpike test

B. Baranay's rotational chair test

C. Galvanic test

D. Dundas Grant test

See Answer in Part B → Q7

@Neet_pg_bot

Q8: Which of the following statements is false about vestibular evoked myogenic potentials? (Q847745)

A. The cervical VEMP is picked up in the sternocleidomastoid

B. The vestibulospinal arc mediates through the lower brainstem

C. The ocular muscle that show potentials are the inferior oblique and inferior rectus

D. It can be used in diagnosing the origin of a neuroma

See Answer in Part B → Q8

@Neet_pg_bot

Q9: A 45-year-old patient presents with sudden-onset vertigo and difficulty maintaining gaze stability during head movements. Which of the following tests is most appropriate to assess vestibulo-ocular reflex? (Q847746)

A. Supine Roll Test

B. Romberg Test

C. Head Impulse Test

D. Unterberger Test

See Answer in Part B → Q9

@Neet_pg_bot

Q10: A 56-year-old woman comes to the ENT department complaining of vertigo. She also has double vision, with nystagmus and difficulty in swallowing but no hearing loss . Which of the following disorders could be a cause of these symptoms? (Q847747)

A. Peripheral vestibular disorders

B. Central vestibular disorders

C. Ocular vertigo

D. Psychogenic vertigo

See Answer in Part B → Q10

@Neet_pg_bot

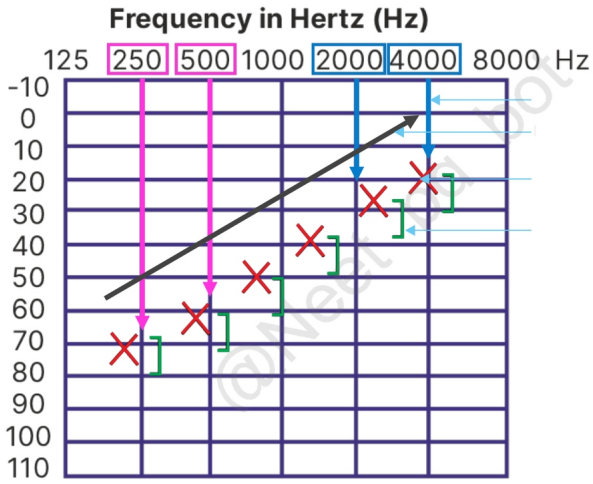
Q11: A 45-year-old male presents with recurrent episodes of severe vertigo, fluctuating sensorineural hearing loss, tinnitus, and a sensation of fullness in the left ear. An Audiogram is taken and is shown below. Which of the following structures is primarily involved in the pathophysiology of the diagnosis? (Q847748)

A. Semicircular canals

B. Endolymphatic sac

C. Stapes footplate

D. Scala vestibuli



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See Answer in Part B → Q11

@Neet_pg_bot

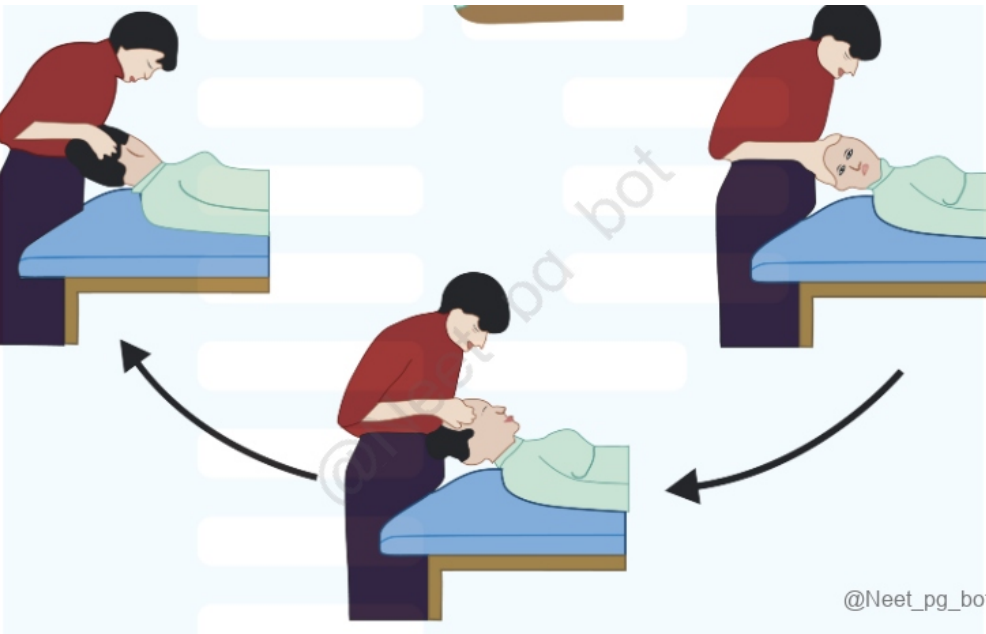
Q12: A 55-year-old woman experiences brief vertigo when turning in bed. A test is performed as shown below, and horizontal nystagmus is observed. Which of the following tests was performed? (Q847749)

A. Head impulse test

B. Dix-Hallpike maneuver

C. Supine roll test

D. Epley maneuver



See Answer in Part B → Q12

@Neet_pg_bot

Q13: A 55-year-old woman with vertigo triggered by head position changes is diagnosed with posterior semicircular canal (P-SCC) BPPV. Which of the following maneuvers is not used primarily for treating P-SCC BPPV? (Q847750)

A. Epley maneuver

B. Semont maneuver

C. Brandt-Daroff exercises

D. Gufoni maneuver

See Answer in Part B → Q13

@Neet_pg_bot

Q14: A 45-year-old male presents with acute onset of severe vertigo, nausea, and vomiting that has been persistent for the last 24 hours. He has right horizontal nystagmus that worsens with head movement. His hearing is normal, and there are no signs of weakness or dysarthria. Which of the following is the most likely diagnosis?

(Q847751)

A. Vestibular neuritis

B. Cerebellar stroke

C. Ménière’s disease

D. Benign paroxysmal positional vertigo (BPPV)

See Answer in Part B → Q14

@Neet_pg_bot

Q15: A 12-year-old child with a history of temporal bone abnormalities presents with recurrent episodes of vertigo, fluctuating hearing loss, and tinnitus. Which of the following is the most likely diagnosis? (Q847752)

A. Meniere’s disease

B. Perilymph fistula

C. Vestibular neuritis

D. Labyrinthitis

See Answer in Part B → Q15

@Neet_pg_bot

Q16: A 45-year-old man presents with intermittent vertigo, hearing his footsteps loudly and a sensation of fullness in his ear. He experiences vertigo triggered by loud noises and changes in pressure, but there is no history of recent infection or trauma. An audiogram is done, and it suggests Mixed hearing loss. Which of the following is the most likely diagnosis? (Q847753)

A. Superior Semicircular Canal Dehiscence (SSCD)

B. Labyrinthitis

C. Ménière's Disease

D. Vestibular Neuronitis

See Answer in Part B → Q16

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• [01_Ear] 004 Middle Ear Diseases Asom Som

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[01_Ear] 004 Middle Ear Diseases Asom Som — Quick Jump

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Q13 (p. 51)	*Q14 (p. 51)*	*Q15 (p. 51)*	*Q16 (p. 52)*		

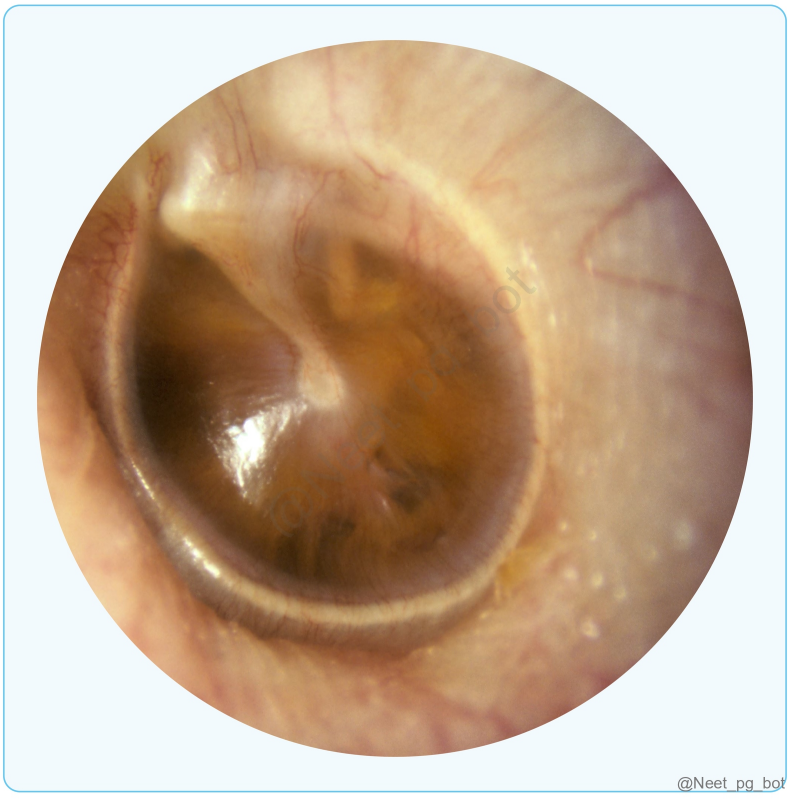
Q1: A 6 year old boy presents with ear pain, and hearing loss for the past 2 days. He also has a recent history of the common cold. Otoscopy shows a retracted tympanic membrane with fluid. What is the most likely cause of his condition? (Q847820)

A. Barotrauma from rapid pressure changes

B. Increased secretory activity of the middle ear mucosa

C. Biofilm formation in the middle ear

D. Eustachian tube dysfunction



See Answer in Part B → Q1

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Q2: A 4 year old girl presents with ear pain, fever, and a recent upper respiratory tract infection. On examination, her tympanic membrane is red and bulging. What is the most likely route of infection for her condition? (Q847821)

A. Through the eustachian tube

B. Through the external ear

C. Through the bloodstream

D. Direct spread from the sinuses

See Answer in Part B → Q2

@Neet_pg_bot

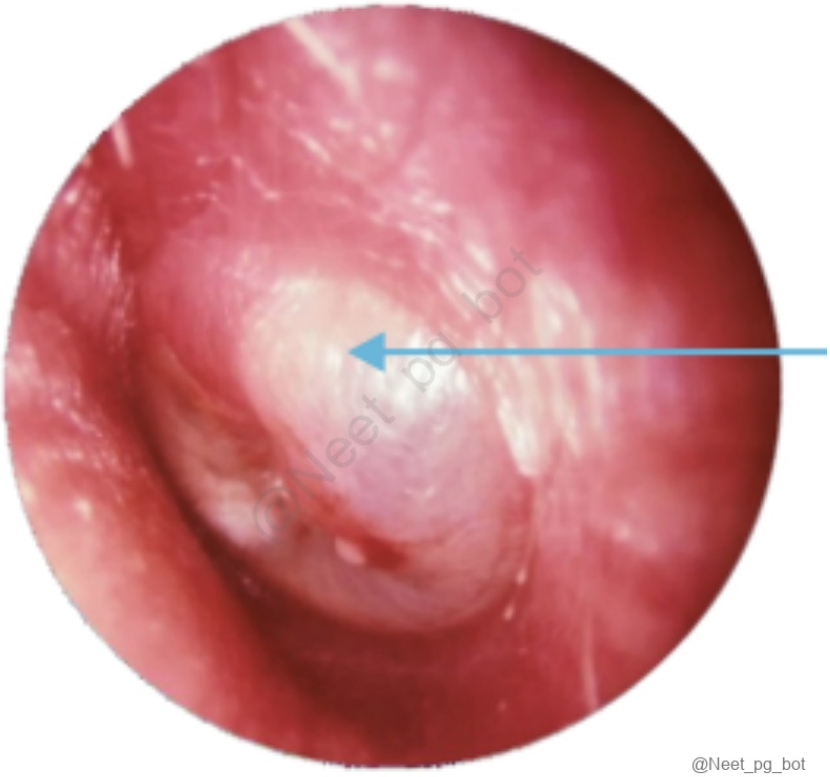
Q3: A 6 year old with severe earache and fever following an upper respiratory infection presents with a bulging, red tympanic membrane and a yellowish spot. What stage of ASOM is this? (Q847822)

A. Stage of Tubal Occlusion

B. Stage of Exudation

C. Stage of Suppuration

D. Stage of Resolution



See Answer in Part B → Q3

@Neet_pg_bot

Q4: A 5-year-old girl presents with severe earache, fever, and discharge from her right ear for 3 days. On examination, her tympanic membrane appears bulging and red. What is the most appropriate initial management for this child? (Q847823)

A. Myringotomy

B. Amoxicillin for 5 days

C. Ephedrine nasal drops

D. Amoxicillin for 10 days

See Answer in Part B → Q4

@Neet_pg_bot

Q5: A 7-year-old boy presents with a history of persistent hearing loss over the past 6 months. His parents report that he seems to be asking for the TV to be louder and often complains of a feeling of fullness in his ears. An otoscopic examination reveals a dull, opaque tympanic membrane with decreased mobility in both ears. What is the most likely underlying cause of this child's symptoms? (Q847824)

A. Cleft palate

B. Nasopharyngeal carcinoma

C. Adenoid hyperplasia

D. Viral infection

See Answer in Part B → Q5

@Neet_pg_bot

Q6: A 15-year-old boy presents with a 2-month history of recurrent nasal obstruction and unilateral ear fullness. On examination, there is serous otitis media in the right ear. What is the most likely cause of this child's condition? (Q847825)

A. Adenoid hypertrophy

B. Nasopharyngeal carcinoma

C. Juvenile Nasopharyngeal Angiofibroma

D. Chronic sinusitis

See Answer in Part B → Q6

@Neet_pg_bot

Q7: A 6 year old child presents with a history of mild hearing loss, difficulty following conversations, and a sensation of fullness in the ear. On examination, the tympanic membrane appears dull and retracted, with visible fluid levels behind it. Which of the following tuning fork test results is most likely to be observed in this patient? (Q847826)

A. Positive Rinne test and Weber test lateralized to the unaffected ear

B. Negative Rinne test, Weber test lateralized to the affected ear

C. Positive Rinne test and Weber test lateralized to the affected ear

D. Negative Rinne test, Weber test lateralized to the unaffected ear

See Answer in Part B → Q7

@Neet_pg_bot

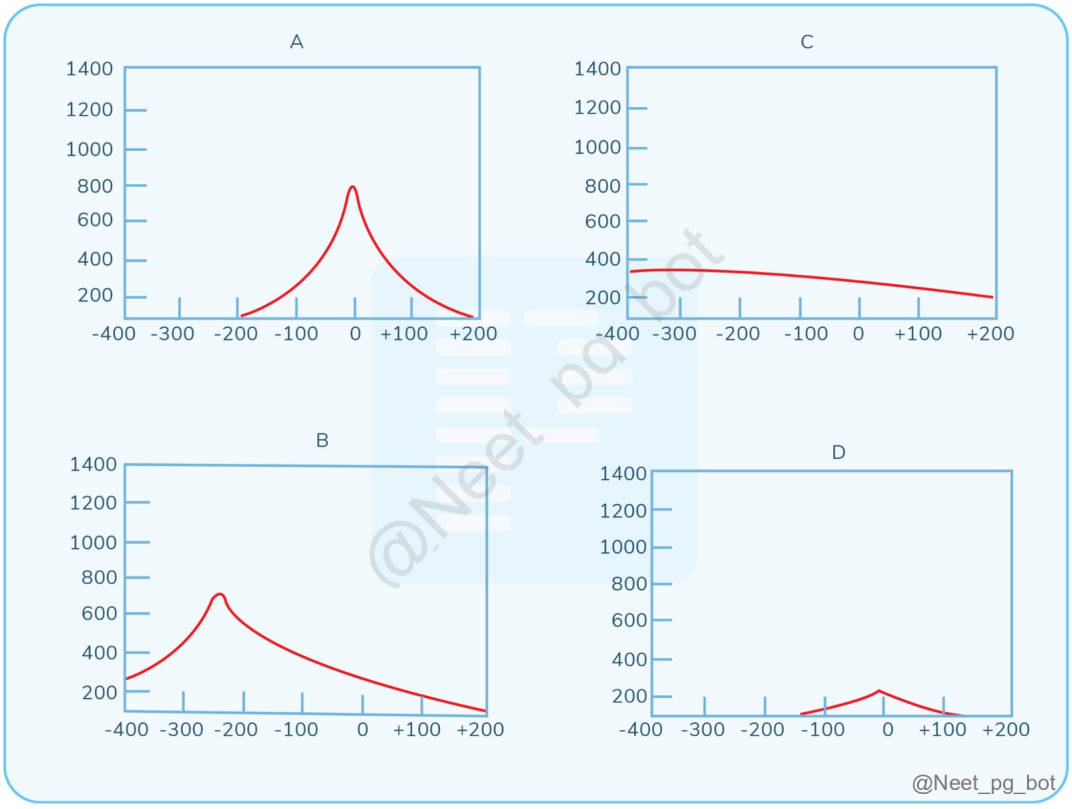
Q8: Which of the following tympanometry curves corresponds to Serous Otitis Media? (Q847827)

A. Curve A

B. Curve B

C. Curve C

D. Curve D



See Answer in Part B → Q8

@Neet_pg_bot

Q9: A 5 year old child diagnosed with serous otitis media has persistent middle ear fluid despite medical treatment and even myringotomy and fluid aspiration. Which of the following is the next appropriate step in management? (Q847828)

A. Continued use of systemic decongestants

B. Grommet insertion

C. Oral antibiotics for 2 weeks

D. Tympanotomy with mastoidectomy

See Answer in Part B → Q9

@Neet_pg_bot

Q10: A 4 year old child presents with a history of ear discomfort and hearing loss. On examination, the tympanic membrane is dull and retracted, with visible air-fluid levels behind it. The child has no fever or systemic symptoms. What is the most likely diagnosis? (Q847829)

A. Acute Suppurative Otitis Media

B. Serous Otitis Media

C. Otitis Externa

D. Chronic Suppurative Otitis Media

See Answer in Part B → Q10

@Neet_pg_bot

Q11: Which of the following conditions predispose to Eustachian tube obstruction? Choanal atresia Adenoid hypertrophy Allergic rhinitis Cleft palate (Q891938)

A. 2, 4

B. 1, 3, 4

C. 2, 3, 4

D. 1, 2, 3, 4

See Answer in Part B → Q11

@Neet_pg_bot

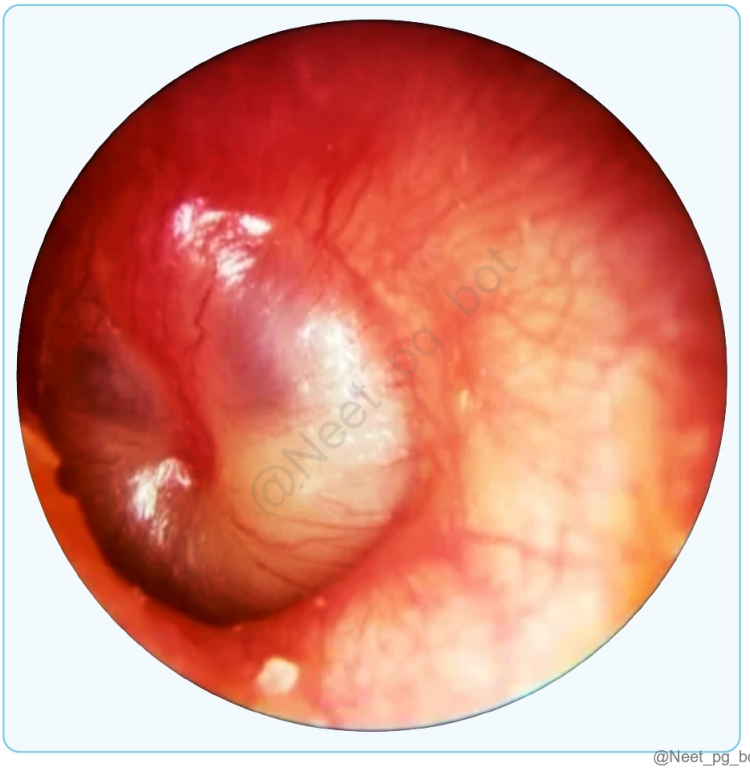
Q12: A 10-month-old infant presents with high-grade fever, incessant crying, and ear pulling. Below is the image of the otoscopic examination of the ear. Which of the following organisms is most likely responsible for this presentation? (Q891948)

A. Haemophilus influenzae

B. Streptococcus pneumoniae

C. Staphylococcus aureus

D. Pseudomonas aeruginosa



See Answer in Part B → Q12

@Neet_pg_bot

Q13: In ASOM, which is the most common site of perforation of the tympanic membrane? (Q891954)

A. Anteroinferior part of the pars tensa

B. Superior half of the pars tensa

C. Posterosuperior part of the pars tensa

D. Inferior half of the pars tensa

See Answer in Part B → Q13

@Neet_pg_bot

Q14: In which quadrant is the incision made during myringotomy in a patient with otitis media with effusion? (Q891960)

A. Anteroinferior

B. Posteroinferior

C. Anterosuperior

D. Posterosuperior

See Answer in Part B → Q14

@Neet_pg_bot

Q15: In which of the following conditions would you expect to observe the light-house effect? (Q891962)

A. Petrositis

B. Labyrinthitis

C. Acute suppurative otitis media

D. Acute mastoiditis

See Answer in Part B → Q15

@Neet_pg_bot

Q16: A 5-year-old child with measles presents with profuse otorrhea. Which of the following organisms is the most likely cause of his condition? (Q891963)

A. Streptococcus pneumoniae

B. ■-haemolytic streptococcus

C. Haemophilus influenzae

D. Moraxella catarrhalis

See Answer in Part B → Q16

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• [01_Ear] 005 Cholesteatoma And Csom

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[01_Ear] 005 Cholesteatoma And Csom — Quick Jump

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Q7 (p. 55)	*Q8 (p. 55)*	*Q9 (p. 56)*	*Q10 (p. 56)*	*Q11 (p. 57)*	*Q12 (p. 57)*
Q13 (p. 57)	*Q14 (p. 58)*	*Q15 (p. 58)*	*Q16 (p. 59)*	*Q17 (p. 59)*	*Q18 (p. 59)*
Q19 (p. 60)	*Q20 (p. 61)*	*Q21 (p. 61)*	*Q22 (p. 62)*	*Q23 (p. 62)*	

Q1: A 5-year-old child is diagnosed with Congenital cholesteatoma. According to Levenson's criteria, which factor is NOT used to diagnose this condition? (Q847843)

A. Whitish mass behind a normal tympanic membrane

B. Intact pars flaccida and pars tensa

C. Family history of Congenital Cholesteatoma

D. No prior ear surgeries

See Answer in Part B → Q1

@Neet_pg_bot

Q2: A 30 year old patient with chronic otitis media presents with a perforated tympanic membrane and erosion of the malleus. The surgeon plans to repair the tympanic membrane and place a graft on the remaining malleus. According to Wullstein's classification, which type of tympanoplasty is being performed? (Q847857)

A. Type I

B. Type II

C. Type III

D. Type IV

See Answer in Part B → Q2

@Neet_pg_bot

Q3: A 10-year-old child presents with hearing loss and a retracted tympanic membrane on otoscopic examination. The pars flaccida is completely retracted, and the retraction pocket is fully visible, and the tympanic membrane is in contact with the malleus. According to the Tos & Poulsen classification, what is the appropriate classification for this retraction? (Q847856)

A. Type 0

B. Type I

C. Type II

D. Type III

See Answer in Part B → Q3

@Neet_pg_bot

Q4: Which of the following is a typical characteristic of tubercular otitis media? (Q847855)

A. Persistent and severe ear pain

B. Multiple perforations of the tympanic membrane

C. Sudden onset of symptoms with rapid progression

D. Mild hearing loss

See Answer in Part B → Q4

@Neet_pg_bot

Q5: Which of the following describes the characteristic features of inactive squamosal disease in CSOM? (Q847854)

A. Presence of cholesteatoma with mucopurulent discharge

B. Permanent perforation of the pars tensa with no active inflammation

C. The presence of retraction pockets with no active discharge

D. Healed tympanic membrane with tympanosclerosis and conductive hearing loss

See Answer in Part B → Q5

@Neet_pg_bot

Q6: Which of the following is a Canal wall-down procedure commonly performed in the surgical treatment of Atticoantral Chronic Suppurative Otitis Media (CSOM)? (Q847853)

A. Intact Canal Wall Mastoidectomy

B. Tympanoplasty

C. Modified Radical Mastoidectomy

D. Atticotomy

See Answer in Part B → Q6

@Neet_pg_bot

Q7: Which examination method is most effective for visualising a suspected cholesteatoma and assessing the condition of the ossicles in a patient with CSOM? (Q847852)

A. Otoscope

B. CT Scan of Temporal Bone

C. Examination Under a Microscope

D. Tuning Fork Tests

See Answer in Part B → Q7

@Neet_pg_bot

Q8: A patient presents with a long-standing ear infection characterised by scanty, purulent, foul-smelling discharge and a marginal perforation of the tympanic membrane. The patient also shows signs of a red and fleshy polyp. What is the most likely diagnosis of this patient? (Q847851)

A. Tubotympanic CSOM

B. Atticoantral CSOM

C. Acute Otitis Media

D. Serous Otitis Media

See Answer in Part B → Q8

@Neet_pg_bot

Q9: A patient with cholesteatoma is considering surgical options. Which of the following is a characteristic of a canal wall-up procedure compared to a canal wall-down procedure? (Q847850)

A. Requires regular cleaning of the mastoid cavity by a doctor

B. Has a lower risk of residual cholesteatoma

C. Allows for easier hearing aid fitting

D. The patients are advised not to swim due to the risk of ear infections.

See Answer in Part B → Q9

@Neet_pg_bot

Q10: Which of the following statements about the treatment of cholesteatoma is false? (Q847849)

A. Canal Wall Down Mastoidectomy involves removing of posterior canal wallto create an open cavity.

B. Tympanoplasty for cholesteatoma repair may use synthetic prostheses to repair the ossicles.

C. William Wilde's incision is made approximately 3 cm in front of the ear.

D. Canal Wall Up Mastoidectomy involves preserving the posterior canal wall.

See Answer in Part B → Q10

@Neet_pg_bot

Q11: A 45 year out female presents with persistent ear discharge, hearing loss, and a feeling of fullness in the ear. Upon examination, the otolaryngologist performs an otoscopic examination, which reveals an abnormal growth in the ear canal. Which diagnostic test is most useful for assessing the extent of her condition and guiding surgical planning? (Q847848)

A. Video-Otoscopy

B. High-resolution CT

C. Rinne Test

D. Diffusion-weighted MRI

See Answer in Part B → Q11

@Neet_pg_bot

Q12: Which is the correct order of ossicular erosion in cholesteatoma , from most common to least common? (Q847847)

A. Incus > Stapes > Malleus

B. Stapes > Incus > Malleus

C. Incus > Malleus > Stapes

D. Malleus > Incus > Stapes

See Answer in Part B → Q12

@Neet_pg_bot

Q13: A 7-year-old child presents with a sensation of fullness. The child also reports occasional hearing loss. On otoscopy, a whitish mass behind the tympanic membrane is seen. Based on the information provided, which of the following is least likely to be a consequence of this patient's diagnosis? (Q847846)

A. Bone destruction due to release of enzymes

B. Bone destruction due to pressure necrosis

C. Extension into the aditus and mastoid

D. Destruction of the ear ossicles

See Answer in Part B → Q13

@Neet_pg_bot

Q14: Which is the most common site of origin for cholesteatoma? (Q847845)

A. Sinus tympani

B. Prussac's space

C. Oval window niche

D. Pars tensa

See Answer in Part B → Q14

@Neet_pg_bot

Q15: A patient with chronic suppurative otitis media reports that their hearing improves when the ear is discharging compared to when it is dry. Which phenomenon best explains this observation? (Q847844)

A. Cholesteatoma hearer effect

B. Round window shielding effect

C. Ossicular chain erosion

D. Both A & B

See Answer in Part B → Q15

@Neet_pg_bot

Q16: Match the following theories of the origin of cholesteatoma with their descriptions: 1. Habermann's theory a) Retraction pocket theory 2. Wittmacks theory b) Basal cell hyperplasia theory 3. Sade's theory c) Epithelial invasion theory 4. Ruedi's theory d) Metaplastic theory (Q847842)

A. 1-a, 2-b, 3-c, 4-d

B. 1-c, 2-a, 3-d, 4-b

C. 1-d, 2-b, 3-a, 4-c

D. 1-b, 2-a, 3-d, 4-c

See Answer in Part B → Q16

@Neet_pg_bot

Q17: Match the following: A. Cartilaginous part of the eustachian tube. 1. Ciliated columnar epithelium B. Bony part of the eustachian tube 2. Pseudostratified ciliated columnar epithelium C. Posterior tympanic cavity 3. Flat non-ciliated epithelium D. Epitympanum 4. Cuboidal epithelium (Q891969)

A. A-2, B-1, C-4, D-3

B. A-1, B-2, C-3, D-4

C. A-2, B-3, C-1, D-4

D. A-3, B-4, C-2, D-1

See Answer in Part B → Q17

@Neet_pg_bot

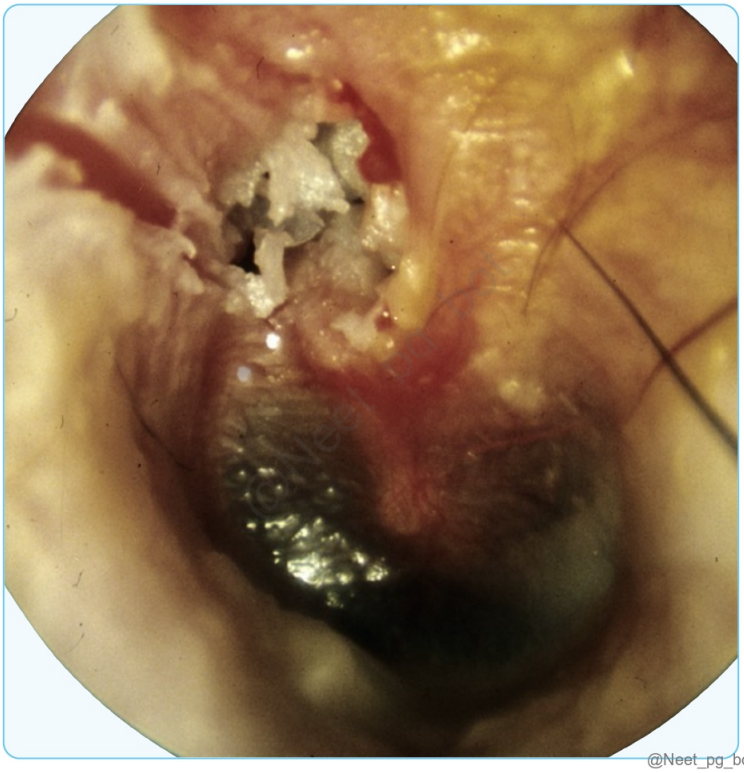
Q18: A patient with a long history of recurrent middle ear infections presents with hearing loss. Otoscopic examination reveals as shown in the image. Which of the following is the most likely diagnosis? (Q891995)

A. Cholesterol granuloma

B. Tympanosclerosis

C. Epidermosis

D. Glomus tympanicum



See Answer in Part B → Q18

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Q19: Otoscopic examination of a patient shows keratin debris within the middle ear following a previous ear surgery for a tympanic membrane perforation. Which of the following mechanisms best explains the development of cholesteatoma in this patient? (Q891997)

A. Migration of squamous epithelium through a marginal retraction pocket

B. Metaplasia of the middle ear mucosa into keratinising epithelium

C. Implantation of squamous epithelium into the middle ear cavity

D. Congenital persistence of epidermoid rests in the temporal bone

See Answer in Part B → Q19

@Neet_pg_bot

Q20: Which of the following theories of origin of Cholesteatoma states invagination of the tympanic membrane from the attic or posterosuperior part of the pars tensa in the form of retraction pockets? (Q891999)

A. Wittmaack's theory

B. Ruedi's theory

C. Habermann's theory

D. Sade's theory

See Answer in Part B → Q20

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Q21: Assertion (A): Secondary acquired cholesteatoma develops due to the migration of squamous epithelium into the middle ear through a tympanic membrane perforation. Reason (R): Negative middle ear pressure causes invagination of the pars flaccida or posterosuperior pars tensa, leading to accumulation of keratin debris. (Q892017)

A. Both Assertion and Reason are true, and Reason is the correct explanation of Assertion.

B. Both Assertion and Reason are true, but Reason is not the correct explanation of Assertion.

C. The assertion is true, but the reason is false

D. The assertion is false, but the reason is true

See Answer in Part B → Q21

@Neet_pg_bot

Q22: A patient is diagnosed with atticoantral type of chronic suppurative otitis media (CSOM). Why is this type considered unsafe? (Q892020)

A. Because it causes severe conductive hearing loss

B. Because it is associated with cholesteatoma, causing bone erosion

C. Because ear discharge is foul-smelling and profuse

D. Because it commonly affects both ears

See Answer in Part B → Q22

@Neet_pg_bot

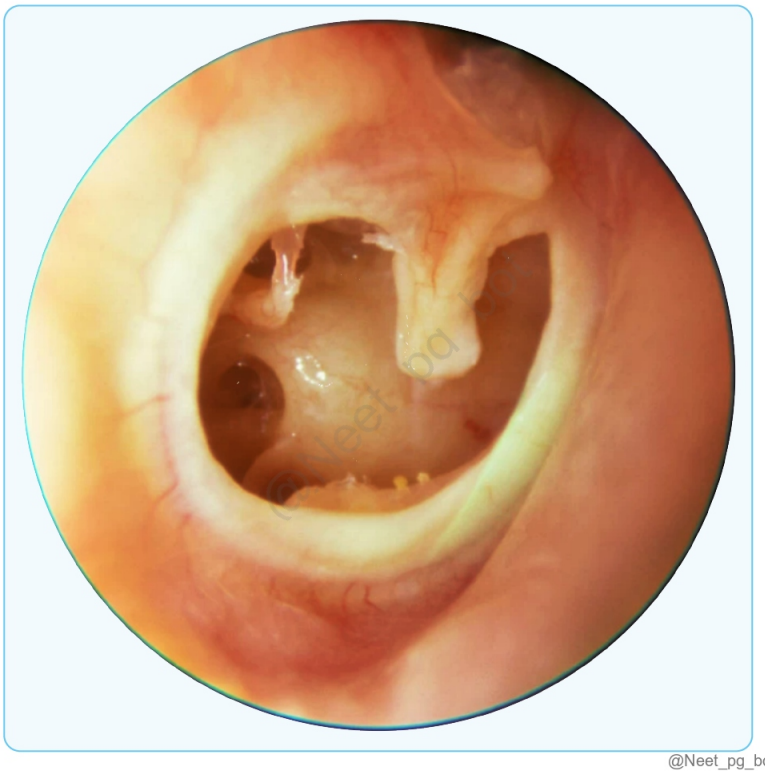
Q23: A 10-year-old child is brought in with complaints of hearing difficulty and declining school performance. Otoscopic examination reveals the finding shown in the image. What is the most likely diagnosis? (Q892021)

A. Large central perforation

B. Subtotal perforation

C. Total perforation

D. Attic perforation



See Answer in Part B → Q23

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• [01_Ear] 006 Asom And Csom Complications

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[01_Ear] 006 Asom And Csom Complications — Quick Jump

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Q7 (p. 68)	*Q8 (p. 68)*	*Q9 (p. 69)*	*Q10 (p. 69)*	*Q11 (p. 69)*	*Q12 (p. 70)*
Q13 (p. 70)	*Q14 (p. 71)*	*Q15 (p. 71)*	*Q16 (p. 71)*	*Q17 (p. 72)*	*Q18 (p. 73)*

Q1: A 45-year-old patient presents with a severe headache and fever. The patient has a history of chronic otitis media. The CT scan is shown below. Which of the following statements best describes the most common complication in this patient? (Q847831)

A. Localized pus collection within the brain parenchyma .

B. Inflammation of the meninges.

C. Pus accumulation between the skull and dura mater.

D. Blood clot formation in the sigmoid sinus.

See Answer in Part B → Q1

@Neet_pg_bot

Q2: A patient with otitic hydrocephalus develops headaches, visual disturbances, and papilledema but no focal neurological deficits. Which of the following findings would most likely be seen on lumbar puncture? (Q847841)

A. Normal CSF composition with elevated opening pressure

B. High neutrophil count in the CSF

C. Decreased glucose and elevated protein in the CSF

D. Low opening pressure and elevated protein

See Answer in Part B → Q2

@Neet_pg_bot

Q3: A 30-year-old male with a history of chronic suppurative otitis media complaints of fever with chills and rigors, ear pain, and headache. On examination, he has mastoid tenderness. Fundoscopy reveals papilledema and engorgement of retinal veins when the jugular vein is compressed. A CT scan is done and shown below. Which of the following radiological findings is most consistent with lateral/sigmoid sinus thrombophlebitis? (Q847840)

A. Griesinger Sign

B. Delta sign

C. Ring enhancement

D. Crescent sign

See Answer in Part B → Q3

@Neet_pg_bot

Q4: A 45-year-old male with a history of chronic otitis media, presents with severe headache, fever, and confusion. Fundoscopy reveals papilledema. Collection of pus between the dura mater and the arachnoid mater is visualized on MRI brain. What is the most likely diagnosis for this patient? (Q847839)

A. Extradural abscess

B. Subdural abscess

C. Cerebral abscess

D. Epidural abscess

See Answer in Part B → Q4

@Neet_pg_bot

Q5: A 42-year-old right-handed patient with a history of chronic suppurative otitis media presents with headache, fever, and left-sided weakness. On examination, nominal aphasia, homonymous hemianopia, and reduced power in his left limbs are noted. CT scan is shown below. Which of the following is the most likely route of infection spread in this patient? (Q847838)

A. Retrograde thrombophlebitis

B. Direct extension from the mastoid cavity

C. Retrograde spread through the lymphatic system

D. Both A and B are correct

See Answer in Part B → Q5

@Neet_pg_bot

Q6: A 6-year-old child is admitted with high fever, headache, neck stiffness, and altered mental status. The child was recently treated for acute otitis media. Lumbar puncture shows a predominance of polymorphs, protein level is raised, sugars reduced

and chlorides diminished. Otoscopic examination reveals bulging of the tympanic membrane. Which of the following is the most appropriate immediate intervention to manage the underlying cause? (Q847837)

A. Myringotomy

B. Radical mastoidectomy

C. Modified radical mastoidectomy

D. Culture and sensitivity of CSF

See Answer in Part B → Q6

@Neet_pg_bot

Q7: A 58-year-old patient has intermittent vertigo, particularly triggered while cleaning his ear. Otoscopic examination reveals a tympanic membrane perforation. A fistula test is positive, and imaging confirms localized erosion of the horizontal semicircular canal. What is the most common cause of this condition? (Q847836)

A. CSOM with cholesteatoma

B. Acute otitis media

C. Sequelae of serous labyrinthitis

D. Glomus tumour

See Answer in Part B → Q7

@Neet_pg_bot

Q8: Which of the following is the classic triad of symptoms associated with Gradenigo Syndrome? (Q847835)

A. Fever, facial swelling, and hearing loss

B. Lateral rectus palsy, retro-orbital pain, and Ear discharge

C. Nausea, vertigo, and tinnitus

D. Headache, neck stiffness, and photophobia

See Answer in Part B → Q8

@Neet_pg_bot

Q9: A 5-year-old child with persistent fever, severe ear pain, and swelling behind the ear, despite antibiotic treatment for acute otitis media. Physical examination reveals significant mastoid tenderness. What would you expect to see on the CT scan, and what is the most appropriate treatment? (Q847834)

A. Normal air cells;Observation and follow-up

B. Clear air cells; Cortical mastoidectomy

C. Clear air cells; Antifungal therapy

D. Cavity formation; Antibiotics

See Answer in Part B → Q9

@Neet_pg_bot

Q10: Which of the following statements about acute mastoiditis is false? (Q847833)

A. Persistent fever despite antibiotics.

B. Mastoid swelling is seen.

C. Sagging of the posterosuperior meatal wall.

D. Pinna usually pushed backwards and upwards.

See Answer in Part B → Q10

@Neet_pg_bot

Q11: Which of the following is the most common extracranial complication of Acute Otitis Media? (Q847832)

A. Labyrinthitis

B. Facial Nerve Palsy

C. Mastoiditis

D. Septicemia

See Answer in Part B → Q11

@Neet_pg_bot

Q12: All of the following are the usual routes of spread of middle ear infections except? (Q847830)

A. Bony erosion

B. Lymphatic spread

C. Preformed pathways or natural communications

D. Venous thrombophlebitis

See Answer in Part B → Q12

@Neet_pg_bot

Q13: A patient with a permanent central perforation and conductive hearing loss is diagnosed with the mucosal type of chronic suppurative otitis media. To reconstruct the hearing mechanism and seal the middle ear cleft, which surgical intervention is considered the mainstay of treatment? (Q892022)

A. Cortical mastoidectomy

B. Radical mastoidectomy

C. Tympanoplasty

D. Modified radical mastoidectomy

See Answer in Part B → Q13

@Neet_pg_bot

Q14: A patient is scheduled for an elective middle ear reconstruction to repair a chronic central perforation. During the routine pre-operative workup for this uncomplicated mucosal-type case, which of the following is generally considered not indicated as a mandatory investigation? (Q892023)

A. Pure Tone Audiometry

B. Evaluation of Eustachian tube function

C. High-Resolution CT (HRCT) scan of the temporal bone

D. Routine haematological investigations and informed consent

See Answer in Part B → Q14

@Neet_pg_bot

Q15: Which of the following classifications is universally utilised by ENT surgeons to categorise middle ear reconstruction procedures? (Q892024)

A. Cotton-Myer classification

B. Wullstein classification

C. House-Brackmann classification

D. Glasscock-Jackson classification

See Answer in Part B → Q15

@Neet_pg_bot

Q16: A 30-year-old man presents with painless, odourless, and profuse discharge from the ear. Which of the following management strategies are employed for the treatment of this condition? Aural toilet to remove debris and mucoid discharge Administration of topical antibiotic ear drops Tympanoplasty to seal the perforation and restore hearing Modified radical mastoidectomy to remove bone-eroding disease (Q892032)

A. 1 and 2 only

B. 1, 2, and 3 only

C. 1, 3, and 4 only

D. All of the above

See Answer in Part B → Q16

@Neet_pg_bot

Q17: Which autologous tissue is the most common graft material for tympanoplasty due to its low metabolic rate and high success rate in grafting? (Q892035)

A. Tragal perichondrium

B. Temporalis fascia

C. Areolar fascia

D. Cartilage island graft

See Answer in Part B → Q17

@Neet_pg_bot

Q18: A surgeon is performing a myringoplasty and decides to use the Underlay technique. Which of the following is correct regarding the anatomical placement of the graft in this method? (Q892036)

A. The graft is placed lateral to the malleus handle

B. The graft is placed medial to the annulus

C. The graft is placed lateral to the annulus

D. The graft is placed lateral to the fibrous layer

See Answer in Part B → Q18

@Neet_pg_bot

• [01_Ear] 007 Otosclerosis

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[01_Ear] 007 Otosclerosis — Quick Jump

Q1 (p. 74)	*Q2 (p. 74)*	*Q3 (p. 75)*	*Q4 (p. 75)*	*Q5 (p. 75)*	*Q6 (p. 76)*
Q7 (p. 76)	*Q8 (p. 77)*	*Q9 (p. 77)*	*Q10 (p. 77)*	*Q11 (p. 78)*	*Q12 (p. 78)*
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Q19 (p. 82)	*Q20 (p. 82)*				

Q1: Which of the following is NOT a characteristic of the inactive phase of otosclerosis? (Q847789)

A. Dense hypercellular bone

B. Excessive osteoclast activity

C. Mineralized sclerotic bone

D. Minimal remodeling

See Answer in Part B → Q1

@Neet_pg_bot

Q2: A 50-year-old patient is scheduled for a stapedectomy to treat stapedial otosclerosis. Which of the following statements about the stapedectomy procedure is false? (Q847799)

A. Small incision is made in the ear canal or behind the ear

B. Stapes bone along with its superstructure is removed, and the footplate is fenestrated

C. A metal or plastic prosthetic device replaces the stapes.

D. Lower complication rate

See Answer in Part B → Q2

@Neet_pg_bot

Q3: A 45-year-old male presents with progressive hearing loss in his left ear over the past few years. Audiometry shows hearing loss predominantly in lower frequencies, and otoscopic examination reveals a normal tympanic membrane. The patient denies experiencing tinnitus or vertigo. The patient's hearing loss is mild and not significantly affecting his daily life. What is the most appropriate initial management strategy for this patient? (Q847798)

A. Immediate stapedectomy surgery

B. Bisphosphonates

C. Observation and monitoring

D. Sodium fluoride therapy

See Answer in Part B → Q3

@Neet_pg_bot

Q4: A patient who underwent stapedectomy for otosclerosis returns with complaints of dizziness and taste disturbances. Which of the following is a possible complication of stapedectomy that could explain these symptoms? (Q847797)

A. Progressive cochlear hearing loss

B. Persistent tinnitus

C. Reparative granuloma

D. Infection following surgery

See Answer in Part B → Q4

@Neet_pg_bot

Q5: A 35-year-old patient presents with progressive sensorineural hearing loss. Pure-tone audiometry shows a sloping SNHL pattern. Bone conduction does not show a Carhart notch. High-resolution CT scan identifies fenestral otosclerotic foci but shows no definite pericochlear (retrofenestral) changes. What is the most appropriate

interpretation? (Q847796)

A. The CT scan confirms cochlear otosclerosis

B. The absence of a Carhart notch rules out cochlear otosclerosis

C. Cochlear otosclerosis should still be suspected despite CT not showing cochlear involvement

D. The sloping SNHL pattern rules out cochlear otosclerosis

See Answer in Part B → Q5

@Neet_pg_bot

Q6: A 40-year-old woman with early-stage otosclerosis presents with progressive conductive hearing loss and a normal tympanic membrane. Which CT finding indicates the active phase of the disease? (Q847795)

A. Dense sclerotic bone around the stapes footplate

B. Lucent (hypodense) foci in the otic capsule near the stapes footplate

C. Erosion of the cochlear capsule with hypodense areas

D. Normal bone density with no abnormalities

See Answer in Part B → Q6

@Neet_pg_bot

Q7: A 50-year-old man reports progressive hearing loss without tinnitus or vertigo. Otoscopy shows a normal tympanic membrane. Audiometry reveals a low-frequency air-bone gap with preserved speech discrimination. What is the most likely diagnosis? (Q847794)

A. Cochlear otosclerosis

B. Stapedial otosclerosis

C. Presbycusis

D. Tympanosclerosis

See Answer in Part B → Q7

@Neet_pg_bot

Q8: A 35-year-old woman presents with progressive hearing loss. She reports that she hears better in noisy environments, such as when talking to people in crowded places. This phenomenon is known as: (Q847793)

A. Paracusis Willisii

B. Presbycusis

C. Hyperacusis

D. Diplacusis

See Answer in Part B → Q8

@Neet_pg_bot

Q9: A 35-year-old female presents with bilateral, progressive hearing loss. She reports that she hears better in noisy environments. Tuning fork tests reveal bilateral negative Rinne's test, and audiometry shows conductive hearing loss. A CT scan shows sclerosis of the otic capsule. Which of the following genes is not implicated in this condition? (Q847792)

A. OTSC1

B. SERPINF1

C. COL1A2

D. TGFB1

See Answer in Part B → Q9

@Neet_pg_bot

Q10: A patient with otosclerosis undergoes a stapedectomy, but the air-bone gap persists. The surgeon suspects a third window effect. In which type of otosclerosis does this occur? (Q847791)

A. Histologic Otosclerosis

B. Cavitating Otosclerosis

C. Stapedial Otosclerosis

D. Biscuit-type Otosclerosis

See Answer in Part B → Q10

@Neet_pg_bot

Q11: A 45-year-old patient presents with progressive conductive hearing loss. During a stapedectomy, the surgeon notes that the stapes footplate is fixed, but the annular ligament remains free. Which type of stapedial otosclerosis is most likely present in this patient? (Q847790)

A. Posterior focus

B. Circumferential type

C. Biscuit type

D. Obliterative type

See Answer in Part B → Q11

@Neet_pg_bot

Q12: Which of the following statements about otosclerosis are correct? Otosclerosis primarily affects the region of the fissula ante fenestram, located anterior to the round window. The bony labyrinth is involved in otosclerosis, but the membranous labyrinth usually remains unaffected. Peri-otic duct is filled with endolymph. Otic capsule ossifies from 2 centers. (Q847788)

A. 2 only

B. 1, 2, and 3 only

C. 2 and 4 only

D. All of the above

See Answer in Part B → Q12

@Neet_pg_bot

Q13: Which layer of the otic capsule is primarily affected in the primary metabolic bone remodelling process seen in otosclerosis? (Q892047)

A. Endosteal

B. Enchondral

C. Periosteal

D. Perichondral

See Answer in Part B → Q13

@Neet_pg_bot

Q14: What is the most common inheritance pattern for clinical otosclerosis? (Q892048)

A. Autosomal dominant

B. Autosomal recessive

C. X-linked dominant

D. X-linked recessive

See Answer in Part B → Q14

@Neet_pg_bot

Q15: In which of the following age groups does the hearing loss in otosclerosis most commonly manifest? (Q892049)

A. 5-10 years

B. 10-20 years

C. 20-30 years

D. 30-40 years

See Answer in Part B → Q15

@Neet_pg_bot

Q16: Which of the following statements regarding otosclerosis are true? The inheritance pattern is autosomal dominant with incomplete penetrance. Clinical otosclerosis is seen twice as frequently in females as in males. Hypodense double ring sign on HRCT is a characteristic finding in stapedial otosclerosis. Chronic infection with the measles virus is a proposed etiological factor. (Q892055)

A. 1, 2, and 3 only

B. 1, 2, and 4 only

C. 1 and 4 only

D. All of the above

See Answer in Part B → Q16

@Neet_pg_bot

Q17: In a stapedectomy specimen obtained from a patient with active otosclerosis, histopathological examination reveals areas of bone with increased basophilia surrounding the vascular spaces. What is this classic finding called? (Q892057)

A. Blue mantle sign

B. Blue dot sign

C. Schwartze sign

D. Blue cement sign

See Answer in Part B → Q17

@Neet_pg_bot

Q18: A 30-year-old female presents with bilateral progressive hearing loss and mentions that she hears better in noisy environments. Otoscopy reveals the following. What is the most likely diagnosis? (Q892058)

A. Otosclerosis with mature foci

B. Otosclerosis with active focus

C. Glue ear

D. Glomus tympanicum

See Answer in Part B → Q18

@Neet_pg_bot

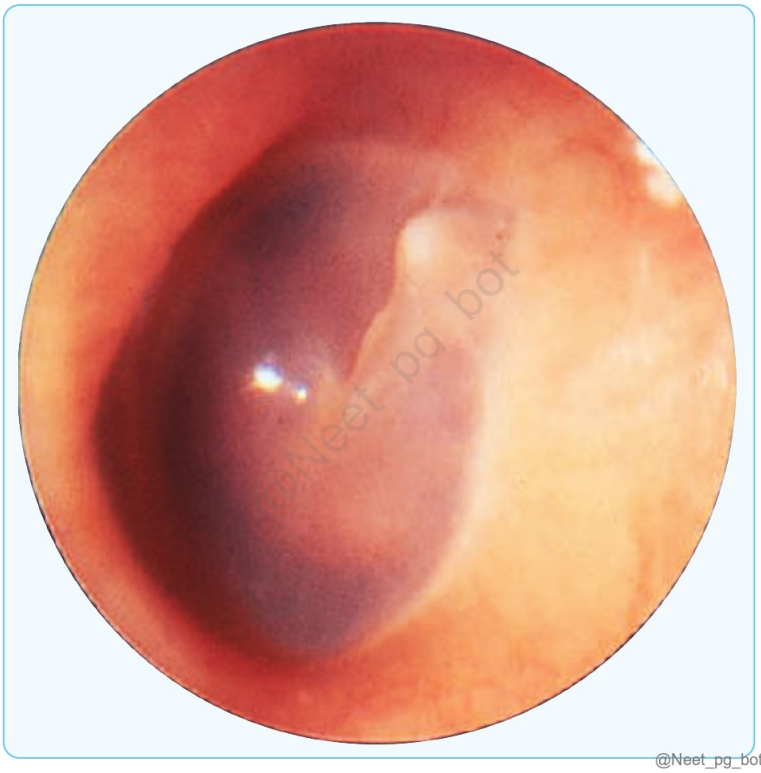
Q19: A 20-year-old female patient presents with features of bilateral conductive hearing loss. The following image shows the otoscopic findings of her tympanic membranes. What is this sign called? (Q892070)

A. Rising sun sign

B. Schwartze sign

C. Setting sun sign

D. Lyre sign



See Answer in Part B → Q19

@Neet_pg_bot

Q20: Which of the following tuning fork tests is specifically designed to confirm the reduced mobility of the ossicular chain? (Q892072)

A. Gelle’s test

B. Stenger’s test

C. Schwabach test

D. Bing test

See Answer in Part B → Q20

@Neet_pg_bot

• [01_Ear] 008 Meniere S Disease And Glomus Tumor

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[01_Ear] 008 Meniere S Disease And Glomus Tumor — Quick Jump

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Q7 (p. 87)	*Q8 (p. 88)*	*Q9 (p. 88)*	*Q10 (p. 89)*	*Q11 (p. 89)*	*Q12 (p. 90)*
Q13 (p. 90)	*Q14 (p. 90)*	*Q15 (p. 91)*	*Q16 (p. 91)*	*Q17 (p. 91)*	*Q18 (p. 92)*
Q19 (p. 92)	*Q20 (p. 93)*	*Q21 (p. 93)*	*Q22 (p. 94)*		

Q1: A 45-year-old male patient presents with episodes of vertigo, fluctuating hearing loss, tinnitus, and aural fullness. Which of the following mechanisms is associated with the pathogenesis of this condition? (Q847731)

A. Excessive production of perilymph fluid

B. Defective absorption of endolymph

C. Dilatation of the internal auditory artery

D. Vestibular nerve degeneration

See Answer in Part B → Q1

@Neet_pg_bot

Q2: According to Fisch's classification of glomus tumors, tumors with intracranial invasion measuring less than 2 cm are classified under which type? (Q847770)

A. Type D2

B. Type C

C. Type B

D. Type D1

See Answer in Part B → Q2

@Neet_pg_bot

Q3: A 50-year-old male presents with progressive hearing loss in his right ear over the past year, accompanied by a sensation of fullness and occasional tinnitus. Examination shows a pulsatile neck mass, and radiology reveals a 5 cm tumour located below the right middle ear. What is the most appropriate management for this condition? (Q847768)

A. Surgical excision

B. Embolisation

C. Radiotherapy

D. Both A and B

See Answer in Part B → Q3

@Neet_pg_bot

Q4: A 45-year-old female presents with progressive hearing loss, ear fullness, and occasional tinnitus in her right ear, as well as a faint pulsating sound when lying down. During otoscopy, pressure applied with a Siegel speculum causes the tumor to vibrate vigorously and then blanch. Which sign does this indicate? (Q847767)

A. Aquinos sign

B. Phelps sign

C. Rising sun appearance

D. Brown sign

See Answer in Part B → Q4

@Neet_pg_bot

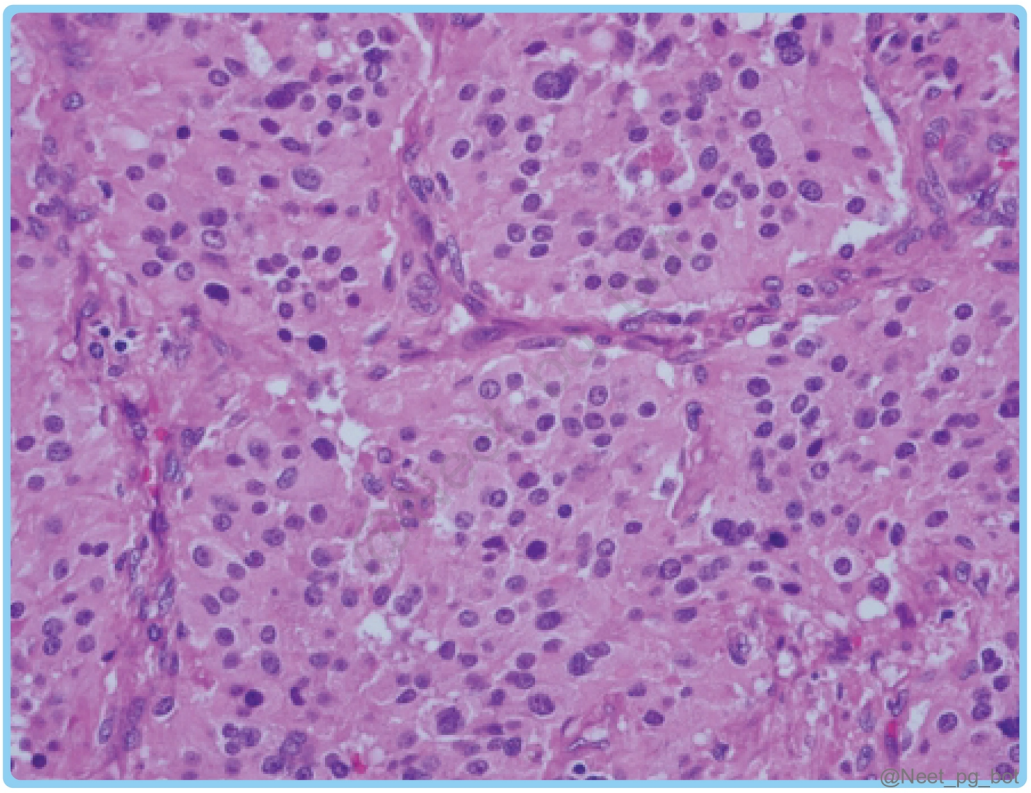
Q5: A 48-year-old woman presents with worsening right ear hearing loss and tinnitus resembling a heartbeat for 6 months. Examination reveals a pulsatile neck mass and a red, bulging tympanic membrane. Biopsy and MRI findings are given below. What is the most likely diagnosis? (Q847766)

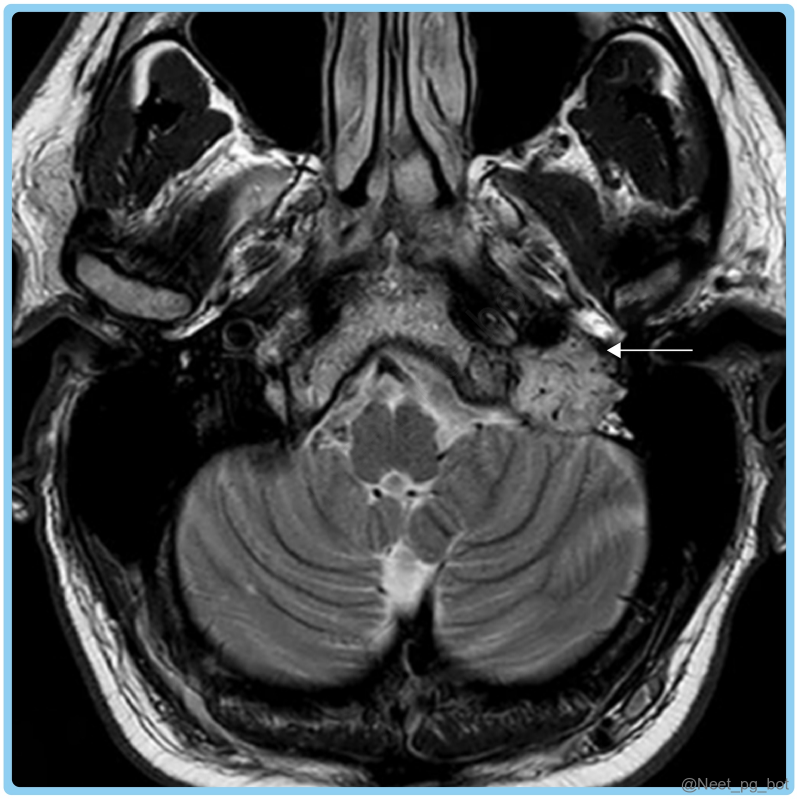
A. Branchial cyst

B. Tubercular lymph nodes

C. Thymic cyst

D. Paraganglioma





See Answer in Part B → Q5

@Neet_pg_bot

Q6: A 42-year-old female presents with progressive conductive hearing loss in her left ear over the past year, accompanied by a sensation of fullness, occasional tinnitus, and a recently discovered pulsating mass behind the left tympanic membrane. What is the investigation of choice for diagnosing this condition? (Q847765)

A. Contrast-enhanced CT scan

B. MRI

C. Biopsy

D. Angiography

See Answer in Part B → Q6

@Neet_pg_bot

Q7: A 55-year-old patient presents with pulsatile tinnitus, hearing loss, a reddish mass behind the tympanic membrane, difficulty swallowing, and hoarseness. Examination reveals glossopharyngeal nerve involvement. What is the most likely diagnosis? (Q847764)

A. Glomus Tympanicum

B. Glomus Jugulare

C. Glomus Vagale

D. Glomus Caroticum

See Answer in Part B → Q7

@Neet_pg_bot

Q8: A 52-year-old patient presents with recurrent episodes of vertigo but has no reported hearing loss, tinnitus, or aural fullness. Diagnostic tests reveal no abnormalities in the cochlea or hearing function. What is the most likely diagnosis among the variants of Meniere's disease? (Q847763)

A. Cochlear Hydrops

B. Vestibular Hydrops

C. Tumarkin's Otolithic Crisis

D. Lermoyez Syndrome

See Answer in Part B → Q8

@Neet_pg_bot

Q9: A 45-year-old woman with Ménière's disease has severe, recurrent vertigo despite conservative treatments. Her ENT specialist recommends a surgical procedure to reduce vertigo attacks while aiming to preserve her hearing. Which surgical procedure is most appropriate for her condition? (Q847737)

A. Endolymphatic sac decompression

B. Vestibular nerve section

C. Labyrinthectomy

D. Meniett device therapy

See Answer in Part B → Q9

@Neet_pg_bot

Q10: A 50-year-old patient presents with recurrent episodes of vertigo lasting several hours, associated with fluctuating hearing loss, tinnitus, and aural fullness in one ear. The symptoms have progressively worsened, and episodes are unpredictable. What is the first line of management for this condition? (Q847736)

A. Intratympanic gentamicin

B. Low-salt diet and diuretics

C. Vestibular rehabilitation therapy

D. Endolymphatic sac surgery

See Answer in Part B → Q10

@Neet_pg_bot

Q11: A 45-year-old man presents with vertigo triggered by loud noises. His medical history includes a surgical fenestration for a middle ear condition. Audiometric tests are within normal limits, but vestibular testing reveals abnormal pressure responses. What is the most likely diagnosis? (Q847735)

A. Hennebert’s Sign

B. Tullio Phenomenon

C. Lhermitte’s Sign

D. Meniere’s Disease

See Answer in Part B → Q11

@Neet_pg_bot

Q12: In MRI with gadolinium contrast for Meniere's disease, which of the following findings is typical? (Q847734)

A. Gadolinium in scala vestibuli & absent in scala tympani

B. Gadolinium is present in all three compartments

C. Gadolinium in scala media only

D. Gadolinium in the cochlear duct only

See Answer in Part B → Q12

@Neet_pg_bot

Q13: A 52-year-old patient is evaluated for symptoms of recurrent vertigo, fluctuating hearing loss, and a feeling of fullness in the ear. After a comprehensive assessment, which diagnostic test is most definitive for confirming Meniere's disease?■■■ (Q847733)

A. Pure Tone Audiometry

B. Speech Audiometry

C. Electrocochleography

D. Glycerol Test

See Answer in Part B → Q13

@Neet_pg_bot

Q14: A 45-year-old male presents with recurrent vertigo, tinnitus, and a sensation of fullness in his left ear, along with progressive hearing loss. He is diagnosed with Meniere's disease, and audiometric testing is performed. Which part of the cochlea and what frequency range is typically affected first? (Q847732)

A. Apical turn of the cochlea is affected causing high-frequency hearing loss

B. Basal turn of the cochlea is affected causing low-frequency hearing loss

C. Apical turn of the cochlea is affected causing low-frequency hearing loss

D. Basal turn of the cochlea is affected causing high-frequency hearing loss

See Answer in Part B → Q14

@Neet_pg_bot

Q15: Which of the following is the most characteristic feature of Meniere's disease? (Q847730)

A. Progressive unilateral hearing loss with gradual onset

B. Episodic vertigo with fluctuating hearing loss and tinnitus

C. Sudden onset of unilateral hearing loss without vertigo

D. Persistent vertigo with stable hearing loss and no tinnitus

See Answer in Part B → Q15

@Neet_pg_bot

Q16: Which of the following is not a pathological variant or synonym of Ménière's disease? (Q892097)

A. Vestibular hydrops

B. Cochlear hydrops

C. Perilymphatic hydrops

D. Endolymphatic hydrops

See Answer in Part B → Q16

@Neet_pg_bot

Q17: Which of the following statements are true regarding Ménière's disease? Affects the individuals in the age group of 35-60 years It is an inner ear disorder that primarily results in conductive hearing loss. Symptoms characteristically occur in paroxysmal episodes. The condition is usually unilateral at onset but may become bilateral over time. (Q892104)

A. 1, 2, and 4 only

B. 1, 3, and 4 only

C. 2, 3, and 4 only

D. All of the above

See Answer in Part B → Q17

@Neet_pg_bot

Q18: A 45-year-old male presents with episodic vertigo, tinnitus, and aural fullness. The patient specifically reports a painful intolerance to loud sounds during these episodes. What is the probable cause of this intolerance? (Q892124)

A. Tullio phenomenon

B. Rollover phenomenon

C. Recruitment phenomenon

D. Hyperacusis

See Answer in Part B → Q18

@Neet_pg_bot

Q19: Lermoyez syndrome is characteristically defined by which of the following clinical patterns? (Q892125)

A. Recurrent vertigo followed by sudden sensorineural hearing loss

B. Progressive deterioration of hearing followed by recovery after an attack of vertigo

C. Fluctuating hearing loss accompanied by constant aural fullness

D. Vertigo induced by loud sounds with baseline normal hearing

See Answer in Part B → Q19

@Neet_pg_bot

Q20: A patient with a ten-year history of Ménière's disease experiences a sudden, forceful fall to the ground without any loss of consciousness. He describes the sensation as being thrown down by an invisible force. There are no associated neurological deficits or cardiovascular symptoms. What is this phenomenon called? (Q892127)

A. Tullio phenomenon

B. Tumarkin's otolithic crisis

C. Hennebert's sign

D. Lermoyez phenomenon

See Answer in Part B → Q20

@Neet_pg_bot

Q21: In the clinical evaluation of a patient with suspected Ménière's disease, which of the following conditions should be considered in the differential diagnosis of episodic vertigo and sensorineural hearing loss? Vestibular neuronitis Vestibular schwannoma Perilymph fistula Chronic Suppurative Otitis Media (Q892133)

A. 1 and 3 only

B. 1, 2, and 3 only

C. 2, 3, and 4 only

D. All of the above

See Answer in Part B → Q21

@Neet_pg_bot

Q22: Which of the following pharmacological agents are not categorized as vestibular sedatives for the management of an acute attack of vertigo? Loratadine Prochlorperazine Promethazine Cetirizine (Q892146)

A. 1 and 2 only

B. 3 and 4 only

C. 1 and 4 only

D. All of the above

See Answer in Part B → Q22

@Neet_pg_bot

• [01_Ear] 009 Facial Nerve And Acoustic Neuroma

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[01_Ear] 009 Facial Nerve And Acoustic Neuroma — Quick Jump

Q1 (p. 95)	*Q2 (p. 95)*	*Q3 (p. 96)*	*Q4 (p. 96)*	*Q5 (p. 97)*	*Q6 (p. 98)*
Q7 (p. 99)	*Q8 (p. 99)*	*Q9 (p. 100)*	*Q10 (p. 100)*	*Q11 (p. 101)*	*Q12 (p. 102)*
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Q25 (p. 109)	*Q26 (p. 109)*				

Q1: A 55-year-old patient experiences sudden right-sided facial drooping and weakness in the left arm and leg following a stroke. The stroke is in the ventral part of the pons (basis pontis). Infranuclear fascicular fibers of cranial nerve VII (CN VII) ipsilaterally and the corticospinal tract contralaterally are affected. What is the diagnosis? (Q847713)

A. Foville Syndrome

B. Wallenberg Syndrome

C. Millard-Gubler Syndrome

D. Weber Syndrome

See Answer in Part B → Q1

@Neet_pg_bot

Q2: A 52-year-old woman presents to the clinic with complaints of progressive hearing loss in her right ear with a ringing sensation over the past 8 months. On examination, she has a unilateral sensorineural hearing loss on the right side. An MRI scan of the brain with gadolinium contrast reveals a well-circumscribed, enhancing mass about 4cm in size at the cerebellopontine angle. What is the treatment of choice? (Q847729)

A. Conventional radiotherapy

B. Surgery

C. X-knife surgery

D. CyberKnife

See Answer in Part B → Q2

@Neet_pg_bot

Q3: A 40-year-old male patient was diagnosed with Acoustic neuroma. Which among the following cranial nerve is the earliest to be involved in this condition? (Q847727)

A. V

B. VI

C. IX

D. VIII

See Answer in Part B → Q3

@Neet_pg_bot

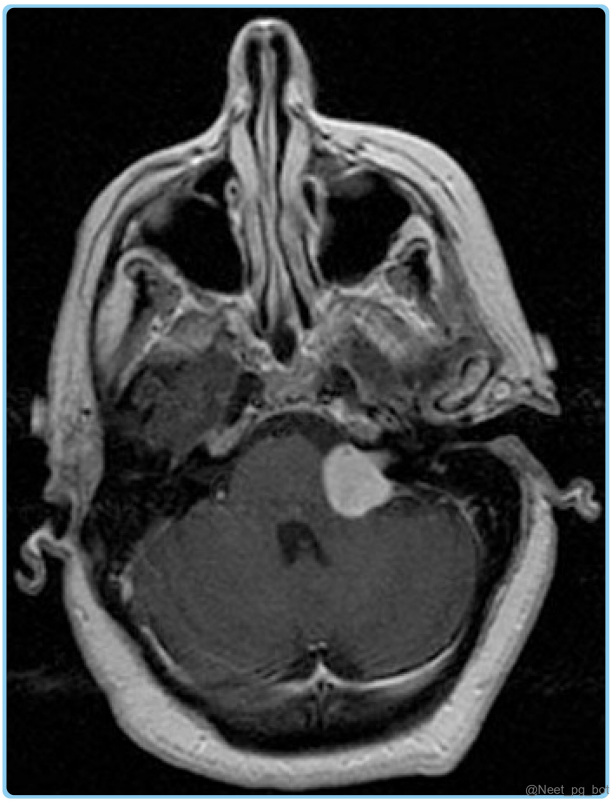
Q4: A 50-year-old female presented with hearing loss, tinnitus and vertigo. MRI showed the finding as shown. Choose the most likely origin nerve and the cell involved in this condition. (Q847726)

A. Superior vestibular nerve - Neurons

B. Superior vestibular nerve - Schwann cells

C. Inferior vestibular nerve - Neurons

D. Inferior vestibular nerve - Schwann cells



See Answer in Part B → Q4

@Neet_pg_bot

Q5: Post-parotidectomy, a patient presented with complaints of sweating over the cheek region upon chewing food as shown. Which statement is inappropriate? (Q847725)

A. Abnormal innervation of greater auricular nerve with damaged facial nerve

B. Tympanic neurectomy is done for treating this

C. Starch iodide test is helpful in establishing a diagnosis

D. Interpositional flaps during surgery reduced the risk of this

See Answer in Part B → Q5

@Neet_pg_bot

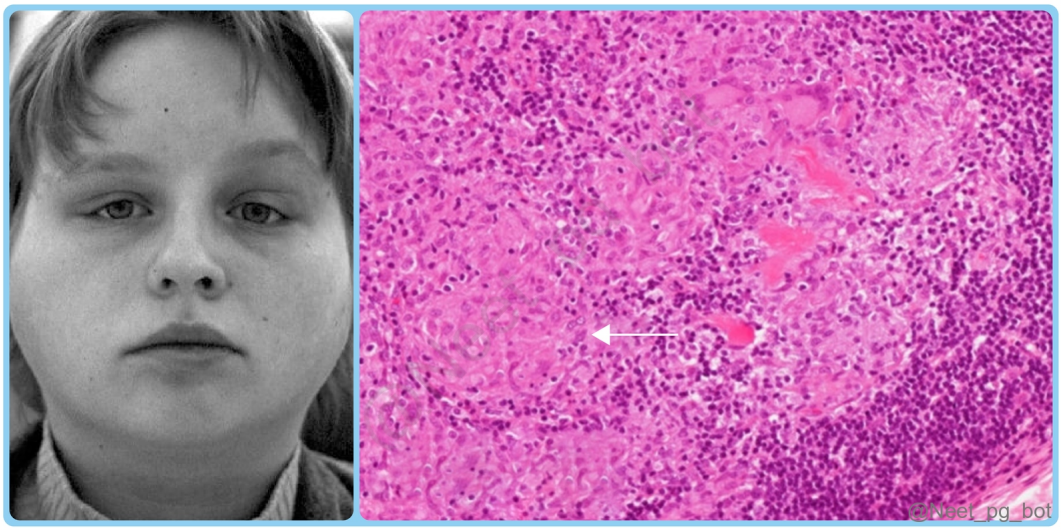
Q6: A 32-year-old woman presented with a 6-week history of swelling of both cheeks as shown, redness of eyes and cough. She reported having difficulty moving the right side of her face. On examination, Angiotensin-converting enzyme levels were elevated. Lymph node biopsy showed the following. What is the most likely diagnosis? (Q847724)

A. Melkersson–Rosenthal syndrome

B. Lyme disease

C. Wegener’s granulomatosis

D. Heerfordt syndrome



See Answer in Part B → Q6

@Neet_pg_bot

Q7: The Blink Reflex test primarily evaluates the function of which two cranial nerves? (Q847723)

A. Cranial nerves II and V

B. Cranial nerves III and VII

C. Cranial nerves V and VII

D. Cranial nerves IX and X

See Answer in Part B → Q7

@Neet_pg_bot

Q8: Which of the following statements is true regarding transverse fractures of the temporal bone? (Q847722)

A. They are more common than longitudinal fractures.

B. Bleeding from the ear is common due to injury to the tegmen and tympanic membrane.

C. They commonly result in sensorineural hearing loss.

D. Facial paralysis occurs less frequently and usually has a delayed onset.

See Answer in Part B → Q8

@Neet_pg_bot

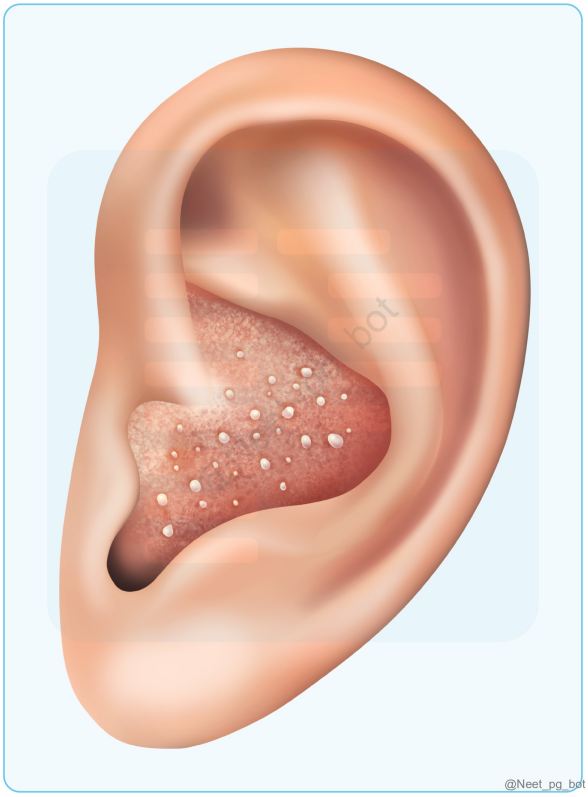
Q9: A 60-year-old man presents with a painful vesicular rash on his right ear, along with weakness on the same side of his face, making it difficult to close his eye. He also reports hearing loss and vertigo. What is the most likely diagnosis? (Q847721)

A. Bell's Palsy

B. Melkersson-Rosenthal Syndrome

C. Ramsay Hunt Syndrome

D. Acoustic Neuroma



See Answer in Part B → Q9

@Neet_pg_bot

Q10: A 45-year-old diabetic male presents to your clinic as shown Choose the inappropriate statement regarding the likely diagnosis. (Q847719)

A. Males and females are equally affected

B. LMN type of paralysis

C. Most commonly vertical segment is affected

D. Majority of cases recover completely

See Answer in Part B → Q10

@Neet_pg_bot

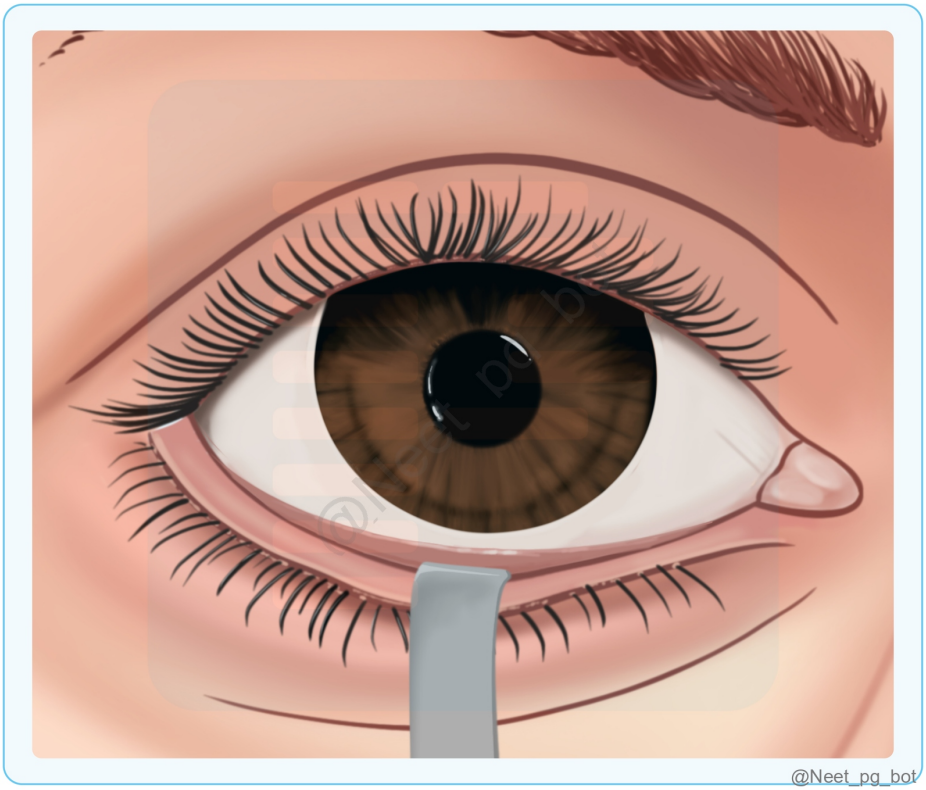
Q11: Choose the correct set of facial nerve branch involved and interpretation of a positive test with respect to the image shown below (Q847718)

A. Greater petrosal nerve: >25% unilateral decrease in lacrimation

B. Greater petrosal nerve: >75% unilateral decrease in lacrimation

C. Lesser petrosal nerve: >25% unilateral decrease in lacrimation

D. Lesser petrosal nerve: >75% unilateral decrease in lacrimation



See Answer in Part B → Q11

@Neet_pg_bot

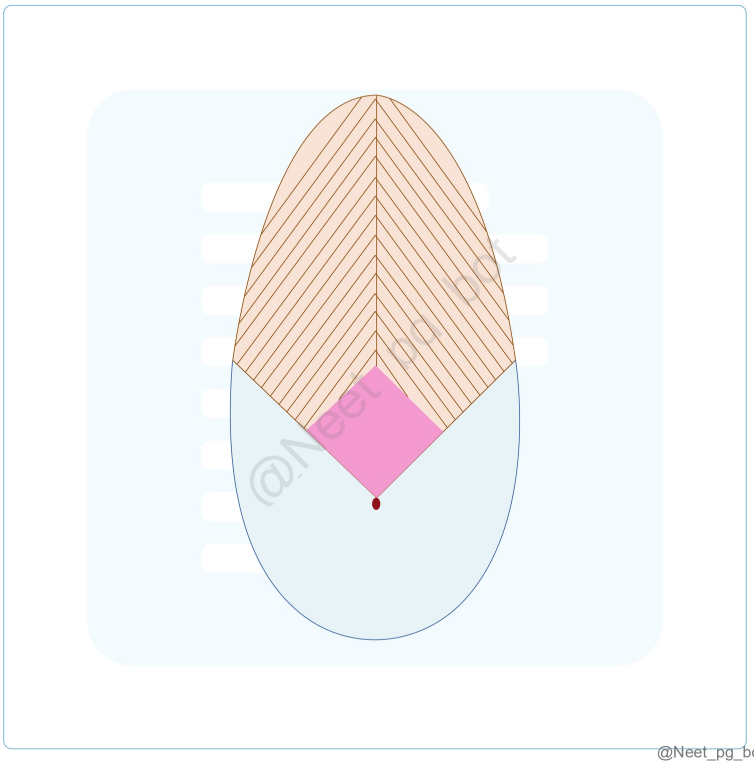
Q12: Nerve that carries taste sensation from the yellow-shaded region of the tongue in the image below arises from? (Q847717)

A. At the level of 1st genu

B. At the level of 2nd genu

C. Middle of the horizontal segment

D. Middle of the vertical segment



See Answer in Part B → Q12

@Neet_pg_bot

Q13: Choose the correct set of statements regarding the course of the facial nerve 1) The extracranial part of facial nerve lies lateral to retromandibular vein 2) Facial nerve exits the skull via stylomastoid foramen 3) Greater petrosal nerve is a branch of facial nerve after the formation of geniculate ganglion 4) The facial nerve enters the internal acoustic meatus along with the vestibulocochlear nerve (Q847716)

A. Only 1

B. 2,3,4

C. 1,2,4

D. 1,2,3,4

See Answer in Part B → Q13

@Neet_pg_bot

Q14: A 50-year-old female known hypertensive presented with sudden onset weakness over the left half of her body. On examination, her face was deviated to one side associated with slurring of speech. The doctor asks the intern to perform a facial nerve examination. Which among the following statements is correct regarding the most likely intratemporal segment of the nerve involved? (Q847715)

A. Contains epineurial and perineurial sheaths

B. Segment with the poorest arterial supply

C. Bill's bar is related to this segment

D. Shortest and widest segment of facial nerve

See Answer in Part B → Q14

@Neet_pg_bot

Q15: Choose the correct course of the intracranial part of the facial nerve. (Q847714)

A. VIIth nerve nucleus→pontomedullary junction→posterior cranial fossa→internal acoustic meatus

B. Internal acoustic meatus→VIIth nerve nucleus→posterior cranial fossa→pontomedullary junction

C. Posterior cranial fossa→internal acoustic meatus→pontomedullary junction→VIIth nerve nucleus

D. Pontomedullary junction→VIIth nerve nucleus→internal acoustic meatus→posterior cranial fossa

See Answer in Part B → Q15

@Neet_pg_bot

Q16: A 58-year-old woman presents with weakness in the lower right side of her face. She notes that she can still raise her eyebrows and wrinkle her forehead on both sides. Her emotional expressions seem normal. Which of the following is the most likely diagnosis? (Q847712)

A. Lower motor neuron facial nerve palsy

B. Supranuclear facial nerve palsy

C. Bell's palsy

D. Trigeminal nerve palsy

See Answer in Part B → Q16

@Neet_pg_bot

Q17: A 10-year-old presents with recurrent episodes of facial swelling, particularly around her lips, along with a history of facial palsy. On examination, she also has a fissured tongue (lingua plicata) as shown below. Based on these clinical features, what is the most likely diagnosis? (Q847720)

A. Bell's Palsy

B. Sjögren's Syndrome

C. Melkersson-Rosenthal Syndrome

D. Ramsay Hunt Syndrome

See Answer in Part B → Q17

@Neet_pg_bot

Q18: A patient presenting with a peripheral facial nerve palsy is found to have an ipsilateral xerophthalmia. Injury to which specific part of the facial nerve is most likely responsible for this autonomic deficit? (Q885211)

A. Geniculate ganglion

B. Tympanic segment

C. Mastoid segment

D. Stylomastoid foramen

See Answer in Part B → Q18

@Neet_pg_bot

Q19: Which of the following tests is not utilized to identify the specific anatomical site of the lesion along the nerve's course? (Q885209)

A. Schirmer test

B. Stapedial reflex

C. Electroneuronography

D. Electrogustometry

See Answer in Part B → Q19

@Neet_pg_bot

Q20: What is the ideal time window to perform electroneuronography to obtain the most accurate assessment of neural degeneration? (Q885208)

A. Within the first 48 hours of onset

B. 4 to 21 days following the onset

C. Exactly 48 hours after injury

D. 2 months after the onset of paralysis

See Answer in Part B → Q20

@Neet_pg_bot

Q21: A patient presenting with a facial nerve palsy complains that ordinary daily sounds, such as the clattering of dishes, feel uncomfortably loud and painful in the affected ear. The paralysis of which muscle is responsible for this clinical finding? (Q885206)

A. Tensor tympani

B. Levator veli palatini

C. Tensor veli palatini

D. Stapedius

See Answer in Part B → Q21

@Neet_pg_bot

Q22: Which of the following clinical features are characteristic findings in a patient diagnosed with Bell’s palsy? Positive Bell's phenomenon Epiphora Ipsilateral ptosis Loss of taste in the anterior two-thirds of the tongue (Q885203)

A. 1, 2, and 3 only

B. 1, 2, and 4 only

C. 2, 3, and 4 only

D. All of the above

See Answer in Part B → Q22

@Neet_pg_bot

Q23: A patient with a complete lower motor neuron facial nerve palsy is asked to close eyes; the eyelid on the affected side remains open, and the eyeball is observed to move in a specific direction. In which direction does the eyeball typically rotate in a positive Bell's phenomenon? (Q885199)

A. Upward and inward

B. Upward and outward

C. Downward and inward

D. Downward and outward

See Answer in Part B → Q23

@Neet_pg_bot

Q24: Which of the following is the most common cause of lower motor neuron facial nerve palsy? (Q885197)

A. Bell's palsy

B. Ramsay Hunt syndrome

C. Cerebellopontine angle tumors

D. Postoperative trauma

See Answer in Part B → Q24

@Neet_pg_bot

Q25: A patient with a UMN facial nerve palsy exhibits an inability to move the lower facial muscles voluntarily, yet involuntary emotional expressions like laughing or crying remain intact. Which of the following explains this sparing? (Q885192)

A. Incomplete paralysis of facial muscles

B. Aberrant regeneration of nerve fibers

C. Innervation by fibers from the thalamus

D. Innervation by fibers from the prefrontal cortex

See Answer in Part B → Q25

@Neet_pg_bot

Q26: Which of the following is the most common type of facial nerve injury? (Q885189)

A. Neuropraxia

B. Axonotemesis

C. Neurotemesis

D. Transection

See Answer in Part B → Q26

@Neet_pg_bot

• [01_Ear] 010 Disorders Of External Ear And Eustachian Tube

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[01_Ear] 010 Disorders Of External Ear And Eustachian Tube — Quick Jump

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Q19 (p. 120) *Q20 (p. 121)* *Q21 (p. 122)* *Q22 (p. 122)* *Q23 (p. 123)* *Q24 (p. 124)*
Q25 (p. 124)

Q1: A professional boxer presents with a swollen and bruised ear. The condition is most likely diagnosed as: (Q847756)

A. Hematoma of ear

B. Perichondritis

C. Otitis Externa

D. Otomycosis

See Answer in Part B → Q1

@Neet_pg_bot

Q2: All the statements are true about eustachian tube function tests, except: (Q847779)

A. Catheterization is performed with the help of anesthesia

B. The principle of the Valsalva is to build negative pressure in the nasopharynx so that air enters the eustachian tube.

C. In radiological tests the time taken by the dye to reach the nasopharynx also indicates its clearance function

D. Tympanometry can be done both in patients with perforated or intact tympanic membranes

See Answer in Part B → Q2

@Neet_pg_bot

Q3: When managing barotrauma during a dive, which of the following actions is most appropriate to alleviate the symptoms and prevent further injury? (Q847778)

A. Perform an immediate rapid ascent to the surface

B. Administer supplemental oxygen and maintain gradual ascent

C. Take over-the-counter pain medication

D. Use a hot compress on the affected area

See Answer in Part B → Q3

@Neet_pg_bot

Q4: A 30-year-old patient presents with a sensation of ear fullness and hearing their own voice loudly in their ear, especially when speaking or swallowing. What is the most likely diagnosis? (Q847777)

A. Patulous Eustachian tube

B. Otitis media with effusion

C. Meniere’s disease

D. Acoustic neuroma

See Answer in Part B → Q4

@Neet_pg_bot

Q5: All the following are true statements about the Eustachian tube except- (Q847776)

A. It connects the nasopharynx to the middle ear by opening the anterior wall of the middle ear.

B. The total length is 36mm

C. Its function is to maintain the middle ear pressure

D. Tensor veli palatini and tensor tympanii are the 2 muscles that help in opening the tube

See Answer in Part B → Q5

@Neet_pg_bot

Q6: A 28-year-old patient presents with severe ear pain, hearing loss, and a sudden onset of blisters on the eardrum. The patient reports symptoms of a recent upper respiratory infection. What is the most likely diagnosis? (Q847775)

A. Myringitis Bullosa Hemorrhagic

B. Acute otitis media

C. Ramsay Hunt syndrome

D. Cholesteatoma

See Answer in Part B → Q6

@Neet_pg_bot

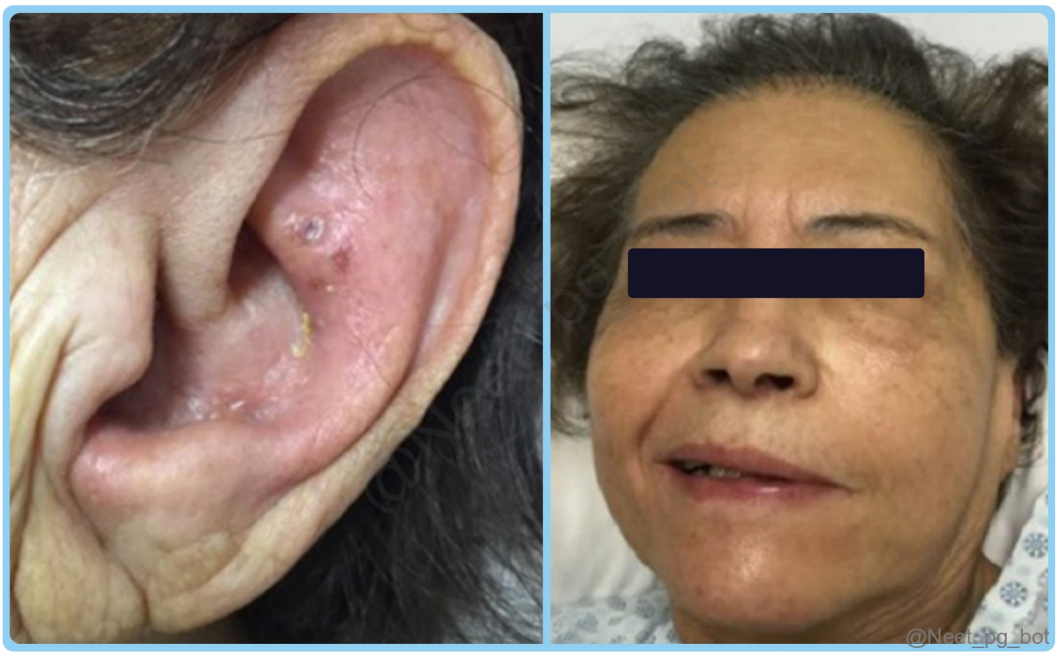
Q7: A 45-year-old woman presented with right-sided facial weakness. O/E, she has vesicles in the EAC as shown in the image. Identify the wrong statement about this condition. (Q847774)

A. Herpes simplex virus is the causative organism

B. Shows a poor prognosis

C. Antivirals along with steroids are the mainstay treatment

D. Involvement of the Vth and VIIIth nerves



See Answer in Part B → Q7

@Neet_pg_bot

Q8: A 45-year-old patient presents with complaints of a feeling of fullness in the ear, occasional itching, and decreased hearing. Otoscopic examination reveals a large, hard, and waxy plug, Pearly white in color and onion peel like layered pattern, in the ear canal. What is the most likely diagnosis? (Q847773)

A. Otitis externa

B. Impacted wax

C. Keratosis obturans

D. Foreign body

See Answer in Part B → Q8

@Neet_pg_bot

Q9: A 32-year-old man visits the clinic with complaints of severe itching, discomfort, and a foul-smelling watery discharge from his ear. On otoscopic examination, the ear

canal shows a fungal mass that appears black and filamentous. He has recently used topical antibiotics for a different ear condition. What is the most appropriate initial management for this patient? (Q847771)

A. Topical antibiotic ear drops for another 3 weeks

B. Topical antifungal treatment with ear canal cleaning

C. Intravenous antifungal therapy

D. Ear canal irrigation with saline

See Answer in Part B → Q9

@Neet_pg_bot

Q10: A 68-year-old diabetic male has severe ear pain, purulent discharge, facial weakness, granulation tissue in the ear canal, and bony destruction shown on CT. Culture grows Pseudomonas aeruginosa. What is the most appropriate initial treatment? (Q847762)

A. Topical antibiotics with ear canal cleaning only

B. Strict Diabetes control with surgical debridement

C. IV gentamicin with ticarcillin for 6 weeks with strict glucose control

D. Surgical debridement followed by short-term antibiotic therapy

See Answer in Part B → Q10

@Neet_pg_bot

Q11: Which of the following statements about otitis externa is FALSE? (Q847761)

A. Bacterial furuncle is commonly caused by Staphylococcus aureus and affects the cartilaginous part of the ear canal.

B. Swimmers are at higher risk of developing chronic otitis externa.

C. Surgical excision is the definitive treatment for acute diffuse otitis externa.

D. In acute diffuse otitis externa, ear toilet and topical antibiotics are essential for initial management.

See Answer in Part B → Q11

@Neet_pg_bot

Q12: A 3-year-old child is diagnosed with congenital atresia of the external auditory canal. The child also has microtia. Which of the following statements is true about the condition? (Q847760)

A. Due to the failure of the tympanic membrane development.

B. Typically involves abnormalities in the middle ear, inner ear, and possibly other structures.

C. Hearing aids or bone conduction devices are generally ineffective for this condition.

D. Surgical reconstruction is commonly performed before age 5.

See Answer in Part B → Q12

@Neet_pg_bot

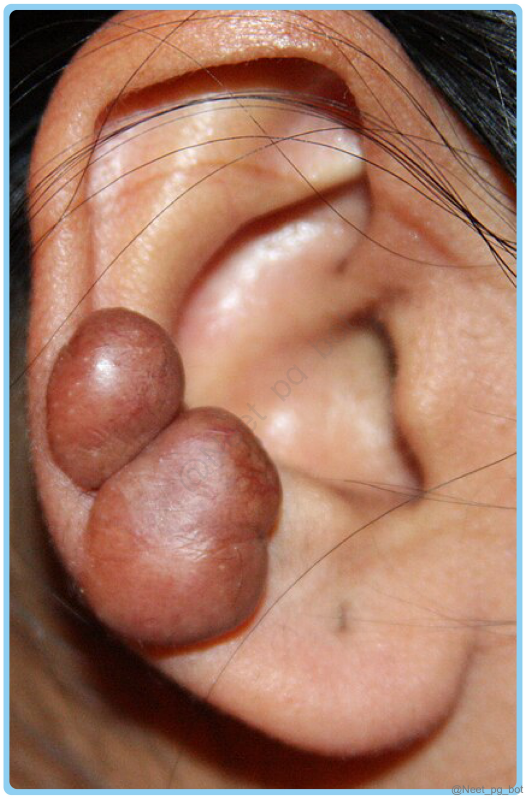
Q13: A middle-aged lady presents with the lesion given below. Which of the following statements is false about the given condition? (Q847759)

A. It is caused by an overproduction of collagen during the healing process.

B. They are typically painful and tender to the touch.

C. There are high chances of recurrence.

D. It can appear in areas where the skin has been subjected to trauma or surgery.



See Answer in Part B → Q13

@Neet_pg_bot

Q14: A 65-year-old male presents with a painful, swollen right ear few days after an injury. The ear has a warm, red appearance, and the patient reports that the pain began shortly after the trauma. Based on the clinical image provided. Which of the following conditions is most consistent with this presentation? (Q847758)

A. Perichondritis

B. Cellulitis

C. Otitis externa

D. Furunculosis

See Answer in Part B → Q14

@Neet_pg_bot

Q15: This image shows a patient with complaints of a small, asymptomatic, pit-like opening located just anterior to the ear canal with a history of pus discharge from the same area. The deformity is due to incomplete fusion of which arch? (Q847754)

A. 1st brachial arch

B. 2nd brachial arch

C. 4th and 6th brachial arches.

D. 3rd brachial arch

See Answer in Part B → Q15

@Neet_pg_bot

Q16: A 5-year-old child is brought to the emergency department after inserting a small button battery into their ear canal. The battery is visible on otoscopic examination, and the tympanic membrane appears intact. Which of the following is NOT a recommended method for removing the foreign body from the ear canal? (Q847772)

A. Crocodile forceps removal

B. Syringing

C. Suction tipped catheters

D. Cyanoacrylate glue tipped applicator

See Answer in Part B → Q16

@Neet_pg_bot

Q17: Which of the following statements regarding the physiology of human cerumen are true? It is produced exclusively in the cartilaginous part of the external auditory canal. It maintains an alkaline pH that inhibits bacterial growth. It is naturally extruded by epithelial migration and jaw movements. It is formed by dried-up middle ear discharge. (Q891936)

A. 1 and 3 only

B. 1 and 2 only

C. 2 and 4 only

D. All of the above

See Answer in Part B → Q17

@Neet_pg_bot

Q18: A patient treated for chronic otitis externa presents with worsening symptoms, including intense itching, edema, and vesicular eruptions extending to the concha. Which of the following topical antibiotics are known sensitizers implicated in causing this secondary eczematous reaction? Neomycin Chloromycetin Ciprofloxacin Ofloxacin (Q891935)

A. 1 and 2 only

B. 1 and 3 only

C. 2 and 4 only

D. All of the above

See Answer in Part B → Q18

@Neet_pg_bot

Q19: Consider the following statements regarding the diagnosis and management of Malignant Otitis Externa: It is an invasive osteomyelitis of the skull base primarily caused by Pseudomonas aeruginosa . Technetium-99m bone scan is the preferred

modality for monitoring the resolution of infection. The Facial nerve is the most commonly involved cranial nerve. Gallium-67 scan is the preferred modality for monitoring the resolution of infection. Which of the above statements are true? (Q891934)

A. 1 and 2 only

B. 1, 3, and 4 only

C. 2, 3, and 4 only

D. All of the above

See Answer in Part B → Q19

@Neet_pg_bot

Q20: A patient presents with itching and pain in the ear canal. On otoscopic examination, the clinician identifies fungal growth. Which of the following fungal species is shown in the image? (Q891932)

A. Candida albicans

B. Aspergillus niger

C. Aspergillus fumigatus

D. Trichophyton

See Answer in Part B → Q20

@Neet_pg_bot

Q21: Which of the following fungal organisms is the most common causative agent of otomycosis? (Q891926)

A. Mucor velutinosus

B. Candida albicans

C. Aspergillus fumigatus

D. Aspergillus niger

See Answer in Part B → Q21

@Neet_pg_bot

Q22: A 55-year-old male presents with a persistent, 4 mm, exquisitely tender nodule on the superior border of the helix of his ear, as shown in the image. He reports that the lesion is so painful that he has been unable to sleep on his right side for several months. Physical examination reveals a small, crusting nodule with a central core. What is the most likely diagnosis? (Q891924)

A. Gouty Tophi

B. Basal Cell Carcinoma

C. Chondrodermatitis Nodularis Chronica Helicis

D. Actinic Keratosis

See Answer in Part B → Q22

@Neet_pg_bot

Q23: A 25-year-old male is brought to the trauma center after an assault, resulting in a complete avulsion of the pinna. Due to other life-threatening injuries, immediate replantation is not possible. What is the standard procedure for preserving the

auricular cartilage for a delayed reconstruction? (Q891922)

A. Wrap in saline-soaked gauze, place in a plastic bag, and store on ice

B. Attempt immediate primary reattachment without microvascular anastomosis

C. De-epithelialize the cartilage and bury it in a postauricular subcutaneous pocket

D. Discard the avulsed part, and plan for prosthetic reconstruction.

See Answer in Part B → Q23

@Neet_pg_bot

Q24: A 6-year-old child presents with a history of intermittent discharge from a small opening located just below the angle of the mandible. Otoscopy reveals a similar secondary opening in the floor of the external auditory canal. Which of the following anatomical structures are related to the track of this fistula and must be carefully managed during surgical excision? (Q891921)

A. Parotid gland and Facial nerve

B. Submandibular gland and Lingual nerve

C. Thyroid gland and Recurrent laryngeal nerve

D. Carotid sheath and Glossopharyngeal nerve

See Answer in Part B → Q24

@Neet_pg_bot

Q25: A child presents with facial asymmetry, asymmetric mandibular hypoplasia, and epibulbar dermoids. On examination, the ear is as shown in the image and is found to have conductive hearing loss. What is this specific anomaly? (Q891920)

A. Preauricular sinus

B. Preauricular tag

C. Neurofibroma

D. Keloid

See Answer in Part B → Q25

@Neet_pg_bot

• [01_Ear] 011 Hearing Rehabilitation Otalgia And Tinnitus

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[01_Ear] 011 Hearing Rehabilitation Otalgia And Tinnitus — Quick Jump

Q1 (p. 126) *Q2 (p. 126)* *Q3 (p. 126)* *Q4 (p. 127)* *Q5 (p. 127)* *Q6 (p. 128)*
Q7 (p. 128) *Q8 (p. 128)*

Q1: A 9 month old baby was brought by the parents as she doesn't respond to their calls and was evaluated and found to have hearing loss. Which of the following would be a contraindication for cochlear implant in this case? (Q847800)

A. Bilateral profound sensorineural hearing loss

B. Cochlear aplasia

C. Prelingual deafness

D. Age older than 6 months

See Answer in Part B → Q1

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Q2: In a cochlear implant, what is the primary role of the external speech processor? (Q847801)

A. To amplify sound before it reaches the brain

B. To convert captured sound into digital signals

C. To stimulate the auditory nerve directly

D. To provide power to the internal components

See Answer in Part B → Q2

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Q3: Where is the electrode array placed during cochlear implant surgery to ensure effective stimulation of the auditory nerves? (Q847802)

A. Round window membrane

B. Scala tympani

C. Eustachian tube

D. Outer ear canal

See Answer in Part B → Q3

@Neet_pg_bot

Q4: A 10-year-old child with microtia and chronic ear discharge is being evaluated for hearing rehabilitation. Which of the following is the most appropriate hearing device for this child? (Q847803)

A. Traditional behind-the-ear hearing aid

B. Air-conduction hearing aid

C. Bone-Anchored Hearing Aid (BAHA)

D. CROS hearing aid

See Answer in Part B → Q4

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Q5: A 45-year-old patient with neurofibromatosis type 2 has undergone bilateral vestibular schwannoma resection and now experiences profound hearing loss. Which implant would be most suitable for this patient to restore some auditory function? (Q847804)

A. Cochlear Implant

B. Auditory Brainstem Implant (ABI)

C. Bone-Anchored Hearing Aid

D. Middle Ear Implant

See Answer in Part B → Q5

@Neet_pg_bot

Q6: A 45-year-old patient with high-frequency sensorineural hearing loss is recommended for an In-the-Canal (ITC) hearing aid. What is a key characteristic of this type of hearing aid? (Q847805)

A. It is worn entirely behind the ear.

B. It is visible and large.

C. It fits partially in the ear canal, making it less noticeable.

D. It provides amplification for all frequency ranges equally

See Answer in Part B → Q6

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Q7: A 35-year-old male presents with a dental cavity that has been causing significant discomfort for the past few days. He now reports a new onset of ear pain on the same side as the toothache. Which of the following nerves is most likely involved in transmitting the pain from the dental cavity to the ear? (Q847806)

A. Auriculotemporal nerve

B. Glossopharyngeal nerve

C. Arnold's nerve

D. Maxillary nerve (V2)

See Answer in Part B → Q7

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Q8: A 50-year-old male presents to the ENT clinic with complaints of a persistent ringing sound in his left ear for the past few months, more noticeable at night when he is in quiet environments. He denies any hearing loss or ear discharge. Otoscopic examination is normal, and audiometry shows normal hearing. Which of the following is the most appropriate initial management? (Q847807)

A. Prescribe an antidepressant

B. Perform an MRI to rule out acoustic neuroma

C. Reassure the patient and consider tinnitus retraining therapy

D. Advise complete avoidance of noise exposure

See Answer in Part B → Q8

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• [01_Ear] 012 Previous Year Questions

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[01_Ear] 012 Previous Year Questions — Quick Jump

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Q7 (p. 133)	*Q8 (p. 134)*	*Q9 (p. 134)*	*Q10 (p. 135)*	*Q11 (p. 135)*	*Q12 (p. 135)*
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Q97 (p. 183)	*Q98 (p. 184)*	*Q99 (p. 185)*	*Q100 (p. 185)*	*Q101 (p. 186)*	*Q102 (p. 186)*
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Q1: A patient presents with lung injury and tympanic membrane rupture following a blast exposure. These injuries are characteristic of which level of blast wave effect? (Q866704)

A. Level I

B. Level II

C. Level III

D. Level IV

See Answer in Part B → Q1

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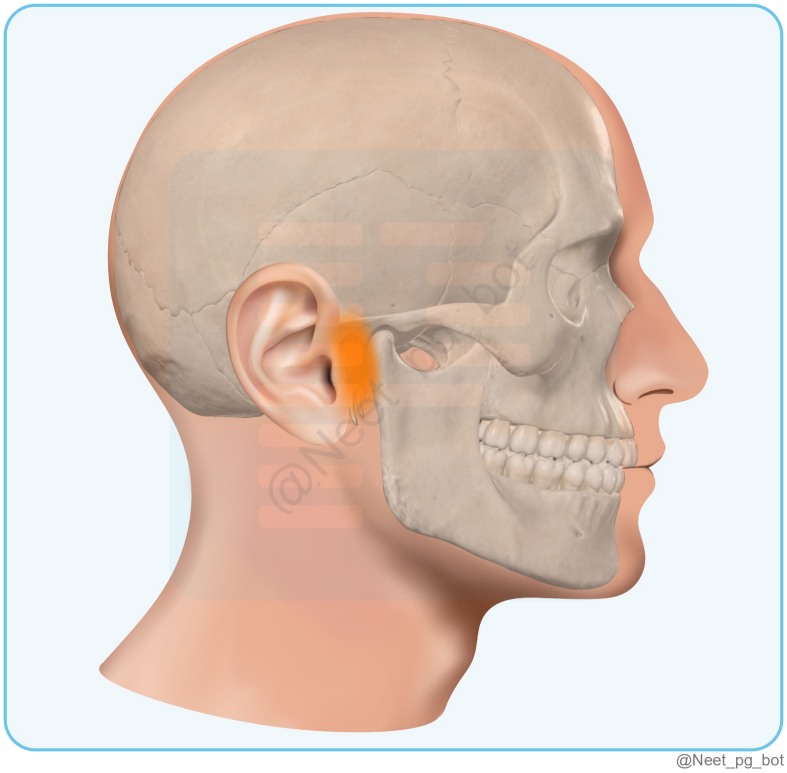
Q2: The image below shows a lateral view of the face with a highlighted region in front of the ear. Which type of abscess is most likely indicated in this area? (Q866709)

A. Citelli’s abscess

B. Luc's abscess

C. Bezold's abscess

D. Zygomatic abscess



See Answer in Part B → Q2

@Neet_pg_bot

Q3: A patient presents with a history of fall and is found to have bleeding from the ear on examination. What is the investigation of choice ? (Q866711)

A. CBC

B. MRI Brain

C. CT Temporal bone

D. X-ray Skull

See Answer in Part B → Q3

@Neet_pg_bot

Q4: A 60-year-old man complains of gradual hearing loss over several years. He reports difficulty hearing conversations, especially in noisy environments, and has trouble perceiving high-pitched sounds. There are no episodes of vertigo, tinnitus, or ear fullness. What is the most likely diagnosis? (Q866712)

A. Meniere’s disease

B. Otosclerosis

C. Presbycusis

D. Acoustic neuroma

See Answer in Part B → Q4

@Neet_pg_bot

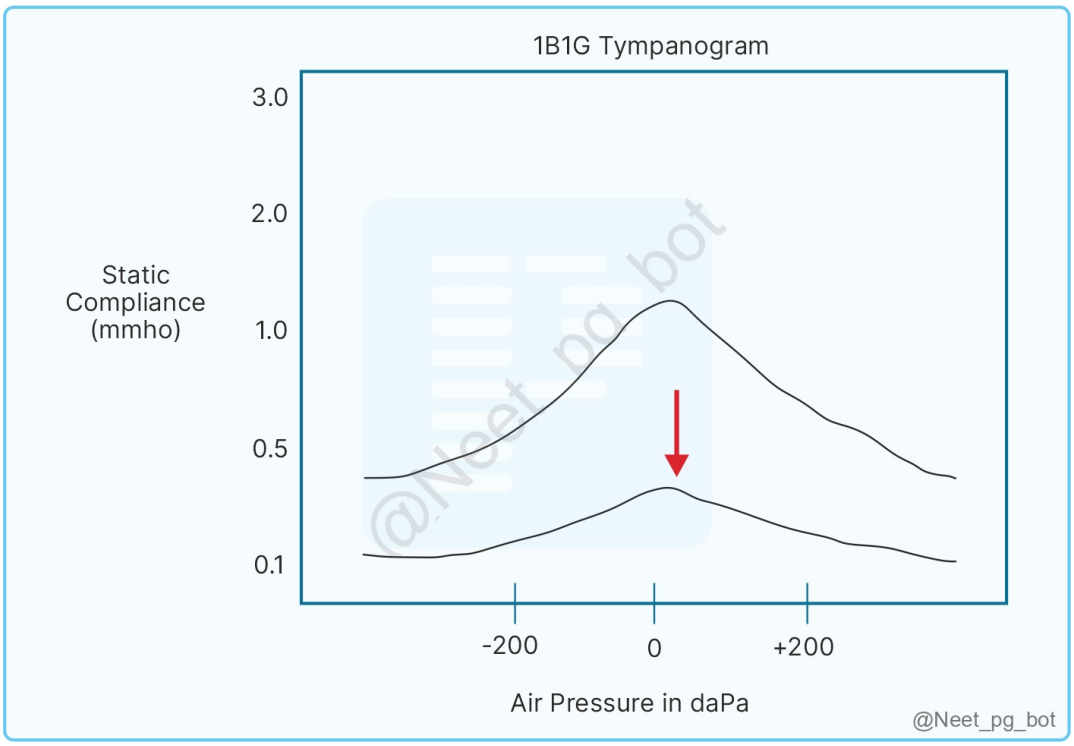
Q5: A tympanometry graph is shown below. An arrow indicates a shallow peak at pressure = 0 daPa. What is the most likely diagnosis based on the tympanometry result shown? (Q866714)

A. Type A

B. Type B

C. Type As

D. Type Ad



See Answer in Part B → Q5

@Neet_pg_bot

Q6: Which of the following is not seen in Meniere's Disease? (Q866715)

A. Tinnitus

B. Vertigo

C. Fullness of ear

D. Ear Pain

See Answer in Part B → Q6

@Neet_pg_bot

Q7: A 5-year-old child is brought to the outpatient department by his mother with irritability, poor school performance, and a history of recurrent ear infections. Otoscopic examination shows a dull, retracted tympanic membrane with fluid behind it. There is no blood clot present in the ear. What is the most likely diagnosis?

(Q866737)

A. Acute otitis media

B. Otitis externa

C. Otitis media with effusion

D. Cholesteatoma

See Answer in Part B → Q7

@Neet_pg_bot

Q8: Stapedial reflex is dependent on the integrity of which cranial nerve for its motor response? (Q866739)

A. Trigeminal nerve (CN V)

B. Facial nerve (CN VII)

C. Glossopharyngeal nerve (CN IX)

D. Vagus nerve (CN X)

See Answer in Part B → Q8

@Neet_pg_bot

Q9: A 4 year old boy was suffering ear infection and tonic spasms of limbs, with fever and neck rigidity. Which of the following is the likely diagnosis? (Q865379)

A. Meningitis

B. Bezold

C. Sigmoid sinus thrombophlebitis

D. Tetanus

See Answer in Part B → Q9

@Neet_pg_bot

Q10: Which of the following conditions may require a cochlear implant? A. Congenital deafness B. Ototoxicity C. Otosclerosis D. Congenital Stapes fixation (Q865382)

A. A, D

B. A, B

C. A, B, C

D. A, B, C, D

See Answer in Part B → Q10

@Neet_pg_bot

Q11: A 45-year-old man complains of early morning vomiting that occurs after turning in bed. What is the most likely diagnosis? (Q865387)

A. Benign Paroxysmal Positional Vertigo (BPPV)

B. Meniere’s disease

C. Vestibular neuritis

D. Labyrinthitis

See Answer in Part B → Q11

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Q12: A 30-year-old male presents to the clinic with a history of recurrent ear infections and a recent "popping" sensation in his left ear. Otoscopic examination of the left ear reveals a central perforation of the tympanic membrane. The pure tone audiometry (PTA) results show the following: Right Ear: Air conduction and bone conduction thresholds are within normal limits. Left Ear: A significant air-bone gap is present, with bone conduction thresholds within the normal range. [1] These sentences were not there; PTA images were given in the exam (I have added the closest images).

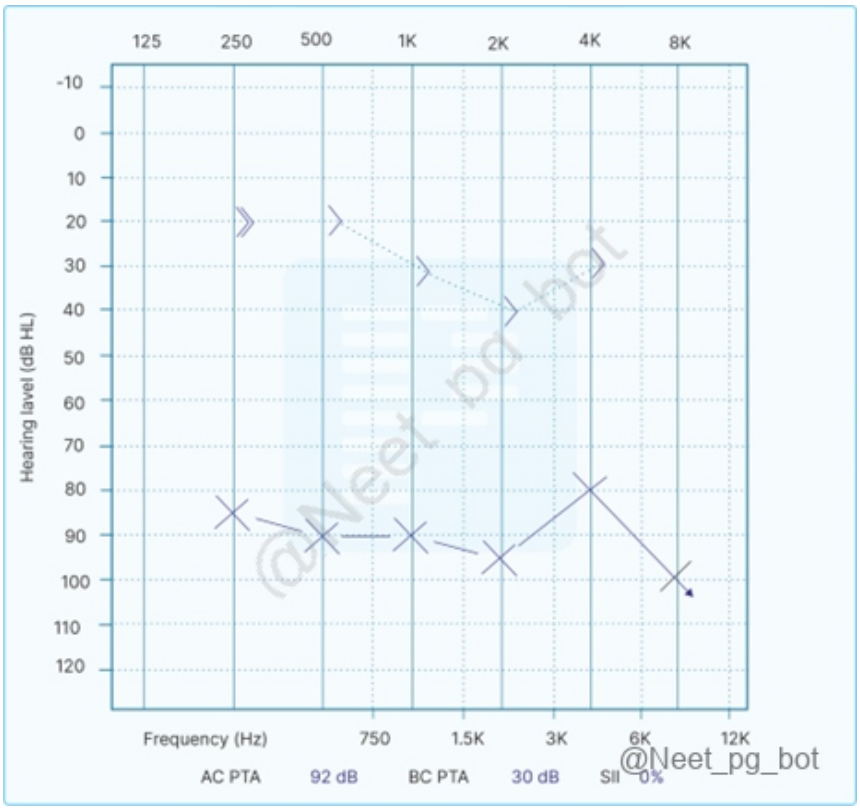
Based on these findings, what is the type of hearing loss is seen in this patient? (Q866519)

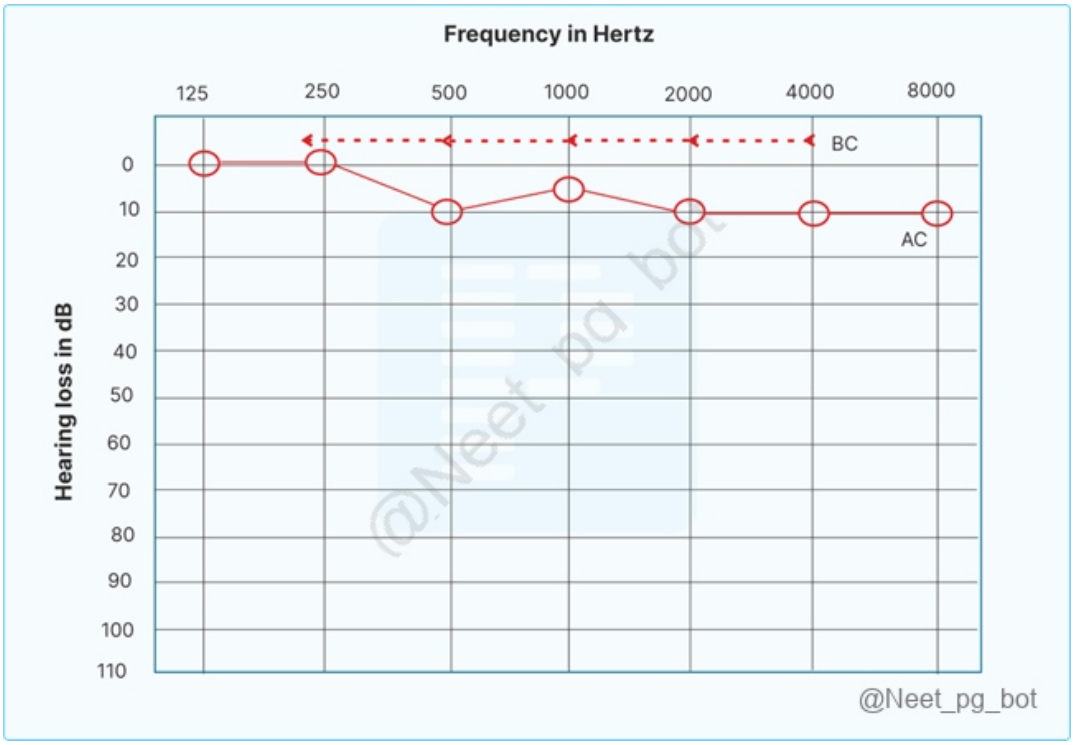
A. Left conductive hearing loss

B. Left sensorineural hearing loss

C. Right conductive hearing loss

D. Right sensorineural hearing loss





See Answer in Part B → Q12

@Neet_pg_bot

Q13: A patient presents to the clinic with a history of chronic ear drainage and hearing loss for several months. Otoscopic examination reveals a central perforation of the tympanic membrane. Pure tone audiometry confirms a conductive hearing loss. Based on these findings, what is the most appropriate next step in the definitive management of this patient's condition? (Q866540)

A. Myringoplasty

B. Modified radical mastoidectomy

C. Exploratory tympanostomy

D. Immediate commencement of broad-spectrum oral antibiotics

See Answer in Part B → Q13

@Neet_pg_bot

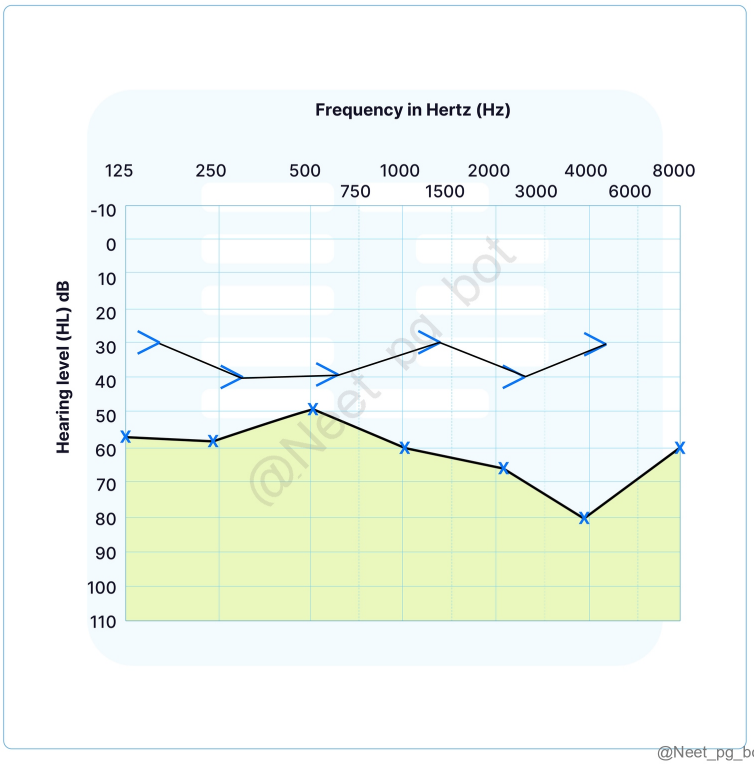
Q14: What is the interpretation of the following PTA conducted on a patient? (Q853098)

A. Mixed hearing loss

B. Sensorineural hearing loss

C. Conductive hearing loss

D. Normal



See Answer in Part B → Q14

@Neet_pg_bot

Q15: Carhart's notch is seen in which of the following conditions: (Q853101)

A. Otosclerosis

B. Ossicular Discontinuity

C. Oto syphilis

D. Serous otitis media

See Answer in Part B → Q15

@Neet_pg_bot

Q16: Which one of the following causes maximum hearing loss: (Q853103)

A. Serous otitis media

B. Disrupted ossicular chain with intact tympanic membrane

C. Disrupted ossicular chain and disrupted tympanic membrane

D. Partial footplate fixation

See Answer in Part B → Q16

@Neet_pg_bot

Q17: Most common hearing test done in neonates for screening: (Q853105)

A. Clap & smile

B. BERA

C. OAE

D. PTA

See Answer in Part B → Q17

@Neet_pg_bot

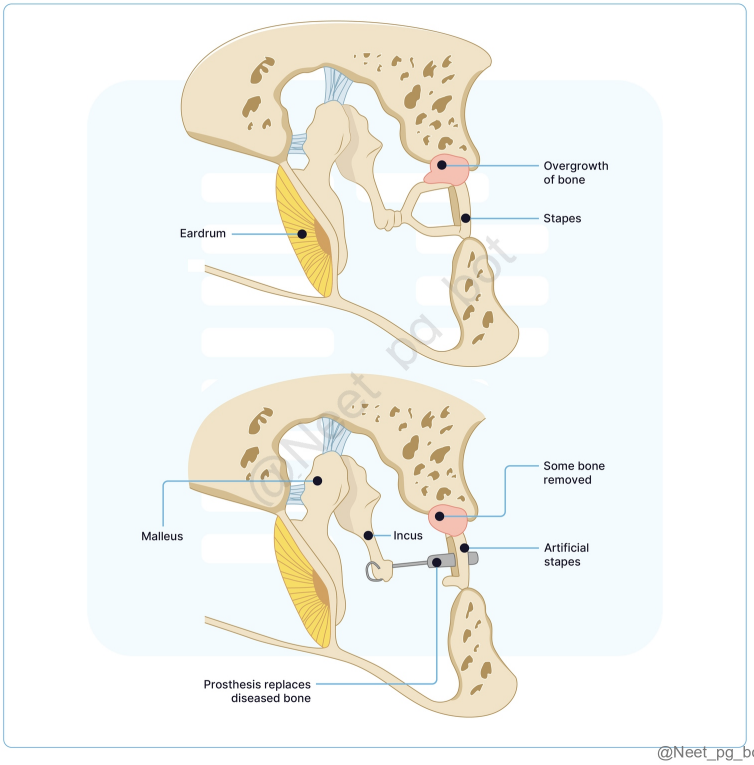
Q18: Which procedure is shown in the following diagram? (Q853117)

A. Stapedotomy

B. Myringotomy

C. Myringoplasty

D. Tympanoplasty



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See Answer in Part B → Q18

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Q19: A 9-month-old baby was admitted in the ICU with history of recurrent sinusitis and otitis media by staph aureus. Laboratory examination showed decreased serum IgA, IgG, IgM, IgE, and plasma B cells. Which of the following is the condition is described here? (Q852623)

A. Ataxia telangiectasia

B. Chronic granulomatosis disease

C. Bruton syndrome

D. Di George syndrome

See Answer in Part B → Q19

@Neet_pg_bot

Q20: A patient with CSOM was presented to the OPD with seizures. On examination and evaluation, homonymous hemianopia and epilepsy were present. Identify the condition with the CT scan given below? (Q852636)

A. Temporal abscess

B. Cerebellar abscess

C. Extradural abscess

D. Meningitis

See Answer in Part B → Q20

@Neet_pg_bot

Q21: Identify the sign given in the image below: (Q852638)

A. Beta 2 transferrin sign

B. Double target sign

C. Handkerchief test

D. Tear drop sign

See Answer in Part B → Q21

@Neet_pg_bot

Q22: A 49-year-old female from Nagaland presented with right-sided hearing loss and tinnitus. On examination, dull tympanic membrane with lymph nodes in the posterior triangle of the neck was seen. Which of the following is the management for the condition? (Q852620)

A. Grommet insertion + Steroids

B. Grommet insertion

C. Steroids

D. Radiotherapy

See Answer in Part B → Q22

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Q23: A patient presents to the OPD with hearing loss. On examination: Rinne test- Positive in the left ear and negative in the right ear Weber's test - lateralization towards the left Bone conduction test - Reduced in the right ear and similar in the left ear. Interpret the findings. (Q852633)

A. Sensorineural hearing loss in left ear

B. Sensorineural hearing loss in right ear

C. Conductive hearing loss in left ear

D. Conductive hearing loss in right ear.

See Answer in Part B → Q23

@Neet_pg_bot

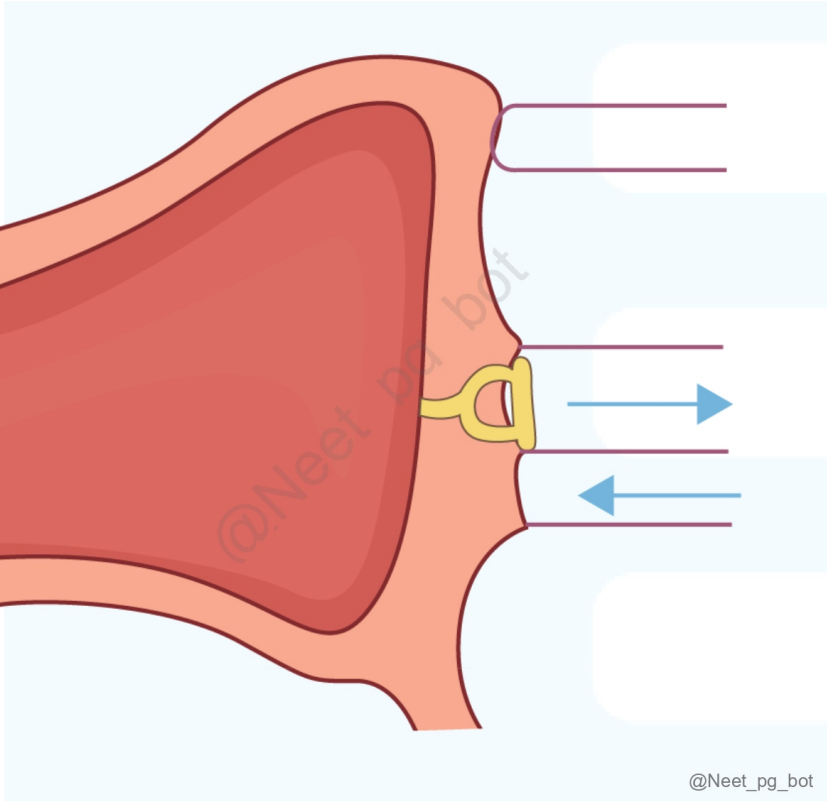
Q24: Identify the treatment option with the image given below: (Q852647)

A. Type 1 Tympanoplasty

B. Type 2 tympanoplasty

C. Type 3 tympanoplasty

D. Type 4 tympanoplasty



See Answer in Part B → Q24

@Neet_pg_bot

Q25: A 45-year-old woman is diagnosed with right vestibular neuronitis. What findings are expected during the head impulse test in this patient? (Q843956)

A. When the head is turned to the left, the eyeballs move to the left with nystagmus.

B. When the head is turned to the left, the eyeballs move to the right with nystagmus.

C. When the head is turned to the right, the eyeballs move to the left with nystagmus.

D. When the head is turned to the right, the eyeballs move to the right with nystagmus.

See Answer in Part B → Q25

@Neet_pg_bot

Q26: A patient presents with a history of ear discharge. On examination, a small perforation is observed in the antero-inferior segment of the tympanic membrane. What is the most likely result of Rinne's test? (Q843983)

A. Rinne's positive

B. Rinne's negative

C. Rinne's equivocal

D. Cannot be determined

See Answer in Part B → Q26

@Neet_pg_bot

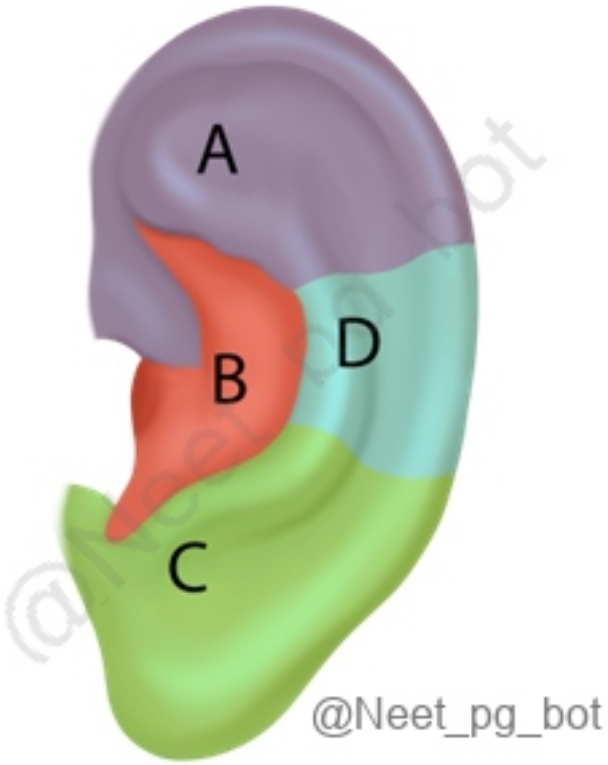
Q27: Match the following: 1 Greater auricular nerve 2 Auriculotemporal nerve 3 Auricular branch of the vagus nerve 4 Lesser occipital nerve (Q844326)

A. 1-D, 2-C, 3-A, 4-B

B. 1-C, 2-A, 3-B, 4-D

C. 1-C, 2-B, 3-A, 4-D

D. 1-D, 2-A, 3-B, 4-C



See Answer in Part B → Q27

@Neet_pg_bot

Q28: A female patient’s Pure Tone Audiometry (PTA) findings reveal a Carhart's notch. Which of the following is most likely associated with this finding? (Q843969)

A. Schwartz sign

B. Hitzelberger sign

C. Henebert sign

D. Aquinos Sign

See Answer in Part B → Q28

@Neet_pg_bot

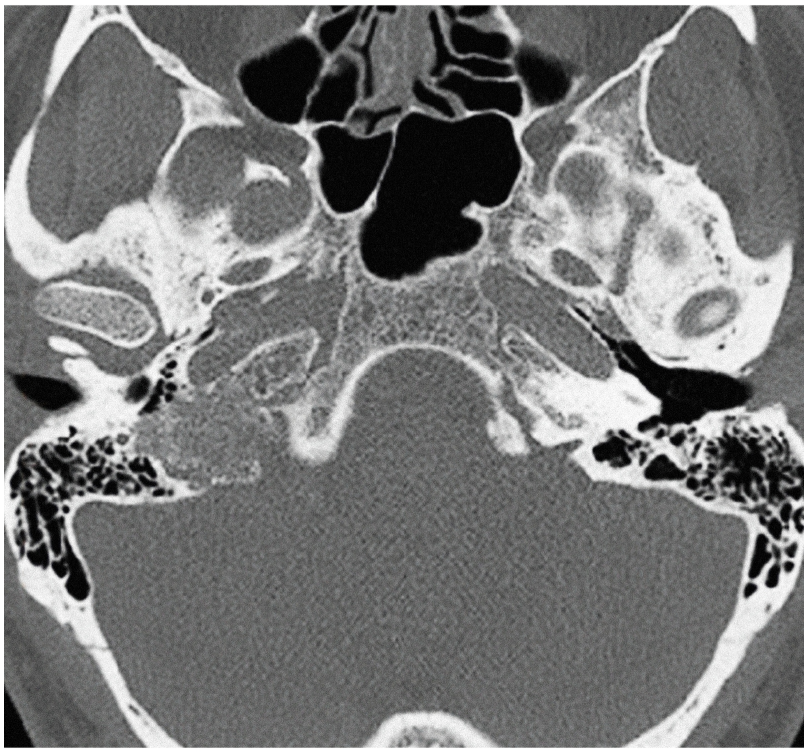
Q29: A 55-year-old woman presents with a gradually progressive hearing loss in her right ear, accompanied by pulsatile tinnitus. On otoscopic examination, a red vascular mass is seen behind the tympanic membrane. Which of the following is the most likely diagnosis? (Q844022)

A. Cholesteatoma

B. Glomus Tympanicum

C. Acoustic Neuroma

D. Otosclerosis



See Answer in Part B → Q29

@Neet_pg_bot

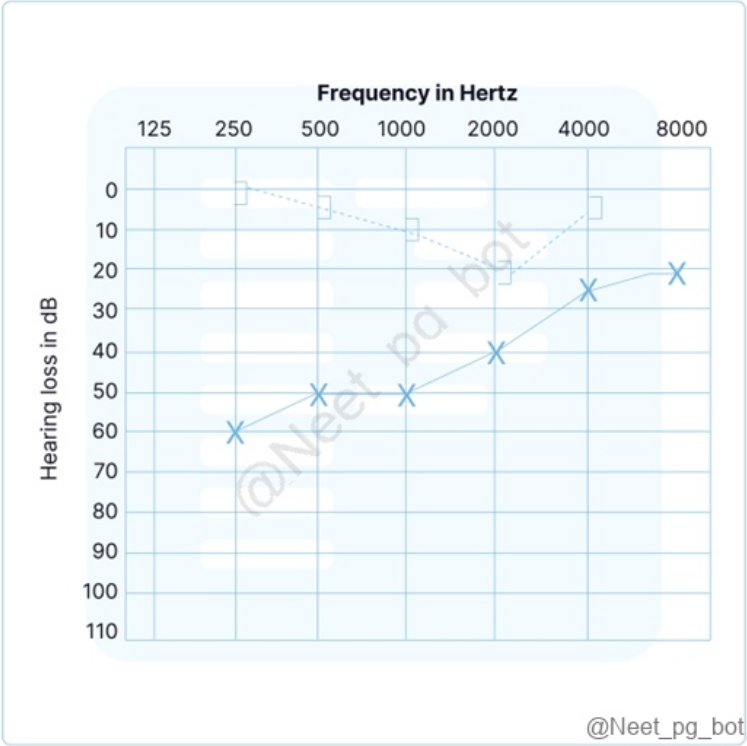
Q30: An audiogram of a 30-year-old female is given. What is the diagnosis? (Q860426)

A. Otosclerosis

B. Meniers disease

C. Noise-induced hearing loss

D. Presbycusis



See Answer in Part B → Q30

@Neet_pg_bot

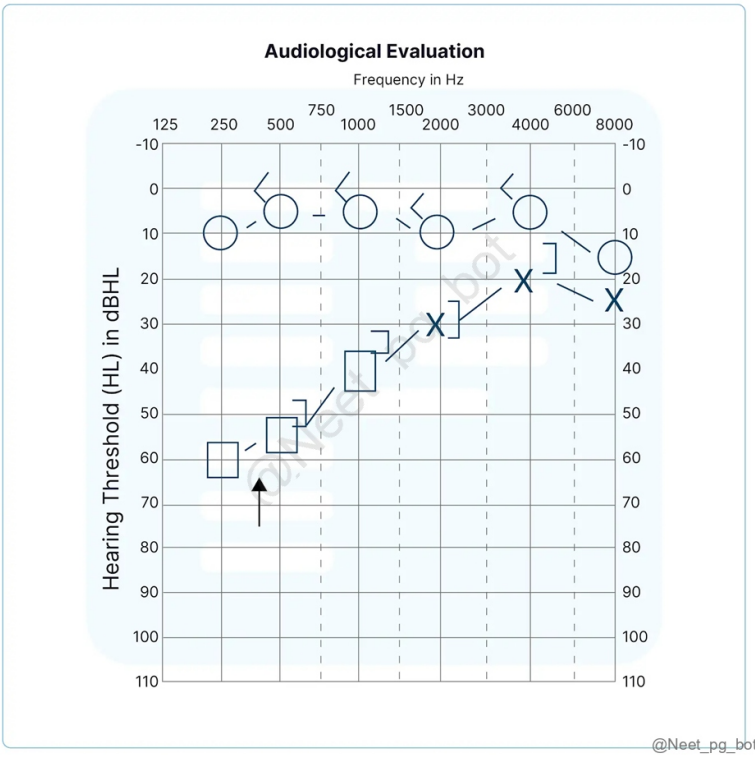
Q31: A 50-year-old male presented with vertigo, tinnitus and hearing loss. The audiogram is given below. What is the most likely diagnosis based on the given image? (Q860427)

A. BPPV

B. Meniers disease

C. Vestibular neuronitis

D. Presbycusis



See Answer in Part B → Q31

@Neet_pg_bot

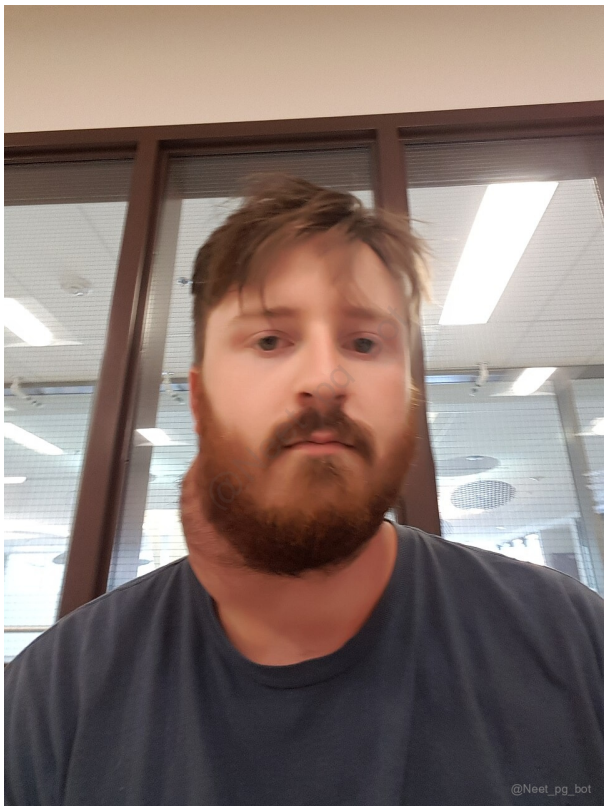
Q32: A patient with a lesion in the neck repeatedly develops infections. The correct statement regarding the embryological origin of the lesion is: (Q860447)

A. Derived from ectoderm of the 1st and 2nd branchial arches

B. Derived from the pouch of the 1st and 2nd branchial arches

C. Derived from mesoderm of the 1st and 2nd branchial arches

D. Derived from ectoderm of the 3rd and 4th branchial arches



See Answer in Part B → Q32

@Neet_pg_bot

Q33: A diabetic patient with ear pain and an HBA1c of 10 presents with excruciating ear pain and blood-stained ear discharge. What is the most likely diagnosis in this patient? (Q860478)

A. Otitis externa

B. Necrotizing otitis externa

C. Serous otitis media

D. Otomycosis

See Answer in Part B → Q33

@Neet_pg_bot

Q34: A middle-aged man came to the OPD with complaints of pain and hearing loss after trauma to the right ear. Examination revealed the presence of blood clots along with irregular perforations in the tympanic membrane. The next step in management is? (Q860484)

A. Aspirate the clot and perform audiometric tests

B. Syringing

C. Maintain dry ear with systemic analgesics

D. Gentamycin and levofloxacin ear drops

See Answer in Part B → Q34

@Neet_pg_bot

Q35: The following image shows which X-ray view? (Q860492)

A. Waters view

B. Caldwell's view

C. Towne view

D. Hirtz view

See Answer in Part B → Q35

@Neet_pg_bot

Q36: Which of the following interventions should not be done in an 8-year-old boy with bilateral sensorineural hearing loss? (Q839969)

A. Preferential sitting in the classroom

B. Adenoidectomy with grommet insertion

C. Hearing aid

D. Cochlear implant

See Answer in Part B → Q36

@Neet_pg_bot

Q37: Which of the following signs is not associated with otitis media with effusion? (Q839973)

A. Mostly bilateral

B. AD curve on tympanometry with conductive hearing loss

C. Adenoid hypertrophy is cause of SOM

D. Mostly resolves on its own

See Answer in Part B → Q37

@Neet_pg_bot

Q38: What is the most commonly used test for newborn hearing screening? (Q860065)

A. Otoacoustic Emissions (OAE)

B. Brainstem Evoked Response Audiometry (BERA)

C. Pure Tone Audiometry (PTA)

D. Tympanometry

See Answer in Part B → Q38

@Neet_pg_bot

Q39: A patient with a history of trauma presents with hearing loss. A High-Resolution Computed Tomography (HRCT) scan was performed. Which of the following structures is not typically visualized on HRCT? (Q860075)

A. Cochlea

B. Vestibule

C. Semicircular canal

D. Organ of Corti

See Answer in Part B → Q39

@Neet_pg_bot

Q40: Which of the following are symptoms of Gradenigo syndrome? (Q860098)

A. Ear discharge, retro-orbital pain, and diplopia

B. Nasal discharge, retro-orbital pain, and diplopia

C. Ear discharge, retro-orbital pain, and headache

D. Retro-orbital pain, Diplopia, and hearing loss

See Answer in Part B → Q40

@Neet_pg_bot

Q41: Which of the following structures in the inner ear is responsible for balance? (Q860115)

A. Semicircular canal

B. Cochlea

C. Ampulla

D. Organ of Corti

See Answer in Part B → Q41

@Neet_pg_bot

Q42: A 45-year-old woman presents with progressive hearing loss that has been worsening over the past few years. Audiometry confirms conductive hearing loss, and a diagnosis of otosclerosis is made. What is the surgical treatment of choice for her condition? (Q860129)

A. Stapedectomy with the placement of a prosthesis

B. Stapedotomy

C. Stapes mobilization

D. Lemperts Fenestration operation

See Answer in Part B → Q42

@Neet_pg_bot

Q43: Which of the following structures contain Ostmann fat pad? (Q860131)

A. Ear lobule

B. Tip of nose

C. Eustachian tube

D. Buccal mucosa

See Answer in Part B → Q43

@Neet_pg_bot

Q44: A pregnant woman with deafness presents for evaluation and is diagnosed with 50dB hearing loss. Which of the following structures is most likely responsible for this hearing loss? (Q860149)

A. Ossicular fixation with an intact tympanic membrane

B. Ossicular fixation with a damaged tympanic membrane

C. Erosion with tympanic membrane injury

D. Erosion without tympanic membrane injury

See Answer in Part B → Q44

@Neet_pg_bot

Q45: Identify the accurate sequence of the auditory pathway. (Q857378)

A. Eight nerve → cochlear nuclei → superior olivary nucleus → lateral lemniscus → inferior colliculus → medial geniculate body → auditory cortex

B. Eight nerve →Cochlear nuclei → lateral lemniscus → superior olivary nucleus → inferior colliculus → medial geniculate body → auditory cortex

C. Eight nerve →Superior olivary nucleus → lateral lemniscus → inferior colliculus → medial geniculate body → auditory cortex → Cochlear nuclei

D. Eight nerve →Superior olivary nucleus → inferior colliculus → medial geniculate body → auditory cortex → Cochlear nuclei → lateral lemniscus

See Answer in Part B → Q45

@Neet_pg_bot

Q46: A 64-year-old female patient is brought to the ENT OPD with difficulties in comprehension. On examination, her fluency is found to be intact with poor comprehension and repetition. Her Pure tone audiometry and ABR is normal. What is the likely diagnosis in this patient? (Q857380)

A. Malingering

B. Auditory cortex lesion

C. Broca's aphasia

D. Wernicke’s aphasia

See Answer in Part B → Q46

@Neet_pg_bot

Q47: In a 2-year-old child with a sudden onset of noisy breathing, which type of stridor is most likely to be represented by the image below? (Q820338)

A. Inspiratory

B. Expiratory

C. Biphasic

D. None of these

See Answer in Part B → Q47

@Neet_pg_bot

Q48: A 30-year-old patient with chronic sinusitis and nasal congestion, which anatomical structure is the most likely drainage pathway for the bulla ethmoidalis? (Q820342)

A. Middle meatus

B. Superior meatus

C. Inferior meatus

D. Middle concha

See Answer in Part B → Q48

@Neet_pg_bot

Q49: A 45-year-old patient presents with autophony and a sensation of ear fullness. Otoscopic examination shows a normal tympanic membrane that moves synchronously with respiration. The patient also reports recent unexplained weight loss and mild bilateral limb weakness. What is the most likely cause of these symptoms? (Q820393)

A. Meningioma

B. Multiple sclerosis

C. Weight loss

D. Wegener’s granulomatosis

See Answer in Part B → Q49

@Neet_pg_bot

Q50: A patient presents to the OPD with the complaints of vertigo which is sudden in onset, sensorineural hearing loss (SNHL), and tinnitus which lasts minutes to hours with accompanied nausea, vomiting and vagal symptoms. Investigations show there is endolymphatic hypertension present. What is the diagnosis of the patient? (Q854632)

A. Meniere's Disease

B. Presbycusis

C. Benign Paroxysmal Positional Vertigo (BPPV)

D. Acoustic neuroma

See Answer in Part B → Q50

@Neet_pg_bot

Q51: A patient presents to the OPD with complaints of bilateral hearing loss with worsened right ear hearing loss. He is diagnosed with otosclerosis and recommended stapedectomy as a final resort to the problem. What would be the findings of tuning fork tests on this patient? (Q854633)

A. Rinne’s Test - positive; Weber’s Test - lateralized to left ear

B. Rinne’s Test - positive; Weber’s Test - lateralized to right ear

C. Rinne’s Test - negative; Weber’s Test - lateralized to left ear

D. Rinne’s Test - negative; Weber’s Test - lateralized to right ear

See Answer in Part B → Q51

@Neet_pg_bot

Q52: A patient presents to the OPD with the complaint of hearing loss and can understand only shouting or amplified speech. What will be the degree of impairment according to the WHO classification of ability to understand speech? (Q854636)

A. Mild hearing loss

B. Moderate hearing loss

C. Severe hearing loss

D. Profound hearing loss

See Answer in Part B → Q52

@Neet_pg_bot

Q53: Mark the correct statement/ statements regarding Inner and Outer hair cells? I. Inner hair cells are in a single row and transmit auditory impulses. II. Outer hair cells are in 3-4 rows and modulate function of inner hair cells. III. Outer hair cells are more responsible for movement of Tectorial membrane. IV. · Outer and inner hair cells present in the ratio of 3:1. (Q854639)

A. I, II and IV are correct

B. I, II and III are correct

C. All are correct

D. II, IV are correct

See Answer in Part B → Q53

@Neet_pg_bot

Q54: During the examination of a female patient with hearing loss, it was observed that she had a negative Rinne test result at frequencies of 256 Hz and 512 Hz, but a positive Rinne test result at 1024 Hz. What would be the anticipated gap between air conduction and bone conduction in this case? (Q855213)

A. 30-45 dB

B. 15-30 dB

C. 45-60 dB

D. >60 dB

See Answer in Part B → Q54

@Neet_pg_bot

Q55: A 35-year-old woman came with complaints of hearing loss and pulsatile tinnitus. On examination, it is found that the patient has conductive hearing loss and the Rinne test results are negative. Additionally, a reddish mass is observed located behind the tympanic membrane. What is the likely diagnosis? (Q858042)

A. Acute otitis media

B. Chronic otitis media

C. Glomus tumour

D. Serous otitis media

See Answer in Part B → Q55

@Neet_pg_bot

Q56: Which of the following is associated with CSF otorrhea? (Q858076)

A. Battle sign

B. Traumatic rupture of the tympanic membrane

C. Penetrating injury to the eye

D. Fracture of the roof of the nose

See Answer in Part B → Q56

@Neet_pg_bot

Q57: A 5-year-old child was brought to the clinic by her mother with reduced hearing for the past 2-3 months. The otoscopy finding is given below. What is the most likely diagnosis? (Q858084)

A. Hemorrhagic Myringitis bullosa

B. Serous otitis media

C. Acute otitis media

D. Myringitis granulosa

See Answer in Part B → Q57

@Neet_pg_bot

Q58: Which diagnosis is most likely for a patient experiencing painful vesicles in the external auditory meatus and over the tympanic membrane, along with facial nerve palsy? Furthermore, which specific site is affected in this case? (Q858092)

A. Ramsay Hunt syndrome and basal ganglion

B. Ramsay Hunt syndrome and geniculate ganglion

C. Melkersson syndrome and trigeminal ganglion

D. Melkersson syndrome and otic ganglion

See Answer in Part B → Q58

@Neet_pg_bot

Q59: What is the function of utricle and saccule? (Q858112)

A. Hearing high-frequency sounds

B. Linear acceleration and deceleration

C. Angular acceleration

D. Hearing low-frequency sounds

See Answer in Part B → Q59

@Neet_pg_bot

Q60: A 50-year-old patient presents with hearing loss. On examination, the Rinne test yields negative results in both ears, while the Weber test shows lateralization to the right side. Otoscopy reveals normal tympanic membranes, and audiometry indicates a dip in bone conduction at 2000 Hz.What is the preferred treatment for this condition? (Q793548)

A. Sodium fluoride

B. Tympanoplasty

C. Stapedectomy

D. Stapedotomy

See Answer in Part B → Q60

@Neet_pg_bot

Q61: Match the following Wullstein's Classification Procedure/other name A. Type II B. Type III C. Type IV D. Type V 1. Fenestration tympanoplasty 2. Graft placed over the incus 3. Cavum minor 4. Columella tympanoplasty (Q855577)

A. A-1, B-2, C-3, D-4

B. A-2, B-3, C-4, D-1

C. A-2, B-4, C-3, D-1

D. A-1, B-3, C-4, D-2

See Answer in Part B → Q61

@Neet_pg_bot

Q62: Which of the following tests can be used if the otoacoustic emission test is absent during screening? (Q855581)

A. Pure tone audiometry.

B. Tympanometry

C. Free field audiometry

D. Speech audiometry

See Answer in Part B → Q62

@Neet_pg_bot

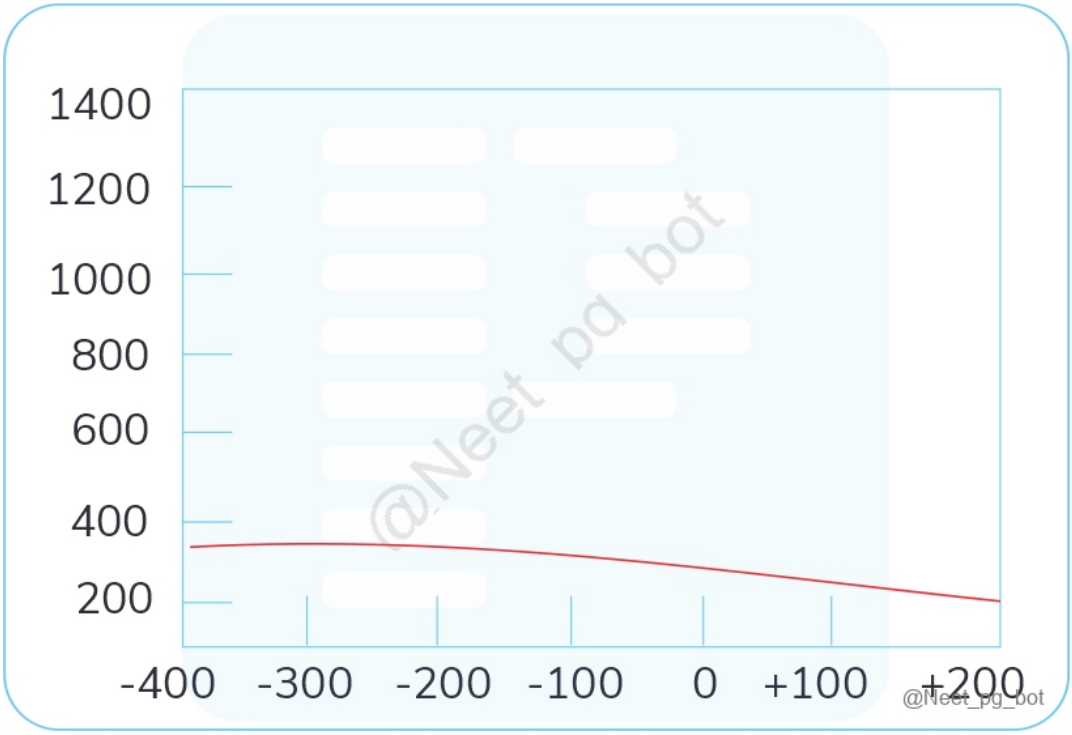
Q63: A 6 year old boy presented with recurrent URTI, poor growth, high arched palate, and impaired hearing. His tympanogram is given below. What would be the most appropriate management for him? (Q855592)

A. Myringotomy

B. Grommet

C. Myringotomy and grommet

D. Adenoidectomy and grommet



See Answer in Part B → Q63

@Neet_pg_bot

Q64: Arrange the following in the sequence of auditory pathway: 1. Cochlear nucleus 2. Spiral ganglion 3. Superior olivary nucleus 4. Inferior colliculus 5. Medial geniculate body (Q855765)

A. 1-2-3-4-5

B. 5-4-3-2-1

C. 2-1-3-4-5

D. 3-4-5-1-2

See Answer in Part B → Q64

@Neet_pg_bot

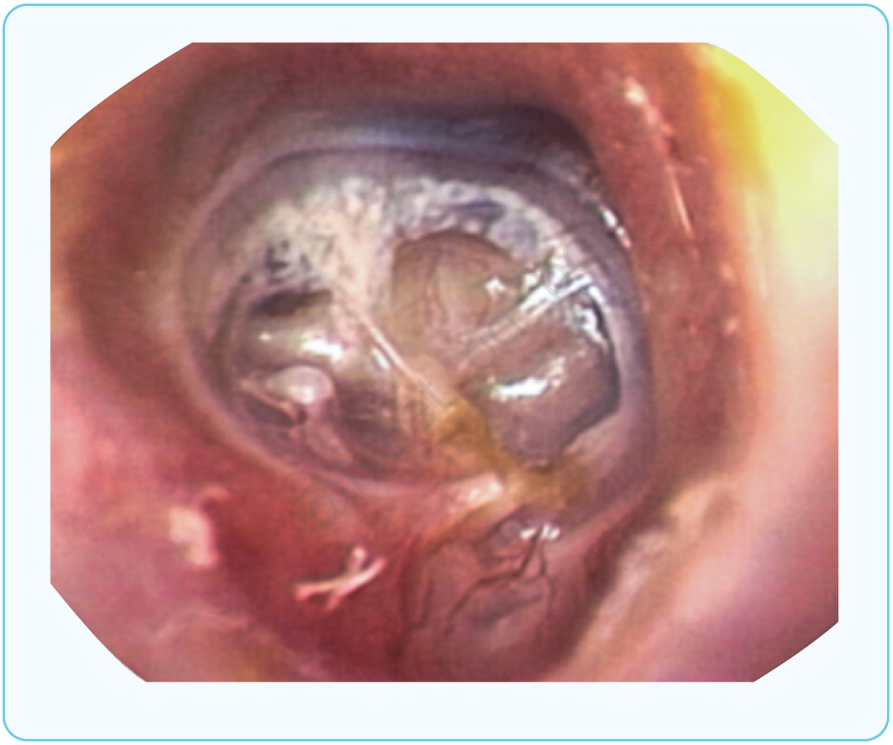
Q65: What is the grade of tympanic membrane retraction shown in the image according to the Sade classification? (Q855796)

A. Grade 1

B. Grade 2

C. Grade 3

D. Grade 4



See Answer in Part B → Q65

@Neet_pg_bot

Q66: A 35-year-old woman presents with complaints of slowly progressive difficulty hearing in the right ear. She also has pulsatile tinnitus. On examination, a reddish mass was seen behind the tympanic membrane, and an audible bruit was heard over the mastoid when auscultation with a stethoscope was performed. Her Rinne test was negative. Which of the following is the most likely diagnosis? (Q856960)

A. CSOM

B. ASOM

C. Mastoiditis

D. Glomus tumor

See Answer in Part B → Q66

@Neet_pg_bot

Q67: What are the objective tests used to assess hearing ability? A. BERA (Brainstem evoked response audiometry) B. OAE (Otoacoustic emission) C. PTA (Pure tone audiometry) D. Tympanometry (Q856968)

A. A, B and D

B. A, B and C

C. B, C and D

D. A, B, C and D

See Answer in Part B → Q67

@Neet_pg_bot

Q68: Which nerve is responsible for the syncopal episode that occurred during the syringing procedure for ear wax removal in a patient? (Q856982)

A. Auriculotemporal nerve

B. Arnold’s nerve

C. Glossopharyngeal nerve

D. Jacobson’s nerve

See Answer in Part B → Q68

@Neet_pg_bot

Q69: The probable diagnosis for a 60-year-old diabetic patient who is experiencing intense ear pain and otorrhea that has not improved with antibiotics, along with the presence of granulation tissue in the ear canal and facial nerve paralysis, is: (Q856986)

A. Otomycosis

B. Serous otitis media

C. Malignant otitis externa

D. Eczematous otitis externa

See Answer in Part B → Q69

@Neet_pg_bot

Q70: What would be the subsequent course of treatment for a child with bilateral sensorineural hearing loss who did not experience any improvement after using hearing aids? (Q856995)

A. Bone anchored hearing aid

B. Tympanoplasty

C. Normal hearing aid

D. Cochlear implant

See Answer in Part B → Q70

@Neet_pg_bot

Q71: Which of the following conditions is associated with the presence of a B tympanogram? (Q857005)

A. Ossicular dislocation

B. Otosclerosis

C. Serous otitis media

D. Normal ear

See Answer in Part B → Q71

@Neet_pg_bot

Q72: A young lady presented to the ENT OPD with a history of sudden onset unilateral hearing loss, tinnitus, and dizziness following an episode of acute otitis media two weeks back. Rinne's test and fistula test were positive. She had refused treatment then and currently came with complaints of worsened hearing loss in the affected ear. On examination, the fistula test was negative. What would be the most likely finding on the Rinne test in this scenario? (Q857677)

A. True positive

B. True negative

C. False positive

D. False negative

See Answer in Part B → Q72

@Neet_pg_bot

Q73: What is the Battle sign? (Q857682)

A. Mastoid ecchymosis

B. Periorbital hematoma

C. Bezold abscess

D. Perichondritis

See Answer in Part B → Q73

@Neet_pg_bot

Q74: What would be your diagnosis for a patient who has presented with symptoms of vertigo, tinnitus, and fullness of ears. The symptoms improve on keeping the right ear up. He had previously been operated on for a safe type of right side chronic suppurative otitis media (CSOM) six months ago? (Q856056)

A. Perilymphatic fistula

B. Labyrinthitis

C. Paget disease

D. Vestibular schwannoma

See Answer in Part B → Q74

@Neet_pg_bot

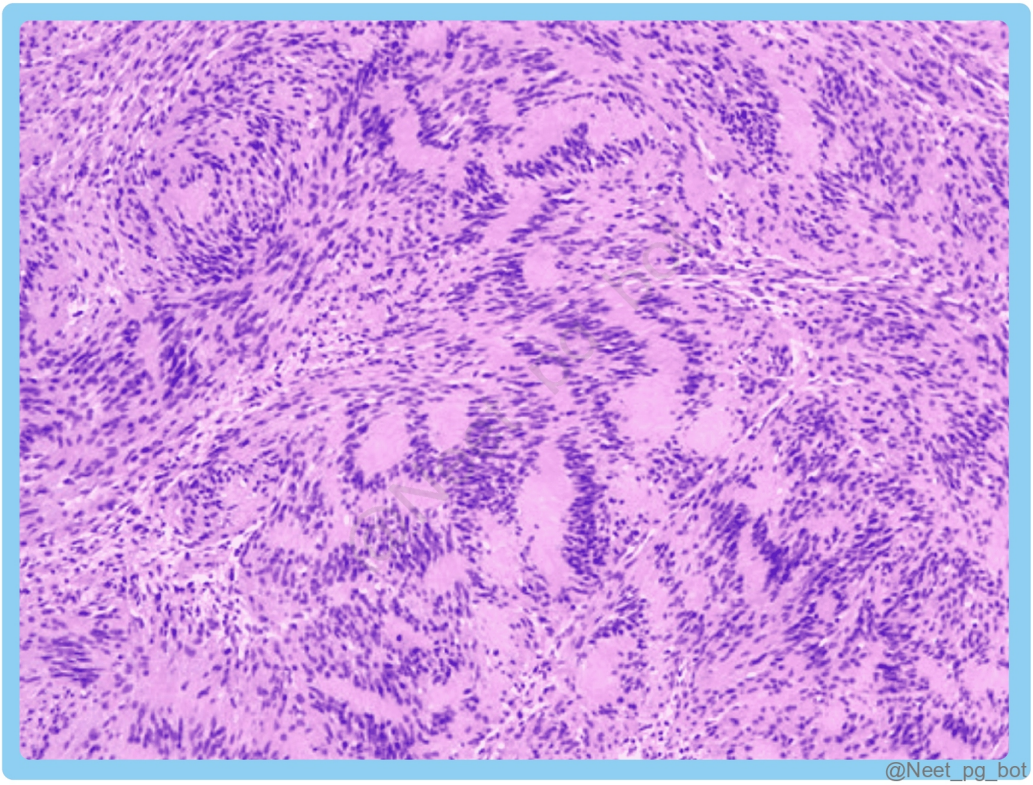
Q75: A young man presented with hearing loss and tinnitus. Histology image is shown below. What is the diagnosis? (Q856636)

A. Neurofibroma

B. Schwannoma

C. Leiomyoma

D. Rhabdomyoma



See Answer in Part B → Q75

@Neet_pg_bot

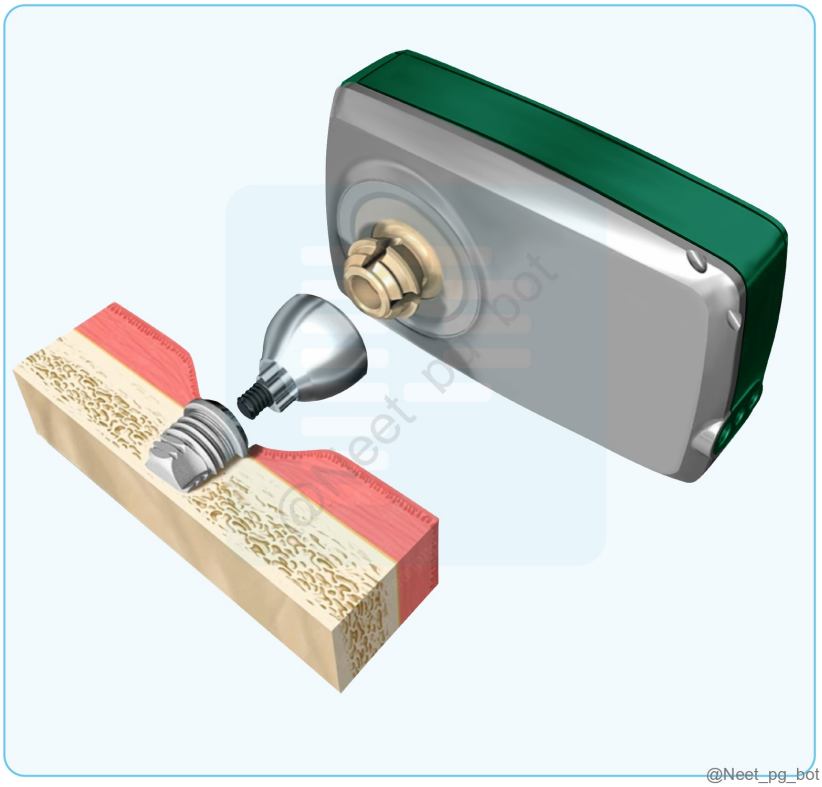
Q76: Which of the following devices can be used in a patient with bilateral external auditory atresia? (Q856646)

A. 1

B. 2

C. 3

D. 4



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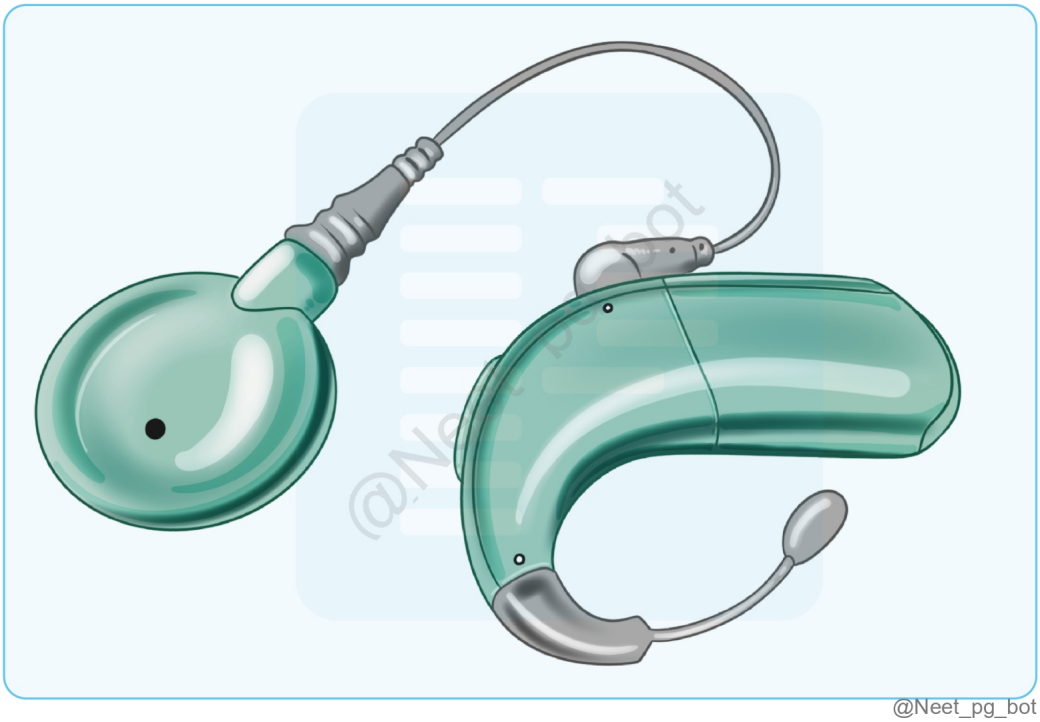

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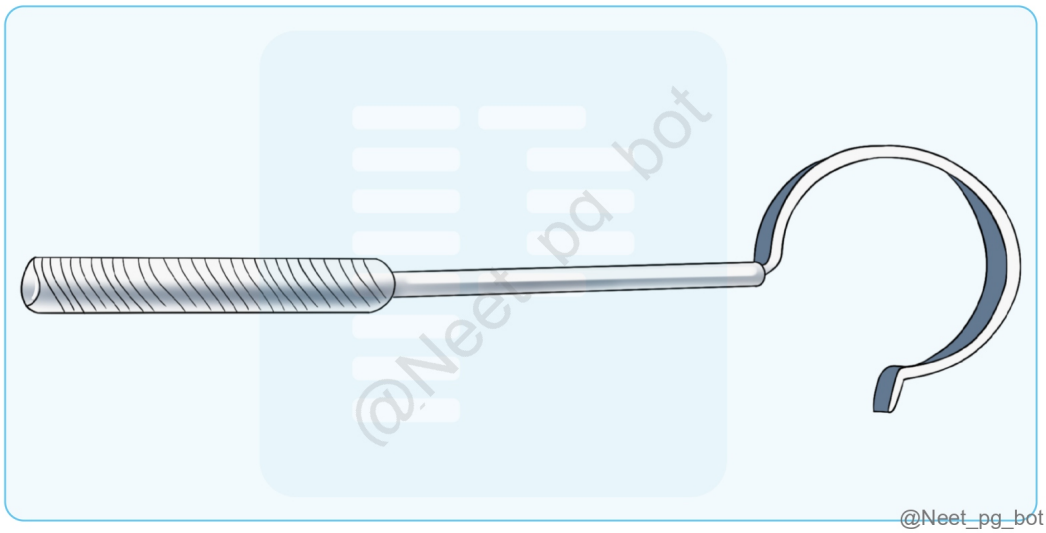
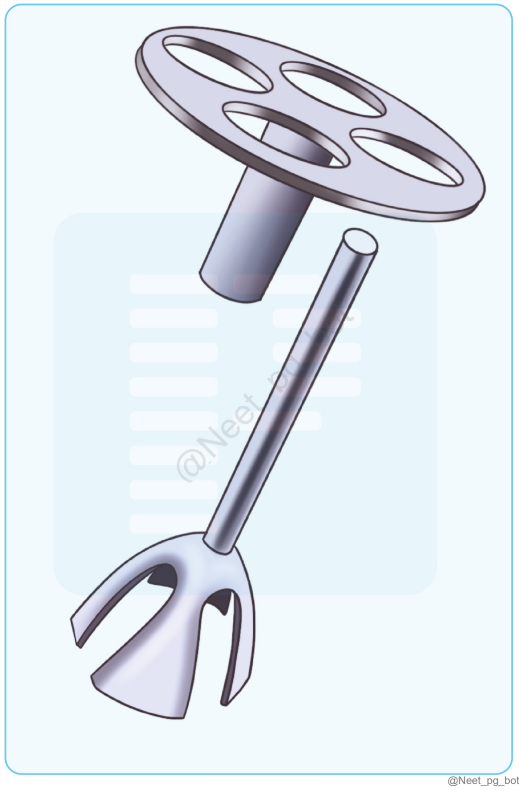




See Answer in Part B → Q76

@Neet_pg_bot

Q77: A patient with a history of chronic ear infection presents with fever, headache, vomiting, irritability, and confusion. His CT brain is shown in the image below. What is the possible diagnosis? (Q856240)

A. Temporal lobe abscess

B. Cerebellar abscess

C. Subdural abscess

D. Meningitis

See Answer in Part B → Q77

@Neet_pg_bot

Q78: What is the diagnostic maneuver performed by an ENT surgeon when a patient presents with vertigo but no hearing loss? (Q856780)

A. Yacovino maneuver

B. Dix-Hallpike maneuver

C. Epley’s maneuver

D. Simon’s maneuver

See Answer in Part B → Q78

@Neet_pg_bot

Q79: Determine the accurate order of the pathways involved in the auditory system. A. Superior Olivary nucleus B. Cochlear Nucleus C. Inferior Colliculi D. Lateral lemniscus E. Medial geniculate ganglion (Q856784)

A. ABCDE

B. BADCE

C. BACDE

D. BAEDC

See Answer in Part B → Q79

@Neet_pg_bot

Q80: In a case of otitis media, which of the following is absent? (Q856310)

A. Bezold abscess

B. Griesinger’s sign

C. Battle sign

D. Delta sign

See Answer in Part B → Q80

@Neet_pg_bot

Q81: Which of the following tests are used to objectively assess hearing ability? BERA (Brainstem Evoked Response Audiometry) OAE (Otoacoustic Emission) PTA (Pure Tone Audiometry) Tympanometry (Q856312)

A. 1, 2 and 4

B. 1, 2 and 3

C. 2, 3 and 4

D. 1, 2, 3 and 4

See Answer in Part B → Q81

@Neet_pg_bot

Q82: A 55-year-old male came to the hospital with a history of trauma to the ear. On examination, the ear has swelling, tenderness, and discoloration. Which of the following is false regarding the given image? (Q856316)

A. All cases should receive prophylactic antibiotics

B. May lead to Pugilistic ear

C. Caused by accumulation of blood in perichondrial space

D. Resolves spontaneously

See Answer in Part B → Q82

@Neet_pg_bot

Q83: What is the name of the surgical procedure performed to enlarge the cartilaginous segment of the outer ear canal? (Q854870)

A. Meatoplasty

B. Tympanoplasty

C. Myringoplasty

D. Otoplasty

See Answer in Part B → Q83

@Neet_pg_bot

Q84: Stimulation of which of the following causes cough when the external acoustic canal is scratched? (Q854876)

A. Auriculotemporal nerve

B. Auricular branch of vagus

C. Great auricular nerve

D. Facial nerve

See Answer in Part B → Q84

@Neet_pg_bot

Q85: A person who met with an accident and suffered from a skull fracture presents with the following finding. Identify this clinical finding. (Q854878)

A. Battle sign

B. Bezold abscess

C. Mastoiditis

D. Griesinger sign

See Answer in Part B → Q85

@Neet_pg_bot

Q86: From which of the following structures does the saccule develop? (Q858482)

A. Saculus anterior

B. Saculus posterior

C. Pars superior

D. Pars inferior

See Answer in Part B → Q86

@Neet_pg_bot

Q87: Which of the following does not represent a characteristic of tubercular otitis media? (Q858484)

A. Ear ache

B. Multiple perforations

C. Pale granulation

D. Non-foul smelling ear discharge

See Answer in Part B → Q87

@Neet_pg_bot

Q88: Which of the following is not seen in Meniere's Disease? (Q859364)

A. Tinnitus

B. Vertigo

C. Fullness of ear

D. Ear Pain

See Answer in Part B → Q88

@Neet_pg_bot

Q89: Which of the following is characterized by the presence of both reservoir sign and mastoid tenderness? (Q859388)

A. Otosclerotic lesion

B. Acute mastoiditis

C. Intratympanic glomus tumor

D. Chronic suppurative otitis media

See Answer in Part B → Q89

@Neet_pg_bot

Q90: Hallpike maneuver aids in the assessment of which of the following? (Q859863)

A. Vestibular function

B. Audiometry

C. Cochlear function

D. Corneal test

See Answer in Part B → Q90

@Neet_pg_bot

Q91: A 35-year-old male presents to the with a three-day history of severe headache, fever, and nausea. He also reports experiencing pain and swelling behind his left ear and blood-tinged ear discharge. On examination tenderness and bluish discoloration over the mastoid process of the left temporal bone is observed. His CT showed an empty delta sign. What is the likely diagnosis? (Q859869)

A. Meningitis

B. Lateral sinus thrombosis

C. Brain Abscess

D. Extradural Abscess

See Answer in Part B → Q91

@Neet_pg_bot

Q92: Which of the given options is most likely to cause sensory neural hearing loss? (Q859876)

A. Labyrinthitis

B. Otosclerosis

C. Ear wax

D. CSOM

See Answer in Part B → Q92

@Neet_pg_bot

Q93: Which statement accurately describes BERA (Brainstem Evoked Response Audiometry)? (Q859903)

A. It can be used for screening for hearing loss

B. It is an invasive procedure

C. It can be used for assessing sensorineural hearing loss

D. It is a subjective investigation

See Answer in Part B → Q93

@Neet_pg_bot

Q94: A 5-year-old child presents with reduced hearing for the past 2-3 months. The otoscopy finding is given below. What is the most likely diagnosis? (Q855566)

A. Myringitis bullosa

B. Serous otitis media

C. Acute otitis media

D. Pneumo Tympanum

See Answer in Part B → Q94

@Neet_pg_bot

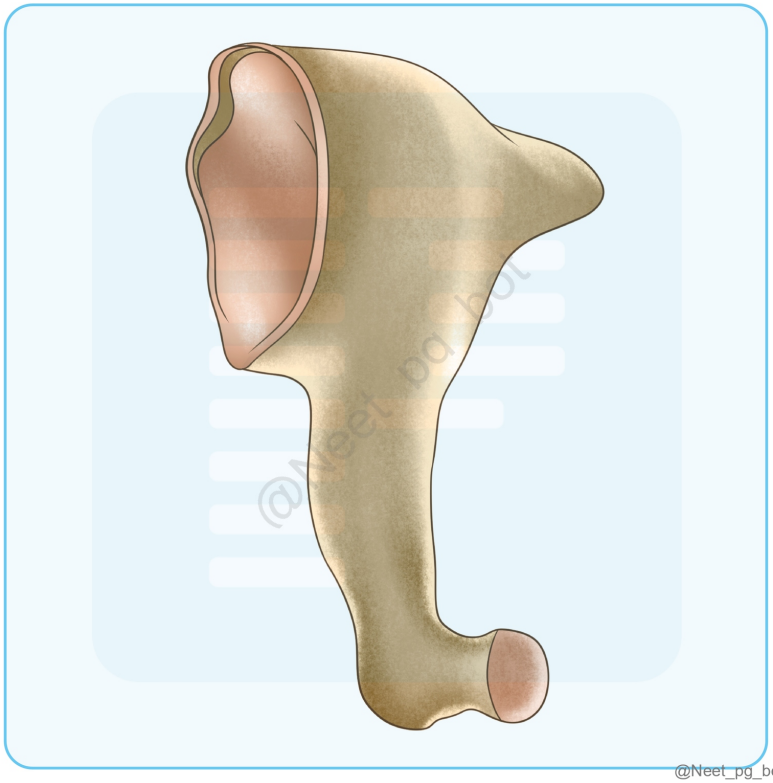
Q95: Identify the structure given in the image. (Q855576)

A. Malleus

B. Incus

C. Stapes

D. Vomer



See Answer in Part B → Q95

@Neet_pg_bot

Q96: Which nerve is most likely to be affected in a patient who complains of an inability to close the eye, drooling of saliva, and deviation of the angle of the mouth? (Q855590)

A. Facial nerve

B. Trigeminal nerve

C. Oculomotor nerve

D. Glossopharyngeal nerve

See Answer in Part B → Q96

@Neet_pg_bot

Q97: Which of the following structures are in close proximity to the affected structure in a 70-year-old male patient presenting with decreased hearing in higher frequencies, where the basilar membrane has been affected? (Q855777)

A. Modiolus

B. Stria vascularis

C. Oval window

D. Helicotrema

See Answer in Part B → Q97

@Neet_pg_bot

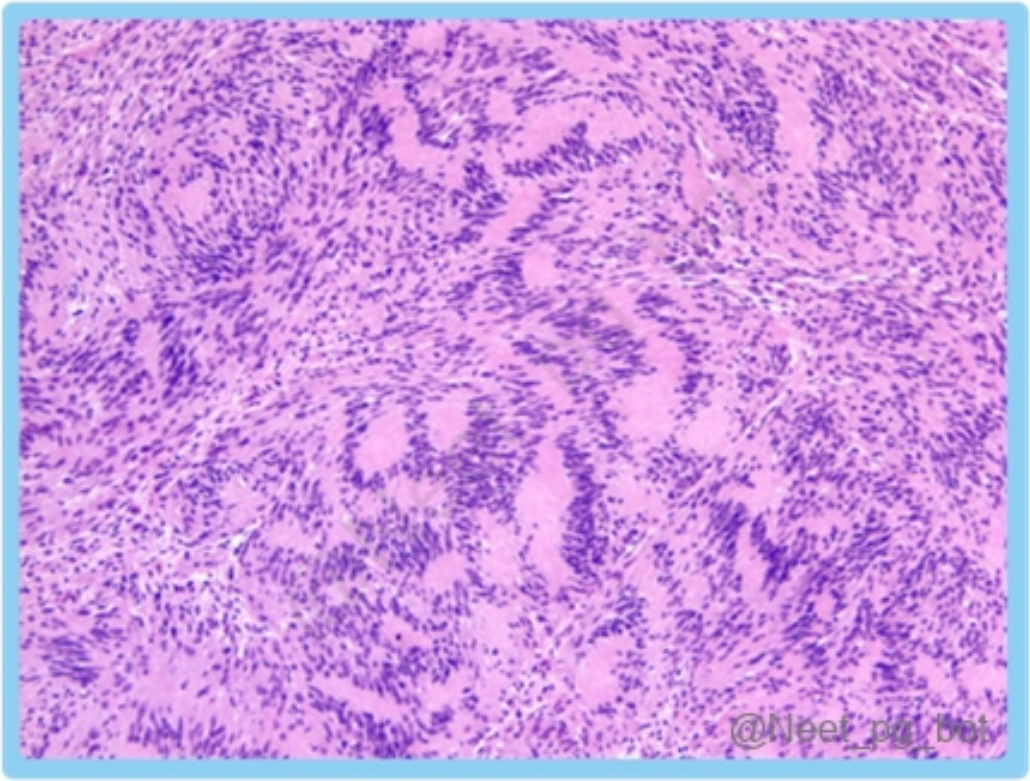
Q98: A 45-year-old female presents with a 2-year history of progressive unilateral hearing loss, tinnitus, and unsteadiness. An MRI scan reveals a well-defined tumor located in the cerebellopontine angle (CPA). A surgical resection is performed, and subsequent histopathological examination of the tumor tissue is given below. Based on these histopathological findings, what is the most likely diagnosis? (Q866534)

A. Schwannoma

B. Ependymoma

C. Meningioma

D. Neurofibroma



See Answer in Part B → Q98

@Neet_pg_bot

Q99: A 60-year-old man presents with gradual, progressive hearing loss. On examination, he has difficulty perceiving high-frequency sounds, but the other findings are normal. Which structure is primarily affected in this condition? (Q879164)

A. Striae vascularis

B. Tectorial membrane

C. Inner hair cells of the basal turn

D. Outer hair cells of the apical turn

See Answer in Part B → Q99

@Neet_pg_bot

Q100: Which of the following modalities is not used for hearing assessment in an infant? (Q879170)

A. OAE

B. BERA

C. PTA

D. Free field audiometry

See Answer in Part B → Q100

@Neet_pg_bot

Q101: While performing a caloric test, what type of nystagmus would you expect on cold water irrigation ? (Q805675)

A. Nystagmus towards the same side

B. Nystagmus towards the opposite side

C. Central nystagmus

D. Positional nystagmus

See Answer in Part B → Q101

@Neet_pg_bot

Q102: What is the probable diagnosis for a 60-year-old individual with diabetes who is experiencing intense ear pain and otorrhea that is not improving with antibiotics? During examination, the presence of granulation tissue in the ear canal and facial nerve paralysis was observed? (Q793522)

A. Otomycosis

B. Serous otitis media

C. Malignant otitis externa

D. Eczematous otitis externa

See Answer in Part B → Q102

@Neet_pg_bot

Q103: What could be the potential clinical diagnosis for a 35-year-old man who visited the clinic reporting intermittent dizziness, sensation of pressure and fullness in the ear, reduced hearing, and a low-frequency roaring sound in the ears? (Q793541)

A. Meniere’s disease

B. Benign paroxysmal positional vertigo

C. Labyrinthitis

D. Syncope

See Answer in Part B → Q103

@Neet_pg_bot

Q104: For which of the subsequent conditions is Bone Anchored Hearing Aid (BAHA) implemented? (Q793561)

A. Sensorineural hearing loss

B. Acoustic neuroma

C. Congenital external auditory atresia

D. Otitis media

See Answer in Part B → Q104

@Neet_pg_bot

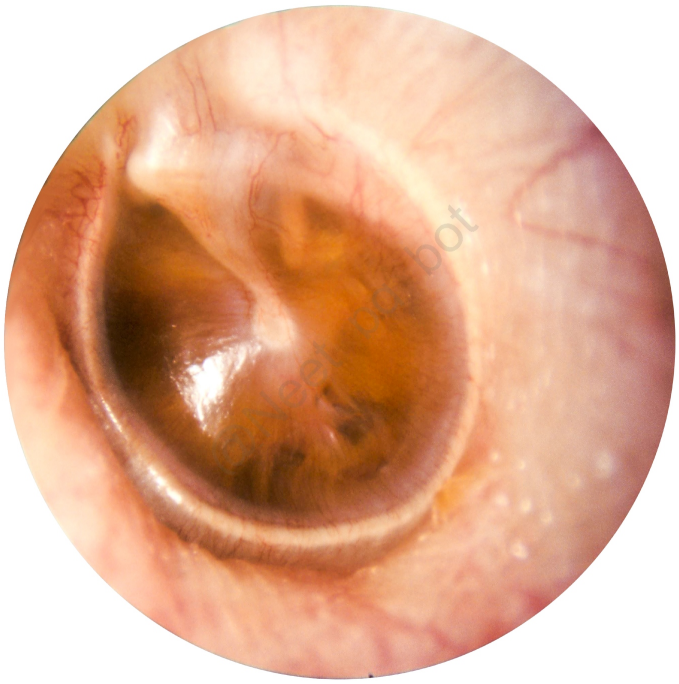
Q105: You see a child with delayed speech development as part of a health visit at a local school. The otoscopic appearance of the ear is shown below. Hearing loss of 20 dB is detected in audiometric tests. What is your diagnosis? (Q793611)

A. Acute suppurative otitis media

B. Serous otitis media

C. Chronic suppurative otitis media

D. Glomus tumor



See Answer in Part B → Q105

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Q13 (p. 194)	*Q14 (p. 195)*	*Q15 (p. 195)*	*Q16 (p. 196)*	*Q17 (p. 196)*	*Q18 (p. 196)*

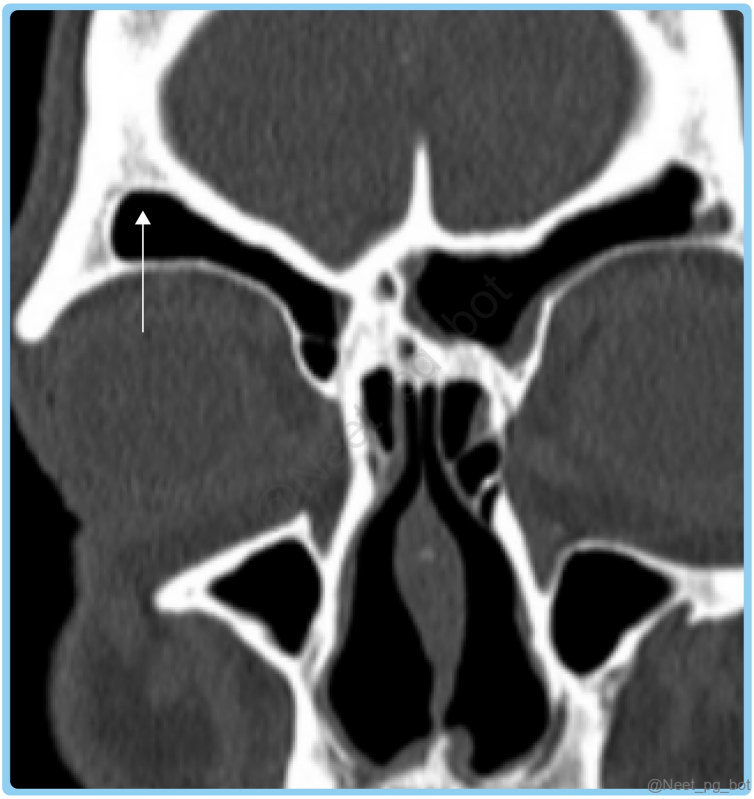
Q1: Which of the following best describes the drainage pathway of the sinus that is marked with an arrow in the image below? (Q847930)

A. Sphenoethmoidal recess

B. Superior meatus

C. Middle meatus

D. Ethmoid bulla



See Answer in Part B → Q1

@Neet_pg_bot

Q2: A 45-year-old patient complains of difficulty breathing through their nose. He also reports complaints of smell perception. The otolaryngologist decides to perform both the University of Pennsylvania Smell Identification Test (UPSIT) and rhinomanometry. Which of the following statements regarding these tests is incorrect? (Q847938)

A. The UPSIT helps to understand if the patient's ability to perceive smell is good or bad.

B. Rhinomanometry is a subjective function test to assess nasal airflow.

C. In the UPSIT, the patient is given scratch cards of odorous stimuli and asked to write down the smell.

D. Rhinomanometry results can be used to check for improvement after nasal surgery.

See Answer in Part B → Q2

@Neet_pg_bot

Q3: Which of the following statements about the airflow dynamics during respiration through the nose is INCORRECT? (Q847937)

A. Mouth breathing is not present in newborns

B. Very little air passes through olfactory region of nose

C. Maximum airflow during quiet respiration occurs through inferior turbinate

D. Friction during expiration causes the air to form eddies at the nasal valve , ventilating the sinuses.

See Answer in Part B → Q3

@Neet_pg_bot

Q4: A junior resident is studying the anatomy of the medial wall of the orbit. Which of the following statements about this structure is incorrect? (Q847936)

A. The medial walls of both orbits run parallel to each other and form the lateral walls of ethmoid air cell

B. The medial wall is formed by parts of the sphenoid, ethmoid, lacrimal, and maxillary bones

C. The anterior and posterior ethmoidal foramina are located at the junction of the roof and the lateral wall of the orbit

D. The optic canal is situated at the posterior junction of the medial wall and the roof of the orbit

See Answer in Part B → Q4

@Neet_pg_bot

Q5: Which of the following statements about the venous drainage of the nose is FALSE? (Q847935)

A. The venous networks parallel the arterial supply in their distribution.

B. The fronto-median area drains to the facial vein, while the orbito-palpebral area drains to the ophthalmic vein.

C. The facial vein originates as the angular vein, which is formed by the confluence of the supratrochlear and supraorbital veins.

D. Infections in the upper lip and nose can potentially spread to the cavernous sinus due to a valveless venous connection.

See Answer in Part B → Q5

@Neet_pg_bot

Q6: Which of the following statements about the lining membrane of the internal nose is INCORRECT? (Q847934)

A. The vestibule is lined by skin containing hair, hair follicles, and sebaceous glands.

B. The olfactory region covers the lower two-thirds of the nasal cavity.

C. The respiratory region's mucous membrane is thickest over nasal conchae.

D. The olfactory region's membrane is paler in color compared to other regions.

See Answer in Part B → Q6

@Neet_pg_bot

Q7: Which type of sphenoid sinus pneumatization is contraindicated in endoscopic transsphenoidal surgery? (Q847933)

A. Sellar

B. Presellar

C. Conchal

D. post sellar

See Answer in Part B → Q7

@Neet_pg_bot

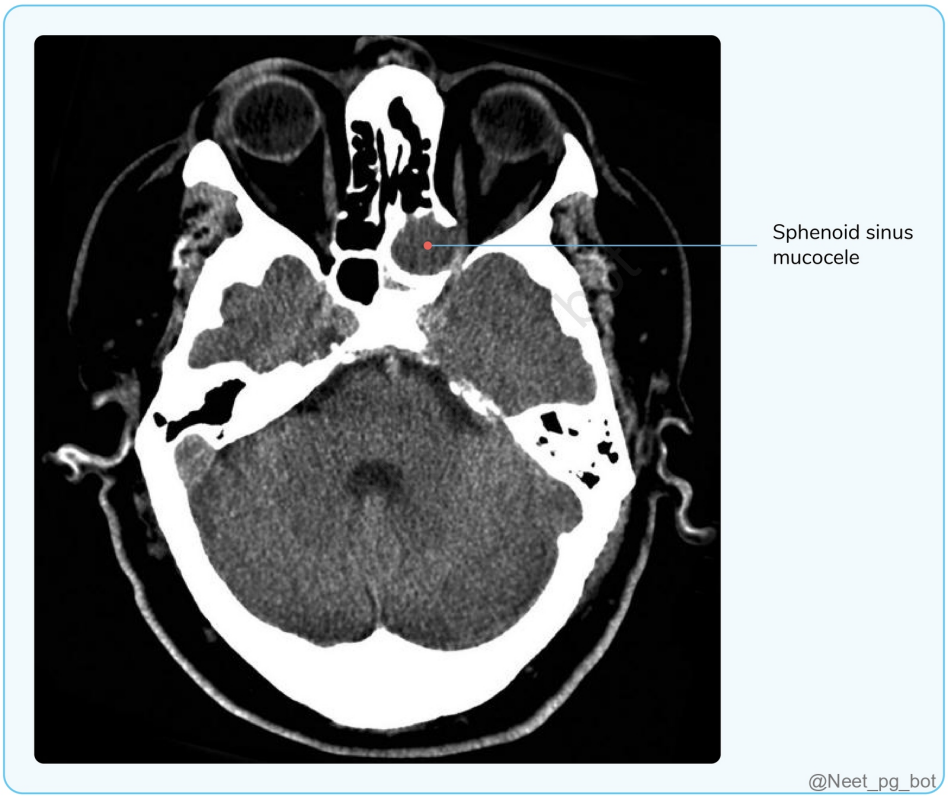
Q8: A 50-year-old male complains of deep-seated headaches and visual disturbances. Imaging reveals a sphenoid sinus mucocele compressing adjacent structures. Which of the following is most likely to be compressed by this mucocele? (Q847932)

A. Optic nerve

B. Mandibular nerve

C. Middle meningeal artery

D. Superior sagittal sinus



See Answer in Part B → Q8

@Neet_pg_bot

Q9: Which of the following is NOT true regarding the ethmoid air cells? (Q847931)

A. The anterior ethmoid air cells drain into the middle meatus.

B. They are the last of the paranasal sinuses to fully develop.

C. They are closely related to the orbit.

D. The posterior ethmoid air cells drain into the superior meatus.

See Answer in Part B → Q9

@Neet_pg_bot

Q10: All the following are paired cartilage forming the external nose anatomy except: (Q847919)

A. Septal cartilage

B. Upper lateral cartilage

C. Lower lateral cartilage

D. Sesamoid cartilage

See Answer in Part B → Q10

@Neet_pg_bot

Q11: Which structure lies posterior to the posterior wall of the maxillary sinus? (Q847929)

A. Nasolacrimal duct

B. Optic nerve

C. Pterygopalatine fossa

D. Inferior rectus muscle

See Answer in Part B → Q11

@Neet_pg_bot

Q12: Which of the following is not a part of the middle meatus of the nose? (Q847928)

A. Uncinate process

B. Bulla ethmoidalis

C. Ostiomeatal complex

D. Nasolacrimal duct opening

See Answer in Part B → Q12

@Neet_pg_bot

Q13: Match the following: 1. Middle Meatus a) Sphenoid sinus 2. Superior Meatus b) Frontal sinus 3. Sphenoethmoidal Recess c) Posterior Ethmoid sinus (Q847927)

A. 1-a, 2-b, 3-c

B. 1-c, 2-a, 3-b

C. 1-b, 2-a, 3-c

D. 1-b, 2-c, 3-a

See Answer in Part B → Q13

@Neet_pg_bot

Q14: Which of the following statements about the lateral nasal wall is correct? (Q847926)

A. The lateral nasal wall has turbinates: inferior, middle andsuperior

B. Spaces below the turbinates are called sinuses.

C. The turbinates include inferior, middle, superior, and lateral.

D. Spaces below the turbinates are meatuses: superior, middle, and supreme.

See Answer in Part B → Q14

@Neet_pg_bot

Q15: Which of the following statements regarding the medial wall of the nose is FALSE? (Q847925)

A. The anterior ethmoidal artery is a branch of the internal carotid system.

B. The sphenopalatine artery is a branch of the maxillary artery from the external carotid system.

C. Kiesselbach’s plexus is formed by the anastomosis of the anterior & posterior ethmoidal, sphenopalatine, and infraorbital arteries.

D. The columellar septum is formed by the medial crura of the alar cartilages.

See Answer in Part B → Q15

@Neet_pg_bot

Q16: Which of the following statements about the anatomy of the nose are true? The anterior sloping part of the roof of the nose is formed by the nasal bones. The floor of the nose is formed by the cribriform plate of the ethmoid bone. The posterior sloping part of the roof of the nose is formed by the body of the sphenoid bone. The anterior three-fourths of the floor of the nose is formed by the palatine process of the maxilla. The posterior one-fourth of the floor of the nose is formed by the horizontal part of the sphenoid bone. (Q847924)

A. Only 2

B. 2, 5

C. 1, 3, 4

D. 1, 4, 5

See Answer in Part B → Q16

@Neet_pg_bot

Q17: What is the primary function of the nasal valve in the nasal respiratory system? (Q847923)

A. To provide resonance to the voice

B. Regulating airflow resistance and airflow dynamics

C. Modulating the temperature and humidity of inspired air

D. Sensing and processing olfactory stimuli

See Answer in Part B → Q17

@Neet_pg_bot

Q18: Match the following in relation to the internal anatomy of the nose. a. Anterior 1. Nasal septum b. Lateral 2. Choanae c. Medial 3. Vestibule d. Posterior 4. Lateral wall of nose (Q847922)

A. a-3, b-4, c-1, d-2

B. a-2, b-3, c-1, d-4

C. a-1, b-2, c-3, d-4

D. a-4, b-3, c-4, d-2

See Answer in Part B → Q18

@Neet_pg_bot

• [02_Nose and Paranasal Sinuses] 014 Diseases Of The External Nose And Septum

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[02_Nose and Paranasal Sinuses] 014 Diseases Of The External Nose And Septum — Quick Jump

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Q13 (p. 203)	*Q14 (p. 203)*	*Q15 (p. 204)*	*Q16 (p. 205)*	*Q17 (p. 206)*	*Q18 (p. 206)*

Q1: A 45-year-old man with a history of trauma 1 week back, presents with fever, frontal headache, nasal bridge redness, and septal tenderness. O/E there smooth bilateral swelling of the nasal septum. What should be the initial approach to managing this patient's condition? (Q848010)

A. Immediate drainage

B. Observation and follow-up in a week

C. Nasal decongestants

D. Corticosteroid therapy

See Answer in Part B → Q1

@Neet_pg_bot

Q2: Which of the following is recognized as the most common cause of nasal septal perforation? (Q892061)

A. Septal abscess

B. Trauma

C. Syphilis

D. Tuberculosis

See Answer in Part B → Q2

@Neet_pg_bot

Q3: A 7-year-old child presents with total nasal obstruction and a tender, bilateral, fluctuant septal swelling 24 hours after a nasal injury. Which of the following statements regarding this condition are correct? Trauma is the most frequent cause. Blood accumulates under the perichondrium. It can result in a hump-nose deformity. Secondary infection can lead to a septal abscess. (Q892060)

A. 1, 2, and 3

B. 1, 2, and 4

C. 2, 3, and 4

D. 1, 2, 3, and 4

See Answer in Part B → Q3

@Neet_pg_bot

Q4: Which of the following is NOT a characteristic feature of septoplasty? (Q892059)

A. Suitable for pediatric patients

B. Limited selective dissection

C. Bilateral mucoperichondrial flap elevation

D. Correction by scoring and cross-hatching

See Answer in Part B → Q4

@Neet_pg_bot

Q5: A patient with a markedly deviated nasal septum is planned for submucous resection (SMR). Which of the following incisions is classically used to perform this procedure? (Q892056)

A. Killian’s incision

B. Transfixion incision

C. Freer’s incision

D. Weber-Ferguson incision

See Answer in Part B → Q5

@Neet_pg_bot

Q6: Which of the following are recognized clinical indications for performing a septoplasty? Nasal obstruction on one or both sides Recurrent epistaxis usually from a septal spur Trans-sphenoidal approach to the pituitary fossa Chronic allergic watery discharge (Q892053)

A. 1, 2, and 3

B. 1, 2, and 4

C. 2, 3, and 4

D. 1, 2, 3, and 4

See Answer in Part B → Q6

@Neet_pg_bot

Q7: This clinical maneuver seen in the image is known as: (Q892052)

A. Cottle's test

B. Rinne's test

C. Cold spatula test

D. Posterior rhinoscopy

See Answer in Part B → Q7

@Neet_pg_bot

Q8: Which of the following conditions is not recognized as a primary etiological factor for deviated nasal septum? (Q892050)

A. Birth trauma

B. Developmental error

C. Racial factors

D. Allergic rhinitis

See Answer in Part B → Q8

@Neet_pg_bot

Q9: A 35-year-old man presents with nasal obstruction and frequent crusting. Examination reveals a large perforation in the nasal septum. What is the most appropriate initial management? (Q848011)

A. Surgical closure with plastic flaps

B. Cauterization of the perforation

C. Use of steroid nasal sprays

D. Application of saline nasal washes and insertion of septal button

See Answer in Part B → Q9

@Neet_pg_bot

Q10: A 42 y/o woman with a history of nasal surgery presents with a depressed nasal bridge and difficulty breathing through her nose. Examination reveals a significant depression involving both the bony and cartilaginous parts of her nose. What would be the treatment approach for this patient? (Q847983)

A. A cartilage graft from the nasal septum

B. Cancellous bone graft from the iliac crest

C. Silicone implant

D. Observation without intervention

See Answer in Part B → Q10

@Neet_pg_bot

Q11: A 30 y/o man presents with bilateral nasal obstruction, frontal headache, and a feeling of pressure over the nasal bridge following a recent nasal injury. On examination, a smooth, rounded, soft, and fluctuant swelling is noted in both nasal cavities. Which of the following is the most appropriate management step for this condition? (Q848009)

A. Nasal packing.

B. Use cryotherapy to manage the nasal swelling

C. Use of systemic antibiotics without drainage.

D. Incision and drainage, followed by nasal packing.

See Answer in Part B → Q11

@Neet_pg_bot

Q12: A 15-year-old with a deviated nasal septum, significant nasal obstruction, and frequent sinus infections has a deviation mainly anterior to Cottle's line, with no growth concerns. Which statement is true regarding surgical management? (Q848008)

A. Submucous resection (SMR) can be done in a 10-year-old child.

B. Septoplasty is preferred for limited dissection, with no impact on nasal growth in children.

C. SMR is preferred due to limited dissection and lower complication rates than septoplasty.

D. SMR is preferred for safer reoperation and anterior deviations.

See Answer in Part B → Q12

@Neet_pg_bot

Q13: Which of the following statements is true regarding the clinical features and complications of a deviated nasal septum (DNS)? (Q848007)

A. Nasal obstruction is less severe when the upper part of the septum is deviated

B. Septal spurs rarely cause headaches

C. DNS can cause hyposmia

D. Cottle's test is used to diagnose choanal atresia in patients with DNS

See Answer in Part B → Q13

@Neet_pg_bot

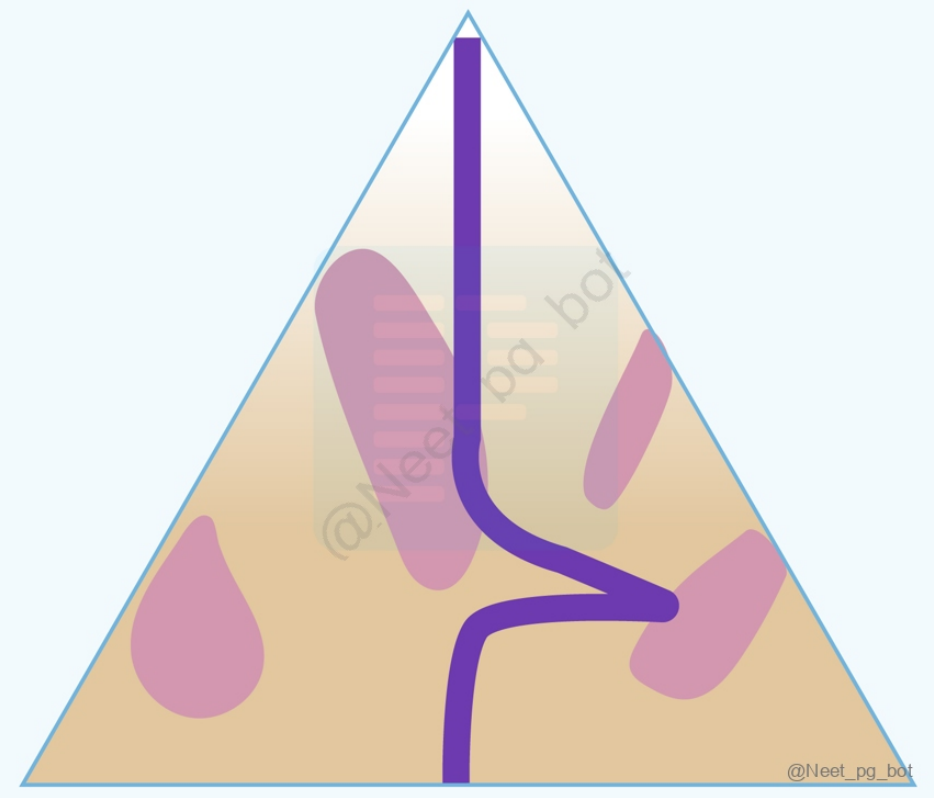
Q14: A 30-year-old male presents with chronic nasal obstruction, headaches, and frequent nosebleeds. On examination, there is a shelf-like projection felt along the nasal septum. The image below describes the obstruction. What is the most likely cause of this patient's symptoms? (Q848006)

A. Anterior dislocation of the septum

B. C-shaped deformity

C. Septal spur

D. S-shaped deformity



See Answer in Part B → Q14

@Neet_pg_bot

Q15: A 55-year-old woman presents with a slowly growing ulcerated lesion on the tip of her nose, which has rolled edges and has been present for several months. There is no regional lymphadenopathy or pain. Which of the following is the most likely diagnosis? (Q848005)

A. Squamous cell carcinoma

B. Basal cell carcinoma

C. Malignant melanoma

D. Sebaceous adenoma

See Answer in Part B → Q15

@Neet_pg_bot

Q16: A 55-year-old man has a pink, lobulated mass on his nose with visible blood vessels, causing cosmetic and breathing concerns. Which treatment is best for minimal scarring? (Q847986)

A. Cryotherapy

B. Surgical paring

C. Topical antibiotics

D. Carbon dioxide laser ablation

See Answer in Part B → Q16

@Neet_pg_bot

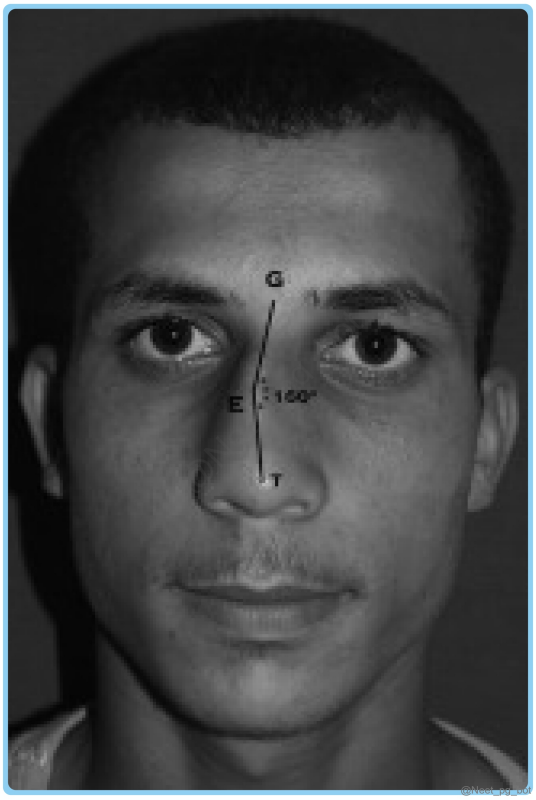
Q17: A 30 y/o man presents with a nose that appears curved from the front, giving it an S-shaped appearance. He reports a history of facial trauma during childhood. What is the most likely diagnosis? (Q847985)

A. Crooked nose

B. Deviated nose

C. Septal hematoma

D. Saddle nose deformity



See Answer in Part B → Q17

@Neet_pg_bot

Q18: A 28 year-old woman presents with concerns about a prominent nasal hump. What is the primary treatment option for correction? (Q847984)

A. Reduction rhinoplasty

B. Augmentation rhinoplasty

C. Septoplasty

D. Nasal steroid therapy

See Answer in Part B → Q18

@Neet_pg_bot

• [02_Nose and Paranasal Sinuses] 015 Rhinitis And Csf Rhinorrhea

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[02_Nose and Paranasal Sinuses] 015 Rhinitis And Csf Rhinorrhea — Quick Jump

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Q19 (p. 215)	*Q20 (p. 215)*	*Q21 (p. 216)*	*Q22 (p. 216)*		

Q1: Which of the following signs is commonly observed in individuals who frequently rub their nose to alleviate itching caused by allergic reactions? (Q848068)

A. Granular pharyngitis

B. Erythematous conjunctiva

C. Allergic shiners

D. Allergic salute

See Answer in Part B → Q1

@Neet_pg_bot

Q2: A 42 y/o male presents with a history of persistent nasal discharge following a recent head trauma. He reports clear, watery fluid leaking from his nose which tests positive for beta-2 transferrin. After initial conservative management, the patient's symptoms persist. HRCT shows injury to the cribriform plate. Which of the following is the most appropriate next step in the surgical management of this patient? (Q848085)

A. External ethmoidectomy

B. Transnasal endoscopic repair

C. Osteoplastic flap and sinus obliteration

D. Lumbar drain

See Answer in Part B → Q2

@Neet_pg_bot

Q3: A 45-year-old male presents with a clear, watery nasal discharge that worsens when bending forward. He has a history of recent head trauma. Examination shows no signs of infection or sinusitis. Which of the following is the most appropriate initial imaging modality for diagnosing the cause of his symptoms? (Q848084)

A. MRI

B. High-Resolution CT (HRCT)

C. CT Cisternography

D. X-ray of the skull

See Answer in Part B → Q3

@Neet_pg_bot

Q4: A 50-year-old woman presents with clear, watery nasal discharge that increases when she bends forward. She denies any history of allergies and reports having undergone nasal surgery a few weeks ago. Which biochemical test is the most appropriate to confirm the diagnosis in this patient? (Q848083)

A. Glucose oxidase test

B. Beta-2 transferrin test

C. Sniff test

D. Lactate dehydrogenase (LDH) test

See Answer in Part B → Q4

@Neet_pg_bot

Q5: A patient presents with a clear, watery nasal discharge. The patient has a history of head injury. Which of the following characteristics would best differentiate this condition from simple rhinorrhea? (Q848082)

A. Presence of a continuous discharge that can be sniffed back.

B. Discharge with a salty taste and lower sugar content.

C. Presence of Beta-2 transferrin and high sugar content in the fluid.

D. Discharge that causes the handkerchief to stiffen.

See Answer in Part B → Q5

@Neet_pg_bot

Q6: A 32 y/o patient presents with clear nasal discharge that has been persistent for the past week, worsening after a recent head injury from a fall. The discharge is occasionally mixed with blood and is more prominent when bending forward. Which of the following is the most likely common site of CSF leakage in this patient? (Q848081)

A. Roof of the ethmoid air cells

B. Cribriform plate

C. Frontal sinus

D. Sphenoid sinus

See Answer in Part B → Q6

@Neet_pg_bot

Q7: A 45 y/o goldsmith reports persistent nasal crusting in bilateral nostrils in the anterior part . He has occasional nosebleeds and his nasal septum appears eroded. Which of the following is the most likely diagnosis for this patient’s symptoms? (Q848080)

A. Rhinitis Sicca

B. Rhinitis Caseosa

C. Chronic sinusitis

D. Allergic rhinitis

See Answer in Part B → Q7

@Neet_pg_bot

Q8: A 45-year-old patient presents with persistent nasal crusting and foul odour, unresponsive to medical treatment. Which procedure narrows the nasal cavity to reduce crusting? (Q848079)

A. Young's operation

B. Use of 25% glucose in glycerine nasal application

C. Nasal irrigation with an alkaline solution

D. Lautenschlaeger technique

See Answer in Part B → Q8

@Neet_pg_bot

Q9: A 16 y/o girl presents with a foul-smelling nasal discharge, nasal obstruction, and anosmia. She has noticeable atrophy of the nasal turbinates and pale nasal mucosa. O/E the nasal chambers are enlarged and roomy. Which of the following is the most likely diagnosis? (Q848078)

A. Secondary atrophic rhinitis.

B. Vasomotor rhinitis.

C. Primary atrophic rhinitis.

D. Rhinitis sicca.

See Answer in Part B → Q9

@Neet_pg_bot

Q10: A 35 y/o woman who has been taking OCP's for 5 years presents with nasal congestion and obstruction for the last 2 months. What is the most likely diagnosis for her nasal symptoms? (Q848077)

A. Rhinitis medicamentosa

B. Drug-induced rhinitis from antihypertensive medication

C. Drug-induced rhinitis from contraceptive pills

D. Non-allergic rhinitis due to environmental triggers

See Answer in Part B → Q10

@Neet_pg_bot

Q11: A 45 y/o woman with a long-standing history of non-allergic rhinitis presents with persistent nasal obstruction and rhinorrhoea that has not responded to antihistamines and nasal steroid sprays. Which of the following would be the next best step in managing her condition? (Q848074)

A. Increase the dose of topical steroid sprays

B. Start systemic steroids for a short period and add ipratropium bromide nasal spray

C. Vidian neurectomy

D. Psychological support and tranquillisers

See Answer in Part B → Q11

@Neet_pg_bot

Q12: A 25 y/o male with a history of perennial allergic rhinitis presents with persistent nasal obstruction despite regular use of oral antihistamines.What would be the next best step in managing this patient? (Q848072)

A. Add intranasal corticosteroids

B. Start a short course of oral corticosteroids

C. Begin immunotherapy

D. Use intranasal ipratropium bromide

See Answer in Part B → Q12

@Neet_pg_bot

Q13: Which test is frequently utilised to identify the precise allergens responsible for allergic rhinitis symptoms? (Q848070)

A. Nasal smear

B. Skin Prick Test

C. Complete Blood Count

D. Serum IgE

See Answer in Part B → Q13

@Neet_pg_bot

Q14: A 35-year-old woman complains of ongoing nasal congestion and sneezing throughout the year. She lives with two cats and works in an environment with mold exposure. What is the most likely diagnosis? (Q848063)

A. Seasonal allergic rhinitis

B. Non-allergic rhinitis

C. Perennial allergic rhinitis

D. Allergic asthma

See Answer in Part B → Q14

@Neet_pg_bot

Q15: A 25-year-old medical student presents with sneezing, nasal congestion, and a scratchy throat. Which of the following viral agents is statistically the most frequent cause of this clinical syndrome? (Q885154)

A. Adenovirus

B. Coronavirus

C. Rhinovirus

D. Respiratory Syncytial Virus

See Answer in Part B → Q15

@Neet_pg_bot

Q16: During anterior rhinoscopy of a patient complaining of persistent nasal obstruction, the clinician observes a characteristic mulberry appearance of the posterior end of the inferior turbinate. What is the most likely diagnosis? (Q885159)

A. Atrophic rhinitis

B. Hypertrophic rhinitis

C. Vasomotor rhinitis

D. Rhinitis sicca

See Answer in Part B → Q16

@Neet_pg_bot

Q17: Which of the following clinical entities is also called Ozaena? (Q885160)

A. Atrophic rhinitis

B. Allergic rhinitis

C. Vasomotor rhinitis

D. Hypertrophic rhinitis

See Answer in Part B → Q17

@Neet_pg_bot

Q18: Which of the following is most commonly associated with atrophic rhinitis? (Q885163)

A. Klebsiella rhinoscleromatis

B. Klebsiella ozaenae

C. Staphylococcus aureus

D. Streptococcus pyogenes

See Answer in Part B → Q18

@Neet_pg_bot

Q19: Which of the following statements regarding the clinical presentation of primary atrophic rhinitis is false? It is significantly more common in males. The onset typically occurs around the age of puberty. It is characteristically a unilateral condition. Patients frequently exhibit merciful anosmia. (Q885165)

A. 1 and 2

B. 2 and 4

C. 1 and 3

D. 2 and 3

See Answer in Part B → Q19

@Neet_pg_bot

Q20: Which of the following conditions is the most common cause of unilateral atrophic rhinitis? (Q885167)

A. Severe deviated nasal septum

B. Rhinoscleroma

C. Radiotherapy to the nose

D. Syphilis

See Answer in Part B → Q20

@Neet_pg_bot

Q21: In a patient with primary atrophic rhinitis, what is the primary physical cause for the sensation of nasal obstruction? (Q885168)

A. Hypertrophy of turbinates

B. Extensive crust formation

C. Excessive synechiae

D. Nasal polyposis

See Answer in Part B → Q21

@Neet_pg_bot

Q22: Which of the following are components used to prepare the standard alkaline nasal douche for managing crusting in atrophic rhinitis? Sodium chloride Potassium chloride Sodium bicarbonate Sodium biborate (Q885170)

A. 1, 2, and 3

B. 1, 3, and 4

C. 2, 3, and 4

D. 1, 2, 3, and 4

See Answer in Part B → Q22

@Neet_pg_bot

• [02_Nose and Paranasal Sinuses] 016 Granulomatous Lesions Congenital Anomalies And Nasal Polyps

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[02_Nose and Paranasal Sinuses] 016 Granulomatous Lesions Congenital Anomalies And Nasal Polyps — Quick Jump

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Q19 (p. 226)	*Q20 (p. 227)*	*Q21 (p. 227)*	*Q22 (p. 228)*	*Q23 (p. 229)*	*Q24 (p. 230)*
Q25 (p. 231)	*Q26 (p. 231)*	*Q27 (p. 232)*			

Q1: A 7 year old child presents with a unilateral nasal obstruction and a smooth, greyish mass noted on nasal examination. The mass extends posteriorly and is visible in the nasopharynx. Which of the following is the most likely diagnosis? (Q848109)

A. Nasal Dermoid Cyst

B. Antrochoanal Polyp

C. Juvenile Nasopharyngeal Angiofibroma

D. Sinonasal Adenocarcinoma

See Answer in Part B → Q1

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Q2: A 62-year-old man presents to the ENT clinic with a complaint of persistent nasal obstruction and intermittent epistaxis (nosebleeds) for the past three months. He also reports a sensation of pressure in his right nasal cavity and does not have any known allergies. What is the most likely diagnosis for this patient? (Q848122)

A. Nasal polyps

B. Inverted papilloma

C. Angiofibroma

D. Sinonasal adenocarcinoma

See Answer in Part B → Q2

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Q3: A 57-year-old man presents to the dermatology clinic with a slowly enlarging, thickened area on his nose that has developed over the past several years. He has a history of rosacea and has noticed increased facial flushing over the past few years. There are no associated symptoms of pain or itching. What is the most likely diagnosis for this patient? (Q848121)

A. Acne vulgaris

B. Rhinophyma

C. Squamous cell carcinoma

D. Basal cell carcinoma

See Answer in Part B → Q3

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Q4: Granulomatosis with polyangiitis (GPA) is suspected in a 45-year-old male who presents with chronic sinusitis, hemoptysis, and hematuria. A chest X-ray shows multiple cavitating nodules. Which of the following antibodies is most commonly associated with GPA? (Q848120)

A. Anti-double-stranded DNA (anti-dsDNA)

B. Anti-Smith (Anti-Sm)

C. p-ANCA (perinuclear ANCA)

D. c-ANCA (cytoplasmic ANCA)

See Answer in Part B → Q4

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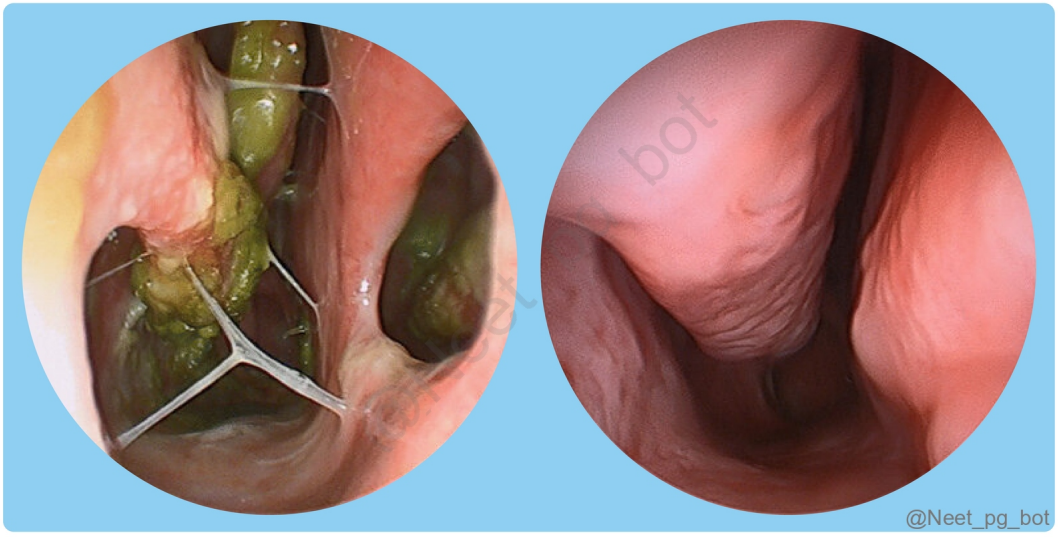
Q5: A 35-year-old male has chronic nasal obstruction, anosmia, and thick nasal crusting with foul-smelling discharge for the past several years. On examination, the following is found. Culture reveals Klebsiella ozaenae. All of the following options are potential treatment modalities to manage the condition except: (Q848119)

A. Oestradiol nasal spray

B. Modified Young's operation

C. Alkaline nasal douching

D. Long-term fluoroquinolones



See Answer in Part B → Q5

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Q6: A 55-year-old woman has a history of progressive nasal congestion, loss of smell, and chronic nasal crusting. Her husband noted a foul smell from her. She has noticed worsening nasal obstruction despite the absence of nasal secretions. On examination, there is evidence of nasal cavity widening with significant crusting and atrophy of the nasal mucosa. Nasal endoscopy shows extensive widespread thinning of the mucosa and bones on turbinates. Which of the following is NOT typically associated with the etiology of her condition? (Q848118)

A. Klebsiella ozaenae

B. Industrial irritants

C. Endocrine disturbances

D. Autoimmune process

See Answer in Part B → Q6

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Q7: Which of the following is NOT usually a cause of unilateral nasal polyps? (Q848117)

A. Antrochoanal polyp

B. Allergic rhinitis

C. Chronic bacterial rhinosinusitis

D. All of the above

See Answer in Part B → Q7

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Q8: Which of the following conditions is least likely to be misdiagnosed as nasal polyps on clinical examination? (Q848116)

A. Concha bullosa

B. Meningoencephalocele

C. Glioma

D. Rhinoscleroma

See Answer in Part B → Q8

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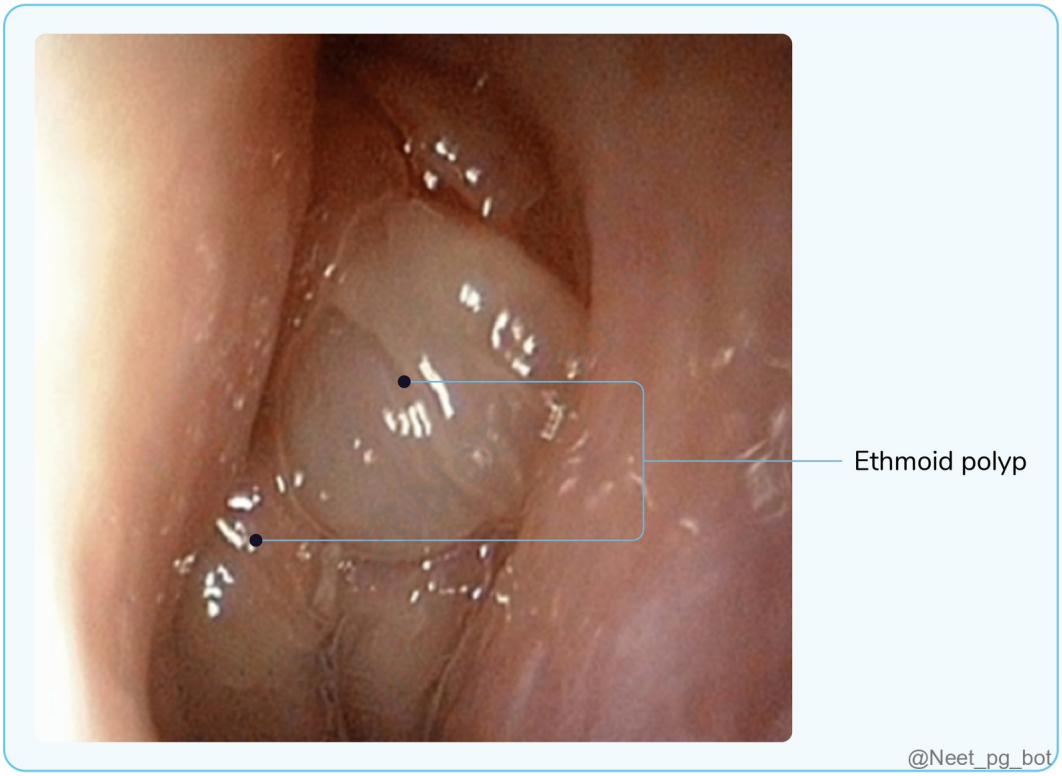
Q9: A 35-year-old male patient presents with persistent nasal congestion, difficulty breathing, and headaches. Anterior rhinoscopy reveals multiple sessile masses resembling a bunch of grapes, which are insensitive to touch and do not bleed. What is the most appropriate initial step in managing his condition? (Q848115)

A. Immediate functional endoscopic sinus surgery

B. Initiation of intranasal steroids

C. Conducting a saccharin test

D. Performing a sweat chloride test



See Answer in Part B → Q9

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Q10: A 35-year-old patient presents with nasal congestion, difficulty breathing, and frequent headaches. Anterior rhinoscopy reveals multiple sessile masses resembling a bunch of grapes, which are insensitive to touch and do not bleed. What is the most likely diagnosis? (Q848114)

A. Allergic Rhinitis

B. Ethmoidal Polyp

C. Nasal Carcinoma

D. Acute Sinusitis

See Answer in Part B → Q10

@Neet_pg_bot

Q11: A 32-year-old woman with a history of bronchial asthma and aspirin intolerance presents with worsening nasal congestion, sinus infections, and diminished sense of smell. Nasal polyps are observed on examination. What is the most likely diagnosis? (Q848113)

A. Cystic Fibrosis

B. Samter's Triad

C. Churg-Strauss Syndrome

D. Kartagener Syndrome

See Answer in Part B → Q11

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Q12: Which of the following statements is false regarding ethmoidal polyps? (Q848112)

A. Ethmoidal polyps often arise from the middle meatus.

B. Allergic nasal polyps commonly originate from the septum.

C. Ethmoidal polyps can grow anteriorly and may present at the nares.

D. A common site for ethmoidal polyp is the uncinate process.

See Answer in Part B → Q12

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Q13: A 10-year-old child presents with a history of nasal obstruction predominantly on the right side, mouth breathing, and occasional snoring for the past year. He also has intermittent right-sided nasal discharge and postnasal drip. There is no history of allergies or asthma. A smooth, grayish mass is seen in the right nasal cavity extending into the nasopharynx on rhinoscopic examination. Which among the following is the most appropriate next step in managing his condition? (Q848111)

A. Perform a non-contrast CT scan and plan for FESS

B. Intranasal corticosteroids and oral antihistamines.

C. Plain X-ray and perform a biopsy.

D. MRI and start empirical antibiotics.

See Answer in Part B → Q13

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Q14: A 9 y/o child presents with a unilateral nasal obstruction, hyponasality, and a mucoid nasal discharge. Anterior rhinoscopy shows a smooth, greyish mass, but the polyp is not fully visible. What is the most likely finding on posterior rhinoscopy? (Q848110)

A. A pink and congested mass in the anterior nasal cavity

B. A globular mass behind the soft palate in the nasopharynx

C. A firm, non-movable mass in the maxillary antrum

D. A midline pit with protruding hair in the nasal dorsum

See Answer in Part B → Q14

@Neet_pg_bot

Q15: Match the stages of rhinoscleroma with its characteristics features: Stages of rhinoscleroma Characteristic features 1. Atrophic stage a. Stenosis of nares and nasopharynx. 2. Granulomatous stage b. Painless and non-ulcerative nodules. 3. Cicatricial stage c. Foul smelling purulent nasal discharge and crusting. d. Black membrane in the nasal mucosa. (Q848096)

A. 1-c, 2-b, 3-a

B. 1-b, 2-d, 3-b

C. 1-a, 2-c, 3-b

D. 1-d, 2-a, 3-c

See Answer in Part B → Q15

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Q16: A 5 y/o child presents with a midline pit on the nasal dorsum, with hair protruding from the opening. Imaging reveals a sinus tract leading to a cyst under the nasal bone. What is the most appropriate next step in management? (Q848108)

A. Observation and monitoring

B. Topical antibiotic treatment

C. Surgical excision of the cyst and sinus tract

D. Corticosteroid injection to reduce the cyst

See Answer in Part B → Q16

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Q17: A 3 year old child presents with a firm swelling on the bridge of the nose. Imaging reveals that the mass is encapsulated and has no connection to the brain. What is the most likely diagnosis? (Q848107)

A. Nasal polyp

B. Encephalocoele

C. Glioma

D. Dermoid cyst

See Answer in Part B → Q17

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Q18: A 2 month old infant presents with a pulsatile swelling at the root of the nose that changes size when the infant coughs. Which of the following is the most likely diagnosis? (Q848106)

A. Dermoid cyst

B. Nasal polyp

C. Meningoencephalocele

D. Hemangioma

See Answer in Part B → Q18

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Q19: A 6-month-old infant presents with a soft, compressible mass at the root of the nose. The mass increases in size when the baby cries and shows a positive Furstenberg test. What is the most appropriate next step in the management of this condition? (Q848105)

A. Fine-needle aspiration

B. Biopsy of the lesion

C. CT scan

D. Antibiotics and follow up

See Answer in Part B → Q19

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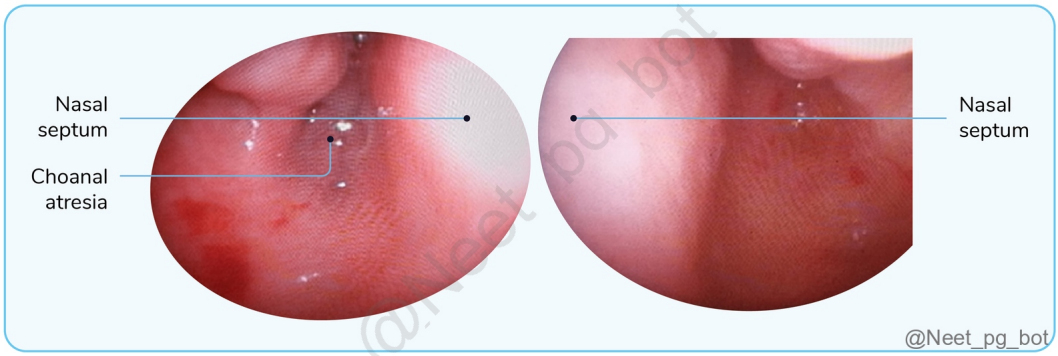
Q20: A 2-day-old full-term male infant is brought to the emergency room with difficulty breathing, especially when feeding, and cyanosis. The cyanosis improves when the infant cries but worsens when feeding. The baby is in respiratory distress. What is the best initial emergency management for this patient? (Q848104)

A. Inserting a wide bore feeding nipple into the mouth of the infant

B. Bag-mask ventilation

C. Immediate tracheostomy

D. Endotracheal intubation



See Answer in Part B → Q20

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Q21: A newborn is brought to the clinic with respiratory distress, which worsens during feeding and improves with crying. The baby shows difficulty in passing a nasogastric tube through one nasal passage, and a CT scan reveals a mixed bony and membranous obstruction in the posterior nasal cavity. This condition is due to the persistence of which membrane during development? (Q848103)

A. Buccopharyngeal membrane

B. Orobuccal membrane

C. Nasobuccal membrane

D. Oropharyngeal membrane

See Answer in Part B → Q21

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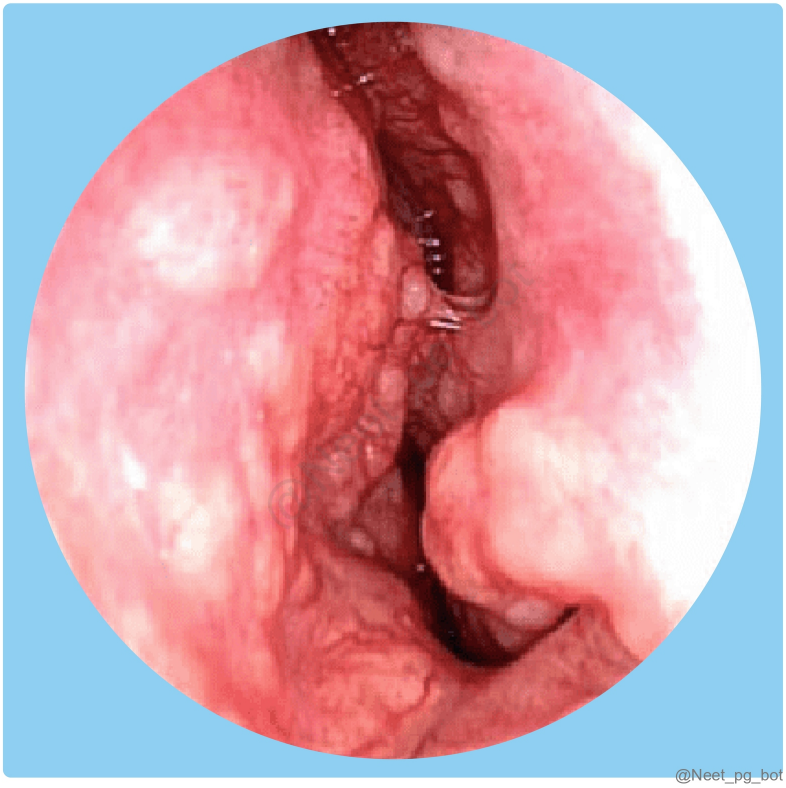
Q22: A 32-year-old woman presents to the clinic with symptoms of nasal obstruction, crusting, and facial pain that have been worsening over the past few months. She reports persistent nasal congestion and frequent nosebleeds. On physical examination, there is purplish discoloration of the nasal skin and a nasal endoscopy reveals erythematous mucosa covered with pale granulomas, as shown in the image. A biopsy of the nasal lesion reveals non-caseating granulomas. Which of the following is the mainstay of treatment? (Q848102)

A. Methotrexate

B. Inhaled corticosteroids

C. Systemic steroids

D. Antihistamines



See Answer in Part B → Q22

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Q23: A 45-year-old man presents with a chronic, non-healing lesion on his nasal tip, accompanied by intermittent nasal obstruction. Over the past several months, the lesion has progressively worsened. On examination, the following lesion is seen as shown in the image. A biopsy of the lesion reveals caseating granulomas. What is the treatment of choice for this condition? (Q848101)

A. Methotrexate

B. Systemic steroids

C. Surgical excision

D. Antitubercular therapy (ATT)

See Answer in Part B → Q23

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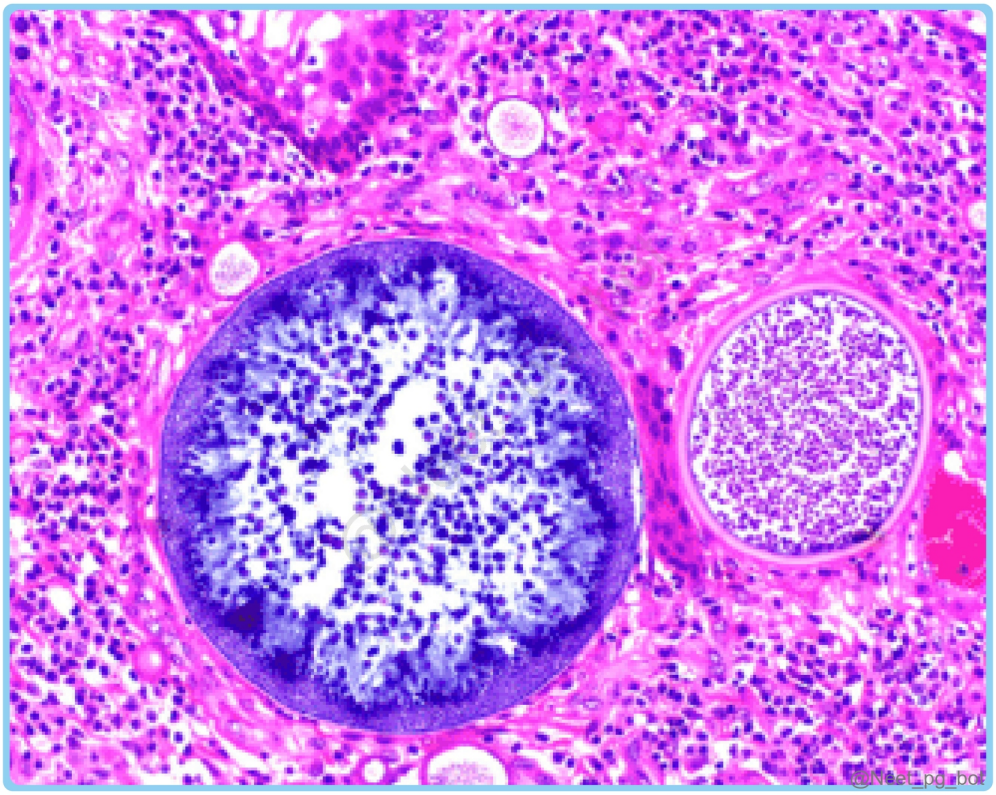
Q24: A 35-year-old man presents with nasal obstruction, recurrent nasal bleeding, and a mass protruding from his nasal cavity. On examination, a polypoidal, pink-colored mass with white dots on the surface is noted. It bleeds easily on touch. A biopsy is shown below. What is the most appropriate treatment for this patient? (Q848100)

A. Amphotericin B

B. Cyclophosphamide

C. Dapsone

D. Complete excision of the mass



See Answer in Part B → Q24

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Q25: A 42-year-old man presents with a long-standing history of nasal obstruction, recurrent nasal bleeding, and mass protruding from his nasal cavity. He reports frequent swimming in freshwater ponds. Which of the following findings on clinical examination is most characteristic of rhinosporidiosis? (Q848099)

A. Polypoidal, pink-colored mass with white dots on the surface

B. Soft, dark red, pedunculated or sessile mass

C. Pale polypoidal mass

D. Firm, rounded, yellowish mass with blood vessels on the surface

See Answer in Part B → Q25

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Q26: A 45-year-old woman has a history of progressive nasal obstruction, recurrent nosebleeds, and crusting. On examination, she has a nasal deformity with a firm mass in the nasal cavity. A biopsy of the mass shows Mikulicz cells and is positive for Klebsiella rhinoscleromatis . What is the most appropriate treatment strategy for this patient? (Q848098)

A. Prolonged course of tetracycline and streptomycin

B. Amphotericin B

C. Only Prednisolone without antibiotics

D. Surgical debridement

See Answer in Part B → Q26

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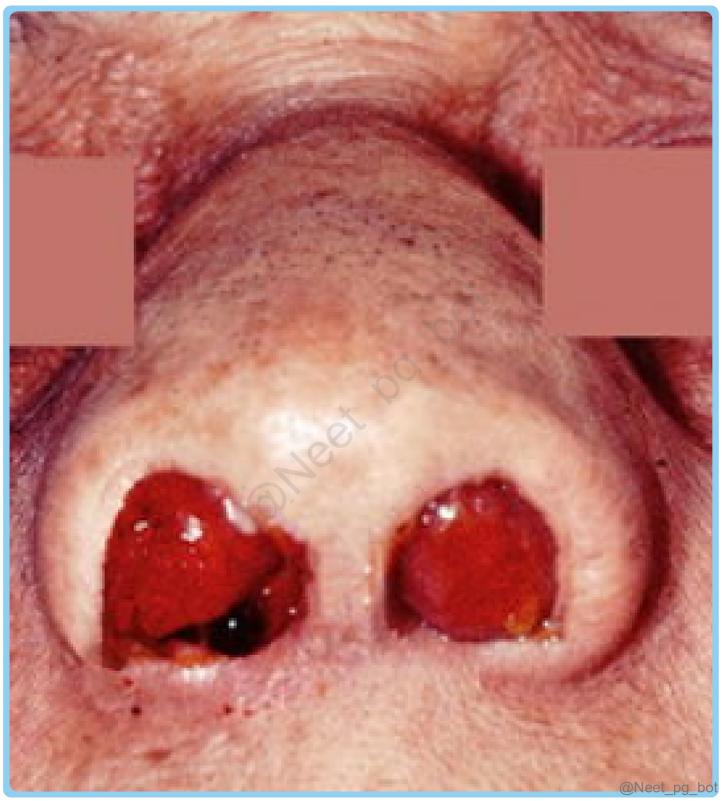
Q27: A 35-year-old woman from a rural area has nasal obstruction, crusting, and a history of progressive nasal swelling over the past several months. On examination, nodular masses in the nasal cavity are noted. A biopsy is done and shown below. Which of the following histopathological findings is characteristic of the condition in this patient? (Q848097)

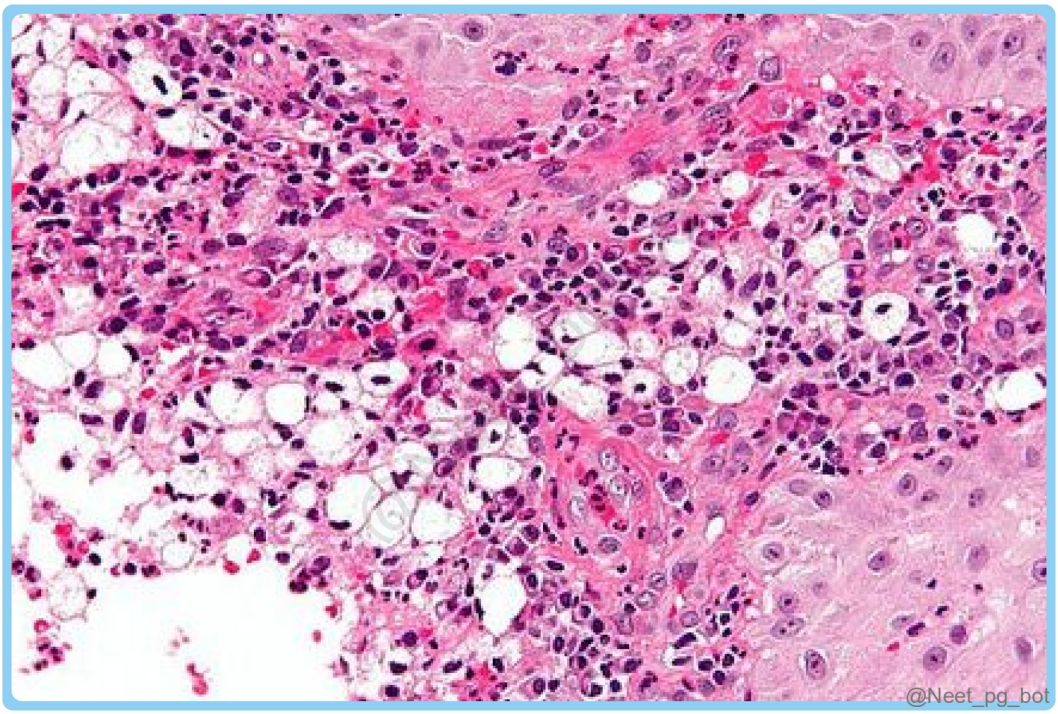
A. Psammoma Bodies

B. Mikulicz cells

C. Aschoff Bodies

D. Verocay Bodies





See Answer in Part B → Q27

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• [02_Nose and Paranasal Sinuses] 017 Epistaxis And Facial Trauma - I

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[02_Nose and Paranasal Sinuses] 017 Epistaxis And Facial Trauma - I — Quick Jump

Q1 (p. 234)	*Q2 (p. 234)*	*Q3 (p. 235)*	*Q4 (p. 235)*	*Q5 (p. 236)*	*Q6 (p. 236)*
Q7 (p. 237)	*Q8 (p. 237)*	*Q9 (p. 239)*	*Q10 (p. 239)*	*Q11 (p. 240)*	*Q12 (p. 240)*
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Q19 (p. 243)	*Q20 (p. 244)*	*Q21 (p. 245)*			

Q1: A 35-year-old patient presents with frequent episodes of anterior epistaxis, which are mild and self-limiting. Examination reveals the bleeding site to be in the anteroinferior part of the nasal septum. Which vascular network is most likely involved in this case? (Q848156)

A. Kiesselbach’s plexus

B. Woodruff’s plexus

C. Pterygoid plexus

D. Cavernous sinus plexus

See Answer in Part B → Q1

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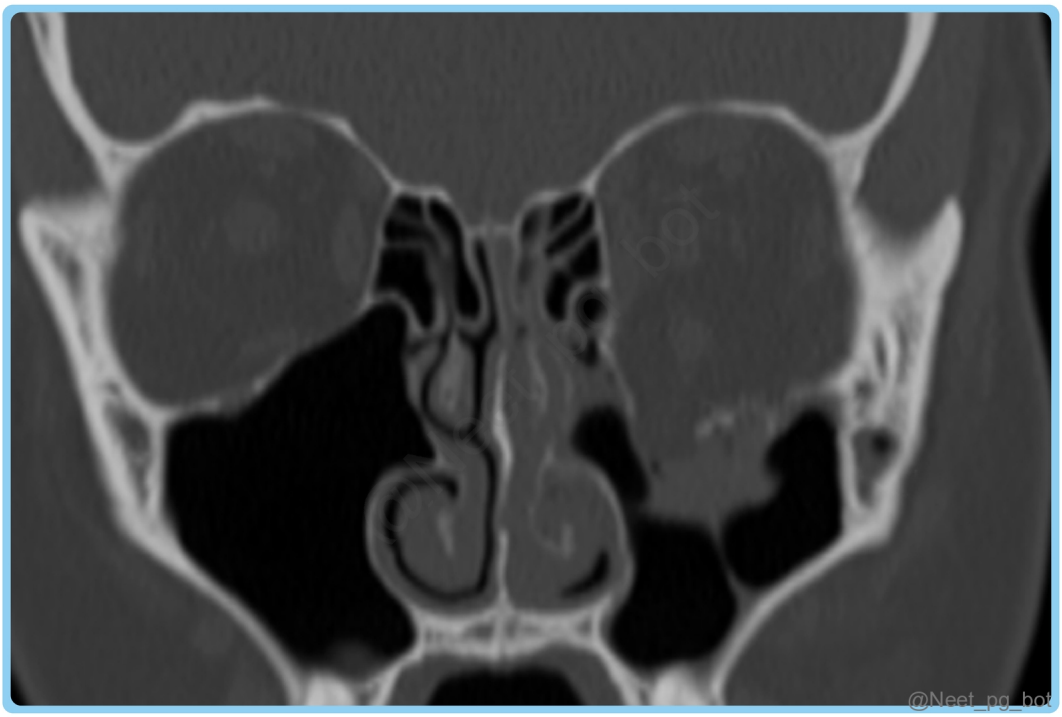
Q2: A 22-year-old woman reports experiencing pain, swelling, blurred vision, and double vision following a facial injury from a basketball. Based on the clinical presentation and radiograph findings, which extraocular muscle is most likely restricted, leading to impaired eye movement? (Q848169)

A. Inferior rectus

B. Lateral rectus

C. Medial rectus

D. Superior oblique



See Answer in Part B → Q2

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Q3: A 26-year-old male presents with jaw pain, swelling, difficulty opening his mouth, and trouble chewing after being struck in the face during a fight. What is the most common site for mandibular fractures? (Q848168)

A. Condylar region

B. Angle of mandible

C. Symphysis menti

D. Body of the mandible

See Answer in Part B → Q3

@Neet_pg_bot

Q4: A 45-year-old male presents with severe facial pain, swelling, and trouble closing his mouth after a high-impact fall. Examination shows a hanging maxilla. What type of fracture does this indicate? (Q848167)

A. Le fort type I fracture

B. Le Fort type II fracture

C. Le Fort type IIIfracture

D. Tripod fracture

See Answer in Part B → Q4

@Neet_pg_bot

Q5: A 32-year-old female involved in a car accident presents to the emergency department with a hanging palate and hanging teeth after her face collided with the dashboard. All of the following are true regarding this type of fracture, except: (Q848166)

A. Guerin’s sign is present.

B. Referred to as a transverse maxillary fracture

C. High risk of CSF rhinorrhea

D. Fracture line traverses the nasal and maxillary sinus floors

See Answer in Part B → Q5

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Q6: During a closed reduction procedure for a nasal septum, the surgeon selected a forceps, as depicted in the image, and asked the intern to identify it. What is the name of these forceps? (Q848165)

A. Tilley’s forceps

B. Walsham’s forceps

C. Hartmann’s forceps

D. Asch’s forceps

See Answer in Part B → Q6

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Q7: A 30-year-old patient presents with a nasal fracture from a frontal blow during a sports accident. The nasal bridge is deviated with swelling and bruising. The patient reports nasal obstruction, but no other facial fractures are noted. What is the most appropriate management approach? (Q848164)

A. Immediate closed reduction

B. Open reduction after oedema subsides

C. Closed reduction after oedema subsides

D. Nasal packing and observation

See Answer in Part B → Q7

@Neet_pg_bot

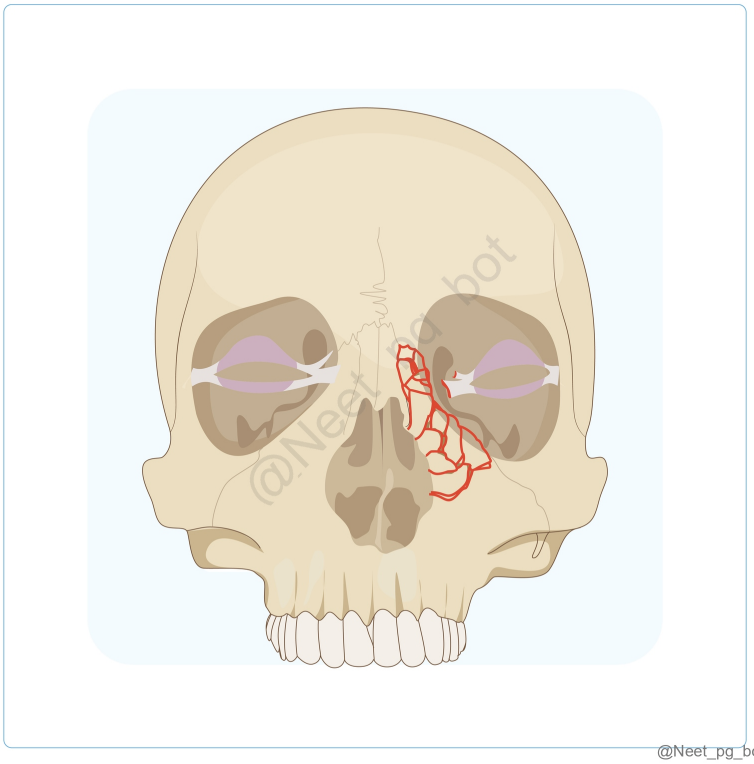
Q8: Match the following types of fractures with their respective findings: Type of Fracture Finding 1. Jarjavay Fracture a) 2. Class III Nasal Fracture b) 3. Chevallet Fracture c) (Q848163)

A. 1-c, 2-b, 3-a

B. 1-a, 2-c, 3-b

C. 1-b, 2-a, 3-c

D. 1-a, 2-b, 3-c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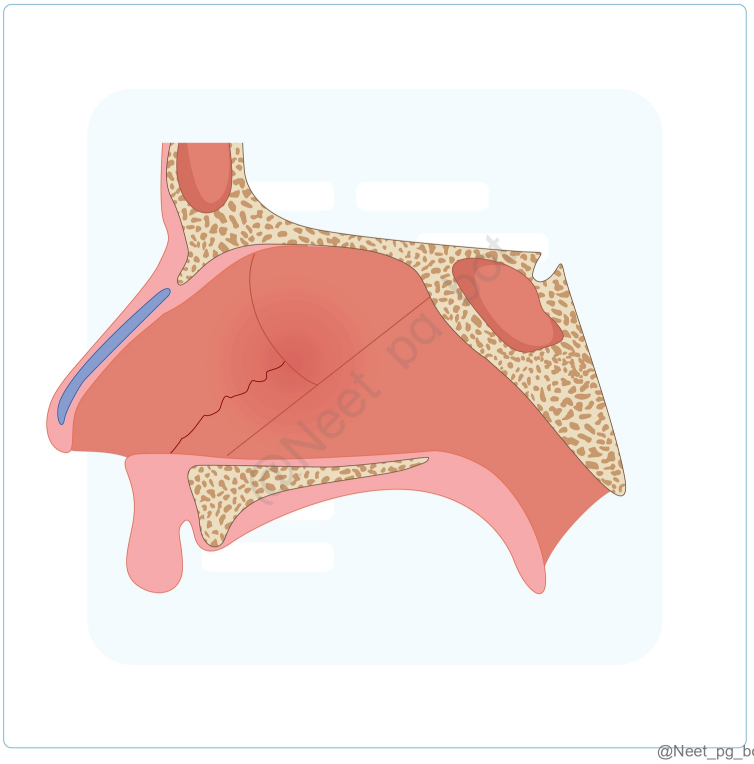
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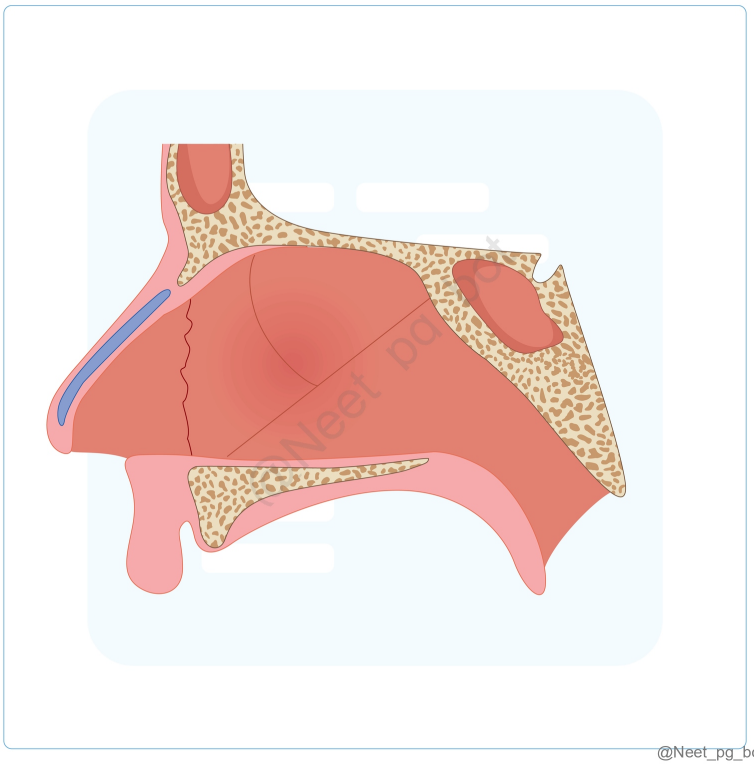

See Answer in Part B → Q8

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Q9: A 45-year-old patient with Hereditary Hemorrhagic Telangiectasia presents with recurrent epistaxis despite conservative measures. Which of the following treatments is considered the last resort for severe, persistent bleeding that has not responded? (Q848162)

A. Septal Dermoplasty

B. Nasal Packing

C. Nd Laser Therapy

D. Young's Operation

See Answer in Part B → Q9

@Neet_pg_bot

Q10: Which of the following incisions is most appropriate when ligating the anterior ethmoidal artery to control anterior epistaxis? (Q848161)

A. Lynch-Howarth incision

B. Sublabial incision

C. Gullwing incision

D. Weber-Ferguson incision

See Answer in Part B → Q10

@Neet_pg_bot

Q11: A 30-year-old patient presents with anterior epistaxis after sustaining a nose injury. Despite initial first aid measures, bleeding continues, and a bleeding point is identified. What is the most appropriate next step if the bleeding persists? (Q848160)

A. Anterior nasal packing

B. Cauterize with silver nitrate

C. Embolization

D. TESPAL

See Answer in Part B → Q11

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Q12: A 10-year-old boy presents with recurrent episodes of mild epistaxis. On examination, the bleeding site is found in the anteroinferior part of the nasal septum. What could be the most common cause of epistaxis in this patient? (Q848159)

A. Hypertension

B. Nasal trauma

C. Hereditary hemorrhagic telangiectasia

D. Coagulation disorder

See Answer in Part B → Q12

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Q13: A 65-year-old male with hypertension presents with profuse nasal bleeding from the posterior part of the nasal cavity, unresponsive to pinching and anterior packing. Nasal endoscopy shows bleeding behind the middle turbinate. What is the likely source of bleeding and appropriate management? (Q848158)

A. Greater palatine artery, Cauterization

B. Kiesselbach's plexus, Posterior nasal packing

C. Sphenopalatine artery, Endoscopic intervention

D. Posterior ethmoidal artery, Endoscopic intervention

See Answer in Part B → Q13

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Q14: A 28-year-old patient presents with recurrent episodes of mild anterior epistaxis, mainly from the nasal septum. Upon examination, the source of the bleeding is traced to a venous structure near the anterior septum. Which of the following veins is most likely responsible for the bleeding? (Q848157)

A. Greater palatine vein

B. Sphenopalatine vein

C. Retrocolumellar vein

D. Superior ophthalmic vein

See Answer in Part B → Q14

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Q15: A 55-year-old patient presents with recurrent bleeding. Diagnostic imaging reveals that the bleeding is from the posterior nasal cavity. Which artery, derived from the maxillary artery, is most likely responsible for this condition? (Q848155)

A. Anterior ethmoidal artery

B. Posterior ethmoidal artery

C. Sphenopalatine artery

D. Superior labial artery

See Answer in Part B → Q15

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Q16: A 25-year-old male presents with recurrent episodes of mild, self-limiting anterior epistaxis. On anterior rhinoscopy, a highly vascular area is noted on the nasal septum. In which anatomical location is this region situated? (Q892062)

A. Anterosuperior part of the septum

B. Anteroinferior part of the septum

C. Posterosuperior part of the septum

D. Posteroinferior part of the septum

See Answer in Part B → Q16

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Q17: Which of the following arteries does not contribute to the formation of Kiesselbach's plexus? (Q892063)

A. Sphenopalatine artery

B. Greater palatine artery

C. Anterior ethmoidal artery

D. Posterior ethmoidal artery

See Answer in Part B → Q17

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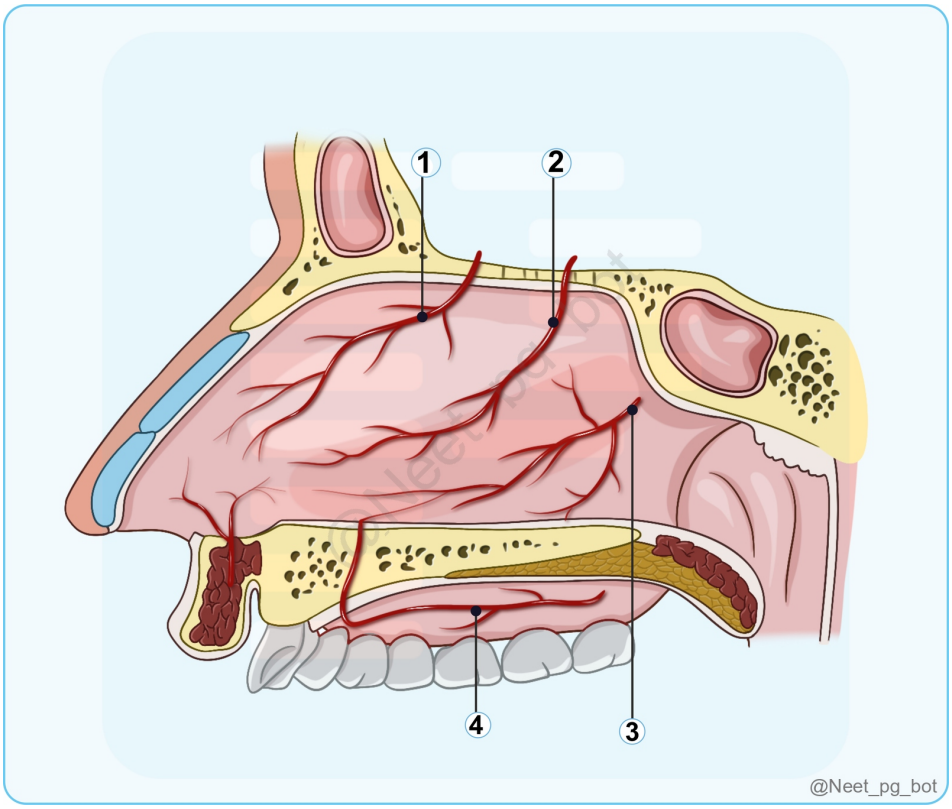
Q18: Identify the artery that is clinically recognised as the artery of epistaxis. (Q892064)

A. 2

B. 1

C. 4

D. 3



See Answer in Part B → Q18

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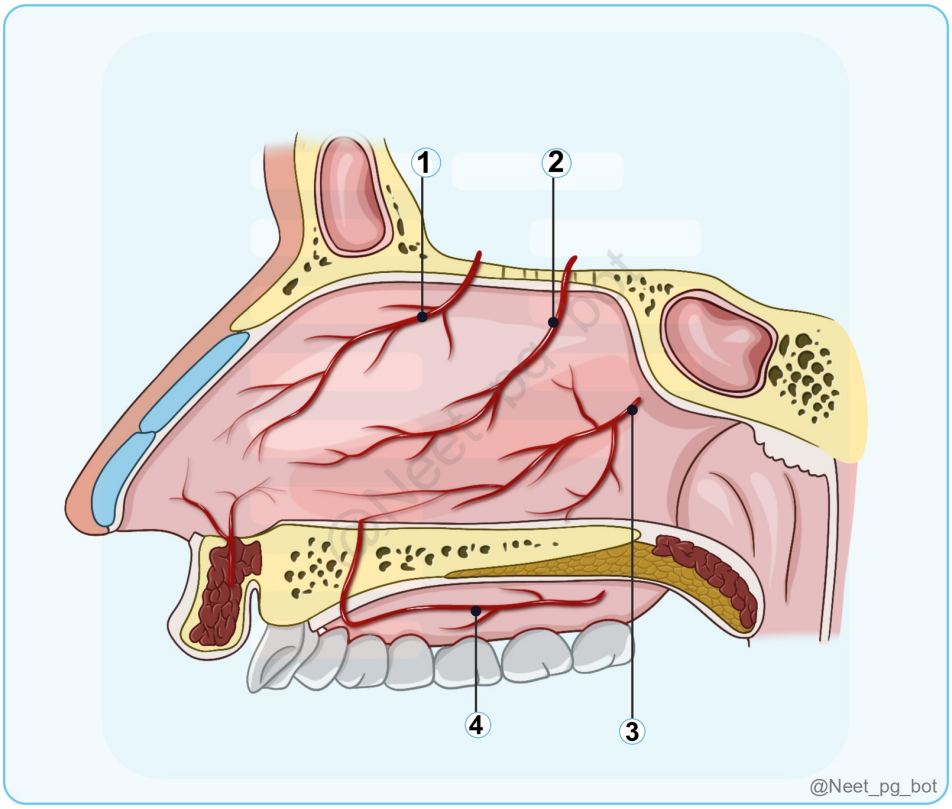
Q19: Which of the marked structures represent branches originating from the Internal Carotid Artery system? (Q892067)

A. 1 and 2 only

B. 3 and 4 only

C. 1, 2, and 3 only

D. All of the above



See Answer in Part B → Q19

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Q20: Which of the following is the most common systemic cause of epistaxis in elderly patients? (Q892069)

A. Medication

B. Carcinoma

C. Idiopathic

D. Hypertension

See Answer in Part B → Q20

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Q21: A 5-year-old child is brought to the clinic with a persistent, malodorous, blood-tinged discharge localized to the left nasal cavity. Physical examination is difficult due to the patient's irritability. What is the most probable diagnosis? (Q892071)

A. Nasal foreign body

B. Atrophic rhinitis

C. Fungal sinusitis

D. Rhinolith

See Answer in Part B → Q21

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• [02_Nose and Paranasal Sinuses] 018 Disorders Of Paranasal Sinuses

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[02_Nose and Paranasal Sinuses] 018 Disorders Of Paranasal Sinuses — Quick Jump

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Q7 (p. 249)	*Q8 (p. 250)*	*Q9 (p. 250)*	*Q10 (p. 250)*	*Q11 (p. 251)*	*Q12 (p. 251)*
Q13 (p. 252)	*Q14 (p. 252)*	*Q15 (p. 253)*	*Q16 (p. 253)*	*Q17 (p. 254)*	*Q18 (p. 254)*
Q19 (p. 255)	*Q20 (p. 255)*	*Q21 (p. 256)*	*Q22 (p. 256)*		

Q1: A 12-year-old patient presents with a history of sinusitis and now has swollen, red eyelids, pain with eye movement,proptosis and restricted extraocular motion. There is no proptosis, and CT imaging shows diffuse inflammation of the orbital tissues without abscess formation. According to Chandler's classification, what is the most likely stage of this condition? (Q848139)

A. Preseptal cellulitis

B. Orbital cellulitis

C. Subperiosteal abscess

D. Orbital abscess

See Answer in Part B → Q1

@Neet_pg_bot

Q2: During a total maxillectomy for an extensive malignant tumor, the surgeon is required to remove several structures to ensure complete resection. Which of the following structures is not typically removed during this procedure? (Q848154)

A. Hard palate

B. Orbital floor

C. Ethmoid sinus

D. Zygomatic arch

See Answer in Part B → Q2

@Neet_pg_bot

Q3: A 65-year-old man presents with nasal obstruction, facial swelling, and proptosis. Imaging reveals a malignancy in the Sinonasal region. According to Lederman's classification, which of the following tumor locations is categorized as mesostructural? (Q848148)

A. Invasion of the cribriform plate.

B. Extension to the respiratory part of the nasal cavity.

C. Extending to sphenoid sinus and the orbit.

D. Tumor involving the Alveolar process.

See Answer in Part B → Q3

@Neet_pg_bot

Q4: A 62-year-old man presents with nasal obstruction and facial swelling. Imaging shows a malignancy in the maxillary sinus. The oncologist uses Ohngren's line to assess the prognosis. According to Ohngren's line, which tumour location indicates a better prognosis? (Q848147)

A. Above Ohngren's line

B. Below Ohngren's line

C. Along the Ohngren's line

D. Involvement of Frontal sinus

See Answer in Part B → Q4

@Neet_pg_bot

Q5: A 55-year-old male carpenter presents with symptoms of persistent nasal congestion, facial swelling, and occasional nasal bleeding. He has a long history of working in the hardwood furniture industry for 30 years. CT scan reveals findings, as shown in the image. Which type of carcinoma is he most at risk for? (Q848146)

A. Squamous Cell Carcinoma

B. Adenocarcinoma

C. Small Cell Carcinoma

D. Basal Cell Carcinoma

See Answer in Part B → Q5

@Neet_pg_bot

Q6: A 45-year-old patient presents with nasal obstruction, epistaxis, and anosmia. A CT scan reveals an invasive mass in the nasal cavity, and a biopsy confirms the diagnosis of olfactory neuroblastoma. Which classification system is commonly used to stage olfactory neuroblastoma? (Q848145)

A. Kadish Classification

B. Breslow Classification

C. Ann Arbor Staging classification

D. Gleason Classification

See Answer in Part B → Q6

@Neet_pg_bot

Q7: A 32-year-old patient presents with a history of frontal headache, noticeable swelling on the forehead, and a recent episode of sinusitis. Physical examination reveals a soft, doughy swelling over the frontal bone, and a CT scan shows a subperiosteal abscess with associated bone erosion. What is the likely diagnosis? (Q848144)

A. Frontal Sinus Mucocele

B. Pott's Puffy Tumour

C. Frontal Sinus Abscess

D. Frontal Sinus Osteoma

See Answer in Part B → Q7

@Neet_pg_bot

Q8: hMatch the following conditions with their most commonly affected sinuses: Conditions Most Commonly Affected Sinus 1. Osteoma a. Maxillary sinus 2. Fibrous Dysplasia b. Ethmoid sinus 3. Chronic Rhinosinusitis with Nasal Polyps c. Frontal sinus (Q848143)

A. 1-a, 2-b, 3-c

B. 1-c, 2-a, 3-b

C. 1-b, 2-c, 3-a

D. 1-a, 2-c, 3-b

See Answer in Part B → Q8

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Q9: A 55-year-old male presents with unilateral nasal obstruction, epistaxis, and a mass in the right nasal cavity. Nasal endoscopy reveals a mass arising from the lateral nasal wall with displacement of the middle turbinate. Biopsy confirms the diagnosis of inverted papilloma. All of the following are true regarding inverted papilloma except? (Q848142)

A. It is malignant at presentation.

B. It is associated with Human Papillomavirus type 6 and11.

C. The primary treatment involves endoscopic surgical excision.

D. It commonly arises from the non-olfactory mucosa.

See Answer in Part B → Q9

@Neet_pg_bot

Q10: A 45-year-old male with a history of chronic sinusitis presents with worsening frontal headaches, orbital pain, diplopia, and ptosis. Examination reveals limited eye movements, decreased sensation over the forehead, and mild proptosis. Superior

Orbital Fissure Syndrome (SOFS) is suspected. Which cranial nerve is not involved in SOFS? (Q848141)

A. CN II

B. CN III

C. CN IV

D. CN VI

See Answer in Part B → Q10

@Neet_pg_bot

Q11: A 35-year-old patient presents with a recent history of sinusitis. The patient has sudden-onset high fever, severe headache, eyelid swelling, and restricted eye movements. Examination reveals bilateral proptosis and sequential cranial nerve palsies. What is the most likely diagnosis? (Q848140)

A. Orbital cellulitis

B. Cavernous sinus thrombosis

C. Subperiosteal abscess

D. Preseptal cellulitis

See Answer in Part B → Q11

@Neet_pg_bot

Q12: A 32-year-old patient has been experiencing nasal congestion, facial pain, and nasal discharge for one week. Examination reveals maxillary sinus tenderness and nasal obstruction. The patient reports similar episodes resolving within 10-14 days. What is the most common cause of this condition? (Q848123)

A. Deviated nasal septum

B. Allergic fungal sinusitis

C. Viral infection

D. Aspirin sensitivity

See Answer in Part B → Q12

@Neet_pg_bot

Q13: A 32-year-old patient presents with sinusitis symptoms, including severe headache, nasal congestion, and fever. Examination reveals proptosis and restricted eye movements. A CT scan shows inflammation of the ethmoid sinuses. Which of the following is not a potential complication of sinusitis with orbital involvement? (Q848138)

A. Orbital Cellulitis

B. Subperiosteal abscess

C. Orbital abscess

D. Sinus mucocele

See Answer in Part B → Q13

@Neet_pg_bot

Q14: A 55-year-old diabetic patient presents with facial swelling and necrotic nasal tissue, as shown in the image & visual changes. A diagnosis of acute invasive fungal rhinosinusitis (AIFR) is suspected. Which imaging modality is most appropriate for evaluating the extent of orbital/Intracranial involvement? (Q848132)

A. Non-contrast CT

B. PET Scan

C. CE-MRI

D. CECT

See Answer in Part B → Q14

@Neet_pg_bot

Q15: A 45-year-old patient is evaluated for suspected allergic fungal rhinosinusitis (AFRS) using the Bent and Kuhn diagnostic criteria. Which of the following is not part of the Bent and Kuhn Major criteria for diagnosing AFRS? (Q848131)

A. Nasal Polyposis

B. Eosinophilic mucin without fungal invasion

C. Positive fungal cultures

D. Positive Fungal stain

See Answer in Part B → Q15

@Neet_pg_bot

Q16: A 45-year-old patient presents with symptoms such as a persistent headache and pain in the forehead region, indicating possible frontal sinusitis. Which imaging view is most suitable for evaluating the frontal sinuses in this situation? (Q848130)

A. Caldwell's view

B. Water's view

C. Lateral view

D. Basal view

See Answer in Part B → Q16

@Neet_pg_bot

Q17: A patient who underwent Functional Endoscopic Sinus Surgery (FESS) presents with persistent nasal discharge and facial pain. During the follow-up, the surgeon considers various potential complications. Which of the following is not a common complication of FESS? (Q848129)

A. Orbital injury

B. Optic nerve injury

C. CSF leak

D. Fractured nasal bones

See Answer in Part B → Q17

@Neet_pg_bot

Q18: A 45-year-old patient presents with symptoms of sinusitis, including nasal obstruction, facial pain, and thick nasal discharge, persisting for the past 6 months. The patient has failed to respond to a course of antibiotics and nasal corticosteroids. What is the step in management to evaluate the extent of sinus involvement ? (Q848128)

A. Non-Contrast CT

B. Contrast-Enhanced CT

C. X-ray

D. HRCT

See Answer in Part B → Q18

@Neet_pg_bot

Q19: A 32-year-old patient with acute sinusitis has had worsening symptoms for ten days. The patient has moderate fever, facial pain, and purulent nasal discharge. What is the most appropriate initial management? (Q848127)

A. Oral Amoxicillin with clavulanic acid

B. Intranasal corticosteroids

C. Topical nasal decongestants

D. Intravenous antibiotics

See Answer in Part B → Q19

@Neet_pg_bot

Q20: A 32-year-old patient presents with complaints of retro-orbital pain and occasional visual disturbances. CT imaging of the sinuses reveals a posterior ethmoid air cell extending superiorly and laterally to the sphenoid sinus, impinging on the optic nerve. What is the most likely anatomical variant responsible for these symptoms? (Q848126)

A. Onodi cell

B. Agger Nasi cell

C. Haller cell

D. Frontal recess cell

See Answer in Part B → Q20

@Neet_pg_bot

Q21: A 45-year-old patient presents with complaints of a dull headache, post-nasal drip, and retro-orbital pain. On nasal endoscopy, pus is noted draining from the superior meatus. What type of sinusitis is most likely indicated? (Q848125)

A. Maxillary sinusitis

B. Anterior ethmoid sinusitis

C. Posterior ethmoid sinusitis

D. Frontal sinusitis

See Answer in Part B → Q21

@Neet_pg_bot

Q22: A 35-year-old patient presents with facial pain, nasal congestion, and purulent nasal discharge for the past 12 days. Examination reveals tenderness over the maxillary sinuses and fever of 38°C. Which of the following is considered a major criterion for diagnosing acute sinusitis? (Q848124)

A. Facial pain

B. cough

C. Headache

D. Dental pain

See Answer in Part B → Q22

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• [02_Nose and Paranasal Sinuses] 019 Previous Year Questions

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[02_Nose and Paranasal Sinuses] 019 Previous Year Questions — Quick Jump

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Q7 (p. 261)	*Q8 (p. 262)*	*Q9 (p. 262)*	*Q10 (p. 263)*	*Q11 (p. 264)*	*Q12 (p. 264)*
Q13 (p. 265)	*Q14 (p. 266)*	*Q15 (p. 267)*	*Q16 (p. 268)*	*Q17 (p. 268)*	*Q18 (p. 269)*
Q19 (p. 269)	*Q20 (p. 269)*	*Q21 (p. 270)*	*Q22 (p. 270)*	*Q23 (p. 271)*	*Q24 (p. 271)*
Q25 (p. 272)	*Q26 (p. 272)*	*Q27 (p. 272)*	*Q28 (p. 273)*	*Q29 (p. 273)*	*Q30 (p. 274)*
Q31 (p. 274)	*Q32 (p. 275)*	*Q33 (p. 275)*	*Q34 (p. 276)*	*Q35 (p. 277)*	*Q36 (p. 277)*
Q37 (p. 278)	*Q38 (p. 278)*	*Q39 (p. 279)*	*Q40 (p. 279)*	*Q41 (p. 279)*	*Q42 (p. 280)*
Q43 (p. 280)	*Q44 (p. 281)*	*Q45 (p. 281)*	*Q46 (p. 282)*	*Q47 (p. 282)*	*Q48 (p. 282)*
Q49 (p. 283)	*Q50 (p. 283)*	*Q51 (p. 284)*	*Q52 (p. 284)*	*Q53 (p. 285)*	*Q54 (p. 287)*
Q55 (p. 287)	*Q56 (p. 287)*	*Q57 (p. 288)*	*Q58 (p. 289)*	*Q59 (p. 289)*	*Q60 (p. 290)*
Q61 (p. 290)	*Q62 (p. 290)*	*Q63 (p. 291)*	*Q64 (p. 291)*	*Q65 (p. 291)*	*Q66 (p. 292)*
Q67 (p. 293)	*Q68 (p. 293)*	*Q69 (p. 294)*	*Q70 (p. 294)*	*Q71 (p. 295)*	*Q72 (p. 295)*
Q73 (p. 296)	*Q74 (p. 297)*	*Q75 (p. 298)*	*Q76 (p. 298)*	*Q77 (p. 298)*	*Q78 (p. 299)*
Q79 (p. 299)	*Q80 (p. 299)*	*Q81 (p. 300)*	*Q82 (p. 301)*	*Q83 (p. 302)*	*Q84 (p. 302)*
Q85 (p. 303)	*Q86 (p. 304)*	*Q87 (p. 305)*	*Q88 (p. 305)*	*Q89 (p. 306)*	*Q90 (p. 306)*
Q91 (p. 307)	*Q92 (p. 307)*	*Q93 (p. 308)*	*Q94 (p. 308)*	*Q95 (p. 309)*	*Q96 (p. 309)*
Q97 (p. 310)	*Q98 (p. 310)*	*Q99 (p. 311)*	*Q100 (p. 311)*	*Q101 (p. 312)*	*Q102 (p. 312)*
Q103 (p. 313)	*Q104 (p. 313)*	*Q105 (p. 314)*	*Q106 (p. 314)*	*Q107 (p. 315)*	*Q108 (p. 316)*
Q109 (p. 316)	*Q110 (p. 317)*	*Q111 (p. 318)*	*Q112 (p. 318)*	*Q113 (p. 318)*	*Q114 (p. 319)*
Q115 (p. 320)	*Q116 (p. 321)*	*Q117 (p. 322)*	*Q118 (p. 323)*	*Q119 (p. 324)*	*Q120 (p. 324)*
Q121 (p. 325)	*Q122 (p. 325)*	*Q123 (p. 326)*	*Q124 (p. 326)*	*Q125 (p. 327)*	*Q126 (p. 328)*
Q127 (p. 328)	*Q128 (p. 329)*	*Q129 (p. 329)*	*Q130 (p. 330)*	*Q131 (p. 330)*	*Q132 (p. 331)*

Q1: A patient presents with enophthalmos and periorbital ecchymosis after being hit by a ball. What is the most likely diagnosis? (Q866710)

A. Orbital blowout fracture

B. Zygomatic fracture

C. Nasal bone fracture

D. Le Fort I fracture

See Answer in Part B → Q1

@Neet_pg_bot

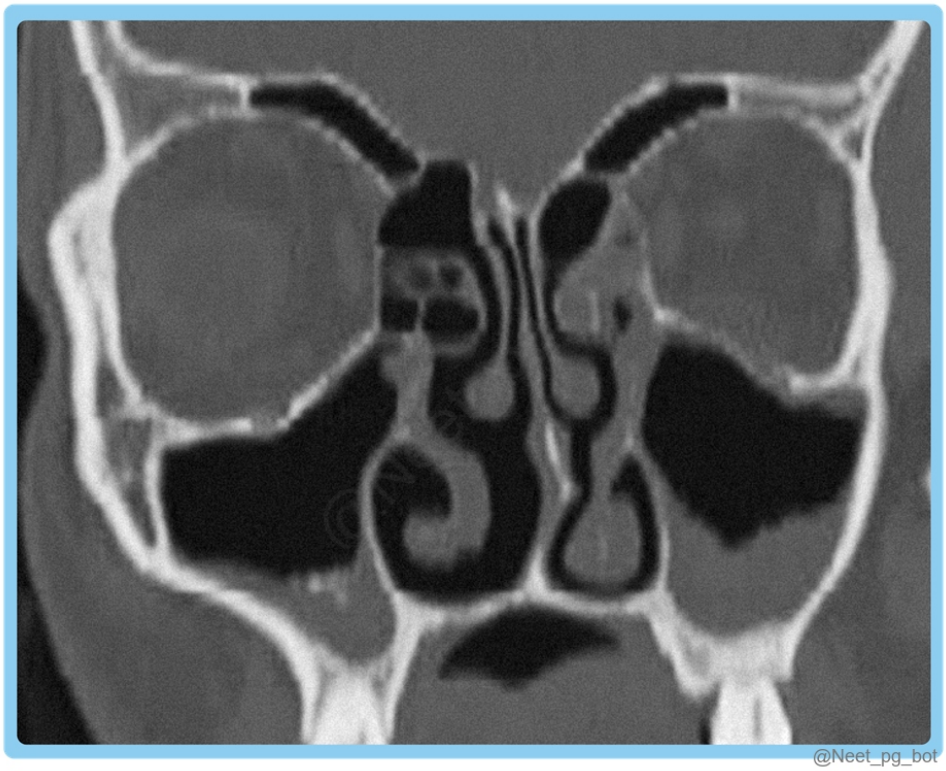
Q2: A diabetic male presents with facial pain and blackish discoloration in the nose. The CT image shows bone erosion and sinus involvement. What is the most likely diagnosis? (Q866713)

A. Acute bacterial sinusitis

B. Allergic fungal sinusitis

C. Nasal polyposis

D. Rhino-orbital-cerebral mucormycosis



See Answer in Part B → Q2

@Neet_pg_bot

Q3: Which of the following is not seen in JNA? (Q865370)

A. Recurrent epistaxis

B. Unilateral nasal obstruction

C. Exclusively to adolescence boys

D. Biopsy under anesthesia to diagnose

See Answer in Part B → Q3

@Neet_pg_bot

Q4: A 40-year-old patient presents with recurrent and severe nosebleeds from the anterior nasal septum. The bleeding has been refractory to nasal packing and

chemical cautery. A decision is made to proceed with surgical ligation to control the bleeding. Which of the following arteries is the primary target for ligation in the management of this patient's anterior epistaxis? (Q866319)

A. Sphenopalatine artery

B. Anterior ethmoidal artery

C. Facial artery

D. Internal maxillary artery

See Answer in Part B → Q4

@Neet_pg_bot

Q5: A 20 year old male with a history of recurrent epistaxis presents with nasal obstruction for the past 1 year. On examination the presence of nasal mass and investigation shows bowing of the posterior wall of maxillary sinus. What is the probable diagnosis? (Q866503)

A. Nasopharyngeal angiofibroma

B. Antrochoanal polyp

C. Rhinoscleroma

D. Rhinosporidiosis

See Answer in Part B → Q5

@Neet_pg_bot

Q6: A patient presents to the emergency department with significant nasal trauma after a fall. Examination reveals a deviated nasal pyramid, and palpation confirms crepitus and mobility of the nasal bones. A lateral nasal bone X-ray confirms a displaced nasal bone fracture. Which of the following instruments is specifically designed for the closed reduction of a displaced nasal bone fracture? (Q866532)

A. Tilley's forceps

B. Walsham forceps

C. Luc's forceps

D. Bayonet forceps

See Answer in Part B → Q6

@Neet_pg_bot

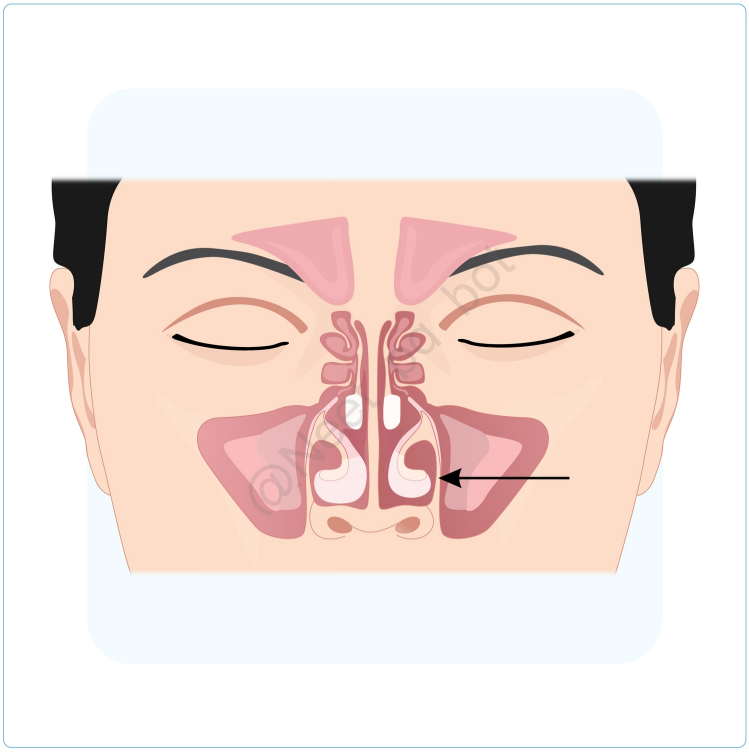
Q7: What lies posterior to the marked structure? (Q853119)

A. Odontoid

B. Eustachian tube

C. Sphenopalatine foramen

D. Agger nasi



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See Answer in Part B → Q7

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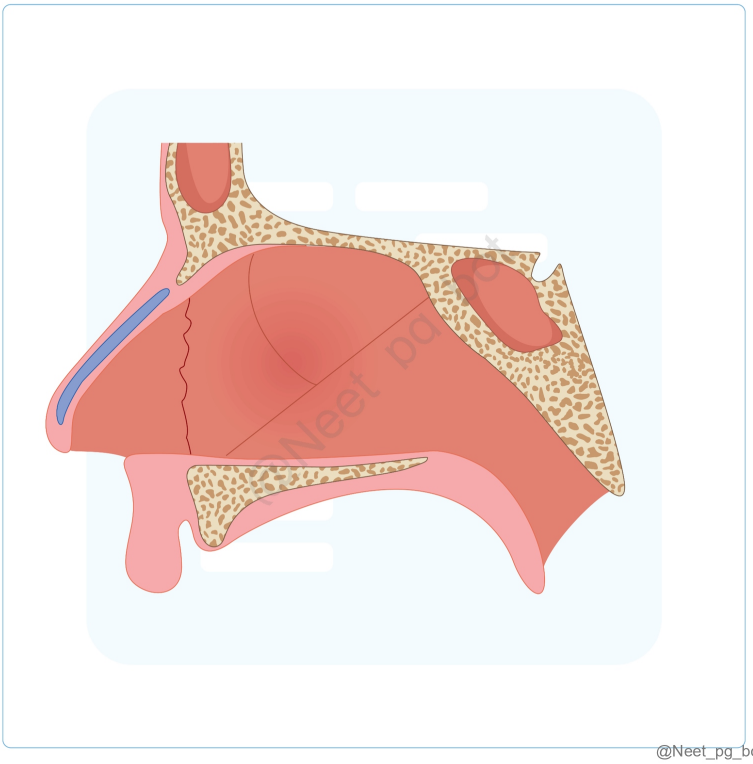
Q8: Identify the fracture in the given diagram: (Q853120)

A. Chevallet fracture

B. Jarjaway fracture

C. Le Fort 1

D. Simple fracture



See Answer in Part B → Q8

@Neet_pg_bot

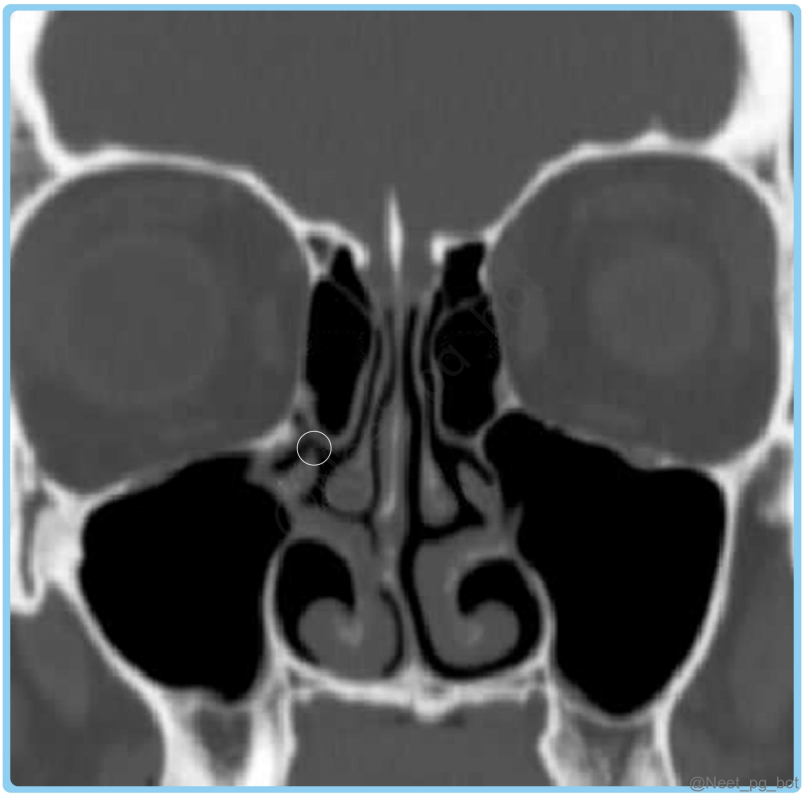
Q9: Which of the following is shown in the image below (circled)? (Q852651)

A. Columella

B. Osteomeatal complex

C. Nasal valve

D. Crest of maxilla



See Answer in Part B → Q9

@Neet_pg_bot

Q10: A 45-year-old male was admitted with respiratory distress. CT showed a nasal polyp with fluid collection in the sinus. Drainage of which of the following is obstructed? (Q852619)

A. Ethmoidal sinus

B. Sphenoidal sinus

C. Frontal sinus

D. Maxillary sinus

See Answer in Part B → Q10

@Neet_pg_bot

Q11: A patient was presented to the OPD with complaints of greenish black matter in the nose with merciful smelling. What is the diagnosis? (Q852655)

A. Allergic rhinitis

B. Atrophic rhinitis

C. Rhinitis caseosa

D. Rhinitis sicca

See Answer in Part B → Q11

@Neet_pg_bot

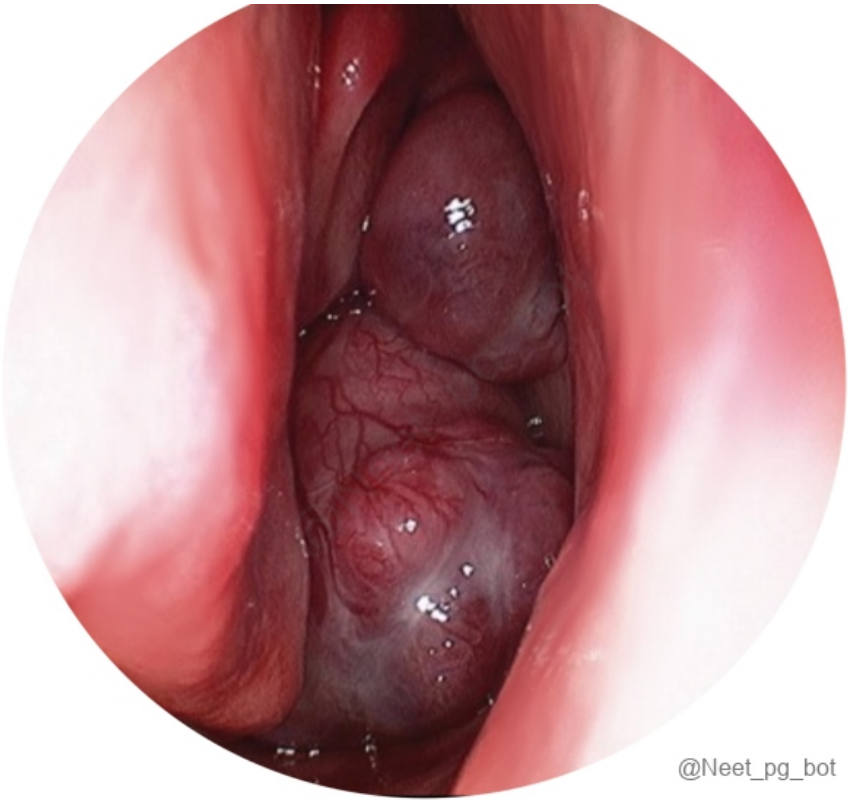
Q12: A 14-year-old child with a history of recurrent bleeding undergoes an endoscopic examination, which is given below. What is the investigation of choice (IOC) for this condition? (Q843940)

A. Contrast-Enhanced CT (CECT)

B. Biopsy

C. X-ray

D. MRI



See Answer in Part B → Q12

@Neet_pg_bot

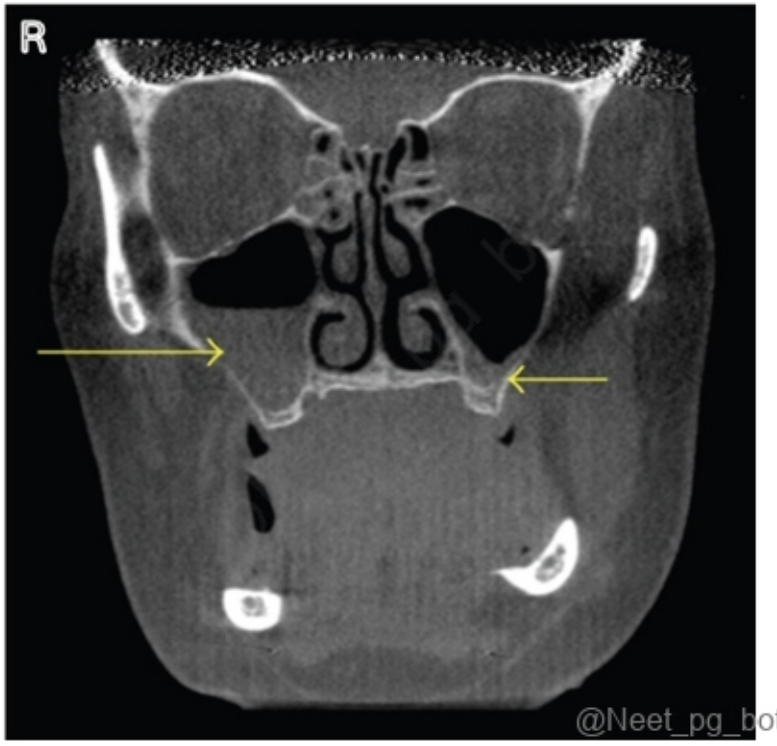
Q13: Which sinus drainage is obstructed in the image provided? (Q843944)

A. Maxillary

B. Ethmoid

C. Sphenoid

D. Frontal



See Answer in Part B → Q13

@Neet_pg_bot

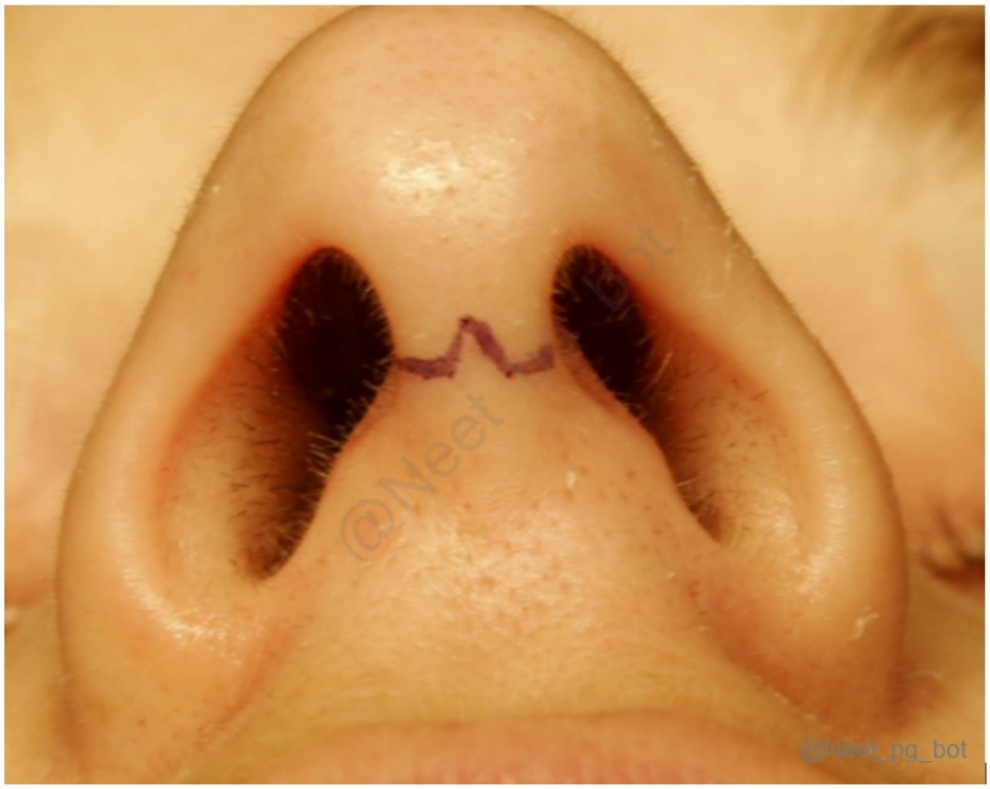
Q14: The incision shown in the given image is typically performed for which of the following surgeries? (Q843972)

A. Open rhinoplasty

B. Caldwell-Luc procedure

C. Septoplasty

D. Sinusotomy



See Answer in Part B → Q14

@Neet_pg_bot

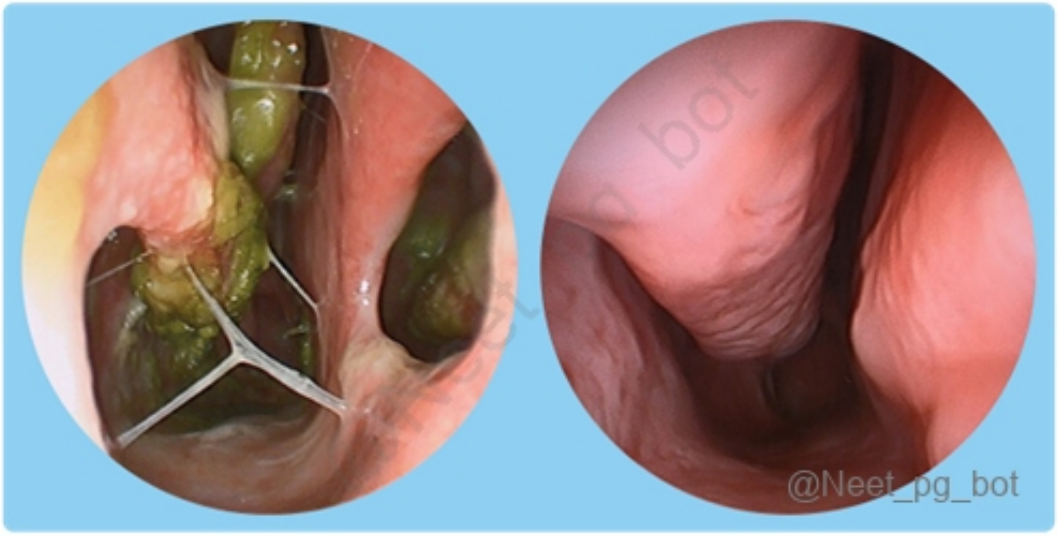
Q15: A patient presents with a foul smell from the nose, anosmia, and nasal obstruction. The following is noted during examination. What is the diagnosis? (Q860429)

A. Atrophic rhinitis

B. Rhinitis sicca

C. Rhinitis medicamentosa

D. Allergic rhinitis



See Answer in Part B → Q15

@Neet_pg_bot

Q16: Type of voice associated with the hypertrophied adenoids? (Q860432)

A. Rhinolalia clausa

B. Rhinolalia aperta

C. Hot potato voice

D. Hypernasality

See Answer in Part B → Q16

@Neet_pg_bot

Q17: A 22-year-old male with recurrent bleeding, presents with bowing of posterior maxillary wall on CECT. All are false except? (Q860434)

A. Outgrown the blood supply

B. Tumor vessels lack contractility

C. Bleeding is from the adjacent invading blood vessels

D. It lacks capsule

See Answer in Part B → Q17

@Neet_pg_bot

Q18: A 50-year-old male presents with right-sided serous otitis media and a history of cervical lymphadenopathy. The probable diagnosis is? (Q860436)

A. Angiofibroma

B. Nasopharyngeal cancer

C. Adenoid hypertrophy

D. Tonsillar abscess

See Answer in Part B → Q18

@Neet_pg_bot

Q19: Which nerve is most commonly injured (sensory) during parotid surgery? (Q860488)

A. Facial nerve

B. Auriculo temporal nerve

C. Glossopharyngeal nerve

D. Greater auricular nerve

See Answer in Part B → Q19

@Neet_pg_bot

Q20: Which of the following signs is not typically seen in allergic rhinitis? (Q839956)

A. Allergic shiners

B. Allergic salute

C. Otto vergauth folds

D. Denis morgan lines

See Answer in Part B → Q20

@Neet_pg_bot

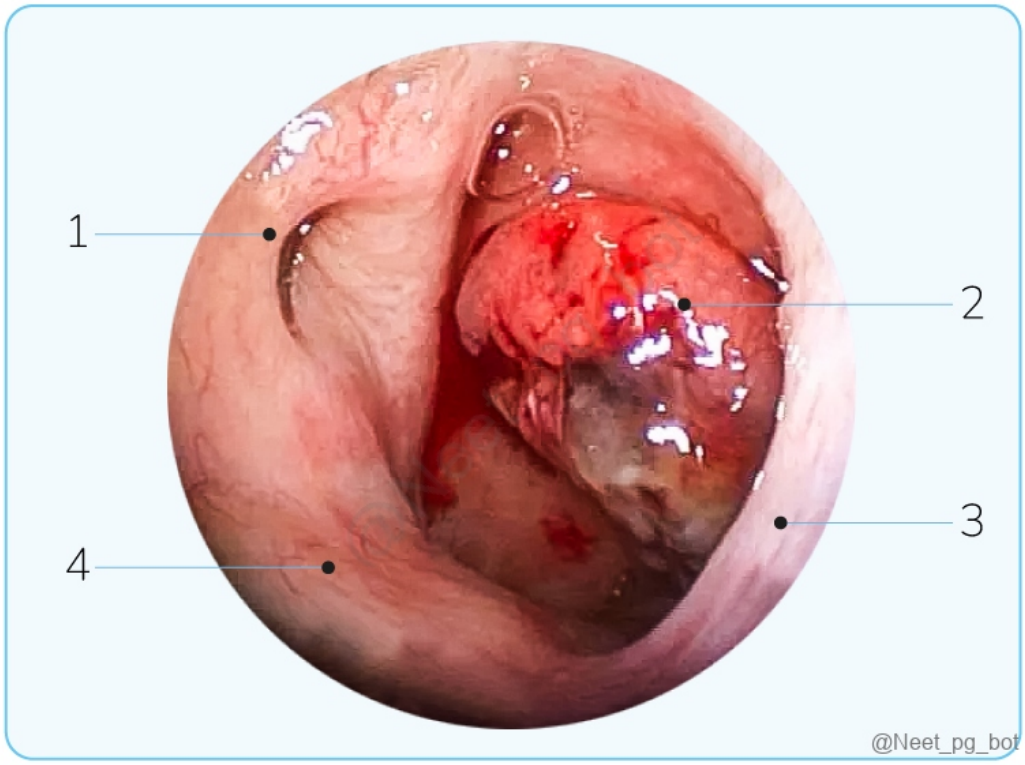
Q21: Identify the most common location of Nasopharyngeal carcinoma: (Q860067)

A. 1

B. 2

C. 3

D. 4



See Answer in Part B → Q21

@Neet_pg_bot

Q22: What is the preferred initial management for a patient presenting with cerebrospinal fluid (CSF) rhinorrhea? (Q860070)

A. Functional Endoscopic Sinus Surgery (FESS)

B. Administration of steroids

C. Bed rest with head elevation and avoidance of straining activities

D. Immediate surgical repair without initial medical management

See Answer in Part B → Q22

@Neet_pg_bot

Q23: Which structure is most commonly involved in the compression of the anterior ethmoid nerve, leading to Sluder's neuralgia? (Q860073)

A. Superior turbinate

B. Middle turbinate

C. Inferior turbinate

D. Nasal septum

See Answer in Part B → Q23

@Neet_pg_bot

Q24: What is the name of the staging system used for Juvenile Nasopharyngeal Angiofibroma? (Q860093)

A. Radkowski’s

B. TNM Staging

C. Ann Arbor Staging System

D. Dukes criteria

See Answer in Part B → Q24

@Neet_pg_bot

Q25: Which structure does the anterior ethmoidal sinus drain into? (Q860101)

A. Middle meatus

B. Inferior meatus

C. Superior meatus

D. Sphenoethmoidal recess

See Answer in Part B → Q25

@Neet_pg_bot

Q26: A fracture has occurred at the cribriform plate area of the ethmoid bone. The patient can present with which symptom? (Q860127)

A. Hearing loss

B. Visual loss

C. CSF Rhinorrhoea

D. Diplopia

See Answer in Part B → Q26

@Neet_pg_bot

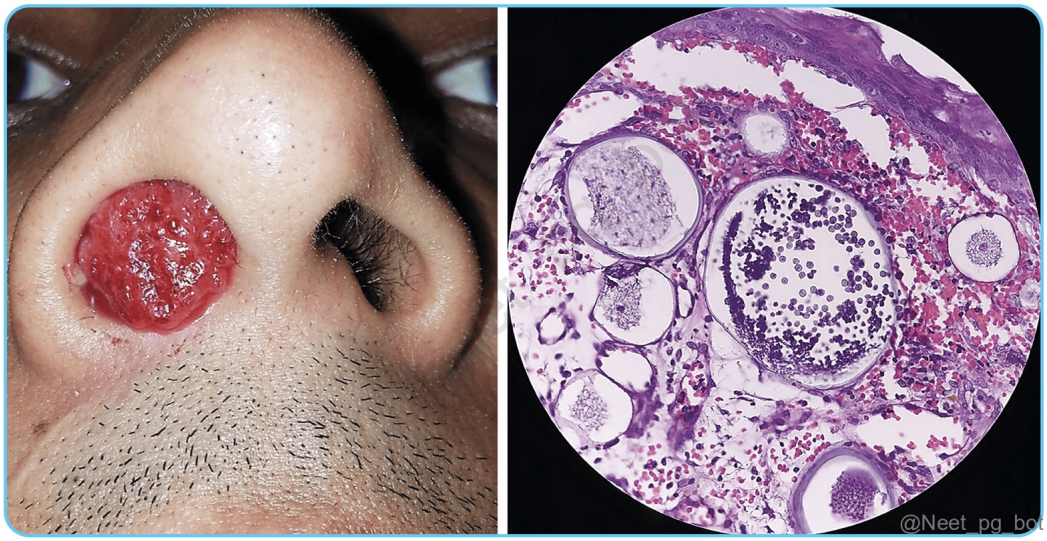
Q27: A South Indian male farmer presents to the ENT OPD with complaints of reddish mass coming out from the nose and histopathology image as given below. What is the likely diagnosis? (Q857365)

A. Rhinosporidiosis

B. Rhinoscleroma

C. Rhinophyma

D. Nasal polyp



See Answer in Part B → Q27

@Neet_pg_bot

Q28: A infant developed difficulty in breathing. His symptoms improve with crying. In which disease, symptoms get improve with crying? (Q820351)

A. Atrophic rhinitis

B. Acute rhinosinusitis

C. Allergic rhinitis

D. Choanal atresia

See Answer in Part B → Q28

@Neet_pg_bot

Q29: A 40-year-old patient presenting with non-caseating granulomas and a saddle nose perforation, what is the most likely diagnosis? (Q820385)

A. TB

B. Leprosy

C. Wegener’s granulomatosis

D. Syphilis

See Answer in Part B → Q29

@Neet_pg_bot

Q30: A 7-year-old male presented with nasal obstruction. On examination there was an irregular mass protruding from the choanae. What is the possible diagnosis? (Q820403)

A. Thornwaldt cyst

B. Antro-choanal polyp

C. Hypertrophic rhinitis

D. Adenoid hypertrophy

See Answer in Part B → Q30

@Neet_pg_bot

Q31: A 30-year-old women present with upper respiratory tract infection and orbital pain. What is the likely diagnosis? {{caption_text}} (Q854630)

A. Orbital cellulitis

B. Sinusitis

C. Both A and B

D. Subperiosteal abscess

See Answer in Part B → Q31

@Neet_pg_bot

Q32: A patient presents to the OPD with complaints of bleeding from nose, nasal obstruction, and difficulty in breathing. He gave the history of bathing in the local pool near his house. On examination, red polypoidal mass with whitish dots on the surface is observed. Based on the history, examination what will be the diagnosis of the patient? (Q854637)

A. Rhinosporidiosis

B. Basal Cell Carcinoma

C. Rhinoscleroma

D. Lupus Vulgaris

See Answer in Part B → Q32

@Neet_pg_bot

Q33: What is the probable diagnosis for a 30-year-old male who has nonaxial proptosis in his left eye and a history of a road traffic accident 15 years ago, as suggested by the provided CT image? (Q855201)

A. Frontal mucocele

B. Frontal meningioma

C. Juvenile nasopharyngeal angiofibroma

D. Pseudotumor of orbit

See Answer in Part B → Q33

@Neet_pg_bot

Q34: An elderly diabetic female patient is presented, as shown in the image. What is the most probable diagnosis? (Q858046)

A. Aspergillosis

B. Mucormycosis

C. Foreign body

D. Rhinosporidiosis

See Answer in Part B → Q34

@Neet_pg_bot

Q35: What is the most likely diagnosis for a patient who presents with a headache and thick nasal discharge, and upon examination, shows hypertrophy of the inferior turbinate with a mulberry appearance? (Q858058)

A. Atrophic rhinitis

B. Common cold

C. Hypertrophic rhinitis

D. Nasal polyp

See Answer in Part B → Q35

@Neet_pg_bot

Q36: Which of the following is true about inverted papilloma? (Q858086)

A. Malignant and invasive

B. Benign and non-invasive

C. Benign and invasive

D. Malignant and non-invasive

See Answer in Part B → Q36

@Neet_pg_bot

Q37: A 35-year-old woman takes aspirin for a headache, later presented with wheezing and breathlessness. Along with these two symptoms, what other clinical findings are likely to be found in this condition? (Q858105)

A. Eosinophilia

B. Nasal polyp

C. Extrinsic asthma

D. Drug interaction

See Answer in Part B → Q37

@Neet_pg_bot

Q38: Which of the following is the least probable cause of mucormycosis? (Q858111)

A. Neutropenia

B. Broad spectrum antibiotics

C. Uncontrolled diabetes without DKA

D. Prolonged use of steroid

See Answer in Part B → Q38

@Neet_pg_bot

Q39: Which of the subsequent tests is not applicable for evaluating nasal mucociliary clearance? (Q855574)

A. Saccharine test

B. Electron microscopy

C. Charcoal powder method

D. Scintigraphy

See Answer in Part B → Q39

@Neet_pg_bot

Q40: A male patient presents to the OPD with a saddle nose deformity. He gives a history of cough, on-and-off fever, and hemoptysis. On examination, septal perforation is present with granulations in the nose. His chest X-ray showed multiple cavitary lesions, and the biopsy showed granuloma, multinucleated giant cells, and necrosis. What is the probable cause? (Q855782)

A. Wegener's granulomatosis

B. Tuberculosis

C. Syphilis

D. Sarcoidosis

See Answer in Part B → Q40

@Neet_pg_bot

Q41: A 35-year-old female presents with nasal obstruction and post-nasal drip. She has a history of FESS following failed conservative management 5 years ago. Post-surgical notes mentioned that uncinectomy and maxillary ostium dilation were done during the previous FESS. DNE currently shows patent ostia and mucosal edema of the maxillary sinus lining. What is the next best step in management? (Q855789)

A. Repeat surgery

B. Macrolides for 4 months

C. Steroid irrigation and antihistamines

D. Biological therapy

See Answer in Part B → Q41

@Neet_pg_bot

Q42: Which is not used for testing olfaction? (Q855792)

A. Smell diskettes

B. Arnold stick test

C. UPSIT

D. CC-SIT

See Answer in Part B → Q42

@Neet_pg_bot

Q43: What is the recommended course of action for managing a 6-year-old boy who fell from a bed and now has swelling in his nose, along with breathing difficulties? During examination, it was observed that there are smooth, rounded swellings on both sides of the septum, visible through both nostrils. On palpation, the swellings were found to be soft and fluctuant. (Q856977)

A. Systemic antibiotics

B. Incision and drainage

C. High-resolution computerized tomography

D. Submucosal resection

See Answer in Part B → Q43

@Neet_pg_bot

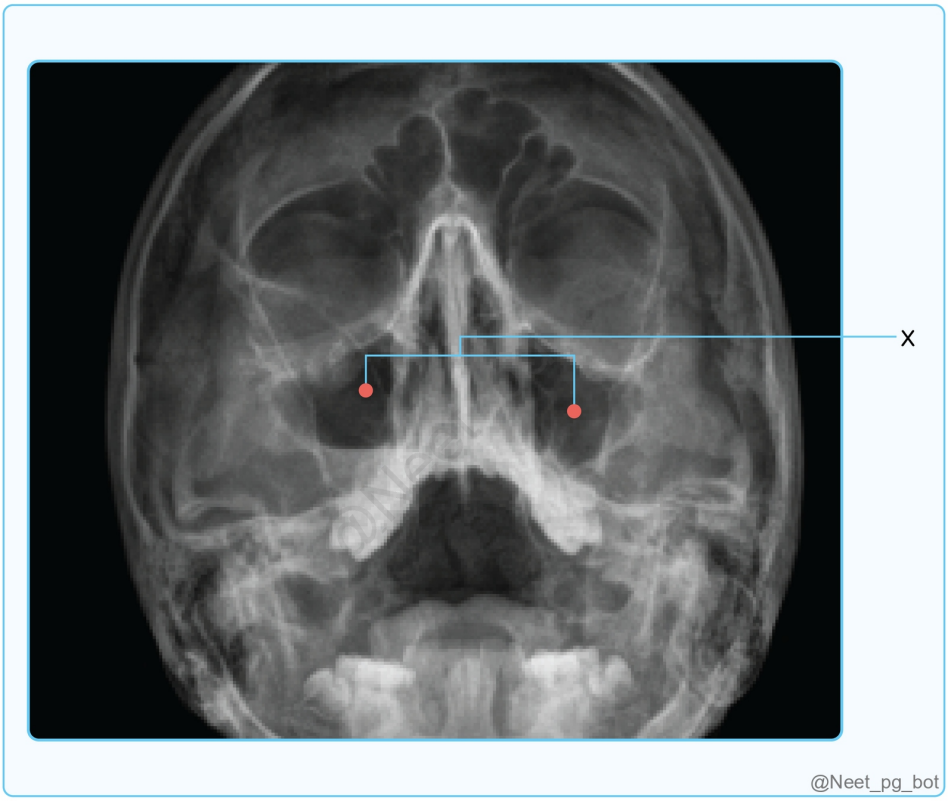
Q44: Identify the sinus marked in the image. (Q857000)

A. Frontal sinus

B. Pyriform sinus

C. Ethmoid sinus

D. Maxillary sinus



See Answer in Part B → Q44

@Neet_pg_bot

Q45: What is the most likely diagnosis for an older diabetic woman,who received steroids and remdesivir for COVID, and is now experiencing a malodorous black discharge from her nose? On examination a necrotic black mass, filling the nasal cavity and causing erosion of the septum and hard palate is found. (Q857008)

A. Aspergillosis

B. Mucormycosis

C. Foreign body

D. Rhinosporidiosis

See Answer in Part B → Q45

@Neet_pg_bot

Q46: What is the term used to describe the view that provides the optimal visualization of the maxillary sinus? (Q857010)

A. Water’s view

B. Towne’s view

C. Law’s view

D. Stenver’s view

See Answer in Part B → Q46

@Neet_pg_bot

Q47: In nasopharyngeal carcinoma, which of the following is a component of trotter's triad? (Q857656)

A. Conductive hearing loss, ipsilateral temporoparietal neuralgia, palatal paralysis

B. Sensorineural hearing loss, contralateral temporoparietal neuralgia, palatal paralysis

C. Sensorineural hearing loss, ipsilateral temporoparietal neuralgia, palatal paralysis

D. Conductive hearing loss, contralateral temporoparietal neuralgia, palatal paralysis

See Answer in Part B → Q47

@Neet_pg_bot

Q48: Which is the most common site for head and neck cancer in India? (Q857664)

A. Nasopharynx

B. Oropharynx

C. Oral cavity

D. Hypopharynx

See Answer in Part B → Q48

@Neet_pg_bot

Q49: What is the most likely diagnosis for a 14-year-old male who has been experiencing repeated nosebleeds, without any history of injury, along with nasal blockage and excessive nasal discharge? During examination, a solid, purplish growth is observed on the back of the nasopharynx. (Q857673)

A. Nasopharyngeal carcinoma

B. Rhabdomyosarcoma

C. Pyogenic granuloma

D. Juvenile nasopharyngeal angiofibroma

See Answer in Part B → Q49

@Neet_pg_bot

Q50: Which of the following statements accurately describes the Little's area? (Q857680)

A. Keisselbach’s plexus is present in the Little’s area

B. It is situated at the posteroinferior part of the nasal septum

C. Least common site for epistaxis

D. Anastomoses of 7 major arteries occur here

See Answer in Part B → Q50

@Neet_pg_bot

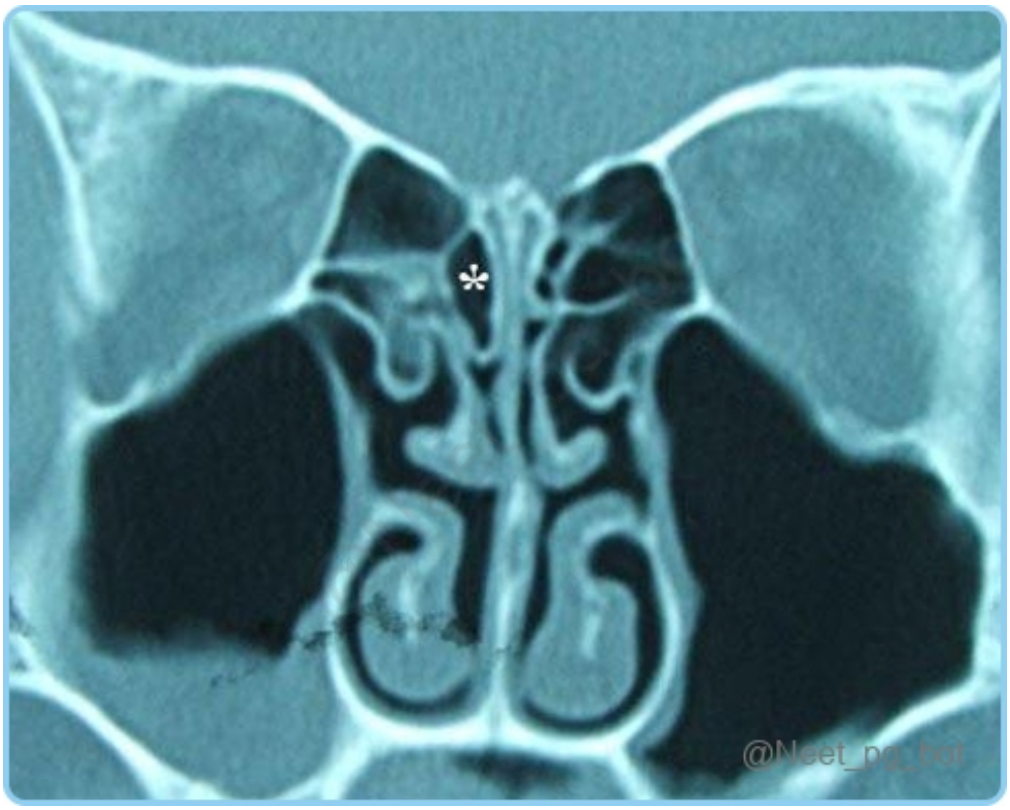
Q51: Choose the best description for the structure marked in the CT given below. (Q856041)

A. Agger nasi cell

B. Pneumatised superior turbinate

C. Onodi cell

D. Haller cell



See Answer in Part B → Q51

@Neet_pg_bot

Q52: What is the probable diagnosis for a person who has facial swelling and orbital edema on the left side of their face after a minor trauma involving a piece of wood 20

days ago? The CT scan showed no abnormalities in the sinuses but revealed subcutaneous nodules. Microscopic examination of tissue sections showed positivity for PAS stain and Grocott's methenamine silver stain. (Q856638)

A. Phycomycosis

B. Midline lethal granuloma

C. Foreign body granuloma

D. IgG4 granuloma

See Answer in Part B → Q52

@Neet_pg_bot

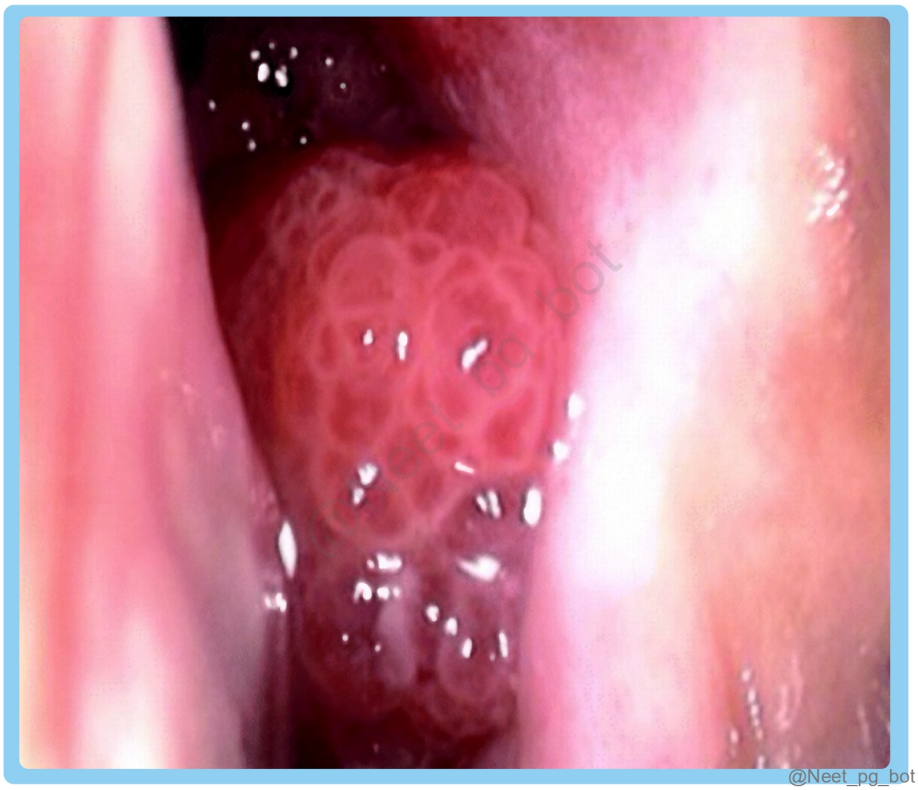
Q53: A 65-year-old patient presents with right-sided nasal obstruction and occasional blood-stained nasal discharge. His CT and endoscopy findings are shown in the below image. What could be the underlying cause? (Q856642)

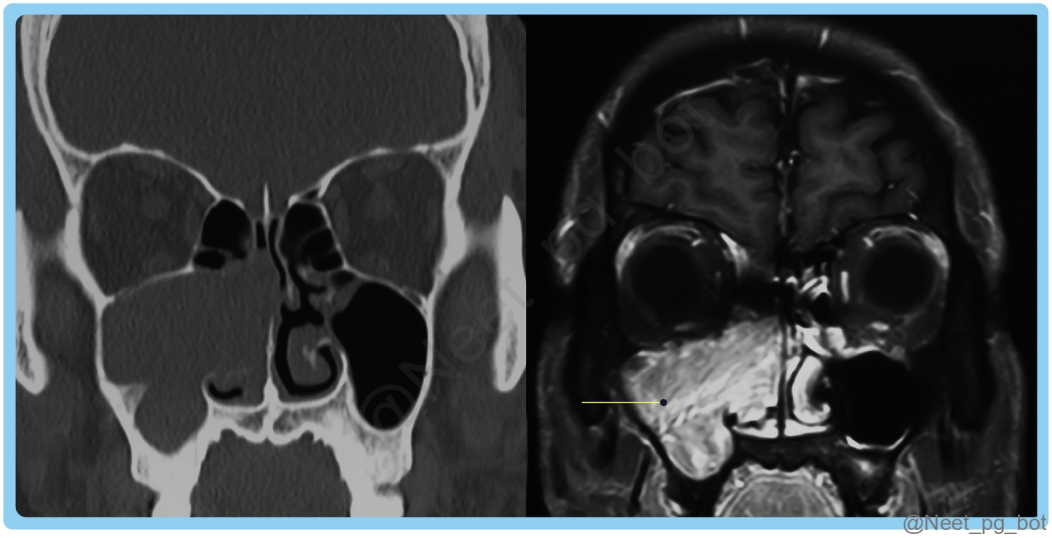
A. Inverted papilloma

B. Carcinoma maxilla

C. Esthesioneuroblastoma

D. Nasopharyngeal angiofibroma





See Answer in Part B → Q53

@Neet_pg_bot

Q54: Which of the following is not considered a major diagnostic criterion for allergic fungal sinusitis? (Q856722)

A. Fungal culture

B. Presence of Allergic Mucin

C. Characteristic CT findings: Double Density

D. Positive KOH stain

See Answer in Part B → Q54

@Neet_pg_bot

Q55: A female patient came with complaints of nasal obstruction, loss of smell and foul smelling nasal discharge. On examination, presence of yellowish-green crusts in the nasal cavity along with merciful anosmia is observed. Which of the following additional findings may be observed in this patient? (Q856222)

A. Roomy nasal cavity

B. Nasal polyps

C. Inferior turbinate hypertrophy

D. Foreign body

See Answer in Part B → Q55

@Neet_pg_bot

Q56: What should be the subsequent course of action in managing a patient who arrives at the emergency department with epistaxis, despite unsuccessful attempts to stop the bleeding by pinching the nostrils and nasal packing? (Q856235)

A. Ligation of external carotid artery

B. Ligation of internal carotid artery

C. Ligation of sphenopalatine artery

D. Ligation of maxillary artery

See Answer in Part B → Q56

@Neet_pg_bot

Q57: What is the commonly used name for the view shown in the radiograph below, which is used to assess the frontal sinus more effectively? (Q856782)

A. Water’s view

B. Caldwell view

C. Pierre’s view

D. Towne’s view

See Answer in Part B → Q57

@Neet_pg_bot

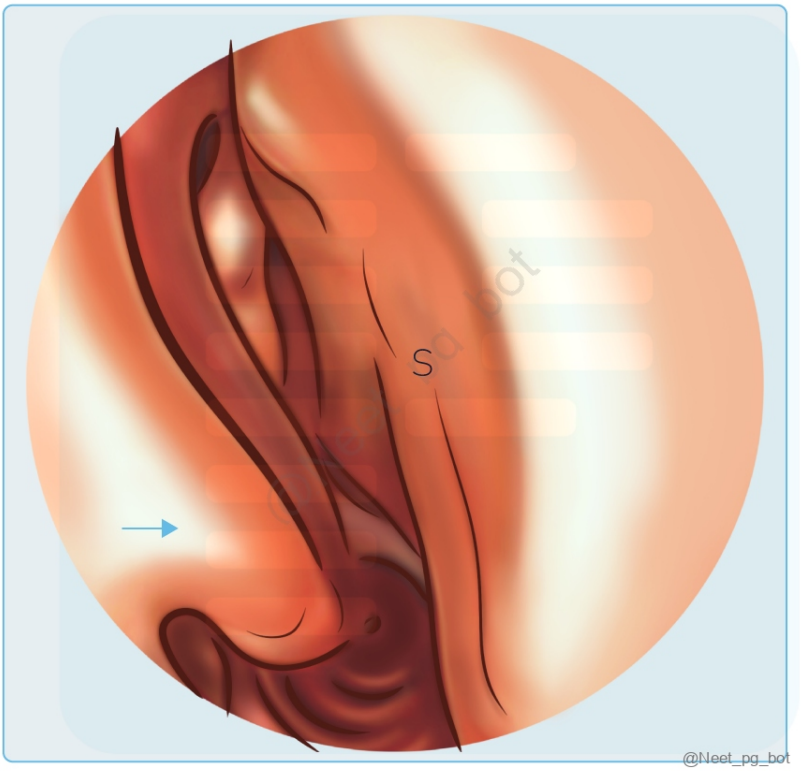
Q58: Please identify the structure indicated in the endoscopic image of the right nasal cavity. (Q856783)

A. Inferior turbinate

B. Middle turbinate

C. Superior turbinate

D. Uncinate process



See Answer in Part B → Q58

@Neet_pg_bot

Q59: What is the first air cell of the anterior ethmoidal sinus called? (Q856304)

A. Bulla ethmoidalis

B. Onodi cell

C. Agger nasi

D. Haller cell

See Answer in Part B → Q59

@Neet_pg_bot

Q60: Which among the following is not a division of external carotid artery within Kiesselback's plexus? (Q856307)

A. Anterior ethmoidal artery

B. Sphenopalatine artery

C. Greater palatine artery

D. Septal branch of superior labial

See Answer in Part B → Q60

@Neet_pg_bot

Q61: Which of the following views involves an X-ray beam angled at 45° to the orbitomeatal line is also known as? (Q854884)

A. Water’s view

B. Towne’s view

C. Law’s view

D. Stenver’s view

See Answer in Part B → Q61

@Neet_pg_bot

Q62: Which is the condition where surgery is done to partially or completely occlude one nostril? (Q858488)

A. Vasomotor rhinitis

B. Atrophic rhinitis

C. Invasive aspergillosis

D. Allergic rhinitis

See Answer in Part B → Q62

@Neet_pg_bot

Q63: What is the preferred diagnostic procedure prior to performing functional endoscopic sinus surgery (FESS)? (Q859407)

A. MRI scan

B. X-ray

C. Antral lavage

D. CT scan

See Answer in Part B → Q63

@Neet_pg_bot

Q64: What is the most frequent location of obstruction caused by a nasal polyp originating from the maxillary sinus? (Q859411)

A. Inferior meatus

B. Superior meatus

C. Middle meatus

D. Sphenoethmoidal recess

See Answer in Part B → Q64

@Neet_pg_bot

Q65: Which of the following least likely causes nasal septal perforation? (Q859412)

A. Rhinosporidiosis

B. Seasonal influenza

C. Syphilis

D. Tuberculosis

See Answer in Part B → Q65

@Neet_pg_bot

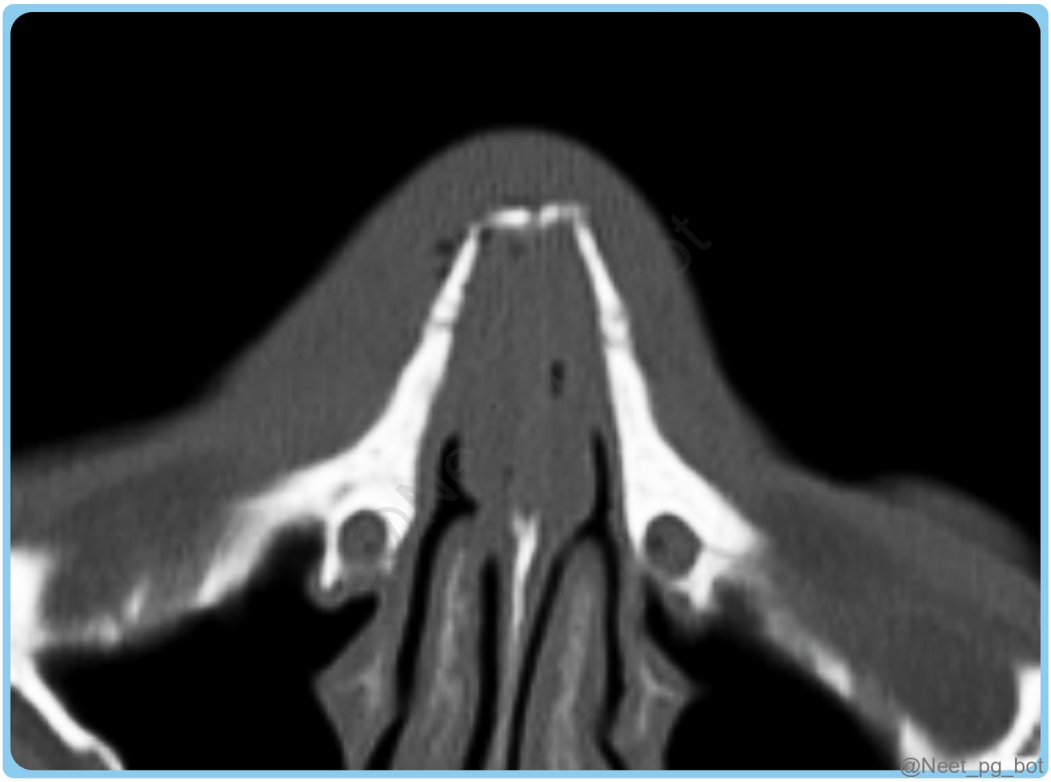
Q66: A boy fell down while playing and presented with deviated nose. The septum however was found to be normal. Following is the CT finding of the patient. What is the next step in management? (Q859861)

A. Septo-rhinoplasty

B. Open reduction

C. Closed reduction after edema subsides in 20 days

D. Closed reduction after swelling decreases automatically



See Answer in Part B → Q66

@Neet_pg_bot

Q67: A young adult presents with a deformed nose after falling from a ladder. The CT scan shows a displaced nasal fracture. What is the ideal time to reduce the fracture in this patient? (Q859862)

A. Within 12 hours following the injury

B. 5-7 days following injury

C. After 2 weeks of injury

D. After 4 weeks of injury

See Answer in Part B → Q67

@Neet_pg_bot

Q68: Rhinolalia clausa occurs in all except: (Q859865)

A. Nasopharyngeal polyp

B. Nasopharyngeal carcinoma

C. Cleft palate

D. Nasopharyngeal angiofibroma

See Answer in Part B → Q68

@Neet_pg_bot

Q69: At what age frontal sinuses appear on X ray? (Q859871)

A. 1 years

B. 2 years

C. 3 years

D. 4 years

See Answer in Part B → Q69

@Neet_pg_bot

Q70: What is the likely diagnosis for a 70-year-old man who has neck nodes and exhibits a dull tympanic membrane, along with symptoms of deafness and tinnitus in the left ear, and a type B graph on tympanometry? (Q859881)

A. Chronic suppurative otitis media

B. Glomus tumor

C. Nasopharyngeal carcinoma

D. Sensorineural hearing loss

See Answer in Part B → Q70

@Neet_pg_bot

Q71: A middle-aged man presents with complaints of a facial deformity, as shown in the image below. His medical records show a history of acne rosacea. What is the likely diagnosis? (Q859885)

A. Rhinophyma

B. Rhinoscleroma

C. Rhinosporidiosis

D. Scleroderma

See Answer in Part B → Q71

@Neet_pg_bot

Q72: What is the term used to describe the sign depicted in the contrast-enhanced CT scan of the head shown below in a 14-year-old football player who presented to the casualty with complaints of epistaxis while playing football, along with a history of recurrent spontaneous nasal bleeding, unilateral nasal obstruction, and denasal

speech, without any history of trauma or falls? (Q859890)

A. Aquino Sign

B. Holman Miller sign

C. Teardrop sign

D. Hanging drop sign

See Answer in Part B → Q72

@Neet_pg_bot

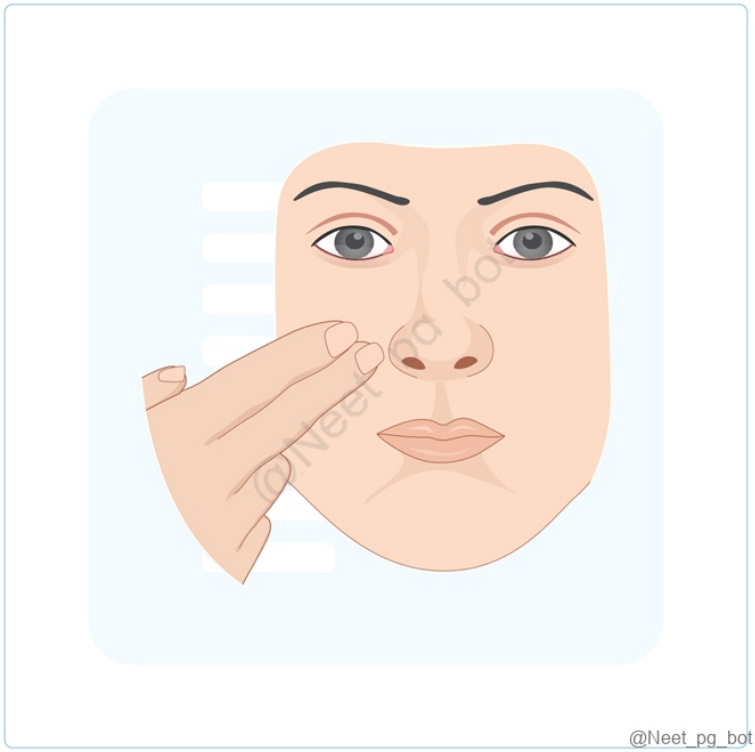
Q73: Which clinical test is being shown in the image? (Q859896)

A. Epley’s maneuver

B. Heimlich maneuver

C. Cottle’s test

D. Trotter’s method



See Answer in Part B → Q73

@Neet_pg_bot

Q74: A 60-year-old post-COVID male patient came with complaints of one-sided facial swelling, headache, and nasal sinus congestion. He is diabetic and it is uncontrolled. On examination black lesions on the nasal bridge and upper inside of the mouth were observed. Which investigation would you do to confirm the diagnosis of this patient? (Q855586)

A. X-ray

B. Biopsy with histopathologic examination

C. Serum ferritin

D. HbA1c

See Answer in Part B → Q74

@Neet_pg_bot

Q75: A patient presents with acute exacerbation of asthma; he gives a history of sinusitis and headaches for which he had self-medicated. Examination reveals nasal polyposis; which of the following drugs is likely implicated in this episode of asthma in this patient? (Q855775)

A. Cotrimoxazole

B. Co-amoxiclav

C. Aspirin

D. Chloramphenicol

See Answer in Part B → Q75

@Neet_pg_bot

Q76: A patient presents with a fish bone stuck in the pyriform sinus. During the removal procedure, there is accidental nerve injury. Which nerve is most likely to be damaged? (Q866705)

A. Recurrent laryngeal nerve

B. Glossopharyngeal nerve

C. Internal branch of the superior laryngeal nerve

D. External branch of the superior laryngeal nerve

See Answer in Part B → Q76

@Neet_pg_bot

Q77: A professional singer presents with difficulty in raising the pitch of her voice following thyroid surgery. There is no hoarseness, but high-pitched voice production is impaired. Which nerve is most likely injured? (Q866708)

A. External branch of the superior laryngeal nerve (EBSLN)

B. Internal branch of the superior laryngeal nerve (IBSLN)

C. Recurrent laryngeal nerve (RLN)

D. Glossopharyngeal nerve

See Answer in Part B → Q77

@Neet_pg_bot

Q78: Which of the following subunit is associated with inspiratory stridor? (Q866740)

A. Glottic

B. Supraglottic

C. Subglottic

D. Trachea

See Answer in Part B → Q78

@Neet_pg_bot

Q79: Which of the following are the causes of stridor in neonates: a. Laryngomalacia b. Subglottic stenosis c. Recurrent respiratory papillomatosis d. Hemorrhagic polyp (Q865392)

A. b, c

B. a, b

C. a, d

D. b,d

See Answer in Part B → Q79

@Neet_pg_bot

Q80: Identify the structure on AP barium swallow (Q866314)

A. Pyriform Sinus

B. Epiglottis

C. Vallecula

D. Thyroid cartilage

See Answer in Part B → Q80

@Neet_pg_bot

Q81: A 72-year-old female smoker presents with a long history of hoarseness and difficulty swallowing. Laryngoscopy and biopsy confirm a large, advanced squamous cell carcinoma that involves both vocal cords and extends into the subglottic region and the thyroid cartilage. The tumor is not amenable to radiation therapy alone. Based on the extent and location of the tumor, which of the following surgical procedures is most appropriate to ensure complete tumor removal with adequate margins and control the disease? (Q866512)

A. Partial laryngectomy

B. Total laryngectomy

C. Emergency tracheostomy

D. Submental tracheostomy

See Answer in Part B → Q81

@Neet_pg_bot

Q82: Which of the following is a life-threatening nerve injury? (Q853125)

A. Bilateral Complete RLN Palsy

B. Bilateral Partial RLN palsy

C. Unilateral complete RLN palsy

D. Unilateral partial RLN palsy

See Answer in Part B → Q82

@Neet_pg_bot

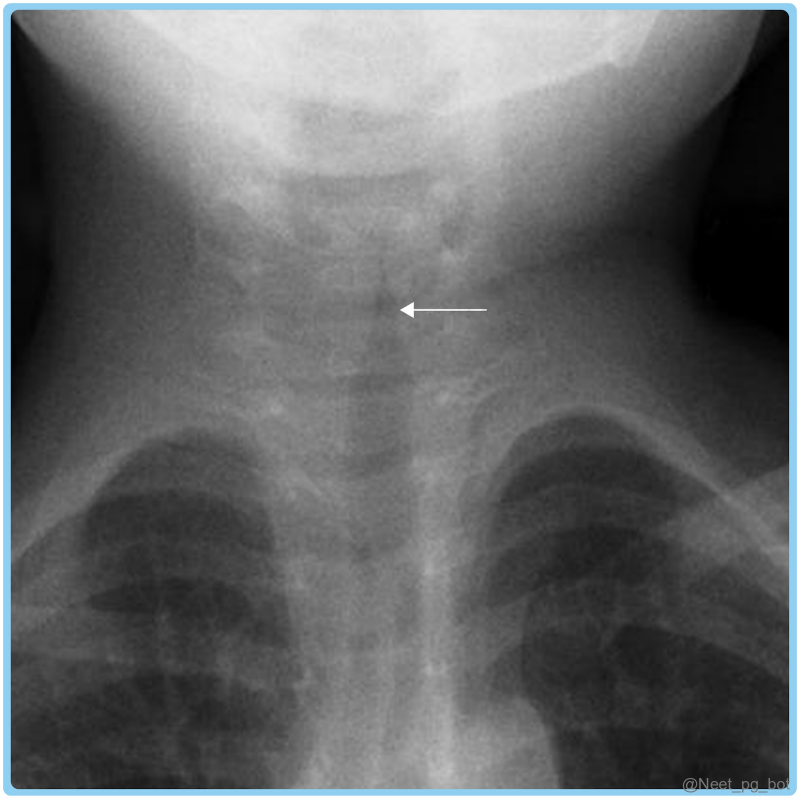
Q83: A patient was presented to the OPD with a sudden onset of shortness of breath. Identify the condition with the radiological image given below. (Q852642)

A. Epiglottitis

B. Laryngotracheobronchitis

C. Bronchitis

D. Laryngomalacia



See Answer in Part B → Q83

@Neet_pg_bot

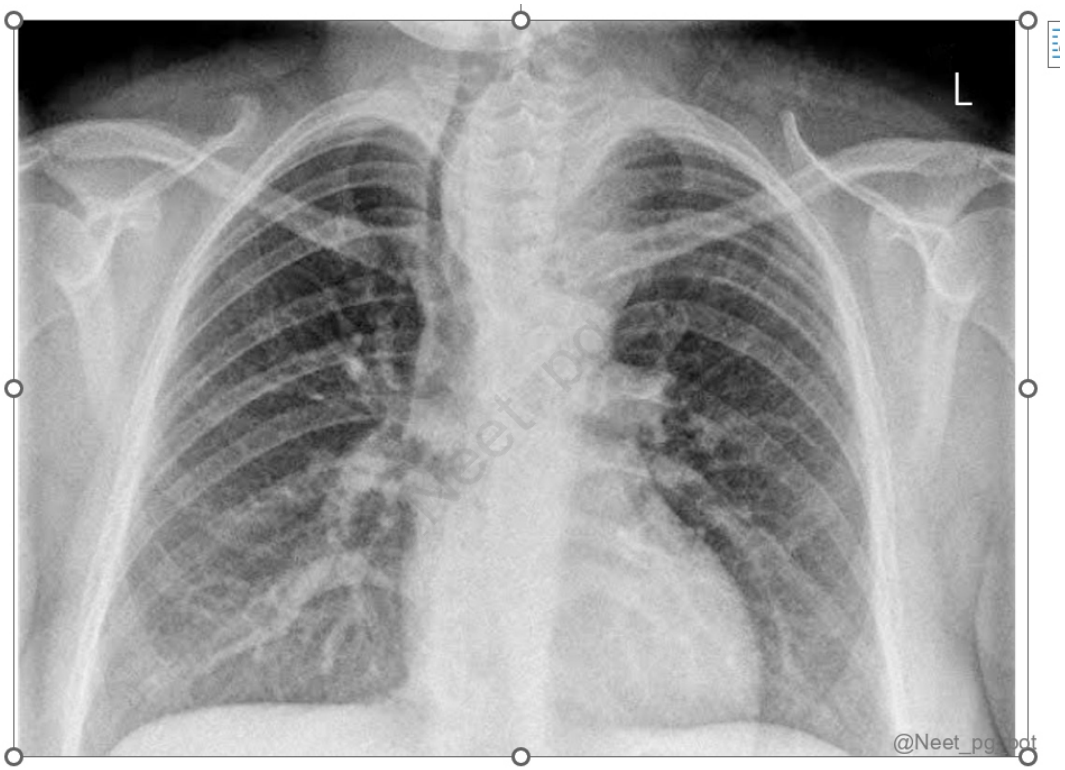
Q84: Based on the provided chest X-ray, which of the following procedures would be most challenging to perform? (Q843924)

A. Tracheostomy

B. Laryngeal Mask Airway (LMA) insertion

C. Ryle’s Tube (RT) insertion

D. Indirect laryngoscopy



See Answer in Part B → Q84

@Neet_pg_bot

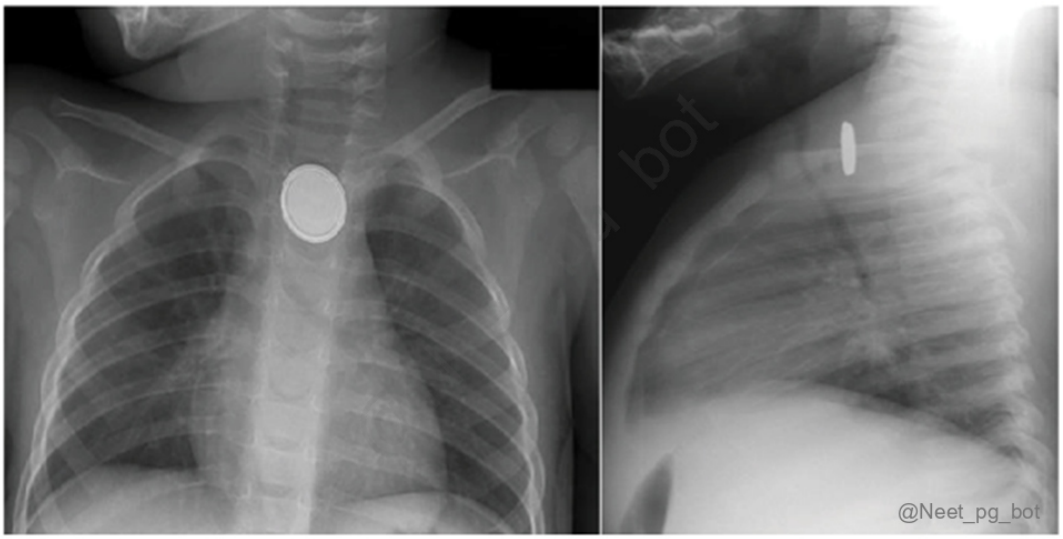
Q85: Which of the following signs can be appreciated in the given X-ray? (Q843926)

A. Steeple sign

B. String sign

C. Thumb sign

D. Double ring sign



See Answer in Part B → Q85

@Neet_pg_bot

Q86: A patient with prolonged intubation complained of respiratory distress. Which of the following staging systems is used to stage the condition shown in the image? (Q843977)

A. Cottom-Meyer classification

B. Radkowski classification

C. TNM classification

D. AJCC classification

See Answer in Part B → Q86

@Neet_pg_bot

Q87: A singer is finding difficulty in raising the pitch of her voice. On examination, her vocal cords were depressed and bowing. Which of the following muscles is involved? (Q844011)

A. Cricothyroid

B. Interarytenoid

C. Posterior cricoarytenoid

D. Lateral arytenoid

See Answer in Part B → Q87

@Neet_pg_bot

Q88: Which of the following stains can be used to identify a laryngeal mass during laryngeal examination? (Q844018)

A. Congo red

B. Supravital stain

C. Silver nitrate

D. H and E

See Answer in Part B → Q88

@Neet_pg_bot

Q89: Which of the statement is true regarding laryngomalacia? (Q860440)

A. Expiratory stridor

B. Breathing Improves in supine position

C. Most common congenital abnormality in infants

D. Surgical management is required in most children

See Answer in Part B → Q89

@Neet_pg_bot

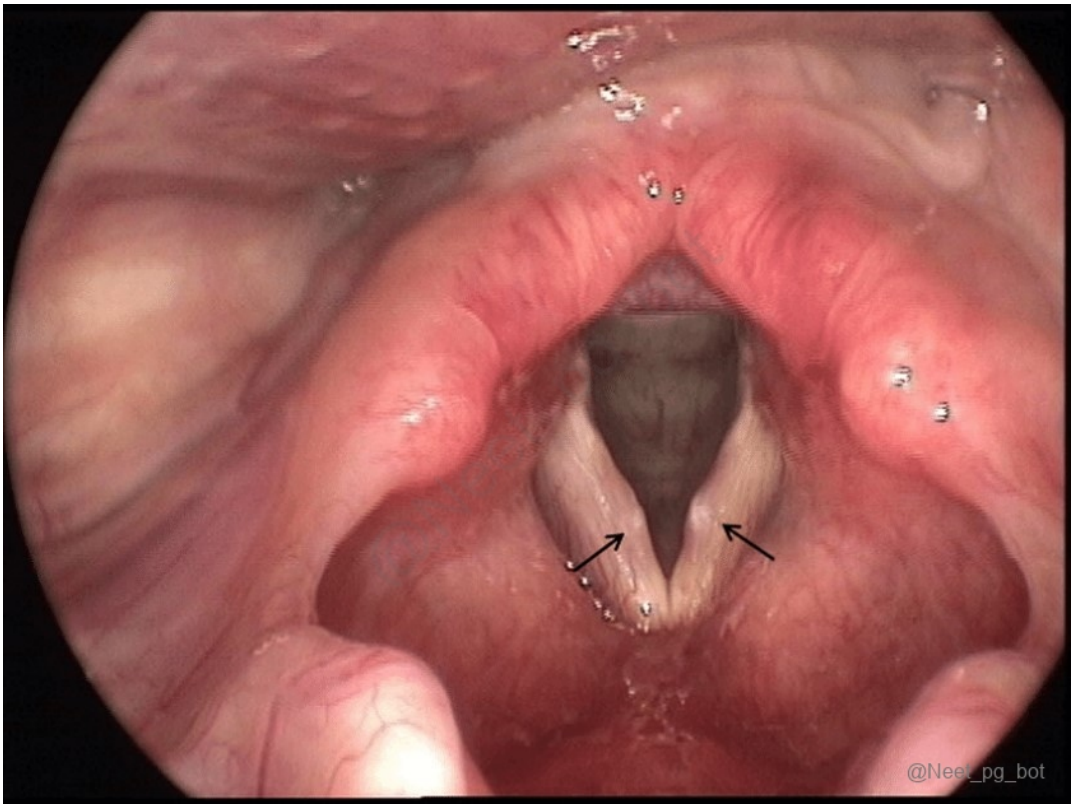
Q90: A 45-year-old teacher presents to the physician with complaints of hoarseness and voice fatigue. She reports that these symptoms have been gradually worsening over the past few months, especially towards the end of the school day. She denies any history of smoking or excessive alcohol consumption. Flexible laryngoscopy image is given below. what is the diagnosis? (Q860469)

A. Vocal nodule

B. Reinkes edema

C. Vocal polyp

D. Keratosis larynx



See Answer in Part B → Q90

@Neet_pg_bot

Q91: A 2-year-old child presents to the emergency department with a barking cough and noisy breathing. An anteroposterior view of x ray of the neck shows a steeple sign. What type of stridor is most commonly associated with this presentation? (Q860482)

A. Inspiratory

B. Expiratory

C. Biphasic

D. Uniphasic

See Answer in Part B → Q91

@Neet_pg_bot

Q92: Which structures pass between structures passing between the superior and middle pharyngeal constrictor muscles.? (Q839978)

A. Stylopharyngeus muscle and glossopharyngeal nerve

B. Internal laryngeal nerve and superior laryngeal artery

C. Recurrent laryngeal nerve

D. Ascending palatine artery

See Answer in Part B → Q92

@Neet_pg_bot

Q93: Which vitamin deficiency leads to Laryngismus stridulus? (Q860085)

A. Vitamin K

B. Vitamin E

C. Vitamin D

D. Vitamin A

See Answer in Part B → Q93

@Neet_pg_bot

Q94: Which of the following symptoms is a 27-year-old female patient presenting with thyroid swelling is unlikely to experience due to compression of adjacent structures? (Q857376)

A. Hoarseness of voice due to recurrent laryngeal nerve compression

B. Dysphagia due to oesophagus compression

C. Superior vena cava syndrome

D. None of the above

See Answer in Part B → Q94

Q95: A 55-year-old patient comes with hoarseness of voice and difficulty swallowing. The patient was diagnosed with laryngeal carcinoma, and surgical management was done. The post-operative image of the patient is given below. Which of the following surgery was done on this patient? (Q855206)

A. Partial laryngectomy

B. Percutaneous tracheostomy

C. Standard tracheostomy

D. Total laryngectomy

See Answer in Part B → Q95

Q96: Which of the following symptoms does a patient with Reinke's edema classically present with? (Q858052)

A. Diplophonia

B. Dysphonia

C. Dysphagia of liquids more than solids

D. Dysphagia of solids more than liquids

See Answer in Part B → Q96

@Neet_pg_bot

Q97: A patient who is a teacher by profession presents to the clinic with hoarseness of voice. What is the most likely diagnosis for this patient? (Q858098)

A. Vocal polyp

B. Vocal cyst

C. Vocal nodule

D. Reinke's oedema

See Answer in Part B → Q97

@Neet_pg_bot

Q98: Which of the following is true about laryngeal cancer stage T1bNOMO? (Q858110)

A. Both vocal cords involved and fixed

B. Both vocal cords involved, and no metastasis

C. One vocal cord involved and metastasis

D. One vocal cord involved, and mobile

See Answer in Part B → Q98

@Neet_pg_bot

Q99: What nerve is most likely to be damaged when the cough reflex is impaired due to alcohol ingestion and other conditions, resulting in the prevention of foreign body entry into the laryngeal inlet? (Q855570)

A. Internal laryngeal nerve

B. Glossopharyngeal nerve

C. External laryngeal nerve

D. Recurrent laryngeal nerve

See Answer in Part B → Q99

@Neet_pg_bot

Q100: CT scan of a patient with laryngeal carcinoma is shown below. What is the staging? (Q855759)

A. T1NOMO

B. T4N1MO

C. T2N1MO

D. T3NOMO

@Neet_pg_bot

See Answer in Part B → Q100

@Neet_pg_bot

Q101: How should a patient with diphtheria and right vocal fold palsy be treated? (Q856974)

A. Wait and watch

B. Gelfoam injection

C. Thyroplasty type 1

D. Fat injection

See Answer in Part B → Q101

@Neet_pg_bot

Q102: Which of the subsequent laryngeal cartilages is least prone to calcification? (Q857660)

A. Thyroid

B. Cricoid

C. Arytenoid

D. Epiglottis

See Answer in Part B → Q102

@Neet_pg_bot

Q103: Which of the following is not employed in post-laryngectomy rehabilitation? (Q856051)

A. Tracheoesophageal prosthesis

B. Esophageal speech

C. Super supraglottic swallow

D. Polite yawning

See Answer in Part B → Q103

@Neet_pg_bot

Q104: What is a drug called Mitomycin-C used for in medical treatment? (Q856216)

A. Subglottic stenosis

B. Rhinocerebral mucormycosis

C. Adenoidectomy

D. Tympanoplasty

See Answer in Part B → Q104

@Neet_pg_bot

Q105: What is the most likely reason for a patient experiencing breathing difficulties and unsuccessful extubation after undergoing a total thyroidectomy? (Q856219)

A. Superior laryngeal nerve injury

B. Unilateral recurrent laryngeal nerve injury

C. Bilateral recurrent laryngeal nerve injury

D. Hematoma

See Answer in Part B → Q105

@Neet_pg_bot

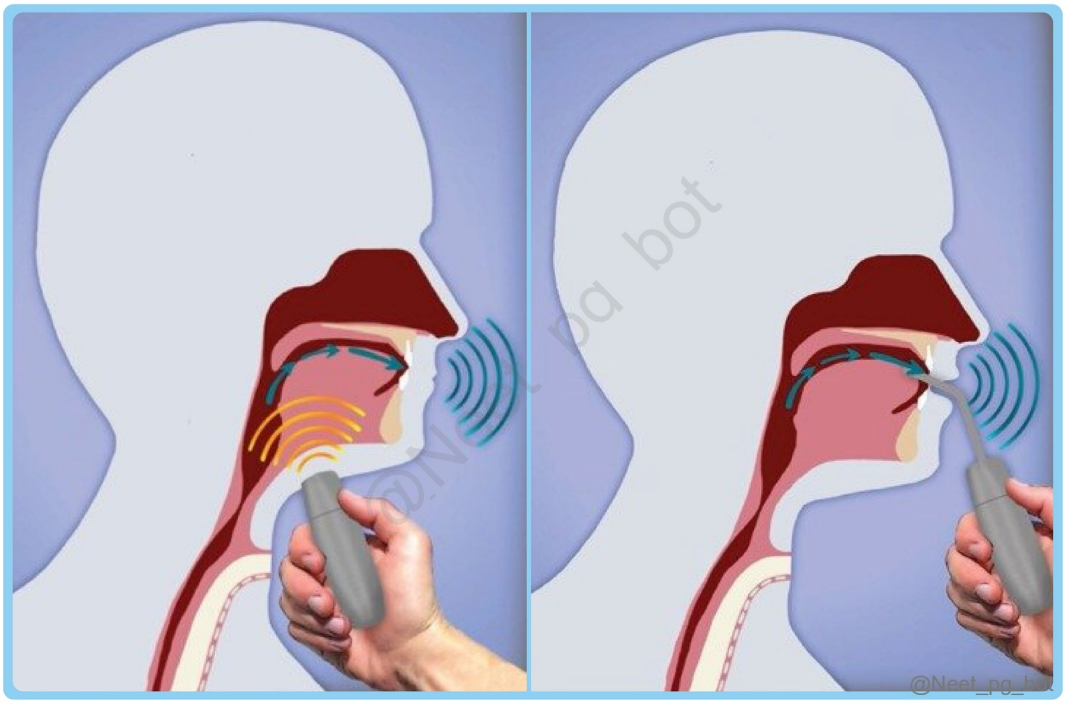
Q106: In a patient with laryngeal cancer who has undergone a total laryngectomy, determine the mode of voice production depicted in the provided image. (Q856778)

A. Tracheoesophageal prosthesis

B. Chicago implant

C. Electro larynx

D. Esophageal speech



See Answer in Part B → Q106

@Neet_pg_bot

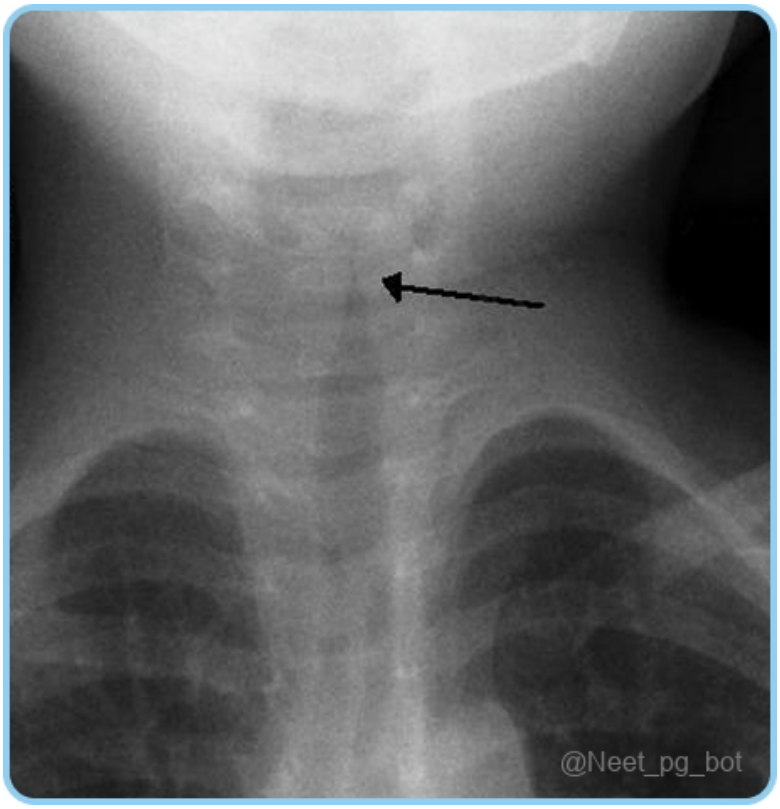
Q107: A 2-year-old child presented with the following X-ray finding. What is the most likely diagnosis? (Q854886)

A. Acute laryngotracheobronchitis

B. Acute epiglottitis

C. Acute pharyngitis

D. Parapharyngeal abscess



See Answer in Part B → Q107

@Neet_pg_bot

Q108: Laryngeal crepitus is absent in which of the following conditions? (Q859356)

A. Post-cricoid malignancy

B. Hypopharyngeal abscess

C. Parapharyngeal abscess

D. Prevertebral abscess

See Answer in Part B → Q108

@Neet_pg_bot

Q109: Which of the following organisms does not cause croup? (Q859367)

A. Parainfluenza 1

B. Parainfluenza 2

C. Rhinovirus

D. RSV

See Answer in Part B → Q109

@Neet_pg_bot

Q110: A 65 year old male presented with history of dysphagia, halitosis and aspiration pneumonia. A barium swallow was done and is given below. What is the diagnosis? (Q859372)

A. Diffuse oesophageal spasm

B. Achalasia cardia

C. Zenker’s diverticulum

D. Esophageal cancer

See Answer in Part B → Q110

@Neet_pg_bot

Q111: What is the TNM staging for a patient with carcinoma in the pyriform fossa, presenting with a 5 cm lesion on laryngoscopy, non-mobile right vocal folds, no lymph node involvement, and no distant metastasis? (Q859378)

A. T2N0M0

B. T3N0M0

C. T4aN0M0

D. T4bN0M0

See Answer in Part B → Q111

@Neet_pg_bot

Q112: A 3-month-old infant is brought in with persistent noisy breathing since birth, which worsens when crying or lying supine. On flexible laryngoscopy, an omega-shaped epiglottis, floppy aryepiglottic folds, and prominent arytenoid cartilages that collapse inward during inspiration are noted. What is the most likely diagnosis? (Q859381)

A. Vocal cord paralysis

B. Subglottic stenosis

C. Laryngeal papilloma

D. Laryngomalacia

See Answer in Part B → Q112

@Neet_pg_bot

Q113: A patient presents with hoarseness of voice. On examination an ulceroproliferative mass is seen on the right vocal cord; the cord was however mobile. There is no lymph node involvement and no metastasis. Which of the following is the best treatment modality for this patient? (Q859402)

A. Total laryngectomy

B. Radiotherapy

C. Conservative laryngectomy

D. Chemotherapy

See Answer in Part B → Q113

@Neet_pg_bot

Q114: A young male who is a professional trumpet blower presented with a swelling on the left side of the neck. On examination, there is a gurgling sound when compressing the swelling. As the X-ray neck was inconclusive a CT neck was taken which is shown below. What is the most likely diagnosis? (Q859409)

A. Pharyngeal pouch

B. Laryngocele

C. Trachea-oesophageal fistula

D. Tonsillar

See Answer in Part B → Q114

@Neet_pg_bot

Q115: The instrument shown in the image is not used for which of the following? (Q855220)

A. Airway toileting

B. Upper airway examination

C. Acute nasopharyngeal obstruction

D. Prolonged mechanical ventilation

See Answer in Part B → Q115

@Neet_pg_bot

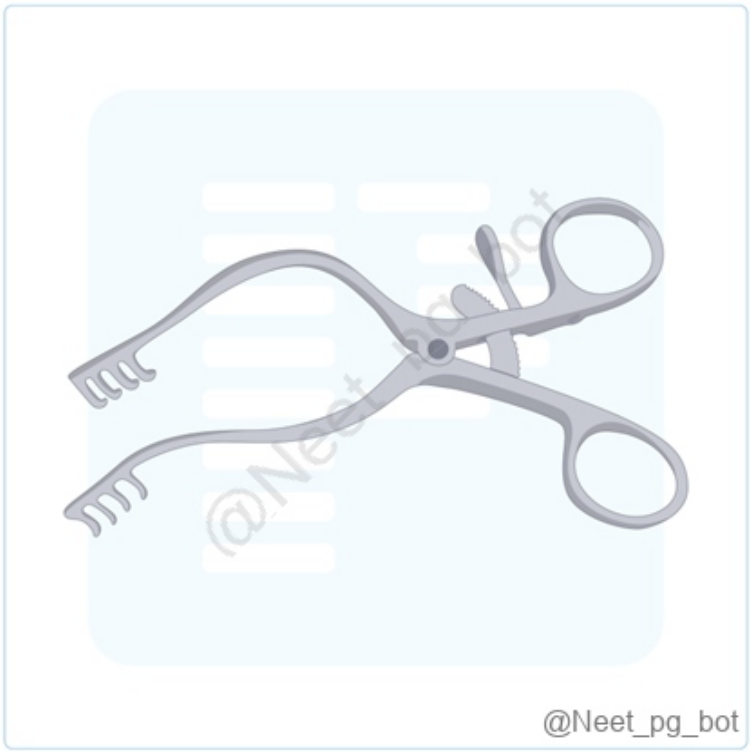
Q116: Identify the retractor shown in the below image. (Q856319)

A. Plester's Retractor

B. Wietlaner’s Retractor

C. Mollison retractor

D. Jansens Retractor



See Answer in Part B → Q116

@Neet_pg_bot

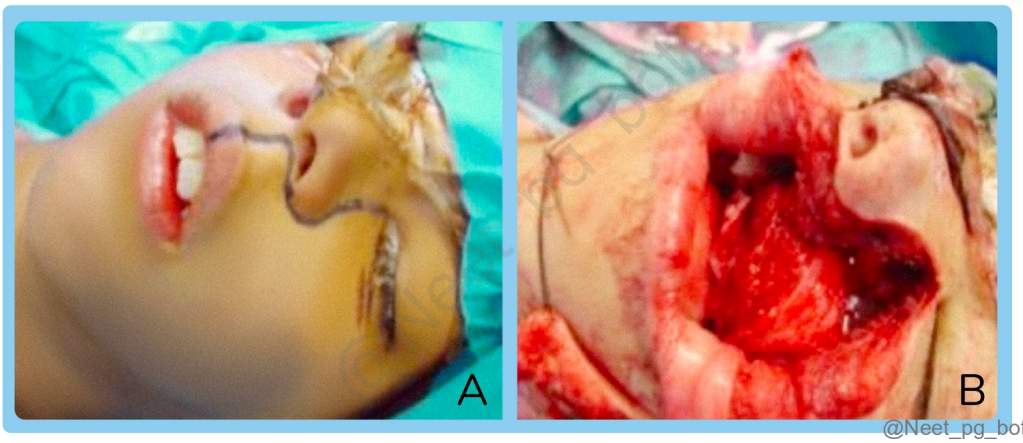
Q117: What surgery is being performed in the image shown? (Q866706)

A. Total ethmoidectomy

B. Partial ethmoidectomy

C. Total maxillectomy

D. Partial maxillectomy



See Answer in Part B → Q117

@Neet_pg_bot

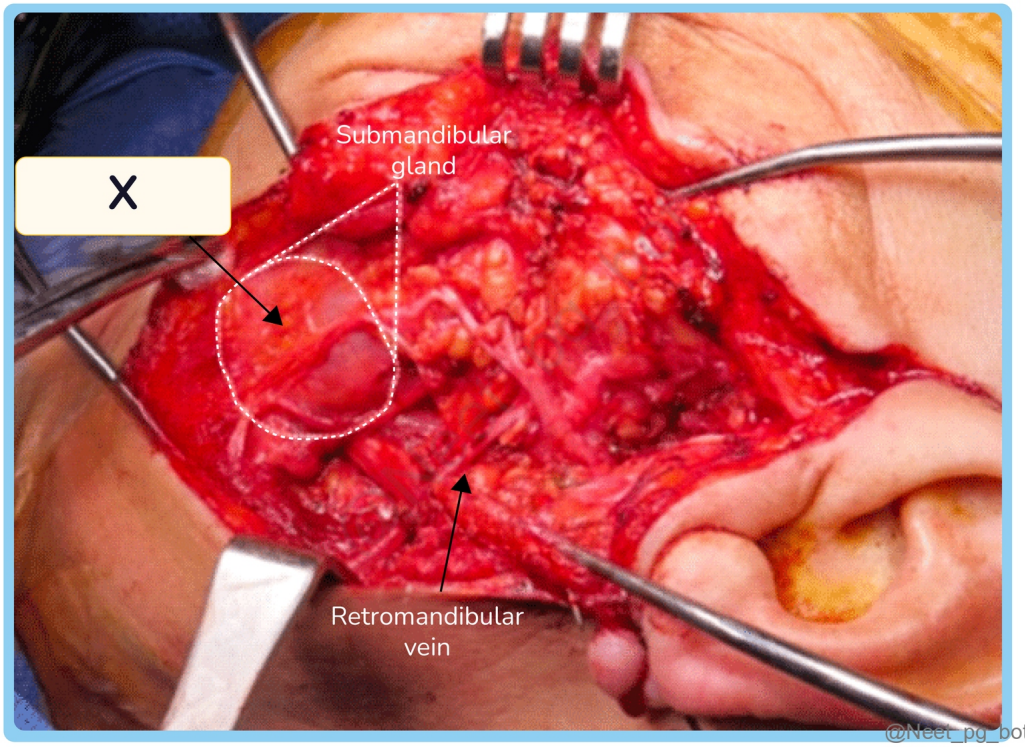
Q118: A structure passing deep to the submandibular gland and curving around the inferior border of the mandible during submandibular gland excision surgery. Identify the structure labeled 'X' in the following image. (Q866568)

A. Facial nerve

B. Marginal mandibular nerve

C. Facial artery

D. Trigeminal nerve



See Answer in Part B → Q118

@Neet_pg_bot

Q119: What is the appropriate approach to treat a child who is attending school and has a repeated occurrence of infections in the upper respiratory tract, difficulty in breathing through the nose, and hearing problems, along with the observation of a palate that is significantly raised in shape? (Q857645)

A. Tonsillectomy

B. Adenoidectomy

C. Adenoidectomy with grommet insertion

D. Myringotomy with grommet insertion

See Answer in Part B → Q119

@Neet_pg_bot

Q120: Which nerve is accountable for causing ear pain following a tonsillectomy procedure among the options provided? (Q857663)

A. Glossopharyngeal nerve

B. Facial nerve

C. Trigeminal nerve

D. Vagus nerve

See Answer in Part B → Q120

@Neet_pg_bot

Q121: Dohlman’s procedure is for: (Q859369)

A. Meckel’s diverticulum

B. Zenker’s diverticulum

C. Bochadlek hernia

D. Menetrier’s disease

See Answer in Part B → Q121

@Neet_pg_bot

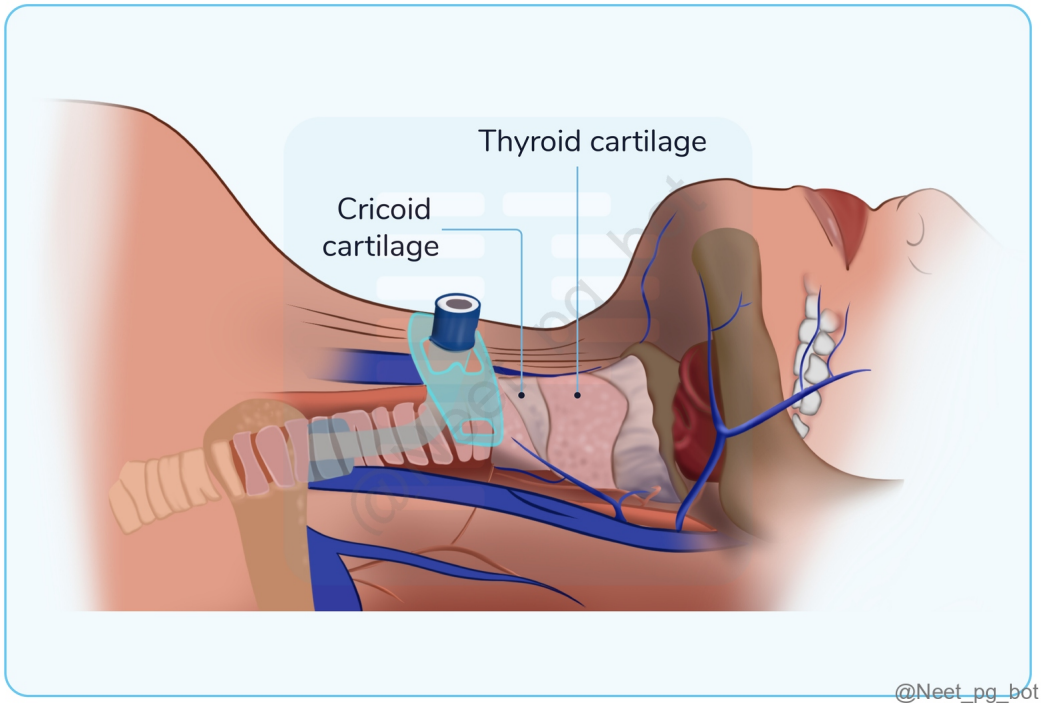
Q122: The image below shows a procedure that was done on the patient. What is the procedure? (Q859878)

A. Endotracheal intubation

B. Needle cricothyroidotomy

C. Tracheostomy

D. Oropharyngeal airway



See Answer in Part B → Q122

@Neet_pg_bot

Q123: A female homemaker arrives with symptoms of nasal congestion, reduced sense of smell, and a dry discharge from the nose that is greenish and crusty. Upon examination, the nasal passages appear spacious, and the turbinates are found to be shriveled. Which surgical procedure would be suitable for this patient? (Q859902)

A. Submucous resection

B. Young's operation

C. Septoplasty

D. Vidian neurectomy

See Answer in Part B → Q123

@Neet_pg_bot

Q124: Arrange the following steps of FESS in the correct order: Visualisation of maxillary sinus ostium Bullectomy Uncinectomy Removal of posterior ethmoidal cells Penetration of the basal lamella (Q879173)

A. 3 → 1 → 2 → 5 → 4

B. 1 → 3 → 2 → 5 → 4

C. 3 → 2 → 1 → 4 → 5

D. 1 → 2 → 3 → 5 → 4

See Answer in Part B → Q124

@Neet_pg_bot

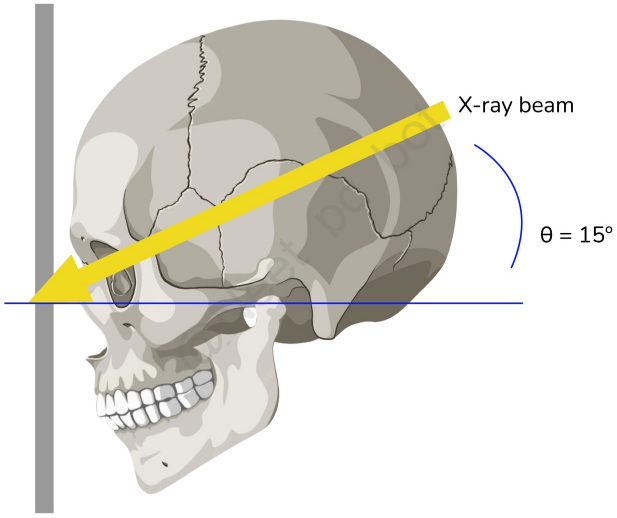
Q125: The frontal sinus can be viewed by taking an X-ray at a specific angle, which is depicted in the image below. What is the name of the view depicted? (Q793460)

A. Caldwell’s view

B. Towne’s view

C. Law’s view

D. Stenvers view



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See Answer in Part B → Q125

@Neet_pg_bot

Q126: An elderly diabetic female patient presented with a black, foul-smelling discharge from the nose. On examination, a blackish necrotic mass has filled the nasal cavity and eroded the septum and hard palate. What is the most probable diagnosis? (Q793472)

A. Aspergillosis

B. Mucormycosis

C. Foreign body

D. Rhinosporidiosis

See Answer in Part B → Q126

@Neet_pg_bot

Q127: A 60-year-old male presents with painless cervical lymphadenopathy and right ear pain. On examination, the right ear reveals conductive hearing loss with a dull tympanic membrane. Moreover, decreased mobility of the soft palate was also noted. What is the probable diagnosis? (Q793567)

A. Nasopharyngeal carcinoma

B. Adenoid cystic cancer

C. Juvenile nasopharyngeal angiofibroma

D. Quinsy

See Answer in Part B → Q127

@Neet_pg_bot

Q128: Which fungal infection is frequently observed in the maxillary sinus? (Q793572)

A. Blastomycosis

B. Aspergillosis

C. Candidiasis

D. Histoplasmosis

See Answer in Part B → Q128

@Neet_pg_bot

Q129: What would be your diagnosis for a patient who has a prior history of trauma and is currently experiencing symptoms such as double vision, nosebleeds, and limited eye movements, based on the provided CT image? (Q793613)

A. Le-fort fracture

B. Fracture maxilla

C. Fracture zygomatic

D. Blow out fracture

See Answer in Part B → Q129

@Neet_pg_bot

Q130: What investigation is carried out immediately after a child is suspected of having inhaled a foreign body? (Q820363)

A. Rigid bronchoscopy

B. Chest X-ray

C. Direct laryngoscopy

D. Flexible endoscopy

See Answer in Part B → Q130

@Neet_pg_bot

Q131: Which of the following treatment options is not recommended for a 4-year-old boy presenting with low-grade fever, inspiratory stridor, and barking cough for the past 5 days? The examination shows a hoarse voice, a moderately inflamed pharynx, and a slightly increased respiratory rate. The chest x-ray reveals subglottic narrowing resembling a steeple. (Q793588)

A. Nebulized racemic epinephrine

B. Parenteral cefotaxime

C. Helium oxygen mixture

D. Intramuscular dexamethasone

See Answer in Part B → Q131

@Neet_pg_bot

Q132: What is the probable cause of surgical emphysema in a patient following an emergency tracheostomy? (Q793619)

A. High tracheostomy

B. Tear in posterior tracheal wall

C. Block in tracheostomy

D. Tight suture around tracheostomy site

See Answer in Part B → Q132

@Neet_pg_bot

• [03_Pharynx] 020 Anatomy Of Pharynx And Pharyngeal Spaces

« Back to Folder Directory

[03_Pharynx] 020 Anatomy Of Pharynx And Pharyngeal Spaces — Quick Jump

Q1 (p. 332) *Q2 (p. 332)* *Q3 (p. 333)* *Q4 (p. 333)* *Q5 (p. 333)* *Q6 (p. 334)*
Q7 (p. 334) *Q8 (p. 335)* *Q9 (p. 336)* *Q10 (p. 336)* *Q11 (p. 337)* *Q12 (p. 337)*
Q13 (p. 338) *Q14 (p. 338)* *Q15 (p. 339)*

Q1: A 57-year-old patient presents with otalgia and dysphagia. A CT scan reveals bilateral calcification of the stylohyoid ligaments, consistent with Eagle syndrome. During surgical repair of this condition, which pharyngeal arch-derived nerve is most likely to be affected due to its proximity? (Q847955)

A. First pharyngeal arch nerve

B. Second pharyngeal arch nerve

C. Third pharyngeal arch nerve

D. Fourth pharyngeal arch nerve

See Answer in Part B → Q1

@Neet_pg_bot

Q2: A 50-year-old male presents with impaired taste sensation. Examination shows diminished taste in the posterior one-third of the tongue. Which of the following nerves is responsible for this condition? (Q847956)

A. Hypoglossal nerve

B. Lingual nerve

C. Chorda tympani nerve

D. Glossopharyngeal nerve

See Answer in Part B → Q2

@Neet_pg_bot

Q3: A 36-year-old patient presents with severe sore throat, difficulty swallowing, and neck pain. On examination, there is noticeable swelling on the lateral aspect of the neck and a muffled voice. Imaging studies reveal an abscess located in the space between the superior and middle pharyngeal constrictor muscles. Which structures pass through this space? (Q847957)

A. Stylopharyngeus muscle and Recurrent laryngeal nerve

B. Levator veli palatini and Glossopharyngeal nerve

C. Levator veli palatini and Recurrent laryngeal nerve

D. Stylopharyngeus muscle and Glossopharyngeal nerve

See Answer in Part B → Q3

@Neet_pg_bot

Q4: A 55-year-old male presents with progressive hearing loss in his right ear over the past few months, along with intermittent facial pain, difficulty swallowing, palate asymmetry, and speech difficulties. Nasopharyngoscopy reveals a nasopharyngeal mass. Which structure is likely responsible for hearing loss in this patient? (Q847958)

A. Cochlear nerve

B. Stylopharyngeus muscle

C. Tympanic membrane

D. Eustachian tube

See Answer in Part B → Q4

@Neet_pg_bot

Q5: A 50-year-old patient presents with dysphagia and a sensation of a lump in the throat. On examination, a mass is noted on the posterior pharyngeal wall. Which

anatomical structure primarily forms the inner layer? (Q847959)

A. Investing fascia

B. Buccopharyngeal Fascia

C. Prevertebral fascia

D. Pharyngobasilar Fascia

See Answer in Part B → Q5

@Neet_pg_bot

Q6: A 38-year-old woman presents with six months of dysphagia, regurgitation, and a feeling of food getting stuck, often coughing while eating. A barium swallow study shows specific findings on the radiograph. Which muscle pairs define the anatomical boundaries of the observed dehiscence? (Q847960)

A. Cricopharyngeus and esophageal muscle fibres

B. Thyropharyngeus and esophageal muscle fibres

C. Thyropharyngeus and cricopharyngeus

D. Inferior constrictor along with upper esophageal muscle fibres

See Answer in Part B → Q6

@Neet_pg_bot

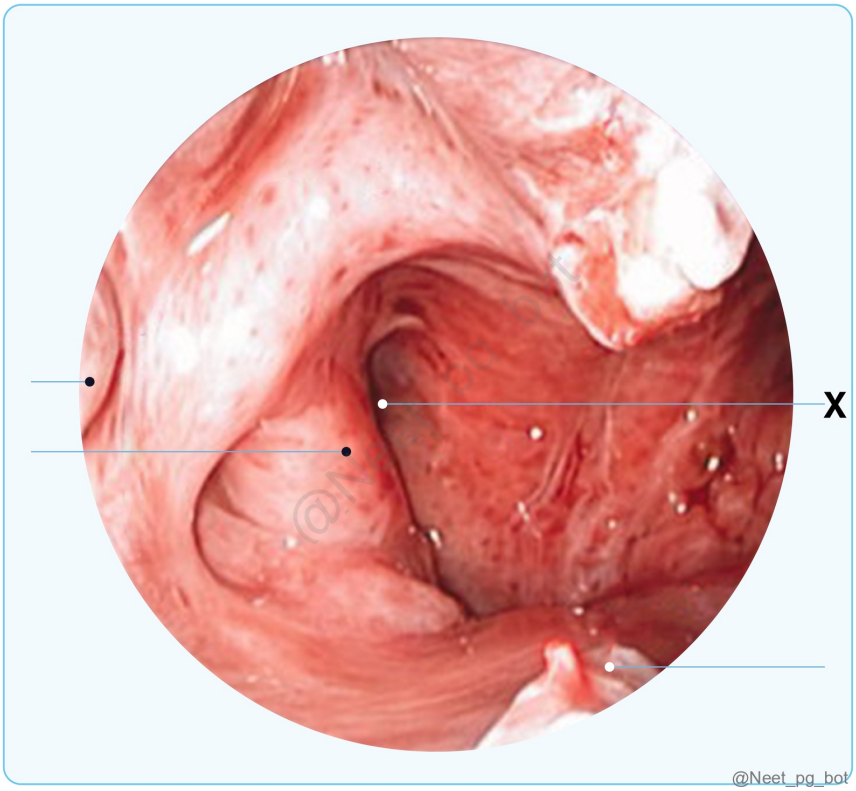
Q7: A 35-year-old female presenting with persistent right ear fullness, hearing loss, and pressure particularly during flights is suspected of having Eustachian tube blockage. During rhinoscopy, a structure labelled as X in the image below is noted. Identify this structure. (Q847961)

A. Pyriform fossa

B. Torus tubarius

C. Fossa of Rosenmuller

D. Post cricoid region



See Answer in Part B → Q7

@Neet_pg_bot

Q8: A 7-year-old girl presents with hypernasal speech and nasal regurgitation of fluids while drinking. She is diagnosed with palatal palsy. Which structure is responsible for separating the nasopharynx from the oropharynx during swallowing, preventing regurgitation? (Q847962)

A. Passavant’s ridge

B. Sinus of Morgagni

C. Rathke’s pouch

D. All of the above

See Answer in Part B → Q8

@Neet_pg_bot

Q9: A teenager presented with a sore throat, difficulty swallowing, and a fever for the past three days. During the oral examination, the ENT surgeon asked the intern about the anatomy of the pharyngeal region located behind the oral cavity. Which of the following is not true about the anatomy of that region ? (Q847963)

A. Anterior pillar is formed by the palatoglossus muscle

B. The lateral wall comprises the anterior and posterior pillars

C. Anterior pillar with uvula form the oropharyngeal isthmus

D. The posterior wall lies opposite the atlas vertebra.

See Answer in Part B → Q9

@Neet_pg_bot

Q10: A 56-year-old woman with a history of Plummer-Vinson syndrome presents with dysphagia, hoarseness, weight loss, and right-sided cervical lymphadenopathy. What is the most likely cause of her symptoms, and which area is most commonly affected? (Q847964)

A. Carcinoma Esophagus, Pyriform fossa

B. Carcinoma Pharynx, Posterior pharyngeal wall

C. Carcinoma Esophagus, Post cricoid region

D. Carcinoma pharynx, Valleculae

See Answer in Part B → Q10

@Neet_pg_bot

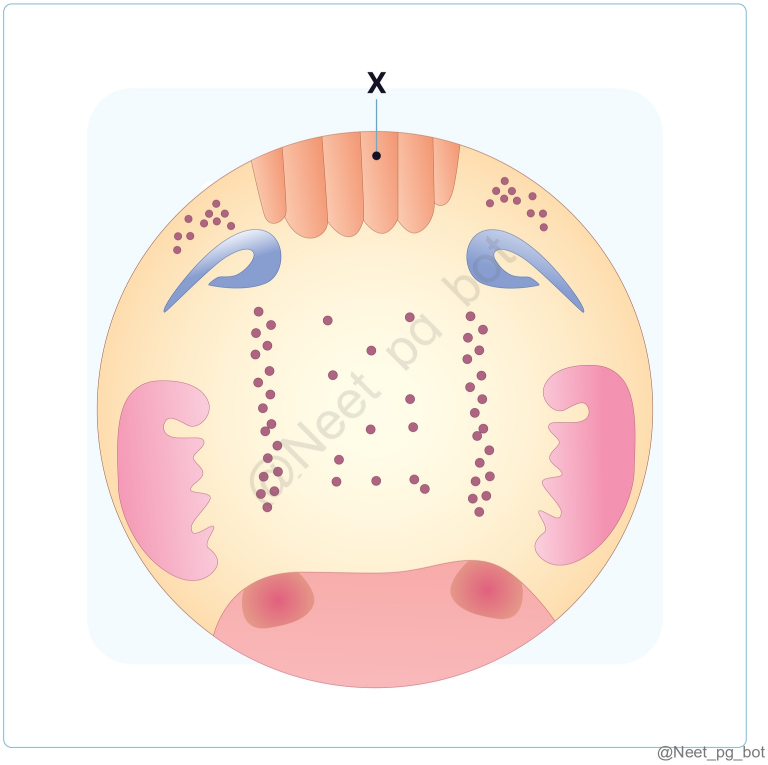
Q11: Identify the structure indicated as ‘X’ in the image. (Q847965)

A. Palatine tonsil

B. Gerlach’s tonsil

C. Lingual tonsil

D. Luschka’s tonsil



See Answer in Part B → Q11

@Neet_pg_bot

Q12: A 28-year-old female arrives at the emergency department with a severe sore throat, difficulty swallowing, fever, a muffled voice, and drooling. Examination reveals tonsil being pushed medially and uvula deviated to opposite side . Which of the

following options defines the boundaries of the infected space? (Q847966)

A. Palatine tonsil and styloglossus

B. Lingual tonsil and superior constrictor

C. Palatine tonsil and superior constrictor

D. Lingual tonsil and styloglossus

See Answer in Part B → Q12

@Neet_pg_bot

Q13: A 7-year-old girl presents with severe throat pain, high fever, difficulty swallowing, excessive drooling, and trouble breathing. Examination reveals swelling in the posterior throat. The ENT specialist mentions that the infected space includes the nodes of Rouviere. Which space is affected? (Q847967)

A. Parapharyngeal space

B. Retropharyngeal space

C. Prevertebral space

D. Sublingual space

See Answer in Part B → Q13

@Neet_pg_bot

Q14: A 5-year-old child presents with persistent nasal congestion, unilateral nasal discharge, and occasional nosebleeds, along with frequent ear infections and a slightly nasal voice. Posterior rhinoscopy is planned. Which of the following structures are normally visible during this procedure? (Q847968)

A. Adenoids

B. Tubal tonsils

C. Pyriform fossa

D. All of the above

See Answer in Part B → Q14

@Neet_pg_bot

Q15: Damage to which of the following muscles is least likely to cause dysarthria or dysphagia? (Q876225)

A. Tongue muscles (genioglossus, hyoglossus)

B. Pharyngeal constrictor muscles

C. Orbicularis oris

D. Stylopharyngeus

See Answer in Part B → Q15

@Neet_pg_bot

• [03_Pharynx] 021 Adenoid And Palatine Tonsils

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[03_Pharynx] 021 Adenoid And Palatine Tonsils — Quick Jump

Q1 (p. 340)	*Q2 (p. 341)*	*Q3 (p. 342)*	*Q4 (p. 342)*	*Q5 (p. 343)*	*Q6 (p. 343)*
Q7 (p. 344)	*Q8 (p. 344)*	*Q9 (p. 345)*	*Q10 (p. 345)*	*Q11 (p. 346)*	*Q12 (p. 346)*
Q13 (p. 347)	*Q14 (p. 347)*	*Q15 (p. 347)*	*Q16 (p. 348)*		

Q1: A 7-year-old child presents with chronic nasal obstruction, snoring, and mouth breathing. Physical examination reveals characteristic facial appearance as shown in the image and hypertrophy of the nasal turbinates. What is the most appropriate diagnostic test to confirm the suspected condition? (Q847969)

A. Posterior rhinoscopy

B. Nasal endoscopy

C. Anterior Rhinoscopy

D. CT Scan of the Nasopharynx

See Answer in Part B → Q1

@Neet_pg_bot

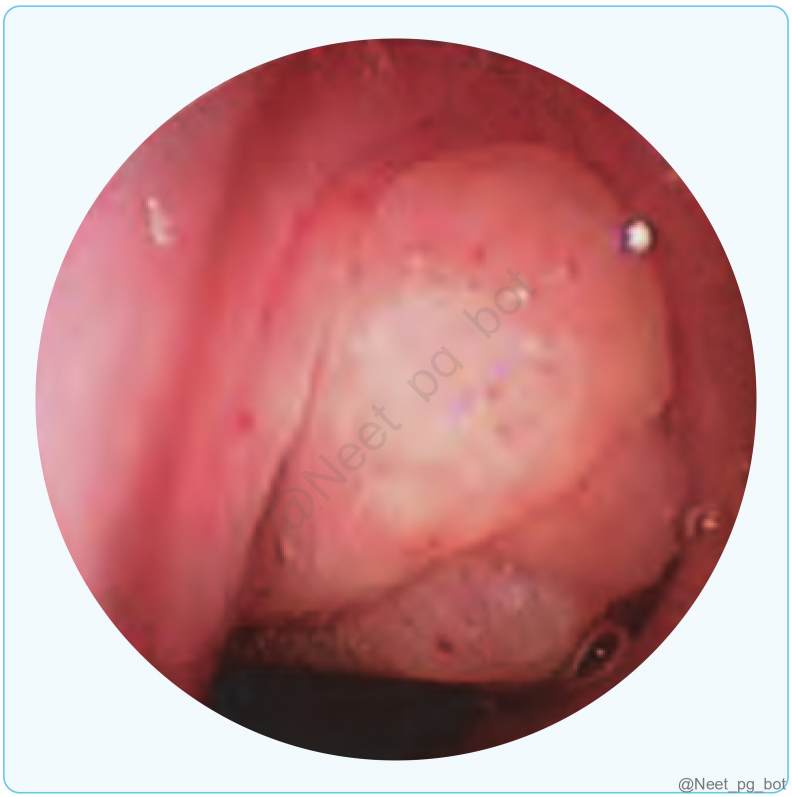
Q2: An 8-year-old child presents with chronic nasal obstruction and recurrent otitis media. The physician performs endoscopy to evaluate adenoid hypertrophy. The endoscopic finding is given in the image. What is the grade of adenoid hypertrophy? (Q847970)

A. Grade I

B. Grade II

C. Grade III

D. Grade IV



See Answer in Part B → Q2

@Neet_pg_bot

Q3: A 6-year-old child with persistent nasal obstruction and recurrent ear infections has not improved with decongestants and antihistamines. What is the most appropriate next step for definitive management currently being used? (Q847971)

A. Curettage

B. Endoscopic adenoidectomy

C. Nasal Steroids

D. Observation

See Answer in Part B → Q3

@Neet_pg_bot

Q4: A 9-year-old child was scheduled for elective adenoidectomy but developed an acute upper respiratory infection the day before the surgery. The child has no cleft palate or bleeding disorders. What is the most appropriate next step? (Q847972)

A. Proceed with adenoidectomy as planned

B. Delay the surgery until the infection resolves

C. Start antibiotics and proceed with surgery

D. Discharge the patient with medical management

See Answer in Part B → Q4

@Neet_pg_bot

Q5: A 6-year-old child undergoes an adenoidectomy. Following the surgery, the child is monitored for potential complications. Which of the following is not a recognised complication of adenoidectomy? (Q847973)

A. Velopharyngeal Insufficiency

B. Grisel’s Syndrome

C. Chronic Otitis Media

D. Injury to Eustachian tube

See Answer in Part B → Q5

@Neet_pg_bot

Q6: A 45-year-old patient presents with chronic nasopharyngeal discomfort and intermittent nasal obstruction. Imaging studies reveal a midline cystic structure in the nasopharynx. The patient is diagnosed with Thornwaldt's disease. Which of the following anatomical remnants is most likely associated with this condition? (Q847974)

A. Remnant of Rathke’s pouch

B. Remnant of the pharyngeal cleft

C. Remnant of the notochord

D. Persistence of the thyroglossal duct

See Answer in Part B → Q6

@Neet_pg_bot

Q7: A 10-year-old child presents with a sore throat, difficulty swallowing, and a fever. On examination, the child has enlarged tonsils with visible crypts. Which of the following anatomical features of the palatine tonsils is not true? (Q847975)

A. They are covered by stratified squamous epithelium with crypts.

B. They receive blood mainly from the tonsillar branch of the facial artery.

C. A fibrous capsule with loose areolar tissue covers the lateral surface.

D. Lymphatic drainage primarily involves the lower deep cervical nodes.

See Answer in Part B → Q7

@Neet_pg_bot

Q8: During a tonsillectomy, injury to structures within the tonsillar bed may result in significant complications. Which of the following structures is not directly associated with the tonsillar bed but can be affected by deep dissection or improper technique? (Q847976)

A. Paratonsillar vein

B. Glossopharyngeal nerve

C. Tonsillar branch of facial artery

D. Hypoglossal nerve

See Answer in Part B → Q8

@Neet_pg_bot

Q9: A 12-year-old patient presents with a sore throat and fever. Upon examination, the physician observes that the tonsils are enlarged and other findings as in the image below. Which type of tonsillitis does this clinical presentation indicate? (Q847977)

A. Acute catarrhal tonsillitis

B. Acute follicular tonsillitis

C. Chronic tonsillitis with tonsillolith

D. Acute membranous tonsillitis

See Answer in Part B → Q9

@Neet_pg_bot

Q10: A 10-year-old boy presents with fever, sore throat, and difficulty swallowing for 3 days. On examination, there is bilateral tonsillar enlargement with purulent exudate. A rapid strep test is positive. What is the next step in management? (Q847978)

A. Prescribe paracetamol and monitor for 48 hours.

B. Initiate a 7-10 day course of oral amoxicillin.

C. Administer intravenous antibiotics.

D. Perform an immediate tonsillectomy.

See Answer in Part B → Q10

@Neet_pg_bot

Q11: A 32-year-old male presents with a recurrent sore throat, difficulty swallowing, and foul-smelling breath for the past year. He reports episodes of fever and malaise. Examination reveals enlarged tonsils that on pressing the crypt , pus oozes out and tender anterior cervical lymph nodes. What is the most likely sign seen in this patient? (Q847979)

A. Griesinger’s Sign

B. Battle's Sign

C. Cottle's Sign

D. Irwin Moore sign

See Answer in Part B → Q11

@Neet_pg_bot

Q12: A 17-year-old male presents with recurrent sore throat, recent high-grade fever, and breathing difficulties during sleep. He is scheduled for a tonsillectomy. Which among the following is a contraindication for this procedure? (Q847980)

A. Obstructive sleep apnea

B. Suspicion of tonsillar carcinoma.

C. Peritonsillar abscess

D. Acute Tonsillitis

See Answer in Part B → Q12

@Neet_pg_bot

Q13: A 16 year old girl, who had a tonsillectomy 6 days ago, presents with high fever, throat pain, and swelling in the neck. All the following are immediate complications of this surgery except? (Q847981)

A. Primary Hemorrhage

B. Facial edema

C. Reactionary Hemorrhage

D. Parapharyngeal abscess

See Answer in Part B → Q13

@Neet_pg_bot

Q14: A 15 years old female who had a tonsillectomy 16 hours ago is currently under post-op monitoring, suddenly begins to bleed from the mouth and is noted to have hypotension with tachycardia. What is the most likely cause of this bleeding? (Q847982)

A. Premature membrane separation

B. Secondary infection

C. Injury to the tonsillar artery

D. Slipping of ligature

See Answer in Part B → Q14

@Neet_pg_bot

Q15: Which of the following clinical features are associated with the condition represented in the imaging? Mouth breathing Failure to thrive Sleep apnoea

Prominent nasolabial fold (Q891946)

A. 1, 2, and 3

B. 2, 3, and 4

C. 1, 3, and 4

D. 1, 2, 3, and 4

See Answer in Part B → Q15

@Neet_pg_bot

Q16: A 7-year-old is brought by his mother with complaints of mouth breathing and characteristic facial features, as shown below. On examination, a high arched palate is noted. What is the voice abnormality that can be noted in this child? (Q891958)

A. Hot potato voice

B. Rhinolalia clausa

C. Rhinolalia aperta

D. Staccato voice

See Answer in Part B → Q16

@Neet_pg_bot

• [03_Pharynx] 022 Jna And Nasopharyngeal Carcinoma

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[03_Pharynx] 022 Jna And Nasopharyngeal Carcinoma — Quick Jump

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Q7 (p. 353) *Q8 (p. 354)* *Q9 (p. 354)* *Q10 (p. 355)* *Q11 (p. 355)* *Q12 (p. 356)*
Q13 (p. 356)

Q1: Which of the following is a risk factor for nasopharyngeal carcinoma? Epstein-Barr (EB) virus Dry salted fish Chinese population Cigarette smoking Opium smoking Inhalation of smoke from Incense (Q847939)

A. 1, 2, 3 and 4

B. 1, 4 and 6

C. All except 2 and 5

D. All the above

See Answer in Part B → Q1

@Neet_pg_bot

Q2: A 58-year-old man presents with persistent nasal obstruction and bloody nasal discharge over the past 3 months. On examination, he has unilateral conductive hearing loss and a swelling in his neck. Imaging studies reveal a nasopharyngeal mass with cervical lymphadenopathy. Which of these symptoms is a part of the Trotter's triad? (Q847940)

A. Nasal obstruction

B. Epistaxis

C. Conductive hearing loss

D. Cervical lymphadenopathy

See Answer in Part B → Q2

@Neet_pg_bot

Q3: A 55-year-old male presents with nasopharyngeal carcinoma. On examination, he has a large nasopharyngeal mass with invasion into the surrounding bony structures and involvement of the intracranial space. Imaging studies reveal multiple lymph nodes in the neck, some of which are greater than 6 cm in size. There is no evidence of distant metastasis . What is the TNM staging of this cancer? (Q847941)

A. T4N3aM0

B. T2N2M1

C. T3N1M1

D. T1N1M1

See Answer in Part B → Q3

@Neet_pg_bot

Q4: In juvenile nasopharyngeal angiofibroma (JNA), which combination of molecular and genetic factors is most likely responsible for promoting both the proliferation of stromal cells and the enhancement of tumor growth through interactions with other pathways (Q847942)

A. Androgen receptor, VEGF, and p53

B. C-MYC proto-oncogene, IGF-II, and Beta-catenin

C. VEGF, BCL-2, and APC gene

D. Beta-catenin, Androgen receptor, and C-MYC proto-oncogene

See Answer in Part B → Q4

@Neet_pg_bot

Q5: Which of the following is the common symptom of juvenile nasopharyngeal angiofibroma? (Q847943)

A. Diplopia

B. Recurrent Epistaxis

C. Conductive hearing loss

D. Nasal Discharge

See Answer in Part B → Q5

@Neet_pg_bot

Q6: A 17-year-old male presents with recurrent epistaxis, nasal obstruction, and a reddish-purple mass visible in the nasal cavity. He also reports occasional facial pain. CECT scan finding is shown below. Which investigation is most useful in evaluating the vascularity of this tumor and planning for preoperative embolization? (Q847944)

A. Magnetic resonance imaging

B. Ultrasound Doppler

C. Nasopharyngoscopy

D. Digital Subtraction Angiography

See Answer in Part B → Q6

@Neet_pg_bot

Q7: A 15-year-old male presents with recurrent epistaxis and a nasal mass that has been progressively growing. Imaging reveals a large juvenile nasopharyngeal angiofibroma (JNA) with extension into the infratemporal fossa and cheek. The surgeon plans to excise the tumor. Which surgical approach is most appropriate for a JNA with extension into the infratemporal fossa? (Q847945)

A. Transpalatine approach

B. Transmaxillary (Le Fort I) approach

C. Wei’s operation

D. Lateral rhinotomy with medial maxillectomy

See Answer in Part B → Q7

@Neet_pg_bot

Q8: A 14-year-old adolescent boy presents with recurrent episodes of profuse, unprovoked epistaxis and progressive bilateral nasal obstruction. Radiological evaluation reveals a large, highly vascular mass occupying the nasopharynx and extending into the pterygopalatine fossa. Which of the following best describes the biological behaviour of this specific lesion? (Q891862)

A. Benign but locally aggressive

B. Benign with no local invasion

C. Premalignant

D. Malignant

See Answer in Part B → Q8

@Neet_pg_bot

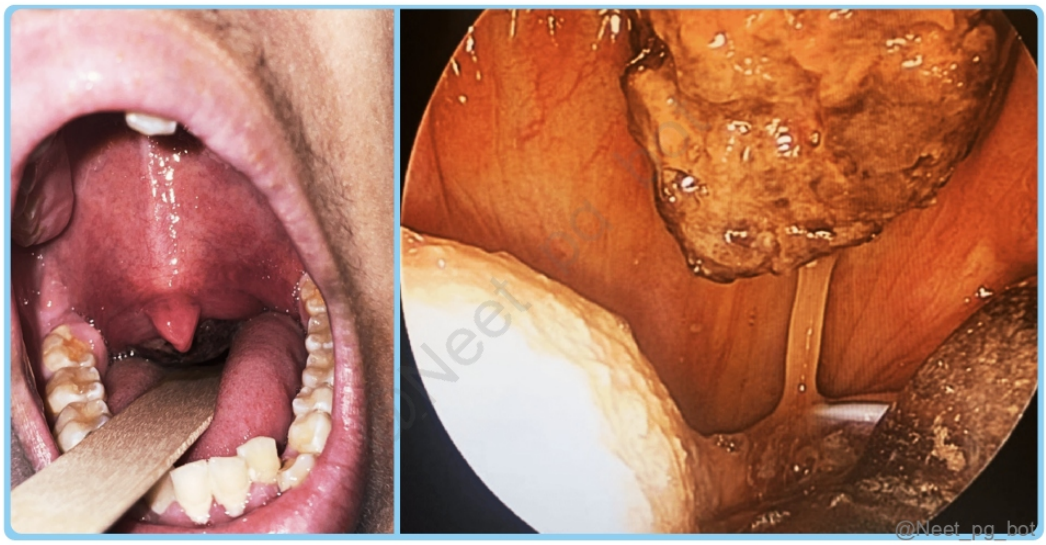
Q9: A 13-year-old boy presents with progressive nasal obstruction, difficulty in breathing, and dysphagia. Examination reveals a vascular mass arising in the nasal cavity and extending into the nasopharynx and oropharynx. Which of the following statements regarding this condition is false? (Q891863)

A. It is significantly more common in females

B. It typically develops around the age of puberty

C. It is considered a hormone-dependent condition

D. Incisional biopsy is strictly contraindicated



See Answer in Part B → Q9

@Neet_pg_bot

Q10: An adolescent male presents with recurrent, unprovoked epistaxis and progressive nasal obstruction. Imaging reveals an expansile mass pushing the posterior wall of the maxillary sinus anteriorly. During surgical resection, the pedicle of this highly vascular mass is traced to its anatomical root. Which of the following is the exact site of origin for this tumour? (Q891868)

A. Fossa of Rosenmüller

B. Superior margin of the sphenopalatine foramen

C. Floor of the sphenoid sinus

D. Roof of the nasopharynx

See Answer in Part B → Q10

@Neet_pg_bot

Q11: Which histological characteristic of the nasopharyngeal tumour is responsible for the severe bleeding tendency? (Q891871)

A. Lack of a contractile muscular coat in the blood vessels

B. Absence of a well-defined tumour capsule

C. Secretion of local tissue plasminogen activators

D. Direct invasion into the internal carotid artery

See Answer in Part B → Q11

@Neet_pg_bot

Q12: A 16-year-old male with a history of recurrent epistaxis undergoes a contrast-enhanced CT scan of the paranasal sinuses. The radiologist observes a highly enhancing mass in the pterygopalatine fossa that is causing the anterior bowing of the posterior wall of the maxillary sinus. This specific radiological finding is classically referred to as: (Q891872)

A. Holman-Miller sign

B. Lyre sign

C. Phelp's sign

D. Steeple sign

See Answer in Part B → Q12

@Neet_pg_bot

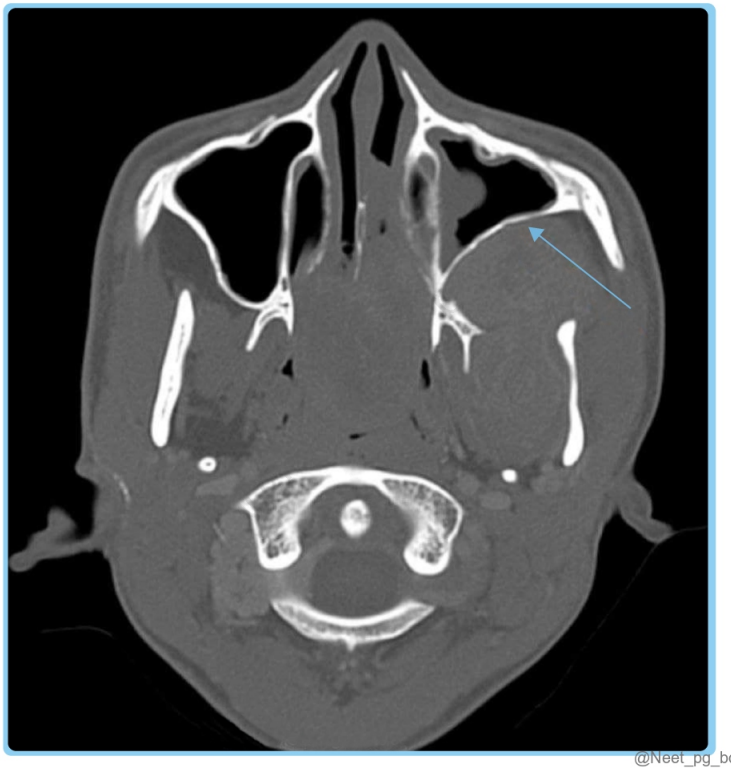
Q13: A 15-year-old male presents with recurrent, profuse epistaxis and progressive nasal obstruction. Based on the pathognomonic imaging finding shown, which of the following statements regarding his condition are correct? It is the most common benign tumour of the nasopharynx. The tumour does not have a true capsule. Digital palpation and biopsy are strictly contraindicated. There is a very low rate of recurrence following surgical excision. (Q891873)

A. 1, 2, and 3

B. 1, 3, and 4

C. 2, 3, and 4

D. 1, 2, 3, and 4



See Answer in Part B → Q13

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• [03_Pharynx] 023 Ludwig S Angina Pharyngeal Pouch And Abscess Related To Pharynx

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[03_Pharynx] 023 Ludwig S Angina Pharyngeal Pouch And Abscess Related To Pharynx — Quick Jump

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Q13 (p. 364)	*Q14 (p. 365)*	*Q15 (p. 365)*	*Q16 (p. 366)*	*Q17 (p. 366)*	

Q1: A 40-year-old female presents with bilateral submandibular swelling and difficulty swallowing. On examination the swelling is "woody-hard," and the patient exhibits trismus. A CECT scan confirms the presence of diffuse cellulitis without a well-formed abscess. Which of the following is the most critical initial step in managing this condition? (Q847947)

A. Administer intravenous corticosteroids to reduce inflammation

B. Perform an intraoral incision and drainage to relieve pressure

C. Initiate systemic broad-spectrum antibiotics immediately

D. Conduct a repeat contrast-enhanced CT scan to monitor progression

See Answer in Part B → Q1

@Neet_pg_bot

Q2: A 40-year-old male with a history of untreated tuberculosis presents with mild throat discomfort and difficulty in swallowing. Examination reveals a central fluctuant swelling in the posterior pharyngeal wall, and X-rays confirm caries of the cervical spine. What is the diagnosis? (Q847954)

A. Prevertebral abscess

B. Retropharyngeal abscess

C. Parapharyngeal abscess

D. Peritonsillar abscess

See Answer in Part B → Q2

@Neet_pg_bot

Q3: A 35-year-old man presents with a 5-day history of sore throat, difficulty swallowing, and neck pain. On examination, there is a unilateral bulge in the posterior pharyngeal wall and neck stiffness with limited movement. A lateral neck X-ray reveals a widened prevertebral shadow. What is the etiology? (Q847953)

A. Penetrating injury to posterior pharyngeal wall

B. TB infection of cervical spine

C. Spread of infection from retropharyngeal lymph node

D. None of the above

See Answer in Part B → Q3

@Neet_pg_bot

Q4: A 45-year-old male presents with difficulty swallowing, a bulge in the pharynx behind the posterior pillar, and swelling in the parotid region. He also exhibits paralysis of cranial nerves IX, X, XI, and XII. What is the diagnosis? (Q847952)

A. Parapharyngeal abscess in the anterior compartment

B. Parapharyngeal abscess in the posterior compartment

C. Parapharyngeal abscess in the medial compartment

D. Parapharyngeal abscess in the lateral compartment

See Answer in Part B → Q4

@Neet_pg_bot

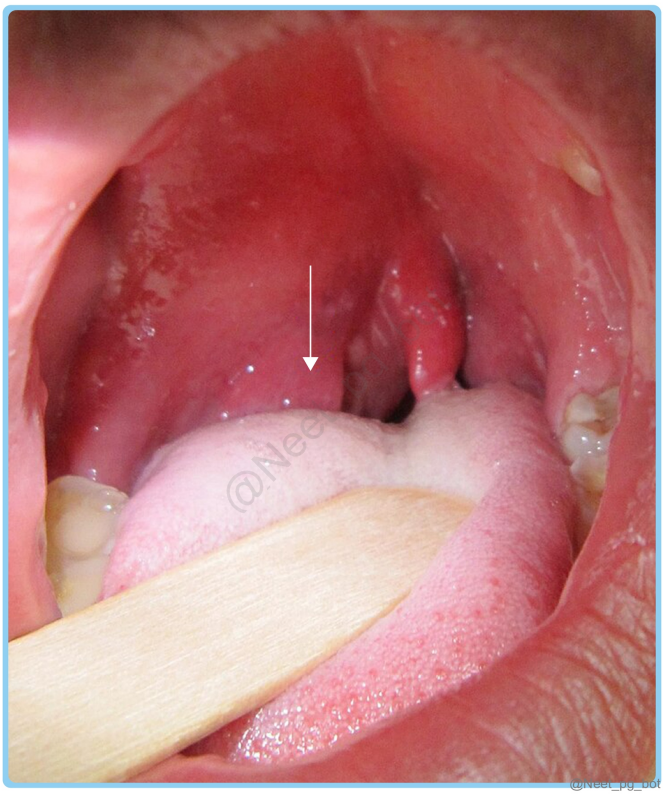
Q5: Adult male with complaints of fever, throat pain on left side, painful swallowing with change in voice since 2 days. Oral examination revealed the following. No visible neck swelling is seen. What is the most likely diagnosis? (Q847951)

A. Parapharyngeal abscess

B. Ludwig's angina

C. Quinsy

D. Retropharyngeal abscess



See Answer in Part B → Q5

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Q6: Which of the following statements about the parapharyngeal space is/are correct? 1) The parapharyngeal space extends from the base of the skull to the tracheal bifurcation. 2) The retropharyngeal space communicates with the parapharyngeal space. 3) The anterior compartment of the parapharyngeal space is related to the medial pterygoid muscle. 4) The posterior compartment of the parapharyngeal space

contains the carotid artery, jugular vein, and cranial nerves IX, X, XI, XII. (Q847950)

A. only 1

B. 1, 3, 4

C. 2, 3, 4

D. only 2

See Answer in Part B → Q6

@Neet_pg_bot

Q7: A 65-year-old man presents with progressive dysphagia, regurgitation of undigested food, chronic bad breath, and a gurgling sound in his neck during swallowing. What is the most likely diagnosis? (Q847949)

A. Achalasia

B. Gastroesophageal reflux disease (GERD)

C. Zenker's diverticulum

D. Plummer-Vinson syndrome

See Answer in Part B → Q7

@Neet_pg_bot

Q8: In the development of a pharyngeal pouch, which anatomical area is primarily affected? (Q847948)

A. Killian’s dehiscence

B. Vallecula

C. Pyriform sinus

D. Uvula

See Answer in Part B → Q8

Q9: A 7-year-old child presents to the ER with rapidly progressing swelling under the jaw and difficulty breathing. On examination, there is bilateral submandibular swelling with elevation of the tongue, but no trismus or fluctuation. He reports recent dental pain in his lower molars. Which anatomical connection is primarily responsible for the rapid bilateral spread of this infection? (Q847946)

A. Between the submental and parapharyngeal spaces

B. Between the sublingual and retropharyngeal spaces

C. Between the submandibular and submental spaces

D. Between the submental and buccal spaces

See Answer in Part B → Q9

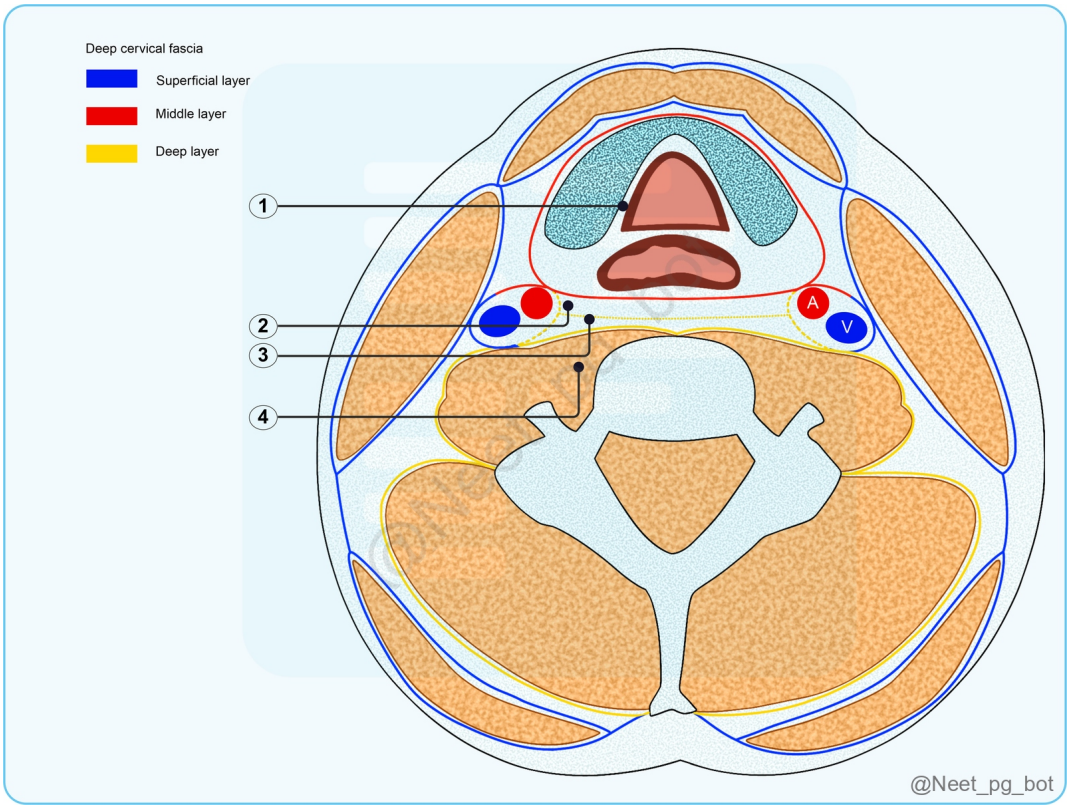
Q10: Which of the marked structures is known as the Space of Gillette? (Q891878)

A. 1

B. 2

C. 3

D. 4



See Answer in Part B → Q10

@Neet_pg_bot

Q11: Which of the following lymph nodes is the most superior member of the lateral retropharyngeal group, situated at the level of the atlas near the base of the skull? (Q891882)

A. Delphian node

B. Node of Rouviere

C. Virchow's node

D. Cloquet's node

See Answer in Part B → Q11

@Neet_pg_bot

Q12: The Danger Space of the neck, which acts as a direct conduit for the spread of infection from the skull base to the posterior mediastinum, is anatomically bounded in front and back by: (Q891883)

A. Buccopharyngeal fascia and Alar fascia

B. Buccopharyngeal fascia and Prevertebral fascia

C. Alar fascia and Prevertebral fascia

D. Prevertebral fascia and Vertebral bodies

See Answer in Part B → Q12

@Neet_pg_bot

Q13: The child presented with stridor and neck stiffness. X-ray neck reveals the following findings. What is the most likely diagnosis? (Q891886)

A. Epiglottitis

B. Retropharyngeal abscess

C. Ludwig's angina

D. TB spine

See Answer in Part B → Q13

@Neet_pg_bot

Q14: A 22-year-old patient presents with a severe sore throat, odynophagia, and hot potato voice. Clinical examination reveals a congested tonsil displaced medially and an edematous uvula pushed to the opposite side. This condition is clinically synonymous with which of the following? (Q891888)

A. Dental abscess

B. Peritonsillar abscess

C. Prevertebral abscess

D. Parapharyngeal abscess

See Answer in Part B → Q14

@Neet_pg_bot

Q15: Which of the following terms are used as synonyms for an abscess occurring in the parapharyngeal abscess? Pharyngomaxillary abscess Retropharyngeal abscess Lateral pharyngeal abscess Medial pharyngeal abscess (Q891890)

A. 1 and 2

B. 1 and 3

C. 1, 3, and 4

D. 1, 2, 3, and 4

See Answer in Part B → Q15

@Neet_pg_bot

Q16: Which of the following statements are correct regarding a parapharyngeal space abscess: Preponderance for male gender A self-limiting condition Often follows tonsillar infection Managed with parenteral antibiotics (Q891892)

A. 1 and 2

B. 1, 3, and 4

C. 2, 3, and 4

D. 1, 2, 3, and 4

See Answer in Part B → Q16

@Neet_pg_bot

Q17: A patient is diagnosed with an infection of the post-styloid compartment of the parapharyngeal space. Which of the following features are associated with this condition? Trismus Vocal cord palsy Horner’s syndrome Parotid swelling (Q891894)

A. 1 and 2

B. 1, 3, and 4

C. 2, 3, and 4

D. 1, 2, 3, and 4

See Answer in Part B → Q17

@Neet_pg_bot

• [03_Pharynx] 024 Previous Year Questions

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[03_Pharynx] 024 Previous Year Questions — Quick Jump

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Q25 (p. 384)	*Q26 (p. 385)*	*Q27 (p. 385)*	*Q28 (p. 386)*	*Q29 (p. 386)*	*Q30 (p. 387)*
Q31 (p. 388)	*Q32 (p. 389)*				

Q1: What would be the next step in managing the symptoms of a 7-year-old child who underwent a tonsillectomy and now presents with snoring, palpitations, mouth breathing, a slight hearing loss, a high arched palate, and a decline in school performance, causing concern to the mother? (Q793606)

A. Adenoidectomy

B. Myringoplasty

C. Adenoidectomy with grommet insertion

D. Conservative management

See Answer in Part B → Q1

@Neet_pg_bot

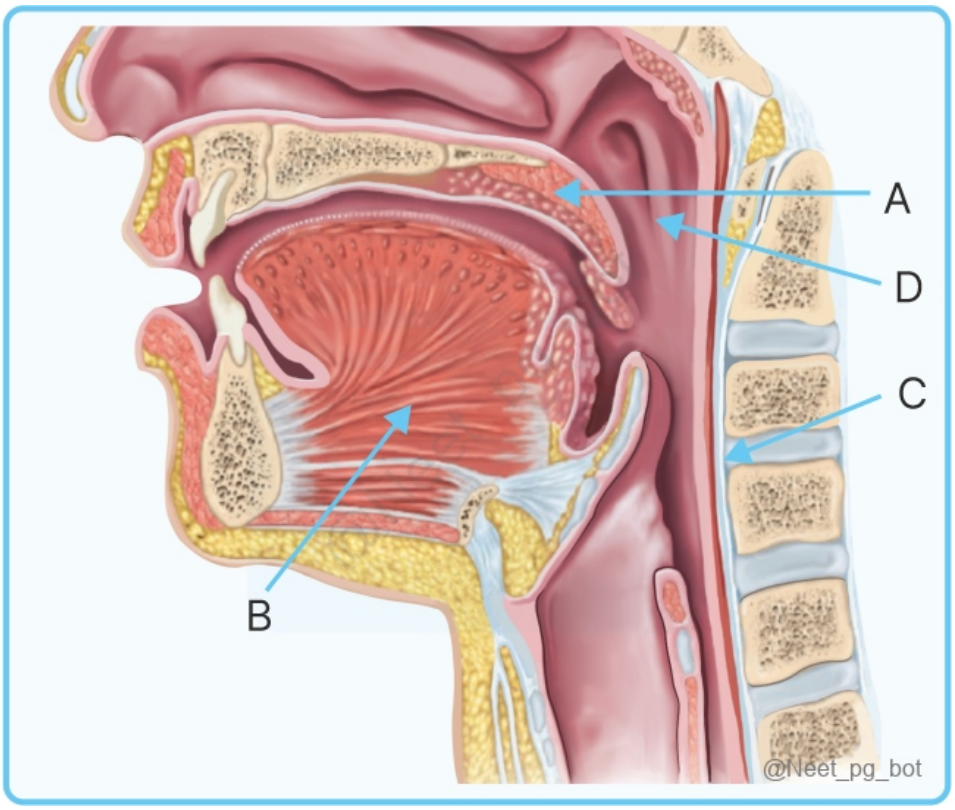
Q2: Which of the following structures are associated with dysphagia and dysarthria, except? (Q879180)

A. Genioglossus

B. Posterior pharyngeal wall

C. Soft palate

D. Nasopharynx



See Answer in Part B → Q2

@Neet_pg_bot

Q3: A patient presents with a firm, tender, slow-growing mass below the ear as shown in the image below. What could be the diagnosis? (Q855768)

A. Bezold abscess

B. Parotid abscess

C. Upper cervical lymphadenopathy

D. Osteoma of the mandible

See Answer in Part B → Q3

@Neet_pg_bot

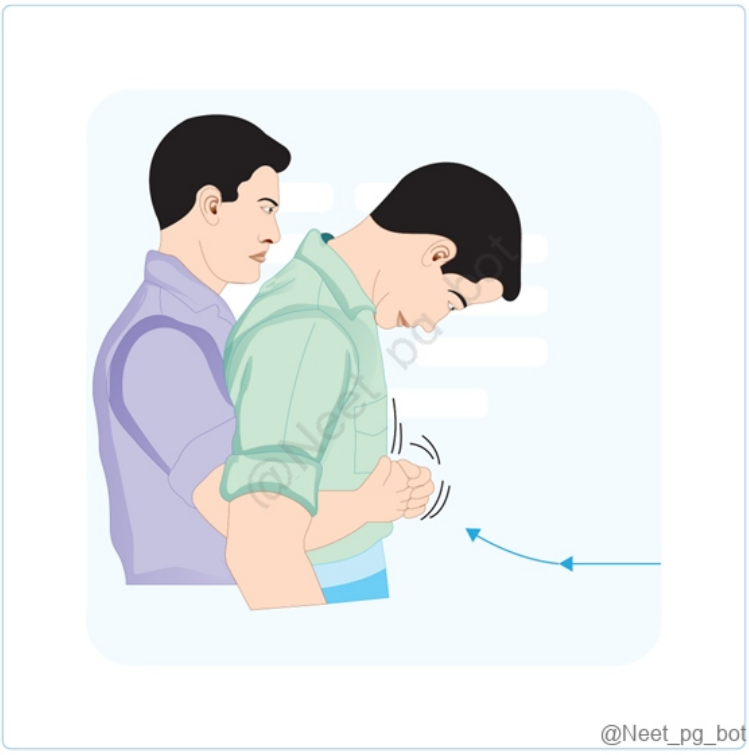
Q4: An adult man in a restaurant suddenly begins choking on his food. He is conscious. The following procedure was performed. Identify the procedure. (Q855591)

A. Heimlich’s maneuver

B. Back slap

C. Chest thrust

D. Blind insertion of finger



See Answer in Part B → Q4

@Neet_pg_bot

Q5: A 5-year-old girl is brought by her mother, with the complaint that the child is experiencing difficulties breathing through her nose. The girl's face appears elongated and lacks expression, and her mouth remains open. Upon examination, it is observed that she has a palate with a high arch and her upper teeth are crowded. An X-ray image is provided for reference. Based on these findings, what is the most probable diagnosis? (Q859900)

A. Lingual tonsils

B. Quinsy

C. Tonsillar hypertrophy

D. Adenoid hypertrophy

See Answer in Part B → Q5

@Neet_pg_bot

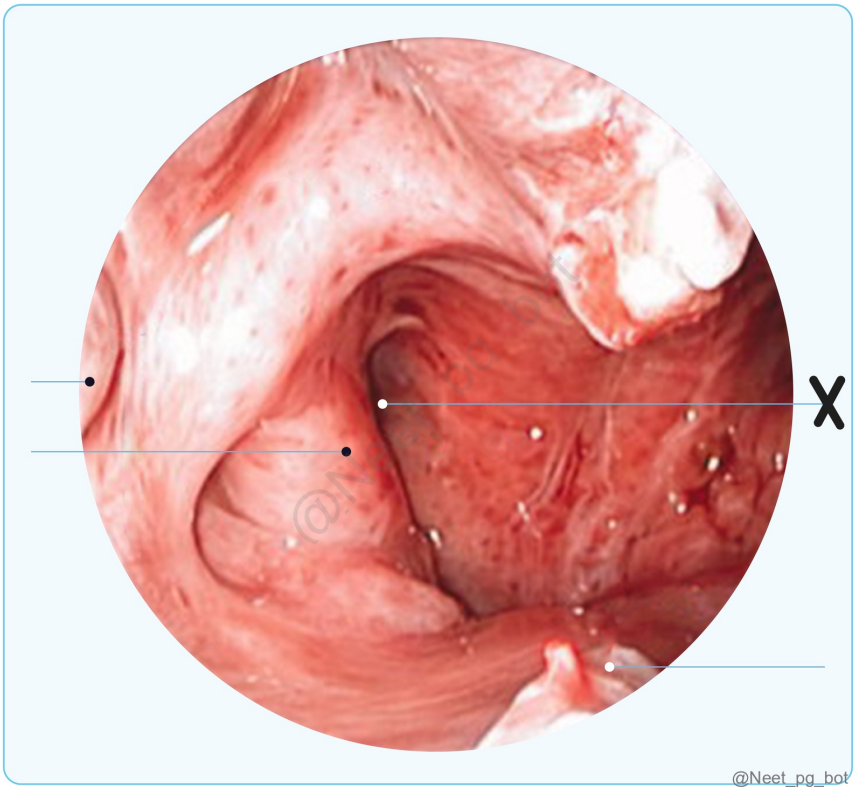
Q6: Please identify the structure marked "X" in this endoscopic image of the nasopharynx. (Q859376)

A. Sinus of Morgagni

B. Passavant’s ridge

C. Fossa of Rossenmuller

D. Rathke’s pouch



See Answer in Part B → Q6

@Neet_pg_bot

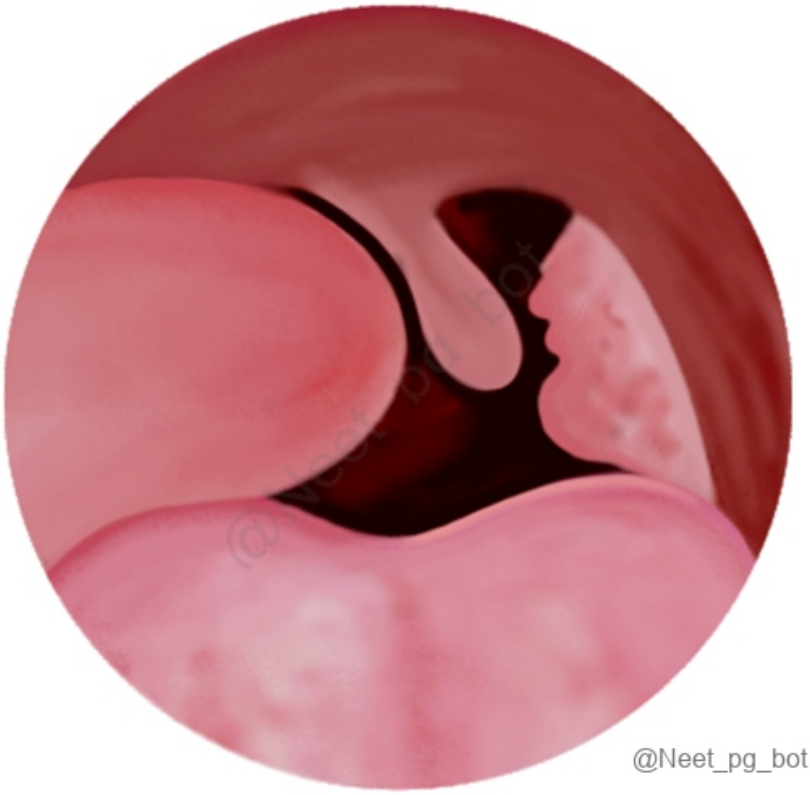
Q7: Which of the following is the likely cause for the complaints of a 9-year-old boy presenting with right ear pain, difficulty in opening the mouth, painful swallowing, and fever, when the oral cavity examination shows no abnormalities in the external facial examination? (Q854866)

A. Pharyngitis

B. Parotid abscess

C. Bezold’s Abscess

D. Quinsy



See Answer in Part B → Q7

@Neet_pg_bot

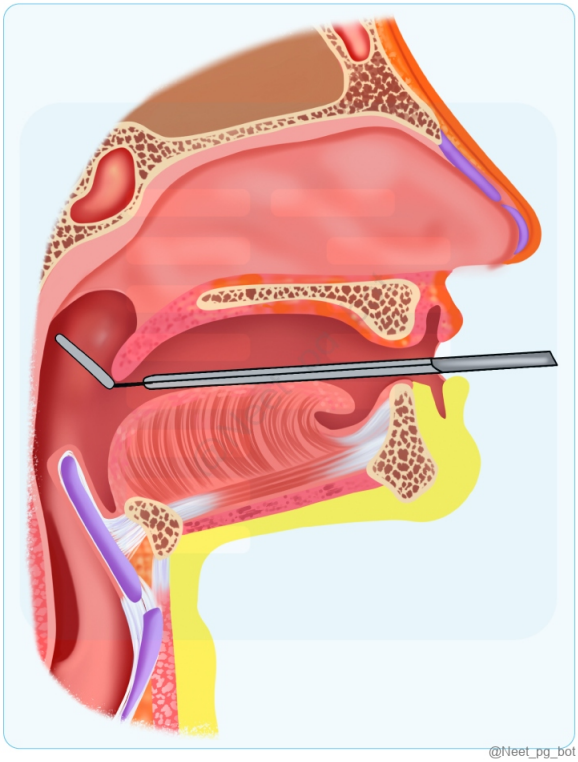
Q8: A senior resident in the hospital is performing the following clinical examination, as shown in the image below. Which of the following structures will not be visible to him? (Q856779)

A. Adenoids

B. Arytenoids

C. Torus tubarius

D. Upper surface of soft palate



See Answer in Part B → Q8

@Neet_pg_bot

Q9: What would be your immediate course of action in managing a patient who is experiencing bleeding from the surgical site following a tonsillectomy while in the recovery room? (Q856214)

A. Shift to OT, remove the clots, and cauterize/ligate the vessel

B. Shift to OT, start IV antibiotics, and pack the tonsillar fossa

C. Give anticoagulants, repeated gargling, and wait for 24 hours

D. Do blood transfusion and wait and watch

See Answer in Part B → Q9

@Neet_pg_bot

Q10: Involvement of Jugular foramen leads to which of the following: (Q856058)

A. Loss of taste from the anterior ■ of the tongue

B. Loss of sensation from the posterior ■ of the tongue

C. Loss of sensation from the anterior ■ of the tongue

D. Loss of tasteand sensation from the anterior ■ of the tongue

See Answer in Part B → Q10

@Neet_pg_bot

Q11: Identify the condition shown in the image. (Q856044)

A. Adenoid facies

B. Goldenhar syndrome

C. Horse facies

D. Frog facies

See Answer in Part B → Q11

@Neet_pg_bot

Q12: What is the primary source of arterial supply for the palatine tonsils among the options provided? (Q857658)

A. Tonsillar branch of the facial artery

B. Descending palatine branch of maxillary artery

C. Buccal branch of maxillary artery

D. Ascending palatine branch of facial artery

See Answer in Part B → Q12

@Neet_pg_bot

Q13: The image given below is from a chronic smoker’s oral examination. Identify the lesion given. (Q857648)

A. Erythroplakia

B. Leukoplakia

C. Fordyce’s granules

D. Koplik’s spots

See Answer in Part B → Q13

@Neet_pg_bot

Q14: Which among the following conditions does not result in the development of a grey-white membrane over the tonsils? (Q857642)

A. Streptococcal tonsillitis

B. Diphtheria

C. Ludwig’s angina

D. Infectious mononucleosis

See Answer in Part B → Q14

@Neet_pg_bot

Q15: What is the most probable condition for a 6-year-old child who has not received immunization, presented to the Emergency Room by a concerned mother, experiencing symptoms such as fever, cough, and difficulty breathing? Physical examination reveals the presence of a pseudo membrane on the tonsils that bleeds upon attempted removal, as well as a swollen neck giving a bull-neck appearance. (Q857633)

A. Infectious mononucleosis

B. Tonsillitis

C. Diphtheria

D. Candidiasis

See Answer in Part B → Q15

@Neet_pg_bot

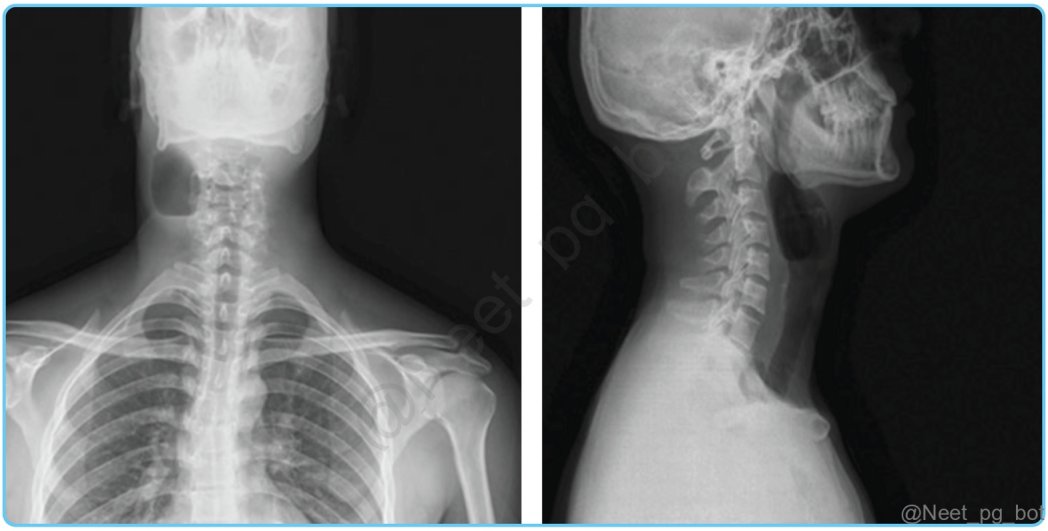
Q16: A young male who is a professional trumpet blower presented with a swelling on the left side of the neck. On examination, there is a gurgling sound compressing the swelling. X-ray of the neck is seen below. What is the most likely diagnosis? (Q856990)

A. Pharyngeal pouch

B. Laryngocele

C. Trachea-oesophageal fistula

D. Tonsillar cyst



See Answer in Part B → Q16

@Neet_pg_bot

Q17: Human papillomavirus (HPV) infection is most strongly associated with which of the following head and neck cancers? (Q866707)

A. Nasopharyngeal carcinoma

B. Hypopharyngeal carcinoma

C. Laryngeal carcinoma

D. Oropharyngeal carcinoma

See Answer in Part B → Q17

@Neet_pg_bot

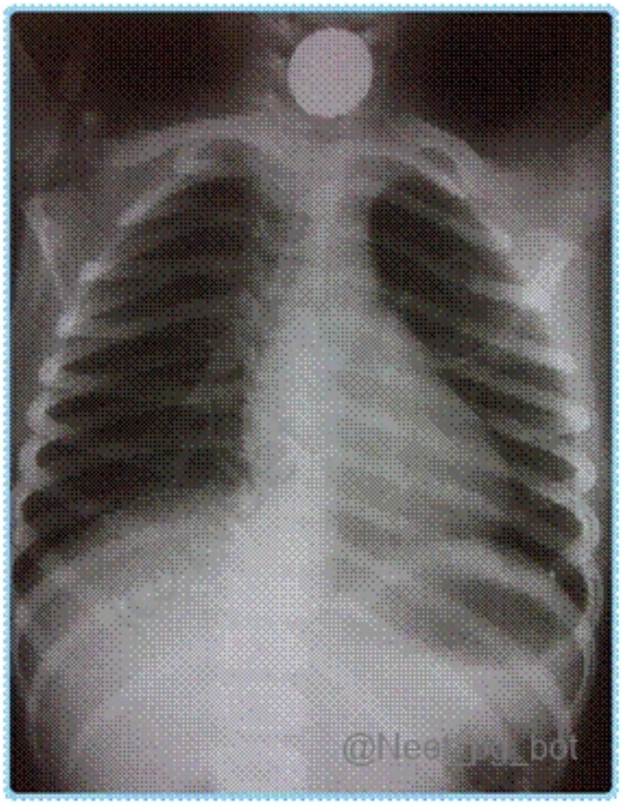
Q18: A 2-year-old was brought to the emergency department with difficulty swallowing for the last few hours. The X-ray is given below. Which is the next best step to manage this patient? [(Q858088)

A. Bronchoscopy

B. Esophagoscopy

C. Tracheostomy

D. Heimlich's manoeuvre



See Answer in Part B → Q18

@Neet_pg_bot

Q19: In a 10-year-old child with symptoms of throat pain, fever, and ear pain, the diagnosis is recurrent tonsillitis. Which specific nerve is associated with the ear pain in this patient? (Q855225)

A. Tympanic branch of the glossopharyngeal nerve

B. Greater auricular nerve

C. Auriculotemporal nerve

D. Auricular branch of the vagus nerve

See Answer in Part B → Q19

@Neet_pg_bot

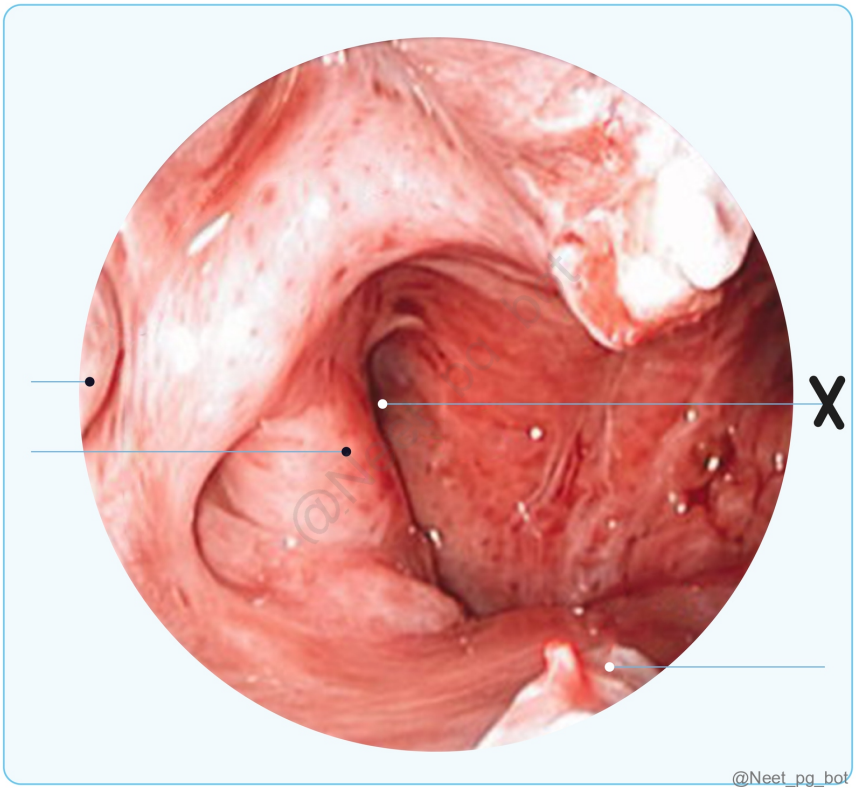
Q20: Identify the structure marked in the image. (Q855218)

A. Fossa of Rosenmuller

B. Tubal tonsil

C. Opening of the Eustachian tube

D. Adenoid



See Answer in Part B → Q20

@Neet_pg_bot

Q21: A child with a mild cold who also has adenoid facies has been identified as having chronic adenoid hypertrophy. Which is the best surgical management for this condition? (Q820381)

A. Coblator

B. Microdebrider

C. Curettage

D. Breathing exercise and symptomatic treatment

See Answer in Part B → Q21

@Neet_pg_bot

Q22: What is the most common site of ranula? (Q820369)

A. Floor of the mouth

B. Tonsil

C. Uvula

D. Cingula

See Answer in Part B → Q22

@Neet_pg_bot

Q23: What is the likely diagnosis of the image given below? (Q857383)

A. Ranula

B. Pleomorphic adenoma

C. Ludwig angina

D. Dermoid cyst

See Answer in Part B → Q23

@Neet_pg_bot

Q24: What is the preferred management for a pediatric patient with symptomatic adenoid hypertrophy causing chronic nasal obstruction and sleep apnea? (Q860061)

A. Adenoidectomy

B. Adenoidectomy with grommet insertion

C. Antibiotic therapy

D. Watchful waiting

See Answer in Part B → Q24

@Neet_pg_bot

Q25: Which structure is typically involved in causing lower lip paralysis following a parotidectomy? (Q839980)

A. Facial-cervical branches of FN

B. Facial-main trunk of FN

C. Facial-temporal part of FN

D. Parotid duct

See Answer in Part B → Q25

@Neet_pg_bot

Q26: A 13-year-old boy presents with right-sided nasal obstruction and recurrent epistaxis for the past 6 months. What is the most likely diagnosis? (Q839965)

A. JNA

B. Allergic rhinitis

C. Coagulation disorder

D. Antrochoanal polyp

See Answer in Part B → Q26

@Neet_pg_bot

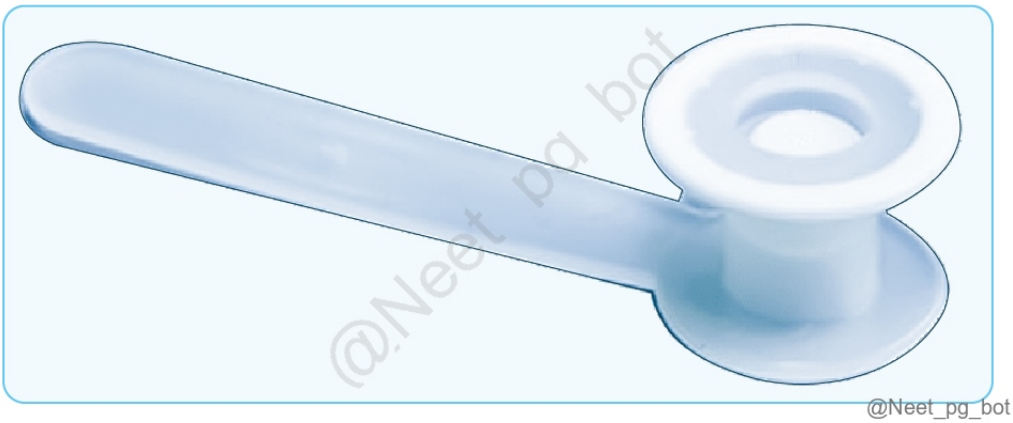
Q27: Identify the given instrument ? (Q860490)

A. Montgomery T- tube

B. Tracheoesophageal prosthesis

C. BAHA

D. PORP prosthesis



See Answer in Part B → Q27

@Neet_pg_bot

Q28: Identify the device shown in the image? (Q843947)

A. Nasopharyngeal airway

B. Laryngeal Mask Airway (LMA)

C. NG tube

D. Oropharyngeal tube

See Answer in Part B → Q28

@Neet_pg_bot

Q29: Impaired gag reflex is caused by a lesion in which of the following cranial nerves? (Q843918)

A. CN V and VI

B. CN X and XI

C. CN IX and X

D. CN VII and VIII

See Answer in Part B → Q29

@Neet_pg_bot

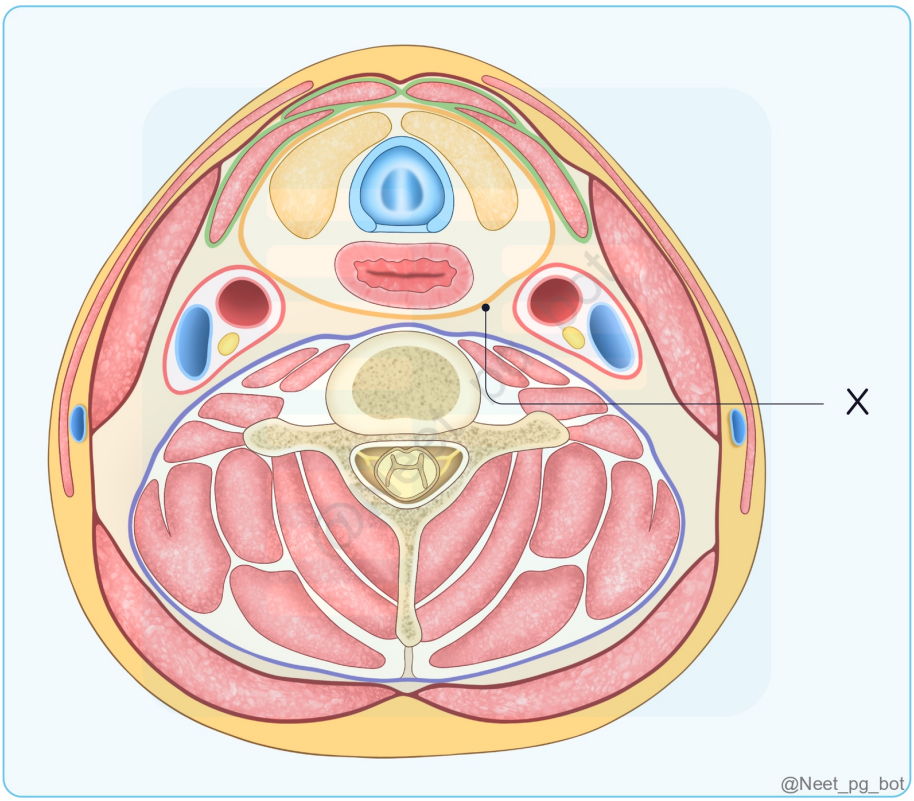
Q30: Identify the structure given in the image below (Q852648)

A. Buccopharyngeal fascia

B. Prevertebral fascia

C. Pharyngobasilar fascia

D. Alar fascia



See Answer in Part B → Q30

@Neet_pg_bot

Q31: Which of the following conditions is associated with Hollman miller's sign in the CT image given below? (Q852630)

A. Juvenile nasopharyngeal angiofibroma

B. Maxillary sinusitis

C. Nasal polyp

D. Rhinosporidiosis

See Answer in Part B → Q31

@Neet_pg_bot

Q32: A middle-aged lady choked while eating fish and has associated symptoms of coughing, hoarseness of voice, and a foreign body sensation in the throat. On examination, the pyriform fossa is found to be inflamed. Which of the following nerves supplies this region? (Q865374)

A. Internal Laryngeal Nerve (ILN)

B. External Laryngeal Nerve (ELN)

C. Glossopharyngeal Nerve

D. Recurrent Laryngeal Nerve

See Answer in Part B → Q32

@Neet_pg_bot

• [04_Larynx] 025 Anatomy And Pathology Of Larynx

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[04_Larynx] 025 Anatomy And Pathology Of Larynx — Quick Jump

Q1 (p. 390)	*Q2 (p. 390)*	*Q3 (p. 391)*	*Q4 (p. 391)*	*Q5 (p. 391)*	*Q6 (p. 392)*
Q7 (p. 393)	*Q8 (p. 393)*	*Q9 (p. 394)*	*Q10 (p. 395)*	*Q11 (p. 396)*	*Q12 (p. 396)*
Q13 (p. 396)	*Q14 (p. 397)*	*Q15 (p. 397)*	*Q16 (p. 397)*	*Q17 (p. 398)*	*Q18 (p. 398)*
Q19 (p. 399)	*Q20 (p. 399)*				

Q1: Which of the following features is a characteristic of the infant larynx compared to the adult larynx? (Q847873)

A. The larynx is positioned opposite the C5 vertebra at rest.

B. The thyroid cartilage has a well-defined angle.

C. The subglottis is the narrowest part of the larynx.

D. The arytenoid cartilages are smaller and cover less of the posterior glottis

See Answer in Part B → Q1

@Neet_pg_bot

Q2: An 8-year-old boy is brought to the emergency department after an attack of bees in the backyard. He was playing with his friends when he got stung by bees there. He is in obvious distress and has difficulty in breathing. Examination swelling in mouth, lips, and arms, with red patches. He is given intravenous epinephrine, and a mini tracheostomy is performed. The procedure is done through which of the following structures? (Q882300)

A. Cricothyroid membrane

B. 2nd and 3rd tracheal rings

C. Any of the above

D. None of the above

See Answer in Part B → Q2

@Neet_pg_bot

Q3: A 35-year-old teacher presents with hoarseness and vocal fatigue over the past few months. Laryngoscopy reveals bilateral lesions at the junction of the anterior 1/3rds and posterior 2/3rds of the vocal cords. Which of the following is the most likely diagnosis? (Q847881)

A. Vocal Polyp

B. Vocal Nodule

C. Laryngeal Papilloma

D. Reinke's Edema

See Answer in Part B → Q3

@Neet_pg_bot

Q4: A 5 y/o boy presents with a history of progressive hoarseness and stridor. Laryngoscopy reveals multiple warty lesions in the larynx. Which of the following is the most likely diagnosis? (Q847880)

A. Juvenile-onset laryngeal papillomatosis

B. Vocal Polyp

C. Adult-onset laryngeal papillomatosis

D. Vocal Nodule

See Answer in Part B → Q4

@Neet_pg_bot

Q5: A 50 y/o man with a history of chronic cough and weight loss presents with hoarseness and severe throat pain. Laryngoscopy reveals ulcerative lesions

predominantly in the posterior part of the larynx, with some areas of hyperemia and swelling. His chest X-ray shows cavitary lesions. Based on the patient's history and laryngeal findings, which condition is most likely responsible for the observed laryngeal lesions? (Q847879)

A. Laryngeal Papillomatosis

B. Reinke’s Edema

C. Lupus of the Larynx

D. Tuberculosis of the Larynx

See Answer in Part B → Q5

@Neet_pg_bot

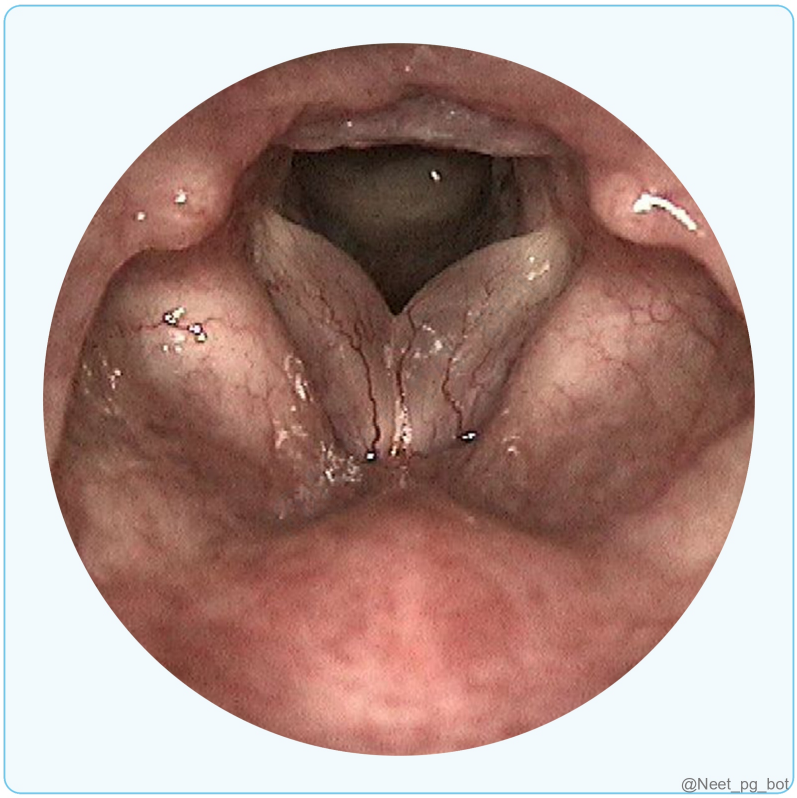
Q6: A 45 y/o woman with a history of heavy smoking presents with a low-pitched, rough voice and noticeable hoarseness. Laryngoscopy reveals the following findings. What is the most likely diagnosis for this patient's condition? {{caption_text}} (Q847878)

A. Vocal Polyp

B. Reinke’s Edema

C. Laryngeal Papillomatosis

D. Vocal Nodule



See Answer in Part B → Q6

@Neet_pg_bot

Q7: A 50 y/o man with a history of tobacco chewing presents with a white patch on his laryngeal mucosa which is not easy to scrape off. Oral examination reveals a smooth white patch with no red or ulcerative areas. The patient reports no significant pain or symptoms. What is the most likely diagnosis for this patient's oral lesion? (Q847877)

A. Oral Candidiasis

B. Leukoplakia

C. Lichen Planus

D. Oral submucous Fibrosis

See Answer in Part B → Q7

@Neet_pg_bot

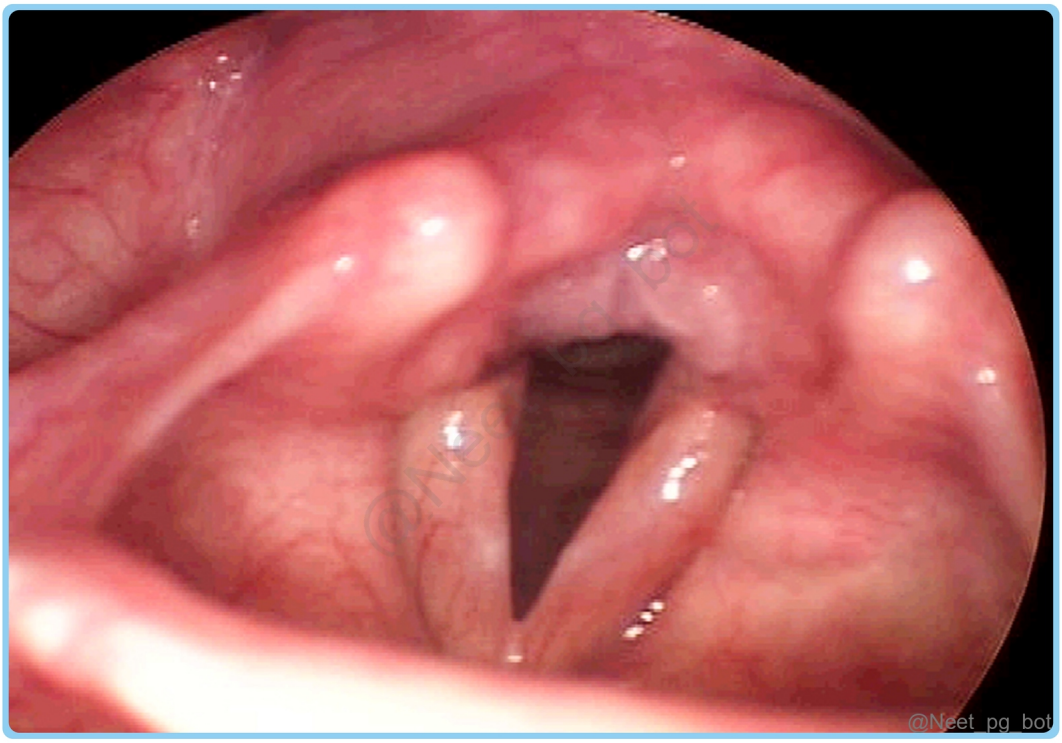
Q8: A 55 y/o man, who is a heavy smoker and drinker, visits complaining of a persistent husky voice and throat irritation. During a laryngoscopic examination, the following is observed. Based on the above image, what is the most likely diagnosis? (Q847876)

A. Pachyderma Laryngitis

B. Vocal Polyp

C. Acute Laryngitis

D. Vocal Cord Nodules



See Answer in Part B → Q8

@Neet_pg_bot

Q9: A 3 y/o child presents with a 2-day history of a worsening cough, fever, and difficulty breathing. The parents report that the child's cough has a characteristic "barking" quality, and they have noticed increased difficulty in breathing, especially at night. The child appears irritable and distressed. O/E there are signs of respiratory distress. An anteroposterior X-ray of the neck is done. {{caption_text}} Based on the

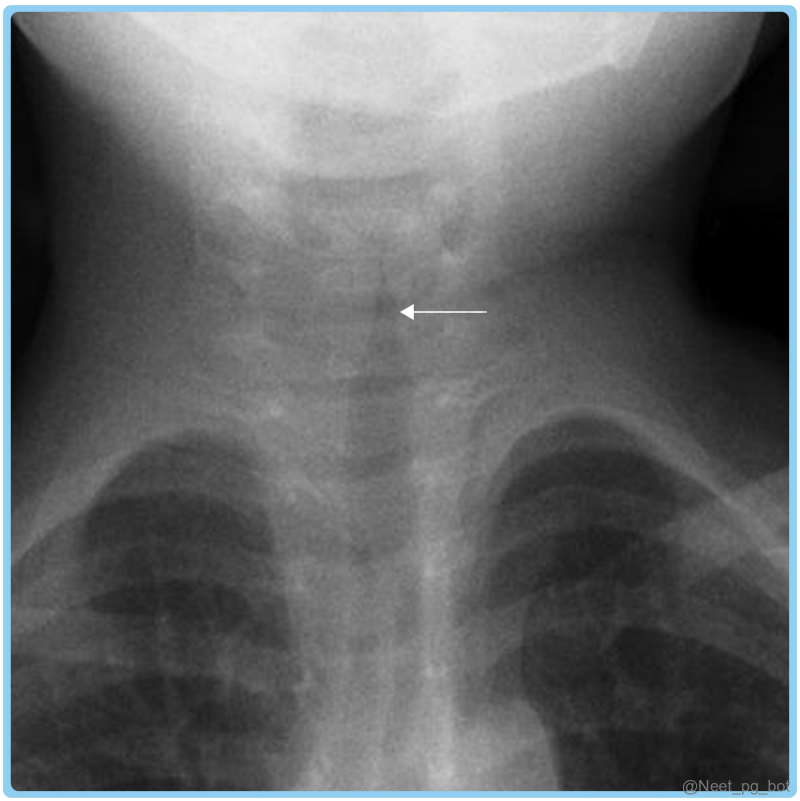
clinical presentation and X-ray findings, which of the following is the most likely diagnosis? (Q847875)

A. Acute Epiglottitis

B. Croup (Acute Laryngotracheobronchitis)

C. Foreign Body Aspiration

D. Tracheitis (Subglottic Stenosis)



See Answer in Part B → Q9

@Neet_pg_bot

Q10: Which of the following is true regarding acute epiglottitis compared to croup? (Q847874)

A. Acute epiglottitis is more commonly caused by viral infections.

B. Croup typically has an abrupt onset and rapid progression.

C. The "thumb sign" on a lateral neck X-ray is a characteristic of croup.

D. Acute epiglottitis in children can lead to life-threatening airway obstruction.

See Answer in Part B → Q10

@Neet_pg_bot

Q11: Which of the following is a paired hyaline cartilage of the larynx? (Q847863)

A. Cuneiform

B. Arytenoid

C. Corniculate

D. Thyroid

See Answer in Part B → Q11

@Neet_pg_bot

Q12: Which of the following statements about the spaces of the larynx is true? (Q847872)

A. The paraglottic space is located above the infrahyoid epiglottis.

B. The preepiglottic space is continuous with the paraglottic space.

C. Reinke's space is located between the quadrangular membrane and the thyroid cartilage.

D. Tumours in the preepiglottic space typically extend into the neck via the cricothyroid membrane.

See Answer in Part B → Q12

@Neet_pg_bot

Q13: Which of the following extrinsic muscles is not an elevator of the larynx? (Q847871)

A. Sternohyoid

B. Stylopharyngeus

C. Mylohyoid

D. Digastric

See Answer in Part B → Q13

@Neet_pg_bot

Q14: Which of the following intrinsic muscles of the larynx is a tensor and is derived from the 4th branchial arch? (Q847870)

A. Vocalis

B. Cricothyroid

C. Posterior cricoarytenoid

D. Transverse Interarytenoid

See Answer in Part B → Q14

@Neet_pg_bot

Q15: What type of epithelium lines the vocal cords, and what is the space between them called? (Q847869)

A. Non-keratinizing stratified squamous epithelium; Rima vestibularis

B. Pseudostratified ciliated columnar epithelium; Rima glottidis

C. Non-keratinizing stratified squamous epithelium; Rima glottidis

D. Pseudostratified ciliated columnar epithelium; Rima vestibularis

See Answer in Part B → Q15

@Neet_pg_bot

Q16: Match the following: 1. Extrinsic Membranes of Larynx a) Quadrangular membrane 2. Intrinsic Membranes of the larynx b) Aryepiglottic membrane c) Thyrohyoid membrane d) Cricothyroid membrane e) Cricovocal membrane (Q847868)

A. 1- a, d, e; 2- b, c

B. 1- c, d; 2- a, b,d, e

C. 1- a, b; 2- c, d, e

D. 1- b, d, e; 2- a, c

See Answer in Part B → Q16

@Neet_pg_bot

Q17: Which of the following statements is false regarding the arytenoid, corniculate, and cuneiform cartilages? (Q847867)

A. The arytenoid cartilages have a base that articulates with the cricoid cartilage.

B. The corniculate cartilages articulate with the apex of the arytenoid cartilages.

C. The cuneiform cartilages provide support to the vocal cords.

D. The corniculate cartilages are responsible for supporting the aryepiglottic fold.

See Answer in Part B → Q17

@Neet_pg_bot

Q18: Which of the following is true about the epiglottis? (Q847866)

A. It is an unpaired hyaline cartilage.

B. Preepiglottic space is not associated with cancers involving the base of the tongue.

C. It is connected to the hyoid bone by the hyoepiglottic ligament.

D. The epiglottis is not essential for swallowing and can be safely removed.

See Answer in Part B → Q18

@Neet_pg_bot

Q19: A 60-year-old male presents with hoarseness of voice and breathing difficulties following minor neck trauma. During evaluation, imaging reveals calcified structures in the laryngeal region. What is the most likely cause for this finding? (Q847865)

A. Displacement of the thyroid cartilage from its normal position

B. Formation of fibrous tissue in the cricoid cartilage

C. Inflammatory changes in the arytenoid cartilage

D. Age-related ossification of cricoid cartilage

See Answer in Part B → Q19

@Neet_pg_bot

Q20: Which of the following statements about the thyroid cartilage is correct? (Q847864)

A. Smallest cartilage in the larynx.

B. The alae of the thyroid cartilage meet at an angle of 120° in males.

C. It is an unpaired hyaline cartilage.

D. Foreign bodies are typically arrested below the vocal cords

See Answer in Part B → Q20

@Neet_pg_bot

• [04_Larynx] 026 Voice Pathologies And Congenital Lesions Of Larynx

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[04_Larynx] 026 Voice Pathologies And Congenital Lesions Of Larynx — Quick Jump

Q1 (p. 400)	*Q2 (p. 400)*	*Q3 (p. 401)*	*Q4 (p. 402)*	*Q5 (p. 402)*	*Q6 (p. 403)*
Q7 (p. 403)	*Q8 (p. 404)*	*Q9 (p. 404)*	*Q10 (p. 404)*	*Q11 (p. 405)*	*Q12 (p. 405)*
Q13 (p. 406)	*Q14 (p. 407)*	*Q15 (p. 407)*	*Q16 (p. 407)*	*Q17 (p. 408)*	

Q1: A baby presents with biphasic stridor and severe respiratory obstruction necessitating intubation. Identify the false statement about this condition. (Q847910)

A. Presents with a weak, high-pitched, squeaky voice

B. A CO2 laser is used in the endoscopic management of this condition

C. Commonly affects the glottis

D. The cry is normal in this condition

See Answer in Part B → Q1

@Neet_pg_bot

Q2: A 3-year-old presents with sudden coughing and wheezing after eating peanuts. A chest X-ray is taken and shown below. What is the most likely type of bronchial obstruction? {{caption_text}} (Q847918)

A. Total obstruction

B. Partial obstruction

C. Bilateral obstruction

D. One-way (check valve) obstruction

See Answer in Part B → Q2

@Neet_pg_bot

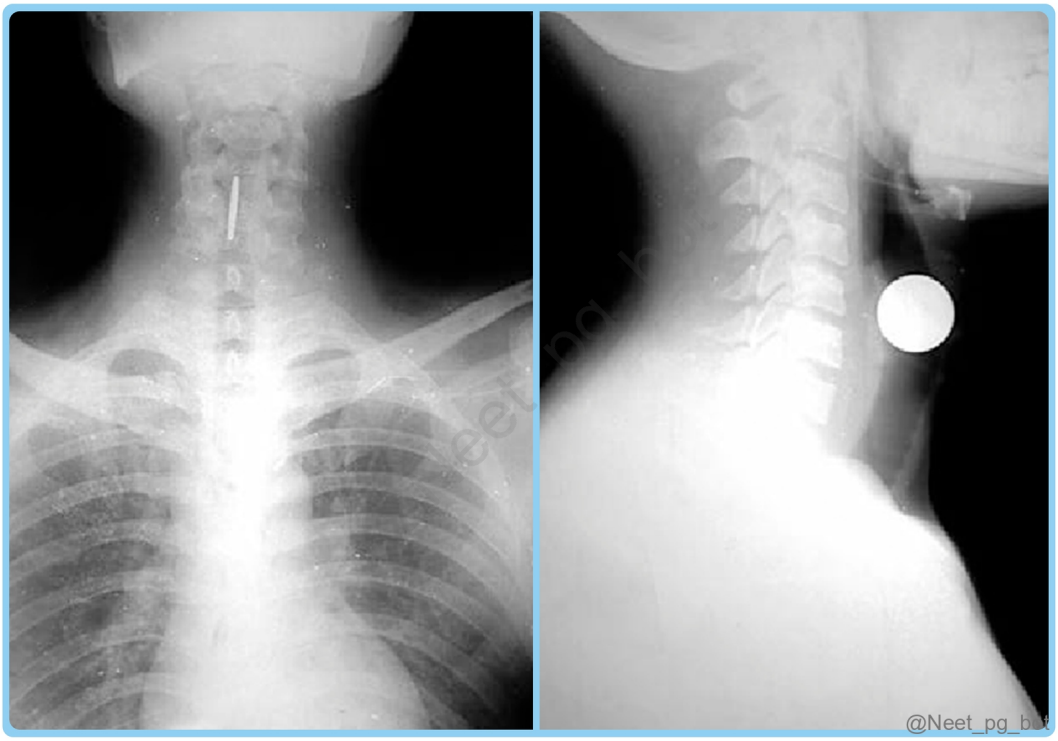
Q3: A 5-year-old child presents with complete airway obstruction after swallowing a coin and is showing signs of hypoxia. The Heimlich maneuver has failed. X-rays of the neck are shown below. What is the most appropriate next step in management? {{caption_text}} (Q847917)

A. Use of a dormia basket

B. Perform emergency tracheostomy

C. Attempt direct laryngoscopy and removal

D. Initiate advanced airway management with intubation



See Answer in Part B → Q3

@Neet_pg_bot

Q4: A 70-year-old woman in need of long-term airway maintenance was treated by tracheostomy. The tracheostomy tube has developed a partial obstruction in the following days. Which of the following steps is not necessary to manage this situation? (Q847916)

A. Decannulation and reintubation

B. Suctioning with sterile catheters

C. Humidification and saline instillation

D. Administering mucolytics

See Answer in Part B → Q4

@Neet_pg_bot

Q5: A 60-year-old patient with severe asthma and airway edema is admitted to the ICU after multiple failed intubation attempts. Which type of procedure is most suitable for ensuring long-term airway management? (Q847915)

A. High tracheostomy

B. Low tracheostomy

C. Mid tracheostomy

D. Cricothyrotomy

See Answer in Part B → Q5

@Neet_pg_bot

Q6: A 34-year-old patient presents to the emergency department with severe maxillofacial trauma. He cannot be intubated and is showing signs of hypoxia. What is the next best step? (Q847914)

A. Bag-mask ventilation

B. Cricothyrotomy

C. Endotracheal intubation

D. Supraglottic airway device

See Answer in Part B → Q6

@Neet_pg_bot

Q7: A 14-day-old neonate presents with stridor. Which condition is not typically associated with stridor in this age group? (Q847913)

A. Epiglottitis

B. Choanal atresia

C. Intubation trauma

D. Vocal cord paralysis

See Answer in Part B → Q7

@Neet_pg_bot

Q8: A 3-year-old child has stridor only during inspiration. Which of the following conditions is most likely responsible? (Q847912)

A. Bronchial foreign body

B. Laryngeal papillomas

C. Retropharyngeal abscess

D. Subglottic stenosis

See Answer in Part B → Q8

@Neet_pg_bot

Q9: A 4-month-old baby is having an inspiratory stridor that has worsened from the day of onset. An endoscopy is done and shows a compressible, pear-shaped red swelling in the subglottis on the left side. The baby also has a reddish lesion over her trunk. What is the first line of treatment for this condition? (Q847911)

A. CO_2 laser ablation

B. Intralesional steroid injection

C. Propranolol

D. Submucous resection

See Answer in Part B → Q9

@Neet_pg_bot

Q10: A 55-year-old woman presents with complaints of a low-pitched voice and a sensation of throat tightness for several months. A laryngoscopic image (shown below) reveals abnormal vibratory patterns of the false vocal cords (ventricular folds). Based

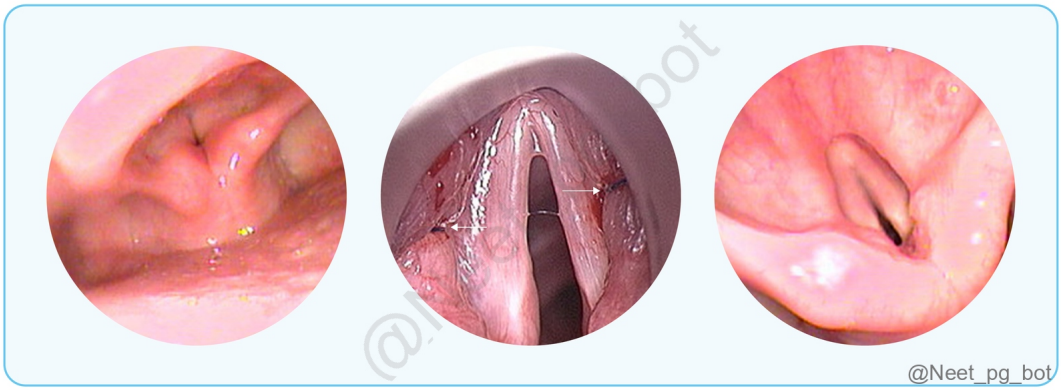
on the image and clinical presentation, what is the most likely diagnosis? {{caption_text}} (Q847902)

A. Mixed Dysphonia

B. Dysphonia Plica Ventricularis

C. Adductor Dysphonia

D. Abductor Dysphonia



See Answer in Part B → Q10

@Neet_pg_bot

Q11: Which of the following statements about subglottic stenosis is true? (Q847909)

A. Grade II presents with 71-99% obstruction

B. Grade I subglottis stenosis usually requires surgical intervention

C. A subglottic diameter of less than 4mm in a full-term neonate makes the diagnosis

D. The degree of strictures is measured by MRI

See Answer in Part B → Q11

@Neet_pg_bot

Q12: A newborn baby presents with an inspirational stridor immediately after birth, which increases on crying. The stridor is alleviated when the baby is placed in the

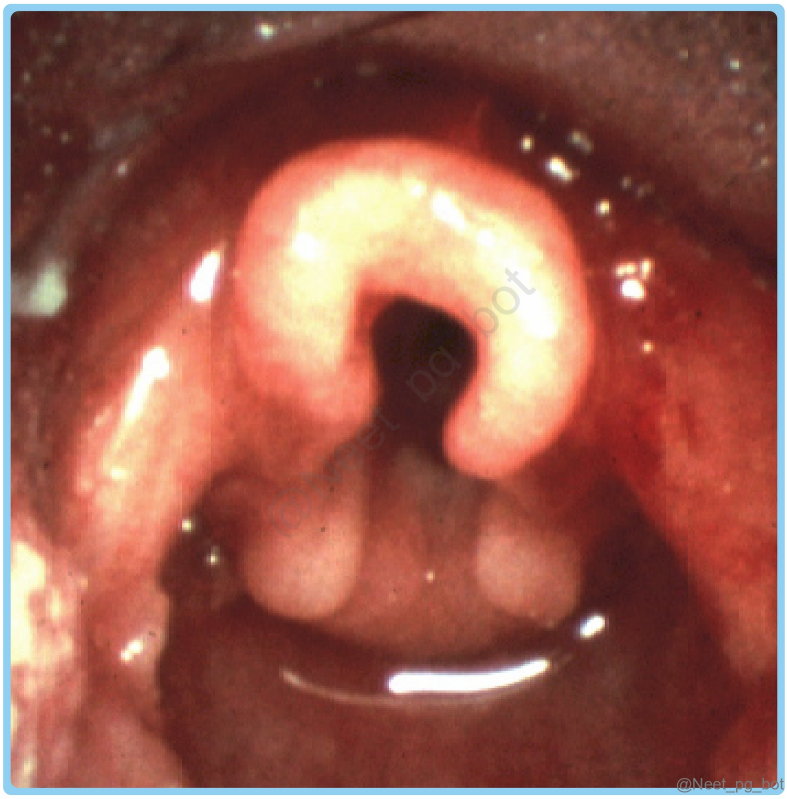
prone position, and the cry is normal. The flexible laryngoscopy is shown as follows. {{caption_text}} (Q847908)

A. Congenital subglottic stenosis

B. Subglottic hemangioma

C. Laryngeal web

D. Laryngomalacia



See Answer in Part B → Q12

@Neet_pg_bot

Q13: A 38-year-old male presents with a change of voice for 3 months and, on examination, is found to have unilateral superior laryngeal nerve paralysis that has no scope for improvement. Which of the following thyroplasty is recommended in this case? (Q847907)

A. Type II

B. Type IV

C. Type III

D. Type I

See Answer in Part B → Q13

@Neet_pg_bot

Q14: During an indirect laryngoscopy, which of the following laryngeal structures is typically not visible? (Q847906)

A. Vocal Cords

B. Pyriform Fossa

C. Arytenoid Cartilages

D. Anterior commisure

See Answer in Part B → Q14

@Neet_pg_bot

Q15: A patient is scheduled for surgery to remove a benign mass from the larynx. For direct laryngoscopy, which of the following positions is most preferred to provide optimal visualization and access to the larynx? (Q847905)

A. Rose position

B. Fowler's position

C. Barking dog position

D. Supine neutral position

See Answer in Part B → Q15

@Neet_pg_bot

Q16: A 35-year-old teacher complains of hoarseness, vocal fatigue, and a weak voice, especially after prolonged speaking. Laryngoscopic examination reveals keyhole appearance of the glottis during phonation. What is the most likely diagnosis? (Q847904)

A. Puberphonia

B. Phonasthenia

C. Functional aphonia

D. Hysteric aphonia

See Answer in Part B → Q16

@Neet_pg_bot

Q17: A 16-year-old boy presents with a voice that sounds similar to that of a female, characterized by a high-pitched voice despite the completion of puberty. What could be a potential underlying cause related to the vocal cords for this condition? (Q847903)

A. Immature growth of vocal cords leading to lengthening of vocal cords

B. Immature growth of vocal cords leading to relative shortening of vocal cords

C. Immature growth of vocal cords leading to incomplete closure of the anterior part of vocal cords

D. Immature growth of vocal cords leading to excessive thickening of vocal cords

See Answer in Part B → Q17

@Neet_pg_bot

• [04_Larynx] 027 Laryngeal Paralysis And Laryngeal Carcinoma

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[04_Larynx] 027 Laryngeal Paralysis And Laryngeal Carcinoma — Quick Jump

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Q13 (p. 414)	*Q14 (p. 414)*	*Q15 (p. 415)*	*Q16 (p. 415)*	*Q17 (p. 415)*	*Q18 (p. 416)*

Q1: A 60-year-old male with a history of persistent hoarseness, throat pain, and difficulty swallowing was recently diagnosed with Laryngeal Carcinoma. Which of the following is not a known risk factor for developing laryngeal cancer in this patient? (Q848027)

A. Heavy smoking and alcohol consumption

B. Genetic predisposition due to Fanconi anemia

C. Exposure to coal dust

D. Exposure to EBV

See Answer in Part B → Q1

@Neet_pg_bot

Q2: A 58-year-old male presents with progressive hoarseness of voice and mild dyspnea on exertion. He underwent coronary artery bypass grafting 6 months ago. A fiberoptic laryngoscopy reveals left-sided vocal cord paralysis in the paramedian position. A chest CT scan shows no mediastinal mass or aortic enlargement. Electromyography of the laryngeal muscles reveals denervation. What is the most likely cause of his vocal cord paralysis? (Q848035)

A. Left atrial enlargement due to mitral valve disease

B. Post-surgical trauma to the recurrent laryngeal nerve (RLN)

C. Compression of the recurrent laryngeal nerve by aortic aneurysm

D. Idiopathic unilateral vocal cord paralysis

See Answer in Part B → Q2

@Neet_pg_bot

Q3: In a patient who has undergone a total laryngectomy, a portable vocal rehabilitation device needs to be prescribed immediately post-surgery. Choose the device from the given options: (Q848034)

A. Electrolarynx

B. Transoral pneumatic device

C. Blom-Singer or Panje prosthesis

D. Esophageal speech

See Answer in Part B → Q3

@Neet_pg_bot

Q4: In a patient diagnosed with stage 3 laryngeal carcinoma with no involvement of thyroid cartilage, the patient is unwilling to undergo chemoradiotherapy. What will be the treatment of choice in this case? (Q848033)

A. Total laryngectomy

B. Conservative Surgery

C. Micro laryngeal surgery

D. Vertical hemilaryngectomy

See Answer in Part B → Q4

@Neet_pg_bot

Q5: A 55-year-old patient is diagnosed with glottic carcinoma involving the right side of the vocal cord. The tumor extends to the supraglottis with impaired vocal cord

mobility. What is the most appropriate primary treatment for this patient? (Q848032)

A. Total laryngectomy

B. Radiotherapy

C. Endoscopic CO2 laser excision

D. Vertical hemilaryngectomy

See Answer in Part B → Q5

@Neet_pg_bot

Q6: A 55-year-old man presents with hoarseness and difficulty swallowing. Laryngoscopy reveals a tumor involving both vocal cords with normal mobility. There is no evidence of spread beyond the larynx or lymph node involvement. Based on the TNM classification of laryngeal carcinoma, what is the most appropriate staging for this patient's condition? (Q848031)

A. T1a N0

B. T1b N0

C. T2 N0

D. T3 N0

See Answer in Part B → Q6

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Q7: A 58-year-old woman presents with progressive stridor and difficulty breathing for the past 2 months. Laryngoscopy reveals a mass in the subglottic region with normal appearing and mobile vocal cords. Which of the following statements about subglottic carcinoma is incorrect? (Q848030)

A. Hoarseness is typically a late symptom

B. Lymphatic spread is common to prelaryngeal and paratracheal nodes

C. It often presents with airway obstruction as an early symptom

D. Prognosis is generally better than glottic carcinoma

See Answer in Part B → Q7

@Neet_pg_bot

Q8: A 60-year-old man presents with persistent hoarseness for the past 2 months. Laryngoscopy reveals a small lesion on the anterior third of the right vocal cord with normal cord mobility. Further investigations lead to the diagnosis of Glottic laryngeal carcinoma. Which of the following statements about the condition is incorrect ? (Q848029)

A. It is the most common site of origin for glottic carcinoma

B. Hoarseness is typically an early symptom

C. Lymph node metastases are common in early stages

D. Histopathologically well differentiated and less malignant

See Answer in Part B → Q8

@Neet_pg_bot

Q9: A 58-year-old man presents with dysphagia, throat pain, and a palpable neck mass. Laryngoscopy reveals a lesion on the epiglottis. Further investigations lead to the diagnosis of Laryngeal carcinoma.Which of the following is not a typical characteristic of this condition? (Q848028)

A. Bilateral lymph node metastases are common but occurs late

B. Hoarseness is usually a late symptom

C. The most common histological type is squamous cell carcinoma

D. It may spread to the pre-epiglottic space

See Answer in Part B → Q9

@Neet_pg_bot

Q10: Which of the following statements about the laryngeal nerve supply is incorrect? (Q847987)

A. The right recurrent laryngeal nerve arises from the vagus at the level of the subclavian artery, while the left recurrent laryngeal nerve arises at the level of the arch of the aorta.

B. The internal branch of the superior laryngeal nerve provides sensory innervation to the larynx below the vocal cords.

C. The external branch of the superior laryngeal nerve innervates the cricothyroid muscle.

D. The left recurrent laryngeal nerve has a longer course than the right, making it more prone to paralysis.

See Answer in Part B → Q10

@Neet_pg_bot

Q11: During a thyroidectomy, the surgeon encounters difficulty identifying the external branch of the superior laryngeal nerve (EBSLN). To improve nerve visualization, the surgeon decides to explore a specific avascular space between the upper pole of the thyroid gland and the cricothyroid muscle. Which of the following spaces is the surgeon aiming to open to aid in the preservation of the EBSLN? (Q847995)

A. Reinke’s Space

B. Reeve’s space

C. Space of Boyer

D. Paraglottic Space

See Answer in Part B → Q11

@Neet_pg_bot

Q12: Joll’s Triangle is used to identify which of the following nerves? (Q847994)

A. Recurrent Laryngeal Nerve

B. External Branch of the Superior Laryngeal Nerve

C. Internal Branch of the Superior Laryngeal Nerve

D. Vagus Nerve

See Answer in Part B → Q12

@Neet_pg_bot

Q13: Which of the following triangles is not used to identify the recurrent laryngeal nerve? (Q847993)

A. Joll’s triangle

B. Simon’s triangle

C. Beahr’s triangle

D. Lore’s triangle

See Answer in Part B → Q13

@Neet_pg_bot

Q14: A 55-year-old male underwent total thyroidectomy for a large multinodular goiter. Postoperatively, he presents with complete loss of voice, frequent aspiration of liquids, and an inability to cough effectively. On laryngoscopy, both vocal cords are found in a cadaveric position, and there is no sensation in the larynx. He is also experiencing difficulty breathing and frequent episodes of bronchopneumonia. What is the most likely diagnosis? (Q847992)

A. Bilateral superior laryngeal nerve paralysis

B. Bilateral recurrent laryngeal nerve paralysis

C. Unilateral recurrent and superior laryngeal nerve paralysis

D. Bilateral recurrent and superior laryngeal nerve paralysis

See Answer in Part B → Q14

@Neet_pg_bot

Q15: A 45-year-old professional singer presents with complaints of vocal fatigue and difficulty producing high-pitched sounds for the last 3 months. She denies any difficulty in swallowing or breathing. On laryngoscopic examination, no significant abnormalities are seen, and one vocal cord appears to be in normal resting position while other vocal cord is in abducted position . What is the most likely diagnosis? (Q847991)

A. Bilateral SLN palsy

B. Unilateral SLN palsy

C. Unilateral RLN palsy

D. Bilateral RLN palsy

See Answer in Part B → Q15

@Neet_pg_bot

Q16: A 45-year-old female presents with hoarseness , shortness of breath and stridor following thyroid surgery. Laryngoscopy reveals bilateral vocal cord paralysis with both cords fixed in paramedian position. Which of the following is the most appropriate immediate management? (Q847990)

A. Tracheostomy

B. Vocal cord lateralization

C. Arytenoidectomy

D. Observation and voice therapy

See Answer in Part B → Q16

@Neet_pg_bot

Q17: A 45-year-old male patient presents with hoarseness of voice following a thyroidectomy. On laryngoscopic examination, his vocal cord is found to be in the paramedian position. What is the most likely diagnosis? (Q847989)

A. Bilateral recurrent laryngeal nerve (RLN) paralysis

B. Unilateral recurrent laryngeal nerve (RLN) paralysis

C. Superior laryngeal nerve (SLN) paralysis

D. Paralysis of both RLN and SLN

See Answer in Part B → Q17

@Neet_pg_bot

Q18: Which of the following muscles is primarily responsible for adducting the vocal folds and closing the rima glottidis during phonation? (Q847988)

A. Posterior cricoarytenoid muscle

B. Lateral cricoarytenoid muscle

C. Thyroepiglotticus

D. Thyrohyoid muscle

See Answer in Part B → Q18

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• [04_Larynx] 028 Previous Year Questions

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[04_Larynx] 028 Previous Year Questions — Quick Jump

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Q25 (p. 430)	*Q26 (p. 431)*	*Q27 (p. 432)*	*Q28 (p. 432)*	*Q29 (p. 433)*	*Q30 (p. 434)*
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Q37 (p. 438)	*Q38 (p. 438)*	*Q39 (p. 439)*	*Q40 (p. 440)*	*Q41 (p. 440)*	*Q42 (p. 440)*

Q1: Which vitamin deficiency leads to Laryngismus stridulus? (Q860085)

A. Vitamin K

B. Vitamin E

C. Vitamin D

D. Vitamin A

See Answer in Part B → Q1

@Neet_pg_bot

Q2: Which of the following symptoms does a patient with Reinke's edema classically present with? (Q858052)

A. Diplophonia

B. Dysphonia

C. Dysphagia of liquids more than solids

D. Dysphagia of solids more than liquids

See Answer in Part B → Q2

@Neet_pg_bot

Q3: A patient who is a teacher by profession presents to the clinic with hoarseness of voice. What is the most likely diagnosis for this patient? (Q858098)

A. Vocal polyp

B. Vocal cyst

C. Vocal nodule

D. Reinke's oedema

See Answer in Part B → Q3

@Neet_pg_bot

Q4: Which of the following is true about laryngeal cancer stage T1bNOMO? (Q858110)

A. Both vocal cords involved and fixed

B. Both vocal cords involved, and no metastasis

C. One vocal cord involved and metastasis

D. One vocal cord involved, and mobile

See Answer in Part B → Q4

@Neet_pg_bot

Q5: Laryngeal crepitus is absent in which of the following conditions? (Q859356)

A. Post-cricoid malignancy

B. Hypopharyngeal abscess

C. Parapharyngeal abscess

D. Prevertebral abscess

See Answer in Part B → Q5

@Neet_pg_bot

Q6: Which of the following organisms does not cause croup? (Q859367)

A. Parainfluenza 1

B. Parainfluenza 2

C. Rhinovirus

D. RSV

See Answer in Part B → Q6

@Neet_pg_bot

Q7: A 65 year old male presented with history of dysphagia, halitosis and aspiration pneumonia. A barium swallow was done and is given below. What is the diagnosis? (Q859372)

A. Diffuse oesophageal spasm

B. Achalasia cardia

C. Zenker’s diverticulum

D. Esophageal cancer

See Answer in Part B → Q7

@Neet_pg_bot

Q8: What is the TNM staging for a patient with carcinoma in the pyriform fossa, presenting with a 5 cm lesion on laryngoscopy, non-mobile right vocal folds, no lymph node involvement, and no distant metastasis? (Q859378)

A. T2N0M0

B. T3N0M0

C. T4aN0M0

D. T4bN0M0

See Answer in Part B → Q8

@Neet_pg_bot

Q9: A 3-month-old infant is brought in with persistent noisy breathing since birth, which worsens when crying or lying supine. On flexible laryngoscopy, an omega-shaped epiglottis, floppy aryepiglottic folds, and prominent arytenoid cartilages that collapse inward during inspiration are noted. What is the most likely diagnosis? (Q859381)

A. Vocal cord paralysis

B. Subglottic stenosis

C. Laryngeal papilloma

D. Laryngomalacia

See Answer in Part B → Q9

@Neet_pg_bot

Q10: A patient presents with hoarseness of voice. On examination an ulceroproliferative mass is seen on the right vocal cord; the cord was however mobile. There is no lymph node involvement and no metastasis. Which of the following is the best treatment modality for this patient? (Q859402)

A. Total laryngectomy

B. Radiotherapy

C. Conservative laryngectomy

D. Chemotherapy

See Answer in Part B → Q10

@Neet_pg_bot

Q11: A young male who is a professional trumpet blower presented with a swelling on the left side of the neck. On examination, there is a gurgling sound when compressing the swelling. As the X-ray neck was inconclusive a CT neck was taken which is shown below. What is the most likely diagnosis? (Q859409)

A. Pharyngeal pouch

B. Laryngocele

C. Trachea-oesophageal fistula

D. Tonsillar

See Answer in Part B → Q11

@Neet_pg_bot

Q12: Which of the subsequent laryngeal cartilages is least prone to calcification? (Q857660)

A. Thyroid

B. Cricoid

C. Arytenoid

D. Epiglottis

See Answer in Part B → Q12

@Neet_pg_bot

Q13: Which of the statement is true regarding laryngomalacia? (Q860440)

A. Expiratory stridor

B. Breathing Improves in supine position

C. Most common congenital abnormality in infants

D. Surgical management is required in most children

See Answer in Part B → Q13

@Neet_pg_bot

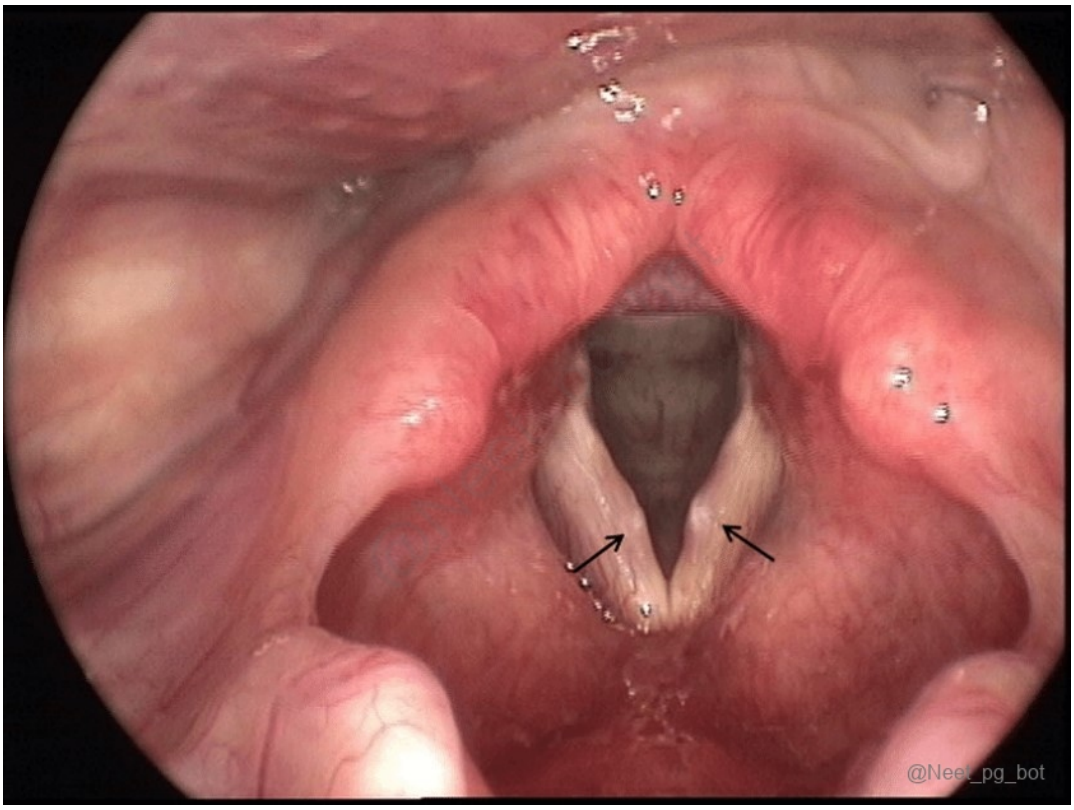
Q14: A 45-year-old teacher presents to the physician with complaints of hoarseness and voice fatigue. She reports that these symptoms have been gradually worsening over the past few months, especially towards the end of the school day. She denies any history of smoking or excessive alcohol consumption. Flexible laryngoscopy image is given below. what is the diagnosis? (Q860469)

A. Vocal nodule

B. Reinkes edema

C. Vocal polyp

D. Keratosis larynx



See Answer in Part B → Q14

@Neet_pg_bot

Q15: A 2-year-old child presents to the emergency department with a barking cough and noisy breathing. An anteroposterior view of x ray of the neck shows a steeple sign. What type of stridor is most commonly associated with this presentation? (Q860482)

A. Inspiratory

B. Expiratory

C. Biphasic

D. Uniphasic

See Answer in Part B → Q15

@Neet_pg_bot

Q16: Which of the following are the causes of stridor in neonates: a. Laryngomalacia b. Subglottic stenosis c. Recurrent respiratory papillomatosis d. Hemorrhagic polyp (Q865392)

A. b, c

B. a, b

C. a, d

D. b,d

See Answer in Part B → Q16

@Neet_pg_bot

Q17: Identify the structure on AP barium swallow (Q866314)

A. Pyriform Sinus

B. Epiglottis

C. Vallecula

D. Thyroid cartilage

See Answer in Part B → Q17

@Neet_pg_bot

Q18: A 72-year-old female smoker presents with a long history of hoarseness and difficulty swallowing. Laryngoscopy and biopsy confirm a large, advanced squamous cell carcinoma that involves both vocal cords and extends into the subglottic region and the thyroid cartilage. The tumor is not amenable to radiation therapy alone. Based on the extent and location of the tumor, which of the following surgical procedures is most appropriate to ensure complete tumor removal with adequate margins and control the disease? (Q866512)

A. Partial laryngectomy

B. Total laryngectomy

C. Emergency tracheostomy

D. Submental tracheostomy

See Answer in Part B → Q18

@Neet_pg_bot

Q19: A patient presents with a fish bone stuck in the pyriform sinus. During the removal procedure, there is accidental nerve injury. Which nerve is most likely to be damaged? (Q866705)

A. Recurrent laryngeal nerve

B. Glossopharyngeal nerve

C. Internal branch of the superior laryngeal nerve

D. External branch of the superior laryngeal nerve

See Answer in Part B → Q19

@Neet_pg_bot

Q20: A professional singer presents with difficulty in raising the pitch of her voice following thyroid surgery. There is no hoarseness, but high-pitched voice production is impaired. Which nerve is most likely injured? (Q866708)

A. External branch of the superior laryngeal nerve (EBSLN)

B. Internal branch of the superior laryngeal nerve (IBSLN)

C. Recurrent laryngeal nerve (RLN)

D. Glossopharyngeal nerve

See Answer in Part B → Q20

@Neet_pg_bot

Q21: Which of the following subunit is associated with inspiratory stridor? (Q866740)

A. Glottic

B. Supraglottic

C. Subglottic

D. Trachea

See Answer in Part B → Q21

@Neet_pg_bot

Q22: Which of the following symptoms is a 27-year-old female patient presenting with thyroid swelling is unlikely to experience due to compression of adjacent structures? (Q857376)

A. Hoarseness of voice due to recurrent laryngeal nerve compression

B. Dysphagia due to oesophagus compression

C. Superior vena cava syndrome

D. None of the above

See Answer in Part B → Q22

@Neet_pg_bot

Q23: Which structures pass between structures passing between the superior and middle pharyngeal constrictor muscles.? (Q839978)

A. Stylopharyngeus muscle and glossopharyngeal nerve

B. Internal laryngeal nerve and superior laryngeal artery

C. Recurrent laryngeal nerve

D. Ascending palatine artery

See Answer in Part B → Q23

@Neet_pg_bot

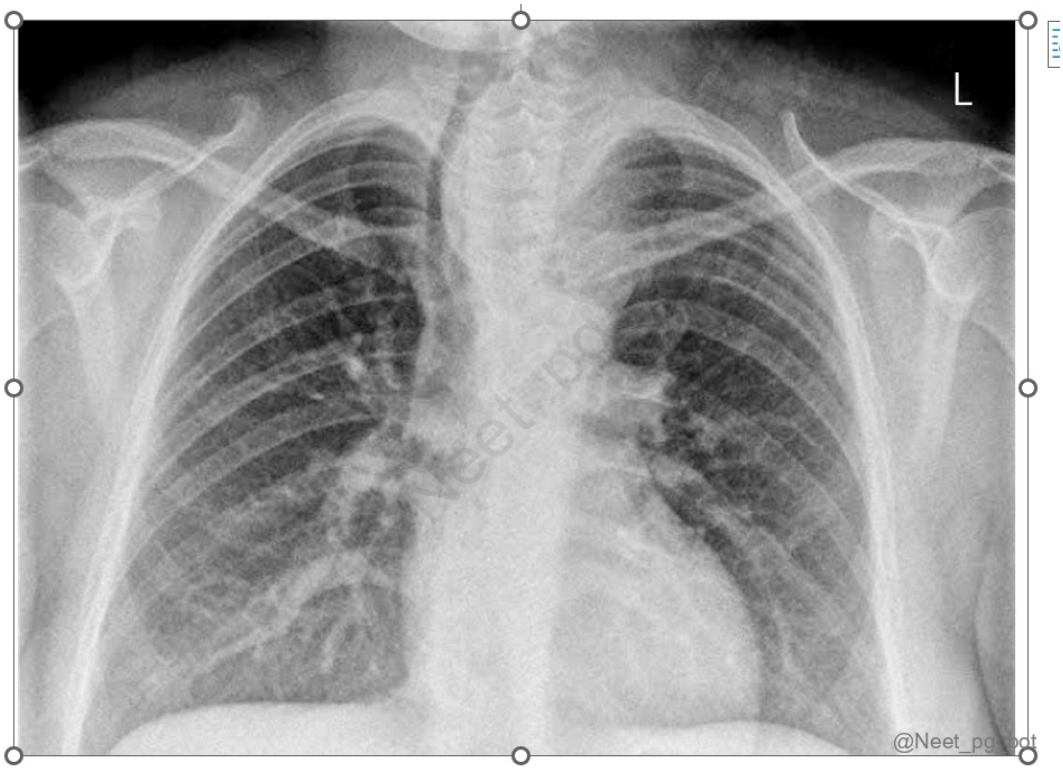
Q24: Based on the provided chest X-ray, which of the following procedures would be most challenging to perform? (Q843924)

A. Tracheostomy

B. Laryngeal Mask Airway (LMA) insertion

C. Ryle’s Tube (RT) insertion

D. Indirect laryngoscopy



See Answer in Part B → Q24

@Neet_pg_bot

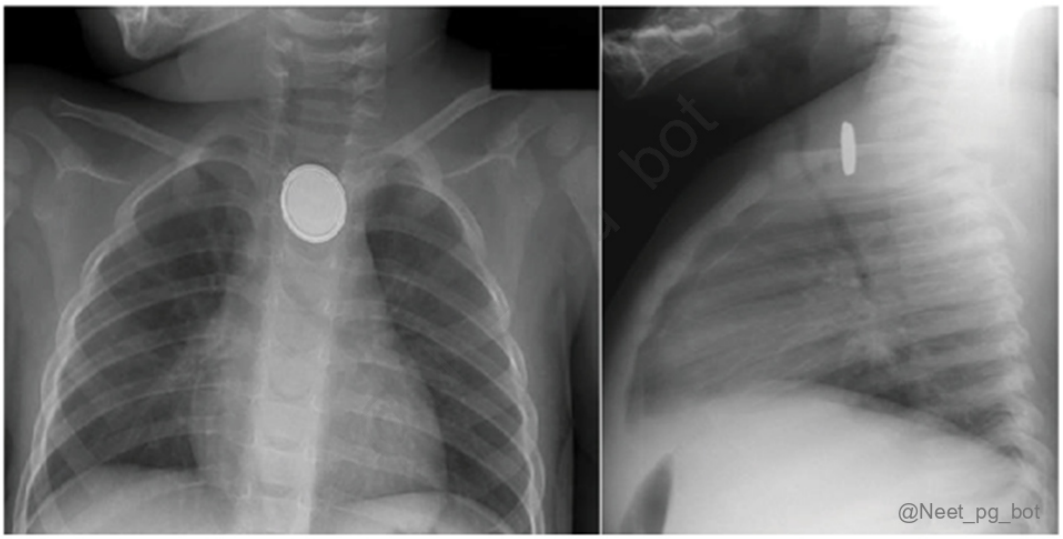
Q25: Which of the following signs can be appreciated in the given X-ray? (Q843926)

A. Steeple sign

B. String sign

C. Thumb sign

D. Double ring sign



See Answer in Part B → Q25

@Neet_pg_bot

Q26: A patient with prolonged intubation complained of respiratory distress. Which of the following staging systems is used to stage the condition shown in the image? (Q843977)

A. Cottom-Meyer classification

B. Radkowski classification

C. TNM classification

D. AJCC classification

See Answer in Part B → Q26

@Neet_pg_bot

Q27: A singer is finding difficulty in raising the pitch of her voice. On examination, her vocal cords were depressed and bowing. Which of the following muscles is involved? (Q844011)

A. Cricothyroid

B. Interarytenoid

C. Posterior cricoarytenoid

D. Lateral arytenoid

See Answer in Part B → Q27

@Neet_pg_bot

Q28: Which of the following stains can be used to identify a laryngeal mass during laryngeal examination? (Q844018)

A. Congo red

B. Supravital stain

C. Silver nitrate

D. H and E

See Answer in Part B → Q28

@Neet_pg_bot

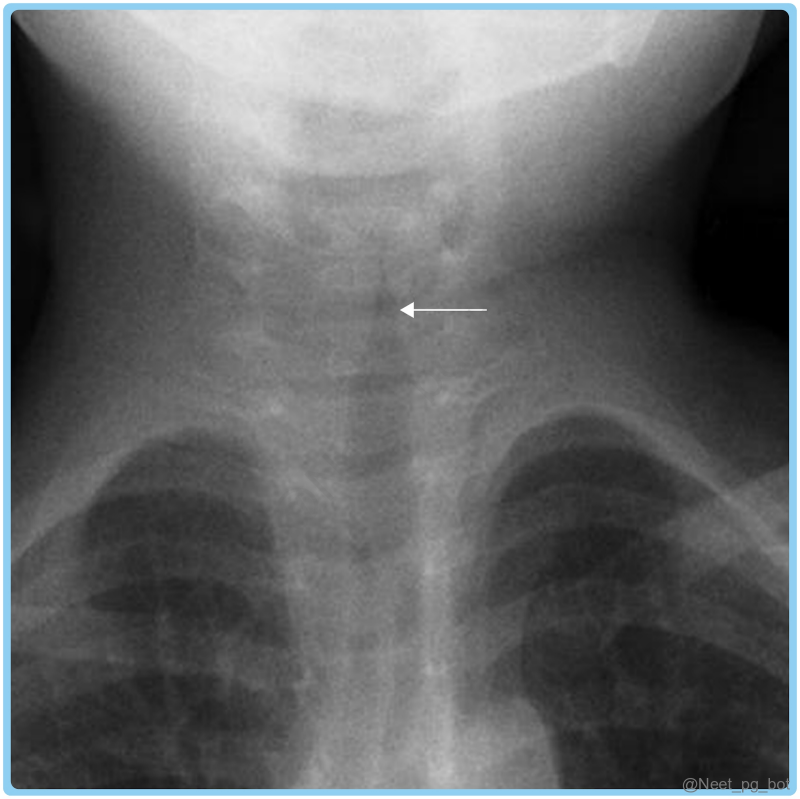
Q29: A patient was presented to the OPD with a sudden onset of shortness of breath. Identify the condition with the radiological image given below. (Q852642)

A. Epiglottitis

B. Laryngotracheobronchitis

C. Bronchitis

D. Laryngomalacia



See Answer in Part B → Q29

@Neet_pg_bot

Q30: Which of the following is a life-threatening nerve injury? (Q853125)

A. Bilateral Complete RLN Palsy

B. Bilateral Partial RLN palsy

C. Unilateral complete RLN palsy

D. Unilateral partial RLN palsy

See Answer in Part B → Q30

@Neet_pg_bot

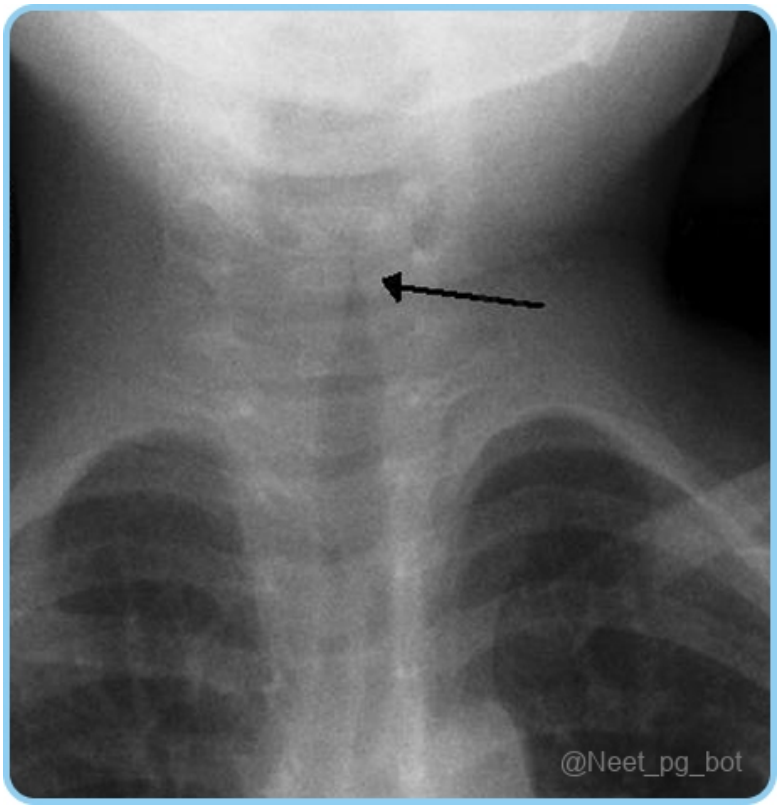
Q31: A 2-year-old child presented with the following X-ray finding. What is the most likely diagnosis? (Q854886)

A. Acute laryngotracheobronchitis

B. Acute epiglottitis

C. Acute pharyngitis

D. Parapharyngeal abscess



See Answer in Part B → Q31

@Neet_pg_bot

Q32: A 55-year-old patient comes with hoarseness of voice and difficulty swallowing. The patient was diagnosed with laryngeal carcinoma, and surgical management was done. The post-operative image of the patient is given below. Which of the following surgery was done on this patient? (Q855206)

A. Partial laryngectomy

B. Percutaneous tracheostomy

C. Standard tracheostomy

D. Total laryngectomy

See Answer in Part B → Q32

@Neet_pg_bot

Q33: What nerve is most likely to be damaged when the cough reflex is impaired due to alcohol ingestion and other conditions, resulting in the prevention of foreign body entry into the laryngeal inlet? (Q855570)

A. Internal laryngeal nerve

B. Glossopharyngeal nerve

C. External laryngeal nerve

D. Recurrent laryngeal nerve

See Answer in Part B → Q33

@Neet_pg_bot

Q34: CT scan of a patient with laryngeal carcinoma is shown below. What is the staging? (Q855759)

A. T1NOMO

B. T4N1MO

C. T2N1MO

D. T3NOMO

See Answer in Part B → Q34

@Neet_pg_bot

Q35: Which of the following is not employed in post-laryngectomy rehabilitation? (Q856051)

A. Tracheoesophageal prosthesis

B. Esophageal speech

C. Super supraglottic swallow

D. Polite yawning

See Answer in Part B → Q35

@Neet_pg_bot

Q36: What is a drug called Mitomycin-C used for in medical treatment? (Q856216)

A. Subglottic stenosis

B. Rhinocerebral mucormycosis

C. Adenoidectomy

D. Tympanoplasty

See Answer in Part B → Q36

@Neet_pg_bot

Q37: What is the most likely reason for a patient experiencing breathing difficulties and unsuccessful extubation after undergoing a total thyroidectomy? (Q856219)

A. Superior laryngeal nerve injury

B. Unilateral recurrent laryngeal nerve injury

C. Bilateral recurrent laryngeal nerve injury

D. Hematoma

See Answer in Part B → Q37

@Neet_pg_bot

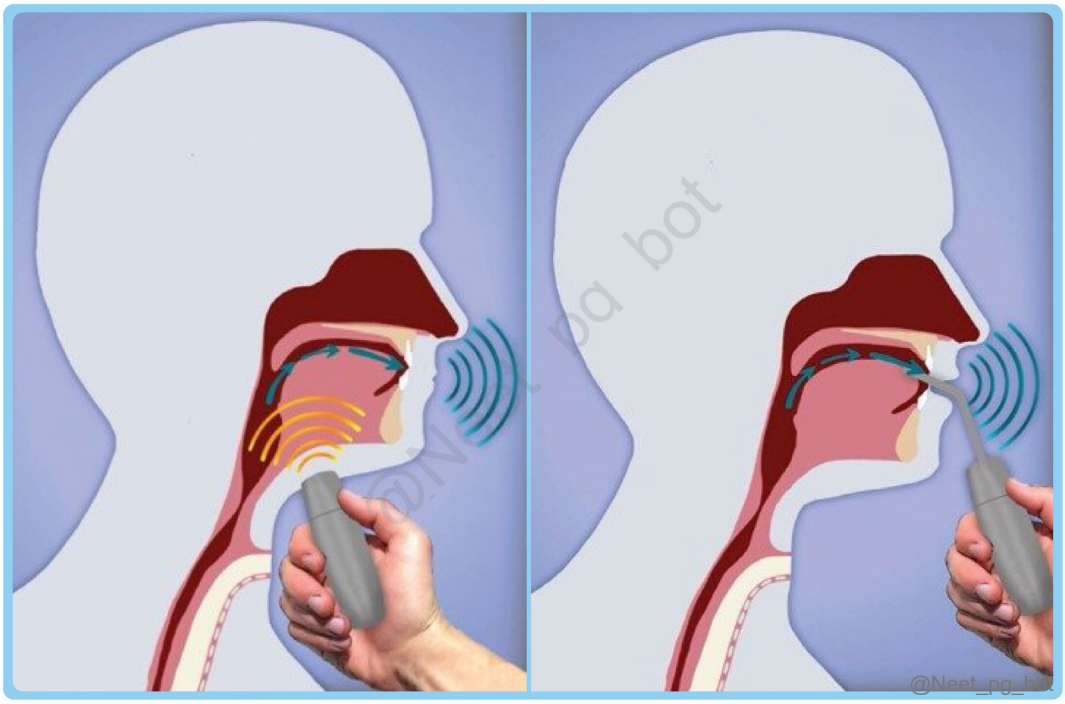
Q38: In a patient with laryngeal cancer who has undergone a total laryngectomy, determine the mode of voice production depicted in the provided image. (Q856778)

A. Tracheoesophageal prosthesis

B. Chicago implant

C. Electro larynx

D. Esophageal speech



See Answer in Part B → Q38

@Neet_pg_bot

Q39: How should a patient with diphtheria and right vocal fold palsy be treated? (Q856974)

A. Wait and watch

B. Gelfoam injection

C. Thyroplasty type 1

D. Fat injection

See Answer in Part B → Q39

@Neet_pg_bot

Q40: Which of the following treatment options is not recommended for a 4-year-old boy presenting with low-grade fever, inspiratory stridor, and barking cough for the past 5 days? The examination shows a hoarse voice, a moderately inflamed pharynx, and a slightly increased respiratory rate. The chest x-ray reveals subglottic narrowing resembling a steeple. (Q793588)

A. Nebulized racemic epinephrine

B. Parenteral cefotaxime

C. Helium oxygen mixture

D. Intramuscular dexamethasone

See Answer in Part B → Q40

@Neet_pg_bot

Q41: What investigation is carried out immediately after a child is suspected of having inhaled a foreign body? (Q820363)

A. Rigid bronchoscopy

B. Chest X-ray

C. Direct laryngoscopy

D. Flexible endoscopy

See Answer in Part B → Q41

@Neet_pg_bot

Q42: What is the probable cause of surgical emphysema in a patient following an emergency tracheostomy? (Q793619)

A. High tracheostomy

B. Tear in posterior tracheal wall

C. Block in tracheostomy

D. Tight suture around tracheostomy site

See Answer in Part B → Q42

@Neet_pg_bot

• [05_Miscellaneous] 029 Previous Year Questions

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[05_Miscellaneous] 029 Previous Year Questions — Quick Jump

Q1 (p. 442) *Q2 (p. 442)* *Q3 (p. 443)*

Q1: What is the most probable reason for the swelling in the tonsils of a 40-year-old woman who has difficulty swallowing food, no past medical history of fever, sore throat, or smoking, but a family history of Marfan's syndrome in her father, and shows unilateral swelling of the tonsils along with pulsation upon oral examination? (Q859365)

A. Extracranial internal carotid artery aneurysm

B. Intracranial external carotid artery aneurysm

C. Extracranial external carotid artery aneurysm

D. Intracranial internal carotid artery aneurysm

See Answer in Part B → Q1

@Neet_pg_bot

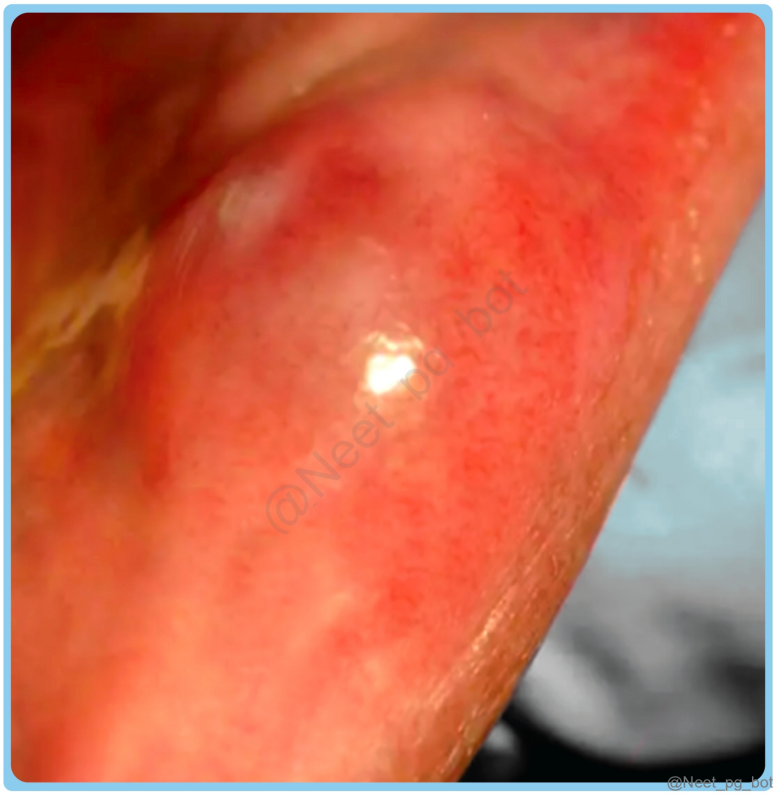
Q2: Which is the false statement among the following for the condition given in the picture? (Q859652)

A. Retention cyst of major salivary glands

B. Most common site is lower lip

C. It is a benign condition

D. Treatment is surgical excision



See Answer in Part B → Q2

@Neet_pg_bot

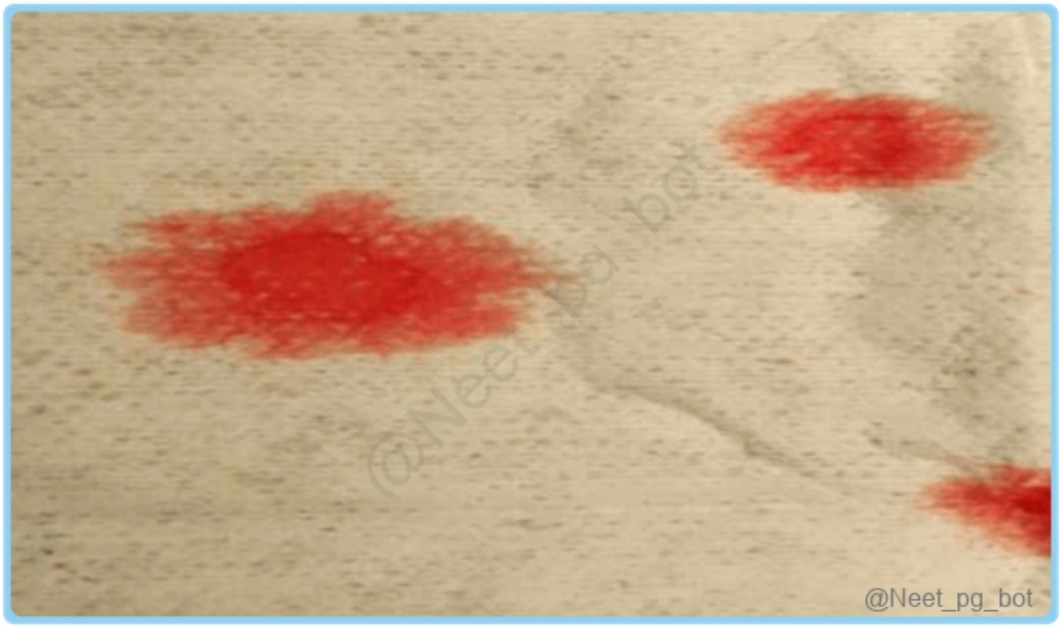
Q3: A 23-year-old male patient visits you reporting a nasal discharge that appears like the image shown on a handkerchief. Which of the following characteristics aids in identifying the presence of CSF rhinorrhoea in this patient? (Q859901)

A. Halo sign

B. Handkerchief sign

C. Schwartz sign

D. Phelps sign



See Answer in Part B → Q3

@Neet_pg_bot

• [06_ENT Surgeries] 030 Previous Year Questions

« Back to Folder Directory

[06_ENT Surgeries] 030 Previous Year Questions — Quick Jump

Q1 (p. 445) *Q2 (p. 445)* *Q3 (p. 446)* *Q4 (p. 446)* *Q5 (p. 447)* *Q6 (p. 447)*
Q7 (p. 448)

Q1: What is the appropriate approach to treat a child who is attending school and has a repeated occurrence of infections in the upper respiratory tract, difficulty in breathing through the nose, and hearing problems, along with the observation of a palate that is significantly raised in shape? (Q857645)

A. Tonsillectomy

B. Adenoidectomy

C. Adenoidectomy with grommet insertion

D. Myringotomy with grommet insertion

See Answer in Part B → Q1

@Neet_pg_bot

Q2: Which nerve is accountable for causing ear pain following a tonsillectomy procedure among the options provided? (Q857663)

A. Glossopharyngeal nerve

B. Facial nerve

C. Trigeminal nerve

D. Vagus nerve

See Answer in Part B → Q2

@Neet_pg_bot

Q3: Dohlman’s procedure is for: (Q859369)

A. Meckel’s diverticulum

B. Zenker’s diverticulum

C. Bochadlek hernia

D. Menetrier’s disease

See Answer in Part B → Q3

@Neet_pg_bot

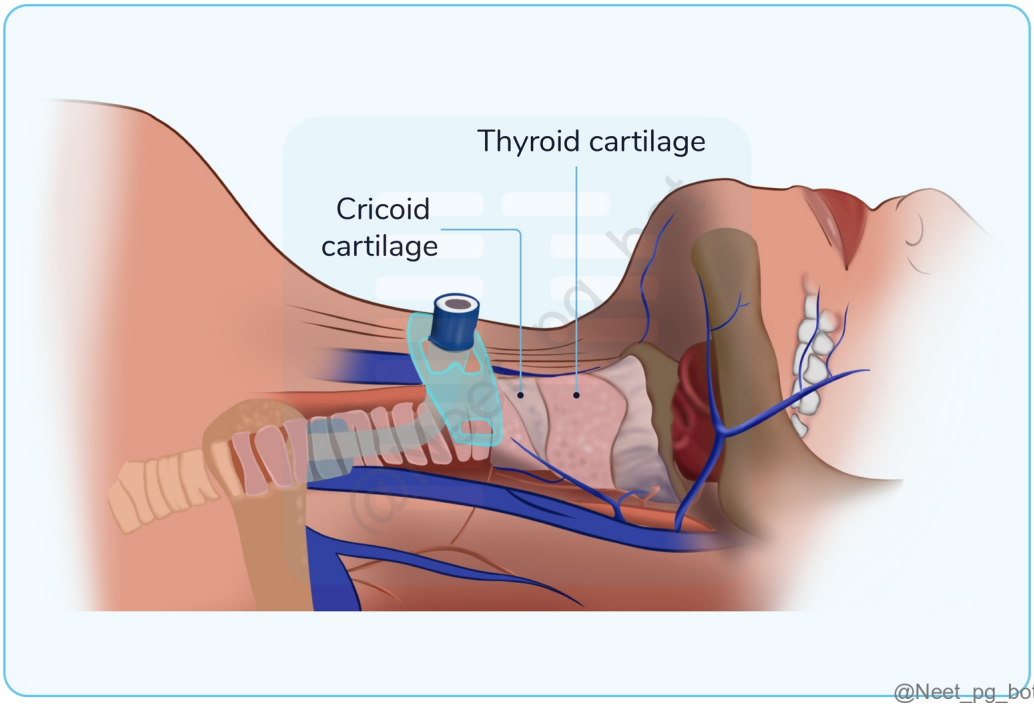
Q4: The image below shows a procedure that was done on the patient. What is the procedure? (Q859878)

A. Endotracheal intubation

B. Needle cricothyroidotomy

C. Tracheostomy

D. Oropharyngeal airway



See Answer in Part B → Q4

@Neet_pg_bot

Q5: A female homemaker arrives with symptoms of nasal congestion, reduced sense of smell, and a dry discharge from the nose that is greenish and crusty. Upon examination, the nasal passages appear spacious, and the turbinates are found to be shriveled. Which surgical procedure would be suitable for this patient? (Q859902)

A. Submucous resection

B. Young’s operation

C. Septoplasty

D. Vidian neurectomy

See Answer in Part B → Q5

@Neet_pg_bot

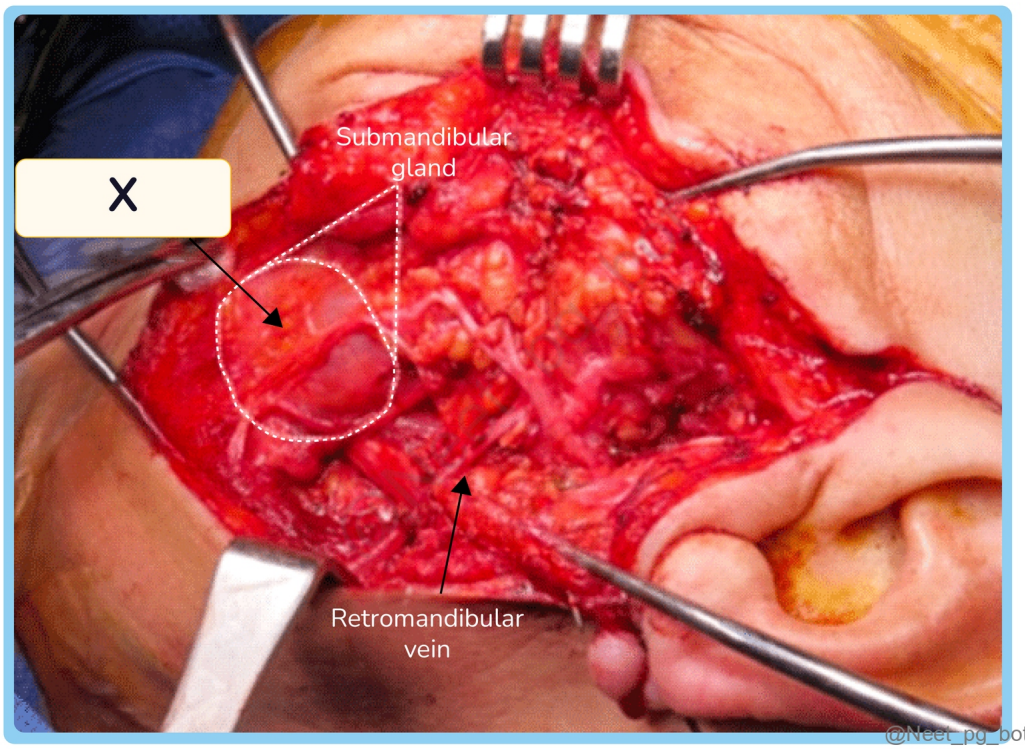
Q6: A structure passing deep to the submandibular gland and curving around the inferior border of the mandible during submandibular gland excision surgery. Identify the structure labeled 'X' in the following image. (Q866568)

A. Facial nerve

B. Marginal mandibular nerve

C. Facial artery

D. Trigeminal nerve



See Answer in Part B → Q6

@Neet_pg_bot

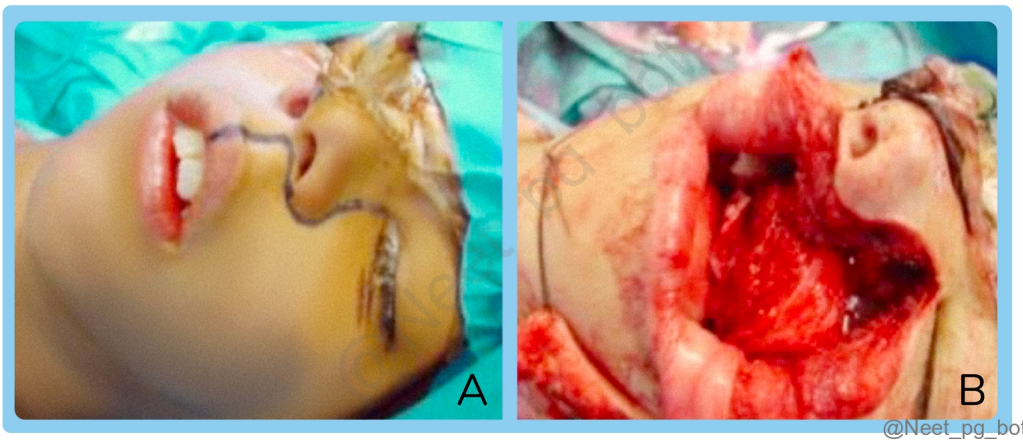
Q7: What surgery is being performed in the image shown? (Q866706)

A. Total ethmoidectomy

B. Partial ethmoidectomy

C. Total maxillectomy

D. Partial maxillectomy



See Answer in Part B → Q7

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• [07_Miscellaneous Topics] 031 Miscellaneous

« Back to Folder Directory

[07_Miscellaneous Topics] 031 Miscellaneous — Quick Jump

Q1 (p. 450)	*Q2 (p. 450)*	*Q3 (p. 451)*	*Q4 (p. 452)*	*Q5 (p. 452)*	*Q6 (p. 453)*
Q7 (p. 454)	*Q8 (p. 455)*	*Q9 (p. 456)*	*Q10 (p. 456)*	*Q11 (p. 456)*	*Q12 (p. 457)*
Q13 (p. 457)	*Q14 (p. 458)*	*Q15 (p. 458)*	*Q16 (p. 459)*		

Q1: A surgeon performs an elective tracheostomy. According to anatomical landmarks, where should the transverse incision be placed? (Q882303)

A. Immediately below thyroid cartilage

B. At the level of cricoid cartilage

C. Midway between the suprasternal notch and the lower border of the cricoid cartilage

D. One finger breadth above clavicle

See Answer in Part B → Q1

@Neet_pg_bot

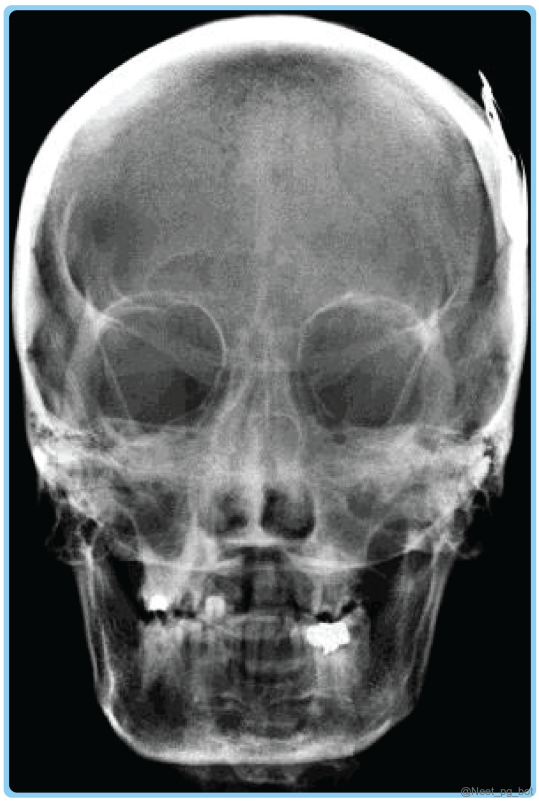
Q2: A 45-year-old patient is experiencing persistent headaches and frontal sinus pain. A radiograph is taken with the patient in a chin-down position to assess the involvement of the frontal sinus. What is this imaging view called? {{caption_text}} (Q848012)

A. Waters' View

B. Pierre’s View

C. Caldwell View

D. Lateral View



See Answer in Part B → Q2

@Neet_pg_bot

Q3: Identify the structure indicated by the white arrow in the CT scan of the nose and paranasal sinuses shown below {{caption_text}} (Q848013)

A. Bulla Ethmoidalis

B. Haller Cell

C. Agger Nasi

D. Concha bullosa

See Answer in Part B → Q3

@Neet_pg_bot

Q4: A 30-year-old female presents with suspected mastoiditis. The ENT surgeon orders a Law's view X-ray to assess the mastoid. Which of the following best describes this view? (Q848014)

A. Lateral oblique view with a 15º tilt

B. Lateral oblique view with a 30º tilt

C. AP view with a 30º tilt

D. AP view with a 15º tilt

See Answer in Part B → Q4

@Neet_pg_bot

Q5: Which of the following statements regarding sialography is false? (Q848015)

A. Sialography helps diagnose salivary duct issues.

B. Contrast dye is injected into the salivary duct.

C. Restricted dye flow indicates potential salivary stones.

D. Dye is injected into the salivary gland’s blood vessels.

See Answer in Part B → Q5

@Neet_pg_bot

Q6: A 6-year-old child presents with severe dysphagia, stridor, and a stiff neck. The physician orders a lateral soft tissue X-ray of the neck as shown. Which of the following is not a feature of this condition on the lateral soft tissue X-ray of the neck? (Q848016)

A. Widening of the Prevertebral Soft Tissue Shadow

B. Air Bubbles in the Soft Tissues

C. Loss of Normal Cervical Lordosis

D. Narrowing at the subglottic region.

See Answer in Part B → Q6

@Neet_pg_bot

Q7: A 45-year-old male presents with a slowly enlarging, painless neck mass near the angle of the mandible. An angiogram of the neck shows the image below: {{caption_text}} What is this sign known as? (Q848017)

A. Phelp sign

B. Dodd sign

C. Steeple sign

D. Lyre sign

See Answer in Part B → Q7

@Neet_pg_bot

Q8: A 7-year-old male presents to the clinic with painful neck stiffness and torticollis four days after undergoing adenoidectomy for chronic adenoiditis. Physical examination reveals restricted neck movement in all directions and a “cock-robin” position of the head. Neurological examination is normal. Which of the following best describes the underlying condition? (Q848018)

A. Traumatic atlantoaxial subluxation following cervical injury

B. Non-traumatic atlantoaxial subluxation secondary to infection or surgery

C. Atlanto-occipital dislocation caused by a congenital cervical spine anomaly

D. Acute cervical disc herniation causing torticollis

See Answer in Part B → Q8

@Neet_pg_bot

Q9: A 40-year-old male has a deviated septum with a significant dislocation at the caudal end. The surgeon prefers a unilateral approach, avoiding a full-thickness incision. Which incision is most appropriate in this case? (Q848019)

A. Killian's incision

B. Hemitransfixion incision

C. Transfixion incision

D. Horizontal incision on the spur

See Answer in Part B → Q9

@Neet_pg_bot

Q10: A 45-year-old male presents with severe nasal obstruction, headaches, and a history of multiple nasal surgeries for chronic sinusitis and nasal polyps. On endoscopic examination, there is extensive polyposis with distortion of normal anatomical landmarks. The surgeon decides to use a posterior-to-anterior surgical approach for better access and disease clearance. Which surgical technique is most appropriate in this case? (Q848020)

A. Stammberger's technique

B. Wigand's technique

C. Messerklinger's approach

D. Caldwell-Luc procedure

See Answer in Part B → Q10

@Neet_pg_bot

Q11: Which of the following statements, regarding the different types of mastoidectomy, is CORRECT? (Q848021)

A. Canal Wall Down mastoidectomy preserves the integrity of the postero-superior canal wall

B. Schwartze’s mastoidectomy is a type of Canal Wall Down mastoidectomy

C. Modified radical mastoidectomy involves the removal of the postero-superior canal wall

D. In Canal Wall Up mastoidectomy, the mastoid cavity remains open.

See Answer in Part B → Q11

@Neet_pg_bot

Q12: A 28-year-old woman presents with a history of chronic otitis media. Examination shows a dry tympanic membrane perforation without active infection. She has a 30 dB hearing loss. Which of the following procedures is most appropriate to improve her hearing? (Q848022)

A. Myringotomy with grommet insertion

B. Myringoplasty using a temporalis fascia graft

C. Tympanostomy tube placement

D. Antibiotic therapy with corticosteroids

See Answer in Part B → Q12

@Neet_pg_bot

Q13: A 30-year-old patient with a chronic middle ear infection presents with a perforated tympanic membrane and erosion of the malleus. Based on Wullstein's classification of tympanoplasty, which type of tympanoplasty would be most appropriate for this patient? (Q848023)

A. Type I tympanoplasty

B. Type II tympanoplasty

C. Type III tympanoplasty

D. Type IV tympanoplasty

See Answer in Part B → Q13

@Neet_pg_bot

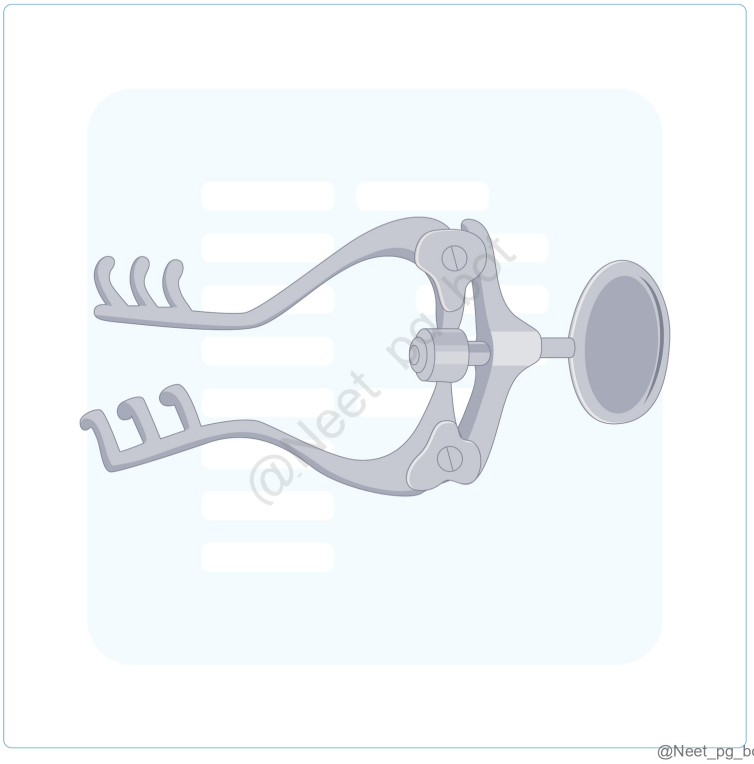
Q14: Identify the given instrument. (Q848024)

A. Mollison’s Mastoid Retractor

B. Jansen’s Mastoid Retractor

C. Lempert’s endaural retractor

D. Lempert’s endaural speculum



See Answer in Part B → Q14

@Neet_pg_bot

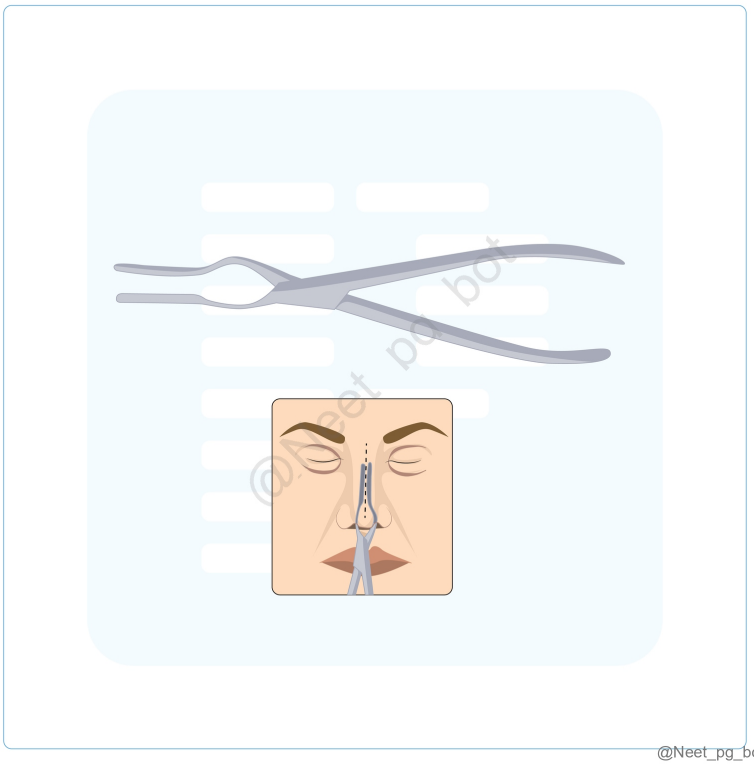
Q15: Identify the instrument used to reduce fractures of nasal septum. (Q848025)

A. Luc's Forceps

B. Ballenger Swivel Knives

C. Asch's Septum Forceps

D. Walsham’s Forceps



See Answer in Part B → Q15

@Neet_pg_bot

Q16: Which of the following is not a characteristic of the Saint-Clair Thompson Adenoidectomy Curette? (Q848026)

A. It is held like a dagger in the dominant hand

B. It is used with limited direct visualization, often blind

C. It is used without the cage for larger pieces of adenoid tissue

D. The curette is inserted under the soft palate to remove tissue using an inferior to superior motion.

See Answer in Part B → Q16

@Neet_pg_bot

Part B — All Answers & Explanations

• [01_Ear] 001 Anatomy Of External Middle And Internal Ear

« Back to Folder Directory

[01_Ear] 001 Anatomy Of External Middle And Internal Ear — Quick Jump

Q1 (p. 461)	*Q2 (p. 463)*	*Q3 (p. 464)*	*Q4 (p. 465)*	*Q5 (p. 467)*	*Q6 (p. 470)*
Q7 (p. 471)	*Q8 (p. 472)*	*Q9 (p. 474)*	*Q10 (p. 475)*	*Q11 (p. 476)*	*Q12 (p. 478)*
Q13 (p. 479)	*Q14 (p. 480)*	*Q15 (p. 482)*	*Q16 (p. 483)*	*Q17 (p. 484)*	*Q18 (p. 486)*
Q19 (p. 488)	*Q20 (p. 489)*	*Q21 (p. 490)*	*Q22 (p. 491)*	*Q23 (p. 492)*	*Q24 (p. 494)*

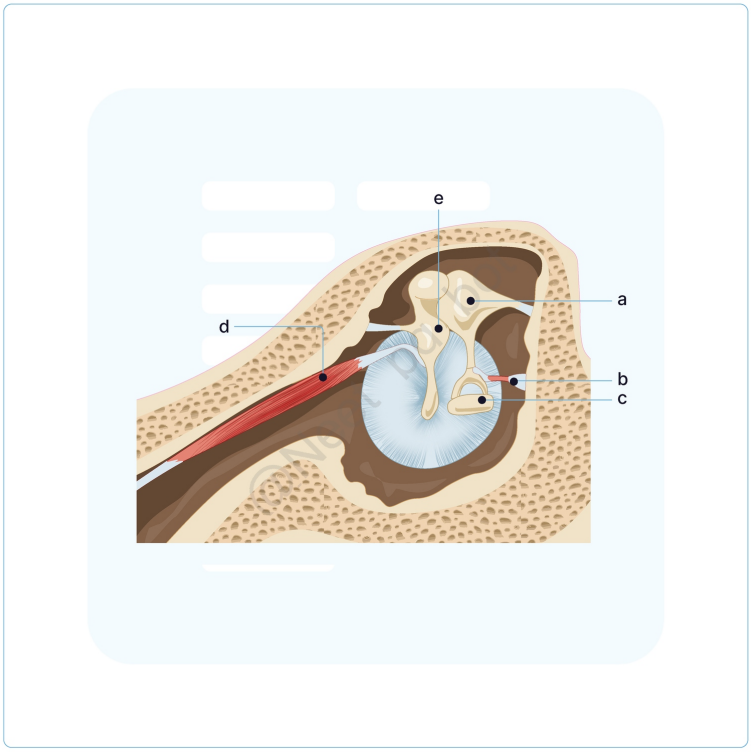
Q1: Label the contents of middle ear appropriately: (Q847697)

A. a-Incus, b-Stapedius, c-Stapes , d-Tensor tympani, e-Malleus

B. a-Incus, b-Stapes, c-Stapedius , d-Tensor tympani, e-Malleus

C. a-Incus, b-Tensor tympani, c-Stapes , d-Stapedius, e-Malleus

D. a-Malleus, b-Stapedius, c-Stapes , d-Tensor tympani, e- Incus



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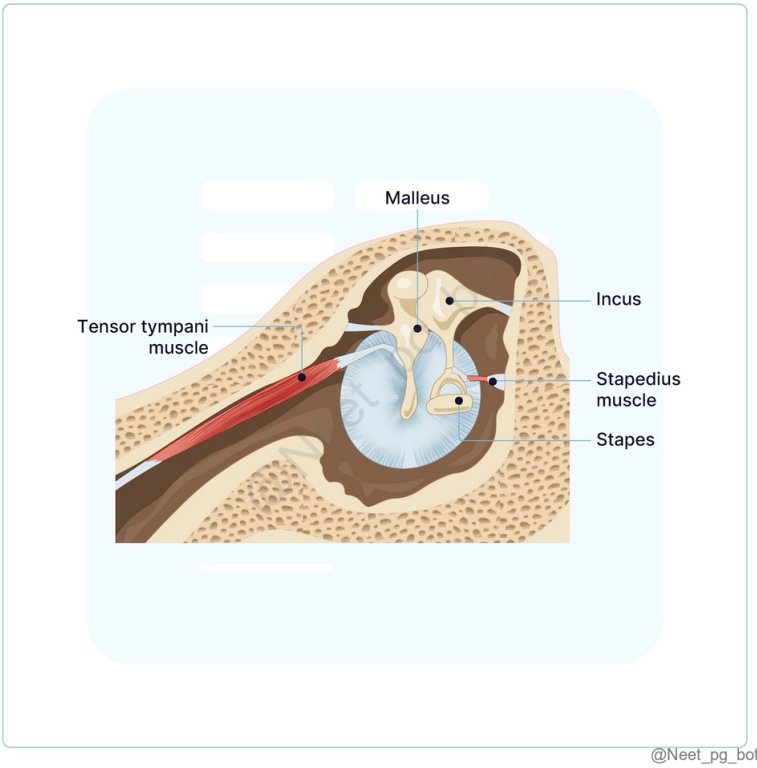
Correct Answer: A. a-Incus, b-Stapedius, c-Stapes , d-Tensor tympani, e-Malleus

- *Listen (English)*
- *Listen (Hindi)*

Explanation: Contents of the Middle Ear Ossicles: Malleus, incus, and stapes transmit sound from the tympanic membrane to the inner ear. Intratympanic Muscles: Tensor tympani (attaches to malleus) and stapedius (attaches to stapes, dampens loud sounds). Chorda Tympani Nerve : A branch of the facial nerve, carries taste from the anterior two-thirds of the tongue and controls salivary glands. Tympanic Plexus: The tympanic plexus is located on the promontory and is formed by Tympanic branch of the glossopharyngeal nerve Sympathetic fibres from the plexus around the internal carotid artery. It innervates the middle ear, mastoid air cells, and eustachian tube. Air : The middle ear is air-filled, lined by mucous membrane.



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References:

PL Dhingra's Diseases of Ear, Nose & Throat and Head and Neck Surgery, 8th Edition, Pages 5-7

↑ *Back to this question in Part A*

@Neet_pg_bot

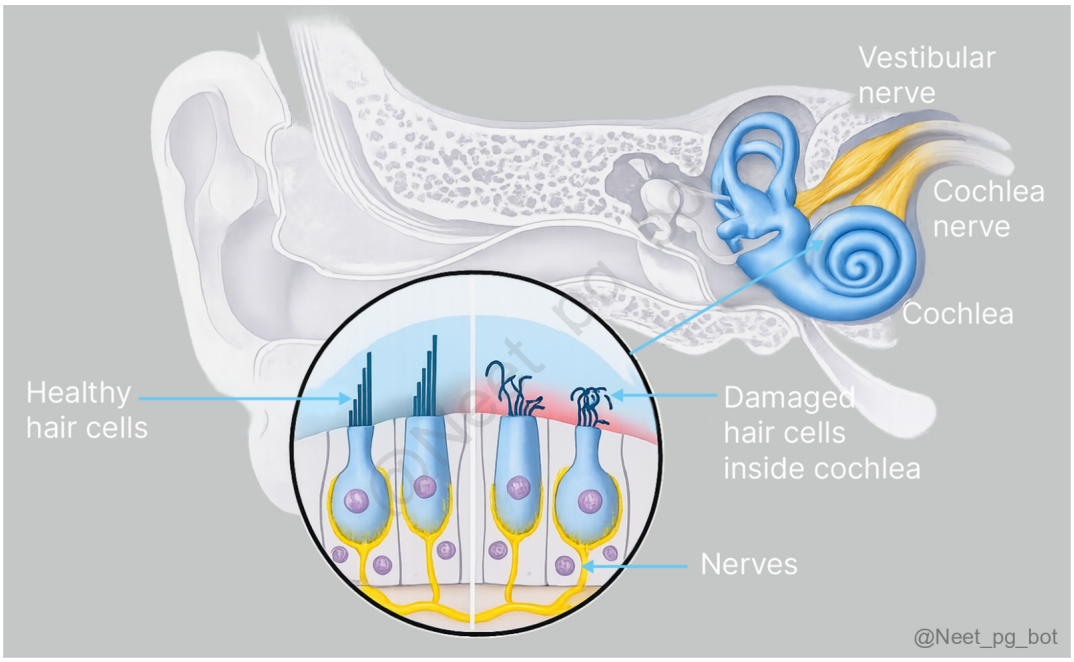
Q2: Furosemide-induced hearing loss occurs primarily by damaging which structure? (Q882297)

A. Outer hair cells in Organ of Corti

B. Na■-K■-2Cl■ cotransporter in stria vascularis

C. Vestibulocochlear nerve

D. Cochlear duct basement membrane



Correct Answer: B. Na■-K■-2Cl■ cotransporter in stria vascularis

Explanation: Furosemide causes ototoxicity by inhibiting the Na■-K■-2Cl■ cotransporter (NKCC1) in the stria vascularis of the cochlea. This disrupts endolymph production and the endocochlear potential, leading to transient sensorineural hearing loss, especially with rapid IV administration or high doses Outer hair cells in the organ of Corti (Option A): Primarily damaged by aminoglycosides and cisplatin, not loop diuretics. Vestibulocochlear nerve (Option C): Neural injury is not the primary mechanism in furosemide ototoxicity. Cochlear duct basement membrane (Option D): Not a known target of loop diuretic–induced hearing loss.

References:

PL Dhingra's Diseases of Ear, Nose & Throat and Head and Neck Surgery, 8th Edition, Pages 8

↑ *Back to this question in Part A*

@Neet_pg_bot

Q3: Which of the following statements regarding the development of ear ossicles and inner ear is false? (Q847708)

A. Malleus and incus are developed from first pharyngeal arch

B. Stapes footplate is developed from otic capsule

C. Cochela develops from otocyst

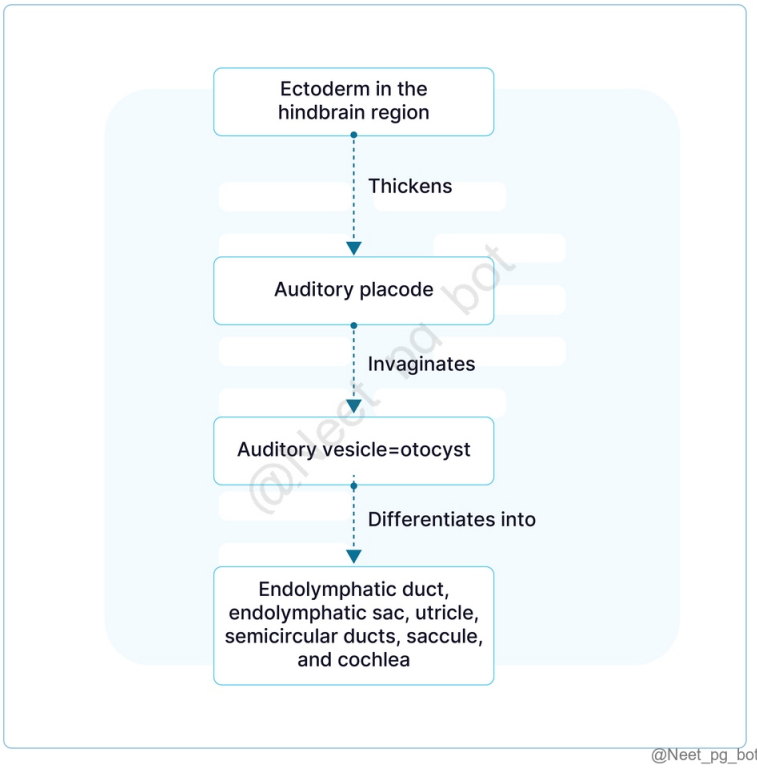
D. A part of the stapes develops from the third pharyngeal arch

Correct Answer: D. A part of the stapes develops from the third pharyngeal arch

■ *Listen (English)*

■ *Listen (Hindi)*

Explanation: Parts of the stapes except the footplate and annular ligament develop from the second pharyngeal arch, not the third. Development of ear ossicles Ossicle Embryonic Source Malleus Mesoderm of the first pharyngeal arch Incus Mesoderm of the first pharyngeal arch Stapes Footplate and annular ligament of stapes-Otic capsule Rest-Second pharyngeal arch Inner ear development:



References:

Dhingra Diseases of Ear, Nose and Throat and Head and Neck Surgery 8th edition, page 15

↑ *Back to this question in Part A*

@Neet_pg_bot

Q4: Match the layers of tympanic membrane to the germinal layer from which it developes. Layers of tympanum Germinal layer a.Epithelial layer 1.Ectoderm b.Fibrous layer 2.Endoderm c.Mucosal layer 3.Mesoderm (Q847707)

A. a1,b3,c2

B. a1,b2,c3

C. a3,b2,c1

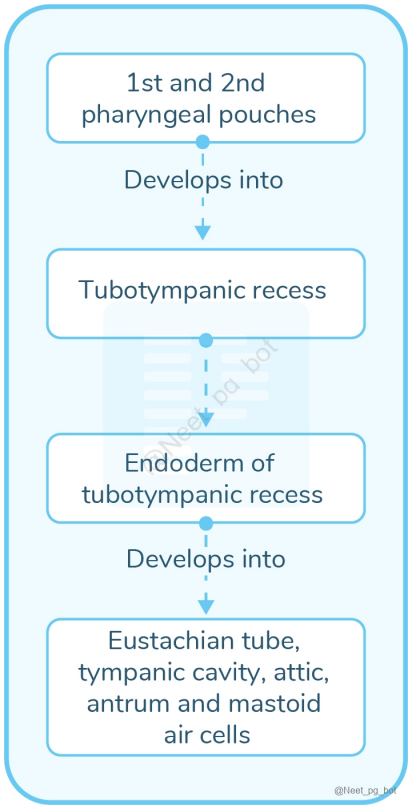
D. a2,b1,c3

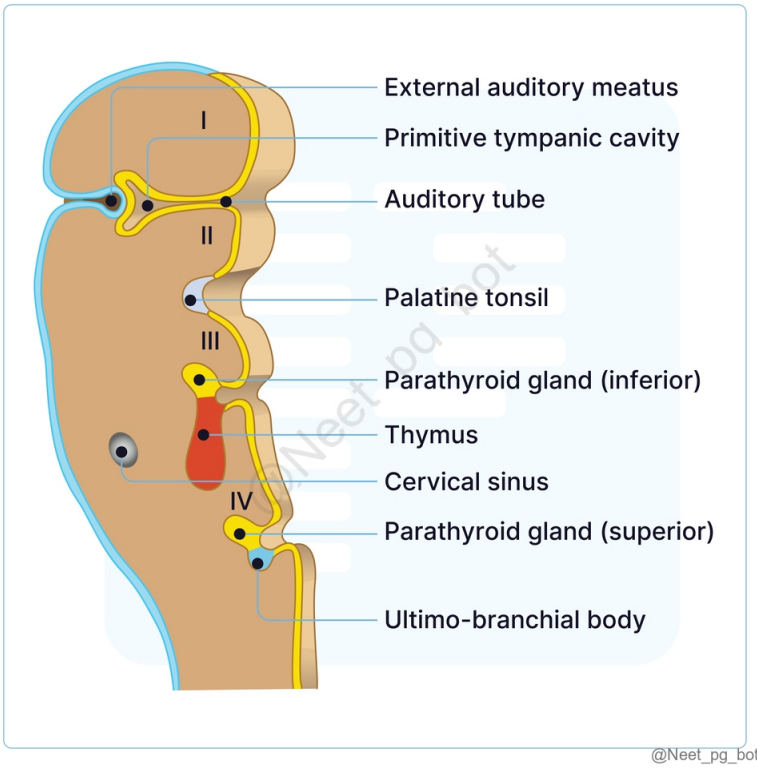
Correct Answer: A. a1,b3,c2

■ *Listen (English)*

■ *Listen (Hindi)*

Explanation: Development of tympanic membrane: Ectoderm→Outer epithelial layer Mesoderm→Middle fibrous layer Endoderm→Inner mucosal layer Development of middle ear:





References:

Dhingra Diseases of Ear, Nose and Throat and Head and Neck Surgery 8th edition, page 15

↑ *Back to this question in Part A*

@Neet_pg_bot

Q5: Which of the following structures pass through the internal auditory canal? (Q847705)

A. Facial nerve, cochlear nerve, and trigeminal nerve

B. Cochlear nerve, vestibular nerve, and facial nerve

C. Optic nerve, oculomotor nerve, and facial nerve

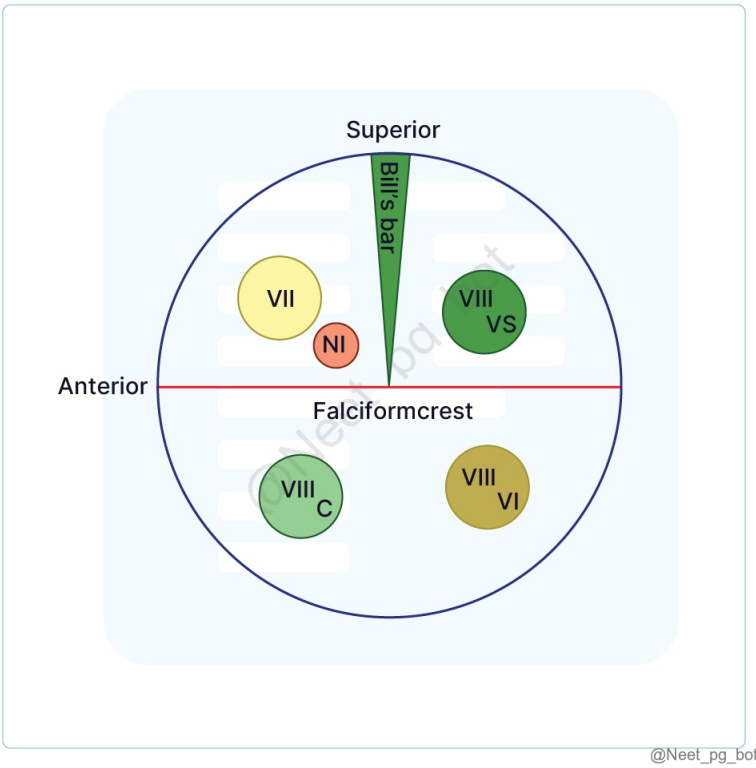
D. Glossopharyngeal nerve, vagus nerve, and accessory nerve

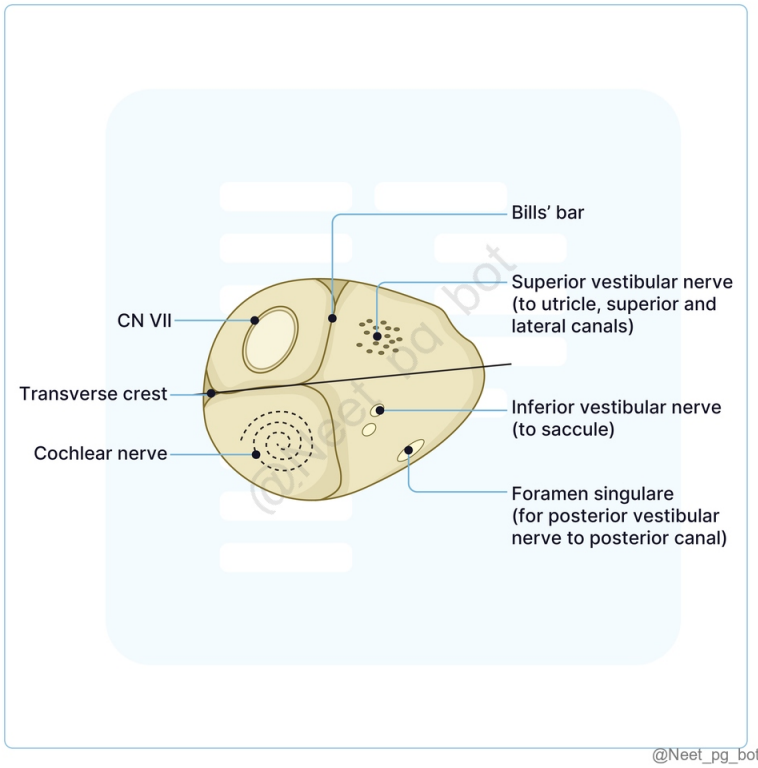
Correct Answer: B. Cochlear nerve, vestibular nerve, and facial nerve

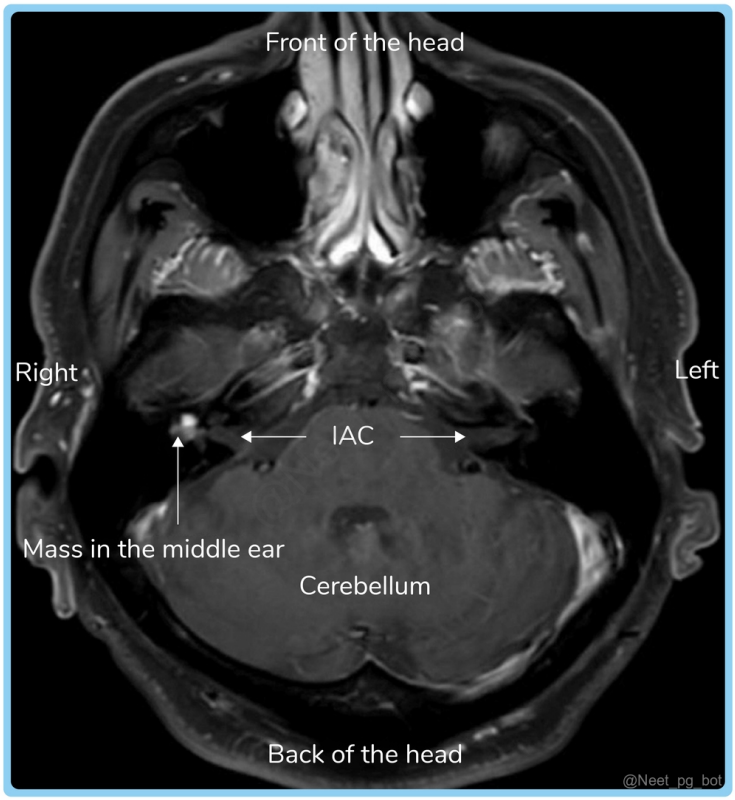
■ *Listen (English)*

■ *Listen (Hindi)*

Explanation: Internal Auditory Canal (IAC): Lies in temporal bone and exists between the inner ear and posterior cranial fossa. Contents: Facial nerve (cranial nerve VII) - anterosuperior quadrant Cochlear nerve (cranial nerve VIII) Vestibular nerve (cranial nerve VIII - Cochlear nerve, Vestibular nerve superior and Inferior) Labyrinthine artery Vestibular ganglion Begins in the temporal bone at an oval shaped opening called the Porus acusticus internus. The canal runs through the petrous segment of the temporal bone,which is lined by dura and filled with spinal fluid. The canal is on average 8.5mm in length and about 4mm in diameter. Divided into superior and inferior segments by the transverse crest/falciform crest. Superior half is further divided into anterior and inferior segments by Bill’s bar/Vertical crest. Posterior portion of the fundus is filled with macula cristal. Labyrinthine artery/Internal auditory artery enters IAC medially in the anteroinferior segment of Porus acusticus internus and courses between facial and cochlear nerve.







References:

www.ncbi.nlm.nih.gov/books/NBK544288

↑ *Back to this question in Part A*

@Neet_pg_bot

Q6: A 35-year-old male presents with progressive right-sided hearing loss, intermittent tinnitus, and a sensation of fullness. An audiogram shows significant sensorineural hearing loss. Which structure is most likely affected? (Q847704)

A. Malleus

B. Eustachian tube

C. Organ of Corti

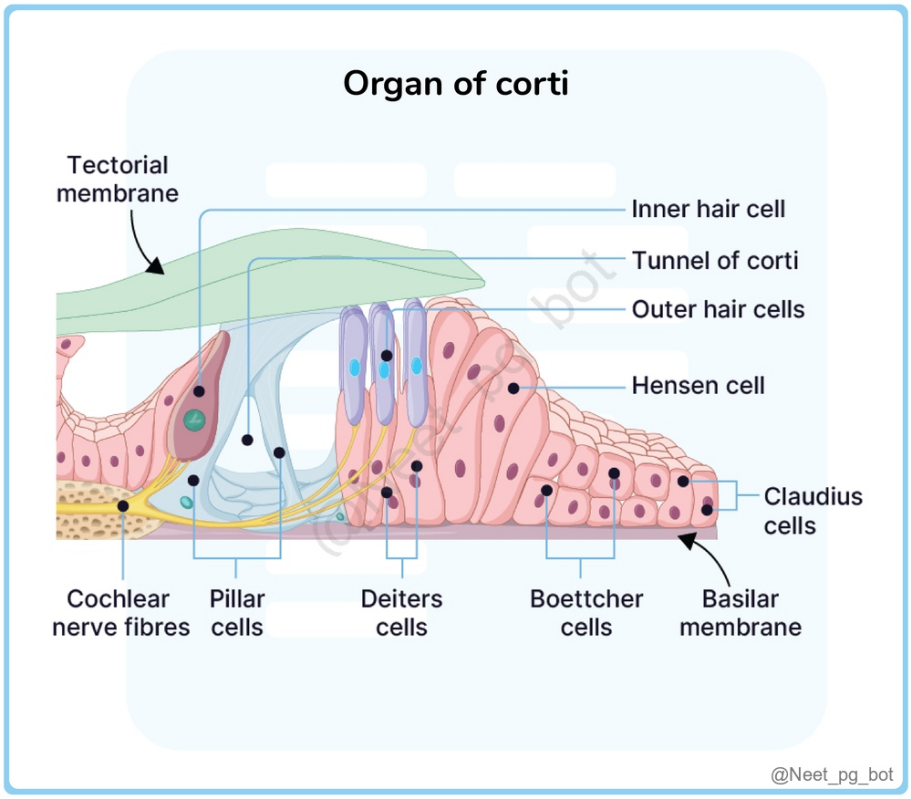
D. Semicircular canals

Correct Answer: C. Organ of Corti

■ *Listen (English)*

■ *Listen (Hindi)*

Explanation: Organ of Corti is located in the cochlea. It is the primary structure responsible for converting sound vibrations into nerve impulses. Thus, damage here leads to sensorineural hearing loss , which aligns with the patient's symptoms and audiogram findings. Malleus (Option A): Ossicles in the middle ear that transmits sound from the tympanic membrane to the inner ear. Issues with the malleus would lead to conductive hearing loss, not the sensorineural hearing loss seen in this patient. Eustachian tube (Option B): Dysfunction can cause middle ear effusions and conductive hearing loss, but it is unlikely to cause the sensorineural hearing loss observed in this patient. Semicircular canals (Option D): Disorders of these structures typically cause vertigo rather than hearing loss. They are not the likely cause of the hearing symptoms described.



References:

PL Dhingra Diseases of Ear, Nose & Throat and Head and Neck Surgery, 8th Edition, Page 16, 17

↑ *Back to this question in Part A*

@Neet_pg_bot

Q7: Which of the following statements correctly identifies the primary ionic components of endolymph and perilymph in the cochlea? (Q847703)

A. Endolymph is high in sodium (Na+), and perilymph is high in potassium (K+).

B. Endolymph is high in potassium (K+), and perilymph is high in sodium (Na+).

C. Both endolymph and perilymph are high in sodium (Na+).

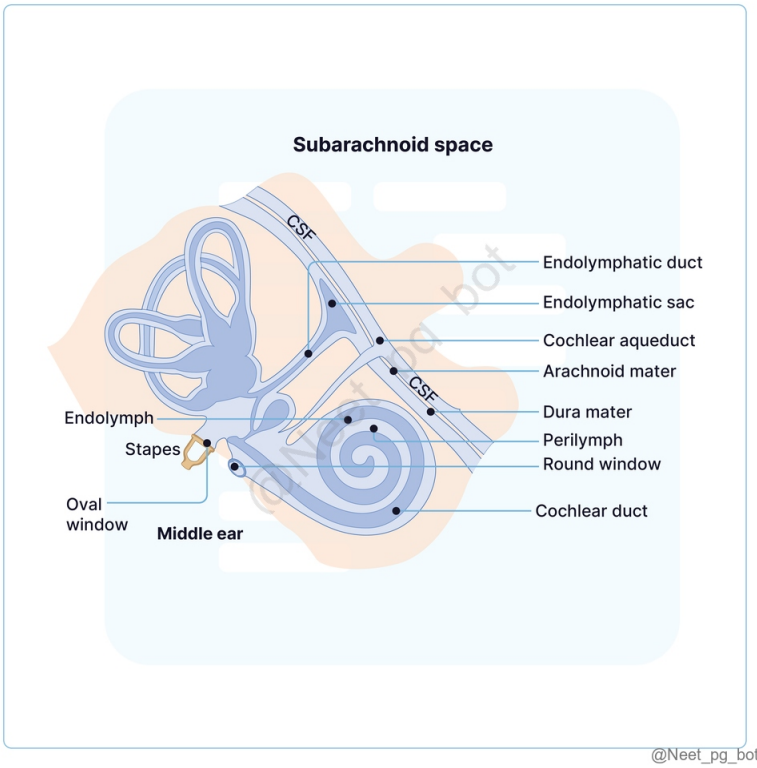
D. Both endolymph and perilymph are high in potassium (K+).

Correct Answer: B. Endolymph is high in potassium (K+), and perilymph is high in sodium (Na+).

■ *Listen (English)*

■ *Listen (Hindi)*

Explanation: There are two main fluids in the inner ear: Perilymph and Endolymph. Perilymph: Resembles extracellular fluid and is rich in sodium ions (Na+). Location: Fills the space between the bony and membranous labyrinth. Communication: Connects with cerebrospinal fluid (CSF) through the aqueduct of cochlea. Endolymph: Fills the membranous labyrinth, resembling intracellular fluid with high potassium ions (K+). Secreted by secretory cells of the stria vascularis of the cochlea and by the dark cells. There are two views regarding its flow: Longitudinal , i.e. endolymph from the cochlea reaches saccule, utricle and endolymphatic duct and gets absorbed through endolymphatic sac, which lies in the subdural space, and Radial, i.e. endolymph is secreted by stria vascularis and also gets absorbed by the stria vascularis. This view presumes that endolymphatic sac is a vestigial structure in man and plays no part in endolymph absorption. Composition: Sodium Potassium Endolymph 5 144 Perilymph 140 10



References:

PL Dhingra diseases of Ear, Nose & throat and Head and neck surgery Edition 8, pg 13.

↑ *Back to this question in Part A*

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Q8: In the cochlea, high-frequency sounds are primarily detected at which location along the basilar membrane? (Q847702)

A. Apex of the cochlea

B. Base of the cochlea

C. Middle of the cochlea

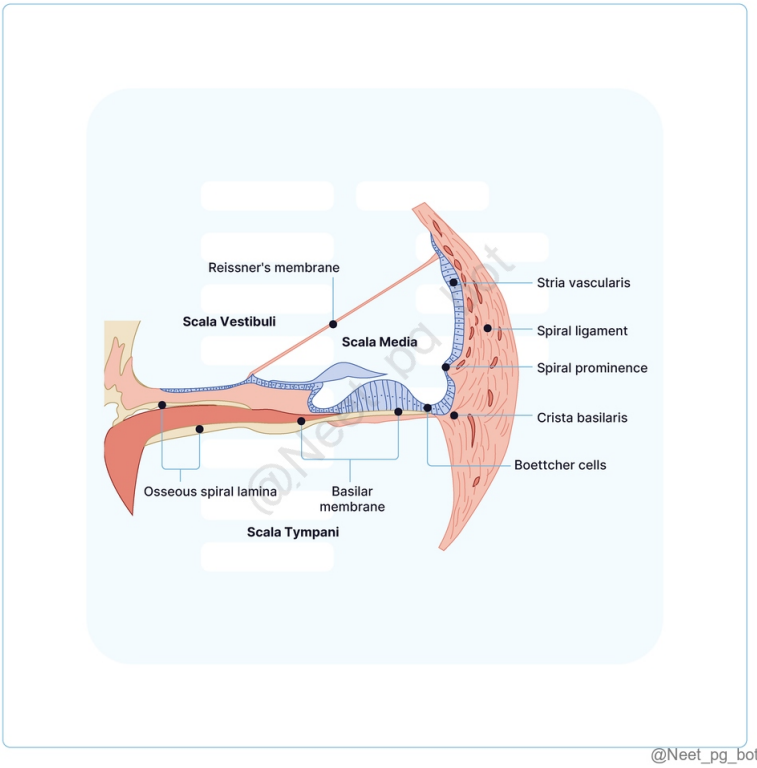
D. Near the helicotrema

Correct Answer: B. Base of the cochlea

■ *Listen (English)*

■ *Listen (Hindi)*

Explanation: The length of the basilar membrane increases as we proceed from the basal coil to the apical coil. Therefore, higher frequencies are heard at the basal coil while lower ones are heard at the apical coil. Example: Meniere's disease early stage affects the apex of the cochlea and hence low-frequency hearing loss is seen (upsloping audiogram). Later stages show a high-frequency hearing loss (downsloping). Apex of the cochlea (Option A): The apex of the cochlea is where the basilar membrane is wider and more flexible. It primarily detects low-frequency sounds, not high-frequency sounds. Middle of the cochlea (Option C): The middle portion of the cochlea detects mid-range frequencies. While it plays a role in sound detection, it is not responsible for high-frequency sounds. Near the helicotrema (Option D): The helicotrema is the part of the cochlear apex where the scala tympani and scala vestibuli meet. This region is involved in detecting very low-frequency sounds, not high-frequency ones.



References:

PL Dhingra's Diseases of Ear, Nose & Throat and Head and Neck Surgery, 8th Edition, Pages 11 -13

↑ *Back to this question in Part A*

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Q9: Which of the following accurately describes the anatomy and function of the semicircular canals? The lateral, posterior, and superior canals are oriented perpendicular to each other. Each semicircular canal has an ampullated end that contains the crista ampullaris, which detects angular acceleration. The membranous ducts within the bony canals are filled with perilymph and surrounded by endolymph. The crus commune is formed by the non-ampullated ends of the posterior and superior canals and opens into the vestibule. The semicircular canals are located within the bony labyrinth in the frontal bone. (Q847701)

A. 1,2,4

B. 1

C. 1,4

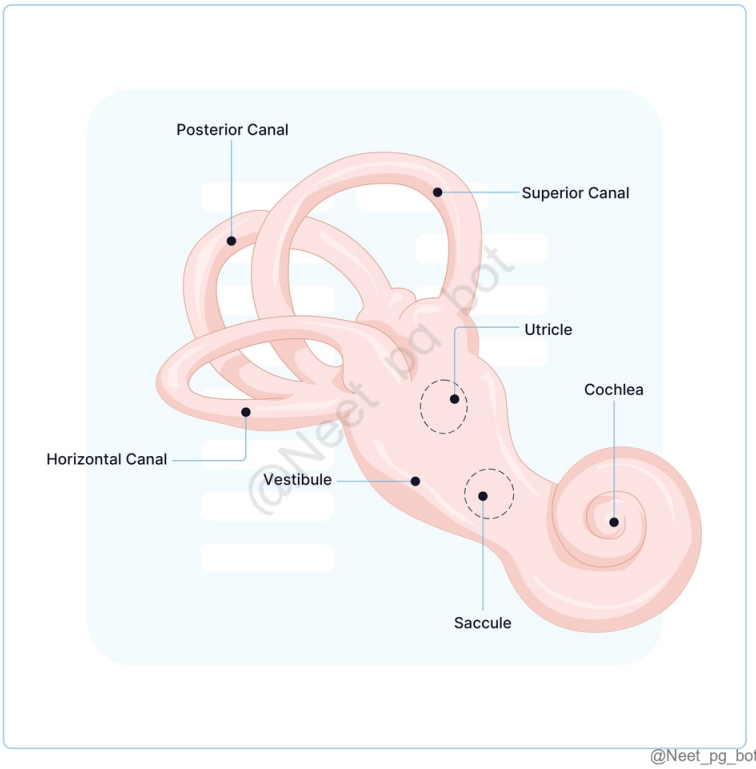
D. 1,2

Correct Answer: A. 1,2,4

■ *Listen (English)*

■ *Listen (Hindi)*

Explanation: Semicircular canals Location Within the bony labyrinth in the temporal bone (statement 5 ruled out) Function The semicircular canals aid in balance and spatial orientation. Canals and Planes 3 Canals: Lateral Canal; Posterior Canal; Superior Canal Each canal is perpendicular to each other. (statement 1) Three canals open into the vestibule through five openings. Fluids Membranous semicircular ducts are inside the bony semicircular canals Membranous semicircular ducts are filled with endolymph and surrounded by perilymph (statement 3 ruled out) Ampullae and Crus Commune Each canal has an ampullated end, a wider portion containing a sensory structure called the crista ampullaris. (statement 2) Detect angular acceleration (head rotation): Cristae ampullaris contain hair cells that sense endolymph movement and send balance signals to the brain. The non-ampullated ends of the posterior and superior canals merge to form a common channel called the crus commune before entering the vestibule. (statement 4)



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References:

PL Dhingra diseases of Ear, Nose & throat and Head and neck surgery Edition 8, pg: 11

↑ *Back to this question in Part A*

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Q10: Which structure in the vestibule of the inner ear contains the structure involved in detecting linear acceleration and deceleration.? (Q847700)

A. Organ of Corti

B. Vestibular aqueduct

C. Semicircular canals

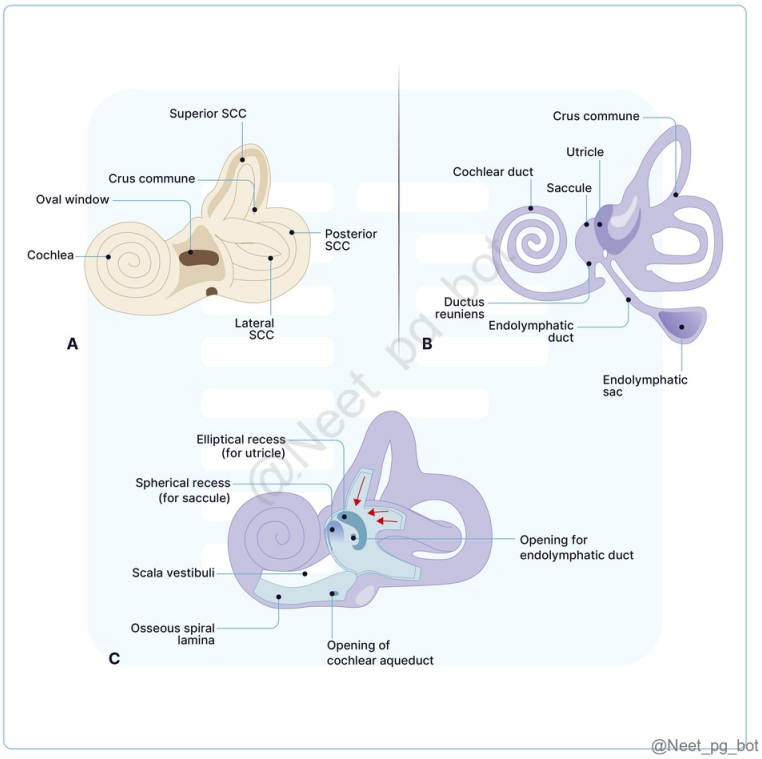
D. Spherical recess

Correct Answer: D. Spherical recess

■ *Listen (English)*

■ *Listen (Hindi)*

Explanation: The spherical recess houses the saccule, which detects linear acceleration, but not the utricle. Vestibule : Central part connecting to the cochlea and semicircular canals. Bony Recesses in the vestibule contains the utricle and saccule (part of the membranous labyrinth). Spherical Recess: Contains the saccule, a membranous sac involved in detecting linear acceleration and deceleration. Elliptical Recess: Contains the utricle, which works with the saccule to aid in balance and spatial orientation. Oval Window: Located on the vestibule's lateral wall, it connects to the middle ear. Openings of the Semicircular Canals: The three semicircular canals (lateral, posterior, and superior) have five openings into the vestibule, enabling detection of head rotations. Opening of the Vestibular Aqueduct: Positioned below the elliptical recess, it allows the passage of the endolymphatic duct, which carries endolymph within the membranous labyrinth. Vestibular aqueduct (Option B): The vestibular aqueduct transmits the endolymphatic duct but does not house the utricle or saccule. Semicircular canals (Option C): The semicircular canals detect rotational head movements but do not contain the utricle or saccule.



References:

PL Dhingra diseases of Ear, Nose & throat and Head and neck surgery Edition 8, pg: 10-13

↑ *Back to this question in Part A*

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Q11: A 45-year-old patient is undergoing a mastoidectomy for chronic mastoiditis. During surgery, the surgeon encounters a structure that obstructs access to the deeper petrosal air cells. What is the most likely anatomical structure causing this surgical

challenge? (Q847699)

A. Sigmoid sinus

B. Facial nerve

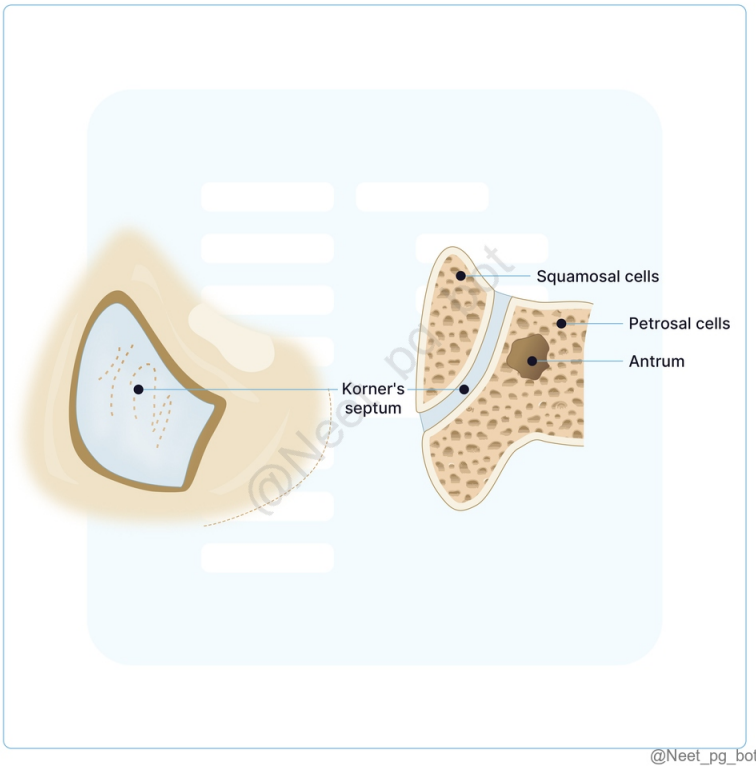
C. Korner's septum

D. Tegmen tympani

Correct Answer: C. Korner's septum

- *Listen (English)*
- *Listen (Hindi)*

Explanation: Complete removal of Korner's septum is crucial to access deeper petrosal cells and eliminate diseased tissue during mastoidectomy. Korner's septum Korner's septum is a bony plate in the mastoid, separating the superficial squamosal air cells from the deeper petrosal air cells. It is a remnant of the developmental petrosquamous suture. Surgical Importance During Mastoidectomy: Korner's septum is important when removing infected mastoid air cells. Challenges in Locating the Antrum: A prominent Korner's septum can block access to the mastoid antrum, complicating surgery. Incomplete Disease Removal: If Korner's septum is not fully removed, deeper infected air cells may be missed, leading to persistent or recurrent infection. Sigmoid sinus (Option A): The sigmoid sinus is located posterior to the mastoid antrum, but it does not directly obstruct access to the deeper air cells during mastoidectomy. Facial nerve (Option B): While the facial nerve is an important structure to avoid during mastoid surgery, it does not form obstruction to the deeper mastoid air cells. Tegmen tympani (Option D): The tegmen tympani forms the roof of the middle ear cavity and does not obstruct the deeper mastoid air cells.



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References:

PL Dhingra diseases of Ear, Nose & throat and Head and neck surgery Edition 8, pg: 9

↑ *Back to this question in Part A*

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Q12: Which of the following describes the posterior boundary of MacEwen's triangle? (Q847698)

A. Temporal line (supramastoid crest)

B. Posterosuperior part of the bony external auditory canal

C. A tangent line drawn from the external auditory canal

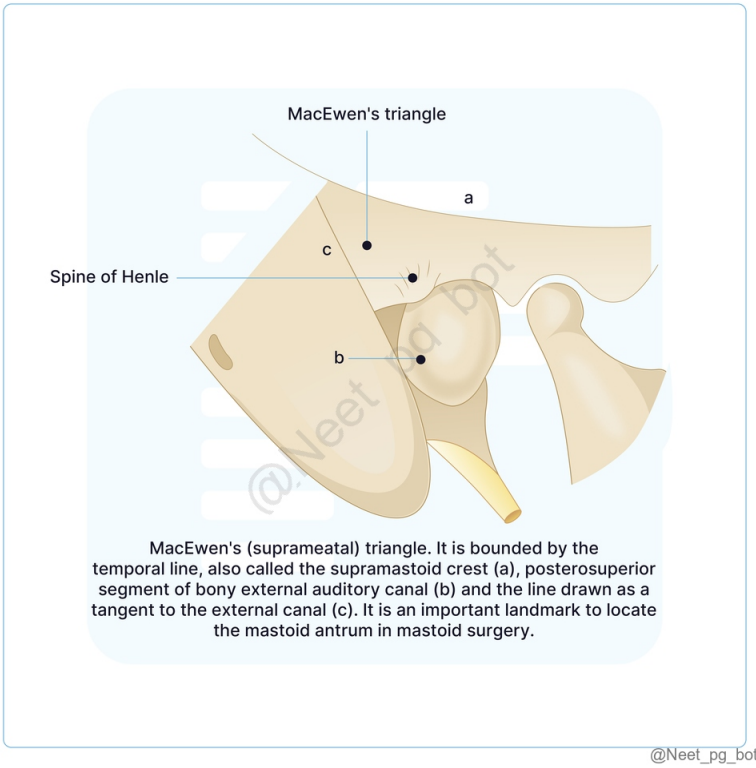
D. Tegmen tympani

Correct Answer: C. A tangent line drawn from the external auditory canal

■ *Listen (English)*

■ *Listen (Hindi)*

Explanation: Boundaries of MacEwen's Triangle Superiorly : Temporal line (supramastoid crest) Anteriorly : Posterosuperior part of the bony external auditory canal Posteriorly : A tangent line drawn from the external auditory canal (Option C)



MacEwen's (suprameatal) triangle. It is bounded by the temporal line, also called the supramastoid crest (a), posterosuperior segment of bony external auditory canal (b) and the line drawn as a tangent to the external canal (c). It is an important landmark to locate the mastoid antrum in mastoid surgery.

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References:

PL Dhingra's Diseases of Ear, Nose & Throat and Head and Neck Surgery, 8th Edition, Page 8

↑ *Back to this question in Part A*

@Neet_pg_bot

Q13: Which structure, located in the petrous part of the temporal bone, is responsible for transmitting the facial nerve (VII) and is commonly involved in pathological conditions such as acoustic neuroma affecting the cerebellopontine angle? (Q847685)

A. Tegmen tympani

B. Stylomastoid foramen

C. Internal auditory canal

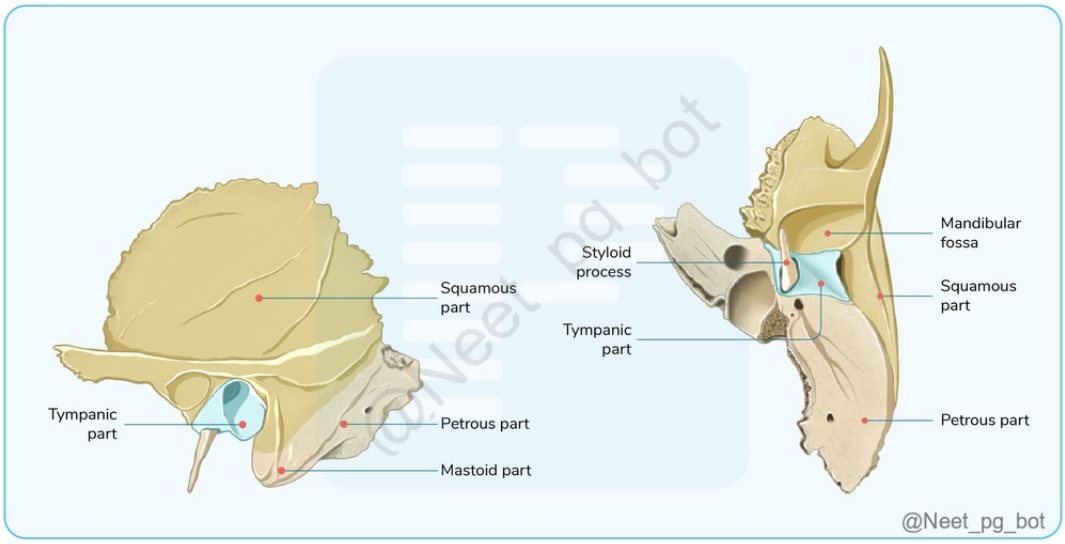
D. Jugular foramen

Correct Answer: C. Internal auditory canal

■ *Listen (English)*

■ *Listen (Hindi)*

Explanation: The internal auditory canal , located in the petrous part of the temporal bone, transmits both the facial nerve (VII) and the vestibulocochlear nerve (VIII). Pathological conditions like acoustic neuroma, which arises from the vestibular division of the vestibulocochlear nerve, commonly affect this canal and extend into the cerebellopontine angle, leading to symptoms involving both hearing and facial nerve function. Tegmen tympani (Option A): The tegmen tympani forms the roof of the tympanic cavity but does not transmit the facial nerve. It separates the tympanic cavity from the middle cranial fossa. Stylomastoid foramen (Option B): The stylomastoid foramen is the exit point for the facial nerve from the skull but is not involved in transmitting the facial nerve within the temporal bone. Jugular foramen (Option D): The jugular foramen transmits the glossopharyngeal, vagus, and accessory nerves, but not the facial nerve.



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↑ *Back to this question in Part A*

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Q14: Patient diagnosed with chronic suppurative otitis media has been planned for Tympanoplasty. All among the following are landmarks to identify the commonly injured nerve during this procedure except? (Q847696)

A. Oval window

B. Posterior belly of digastric

C. Processus cochleariformis

D. Incus short process

Correct Answer: B. Posterior belly of digastric

- *Listen (English)*
- *Listen (Hindi)*

Explanation: Tympanoplasty is a surgery of the middle ear; the commonly injured nerve during middle ear surgery is the facial nerve . Oval window, Processus cochleariformis, and short process of incus are related to the facial nerve in the middle ear, while the posterior belly of the digastric is a landmark of the facial nerve in parotid surgeries. Surgical landmarks of the facial nerve: Middle ear and mastoid 1) Processus Cochleariformis (Option C) Tympanic segment of the nerve starts at this level 2) Oval Window & Horizontal Canal (Option A) Runs superior to the oval window (stapes) and inferior to the horizontal canal 3) Short Process of Incus (Option D) Medial to the short process of incus at the aditus 4) Pyramid Passes behind the pyramid and posterior tympanic sulcus 5) Digastric ridge Nerve exits the mastoid at the anterior end of the digastric ridge. Parotid 1) Cartilaginous Pointer Located 1 cm deep, slightly anterior and inferior to the triangular cartilage 2) Tympanomastoid Suture Lies 6-8 mm deep to the suture 3) Styloid Process Crosses lateral to the styloid process 4) Posterior Belly of Digastric (Option B) Between the styloid process and the posterior belly of the digastric muscle Note: Digastric ridge is a facial nerve landmark of the middle ear, while digastric muscle is related to the parotid.

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References:

PL Dhingra's Diseases of Ear, Nose & Throat and Head and Neck Surgery, 8th Edition, Pages 108-109

↑ *Back to this question in Part A*

@Neet_pg_bot

Q15: Patient underwent surgery for cholesteatoma 1 year back, now has presented with similar complaints again. Which among the following is the most common site of residual cholesteatoma? (Q847695)

A. Facial nerve canal

B. Ponticulus

C. Sinus tympani

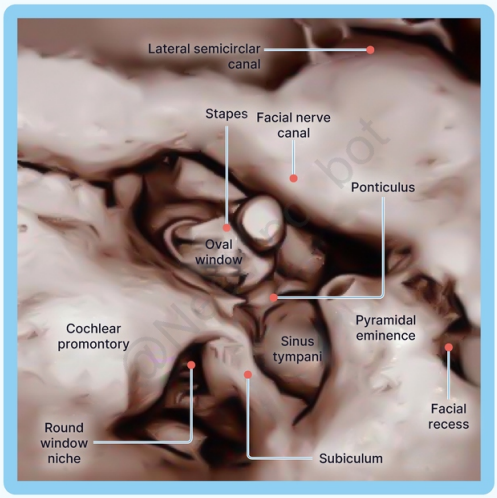
D. Facial recess

Correct Answer: C. Sinus tympani

■ *Listen (English)*

■ *Listen (Hindi)*

Explanation: Cholesteatoma is a benign keratinizing epithelial lined cystic structure found in the middle ear and mastoid. Most common site of residual/recurrent cholesteatoma is Sinus tympani - present in medial wall of middle ear. Sinus tympani is a recess bounded superiorly by Ponticulus and inferiorly by subiculum.



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References:

Diseases of ENT by Dhingra 8th edition, page- 7.

Scott Brown's Otorhinolaryngology Vol-2 8th edition, page- 982.

↑ *Back to this question in Part A*

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Q16: A 6-year old child was brought to clinic with recurrent episodes of upper respiratory tract infection. Child also complains of earache during this episodes. Doctor suspects that a structure exiting from anterior wall in middle ear is responsible for his earache. Arrange the following structures in order related to the wall (superior-to-inferior) 1) Internal carotid artery 2) Pharyngo-tympanic tube 3) Tensor tympani (Q847694)

A. 3-1-2

B. 2-3-1

C. 3-2-1

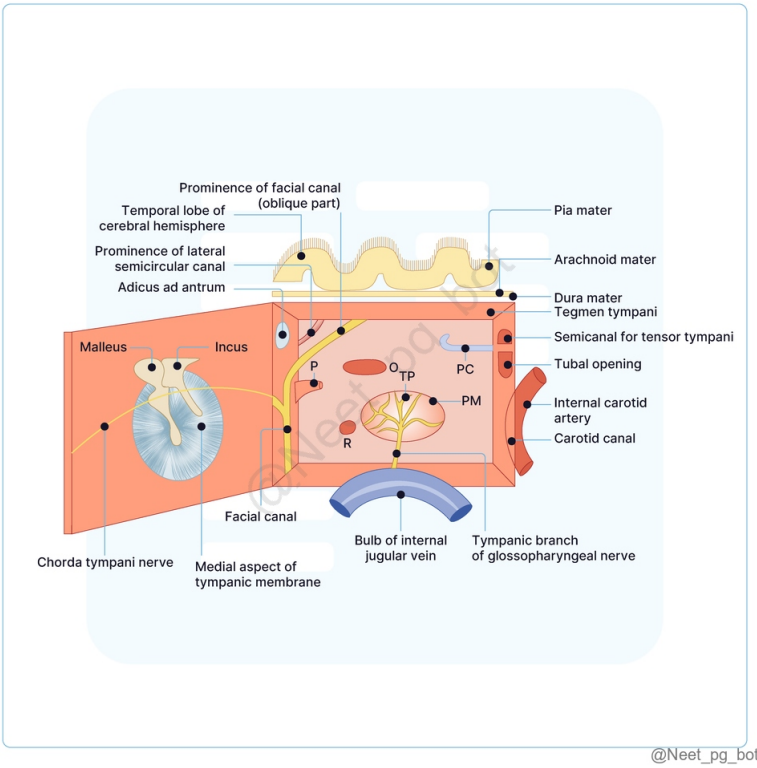
D. 2-1-3

Correct Answer: C. 3-2-1

■ *Listen (English)*

■ *Listen (Hindi)*

Explanation: Recurrent upper respiratory tract infections can lead to eustachian tube (Pharyngo-tympanic tube) block. Eustchian tube exits middle ear cavity via the anterior wall. Structures present in anterior wall from above below (superior-to-inferior): 1) Supratubal recess Superior most, present in anterior epitympanum 2) Canal of Tensor tympani (Statement-3) Tensor tympani subsequently runs along the medial wall 3) Pharyngo-tympanic tube (Statement-2) Present in middle 3rd, 5x4mm diameter opening 4) Internal carotid artery (Statement-1) Present in lower 3rd, bony plate covers the artery



References:

Diseases of ENT by Dhingra 8th edition, page- 6.

Scott Brown's Otorhinolaryngology Vol-2 8th edition, page- 531,532

↑ *Back to this question in Part A*

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Q17: Which among the following are components of the middle ear cleft? 1) Tympanic plexus 2) Stapedius muscle 3) Mastoid air cells 4) Eustachian tube (Q847693)

A. 1,2,3,4

B. 1,2,3

C. 1,2,4

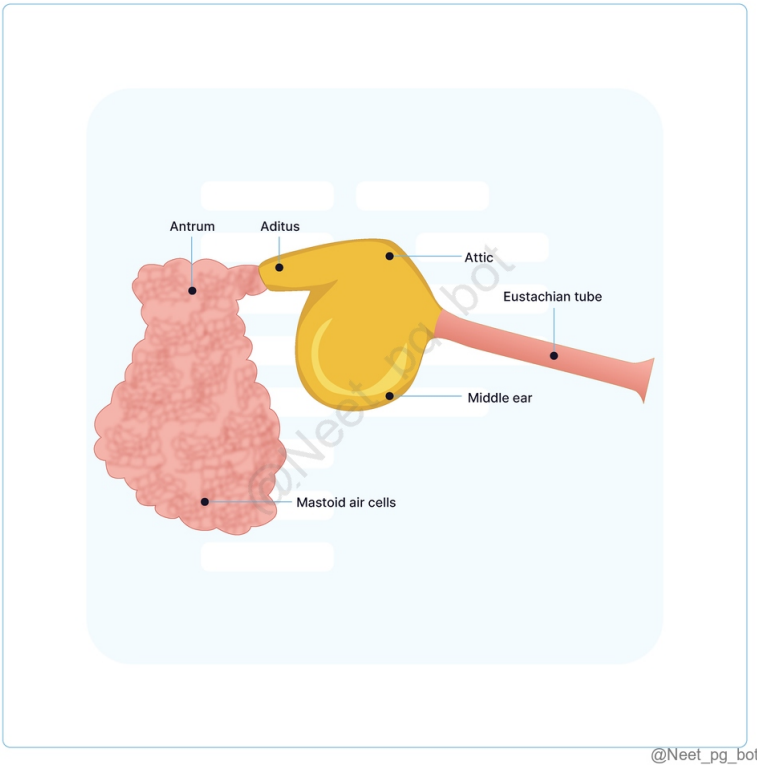
D. 1,2

Correct Answer: A. 1,2,3,4

■ *Listen (English)*

■ *Listen (Hindi)*

Explanation: Middle ear cleft consist of: Middle ear cavity and its contents: Ear ossicles (Malleus, Incus & Stapes), Tensor tympani muscle, Stapedius muscle (Statement-2) , Tympanic plexus (Statement-1) (It lies on the promontory and is formed by (i) tympanic branch of glossopharyngeal and (ii) sympathetic fibres from the plexus round the internal carotid artery), Chorda tympani nerve. Mastoid air cell system (Statement-3) including aditus and antrum Eustachian tube (Statement-4)



References:

Diseases of ENT by Dhingra 8th edition, Page. 5,9,10.

↑ *Back to this question in Part A*

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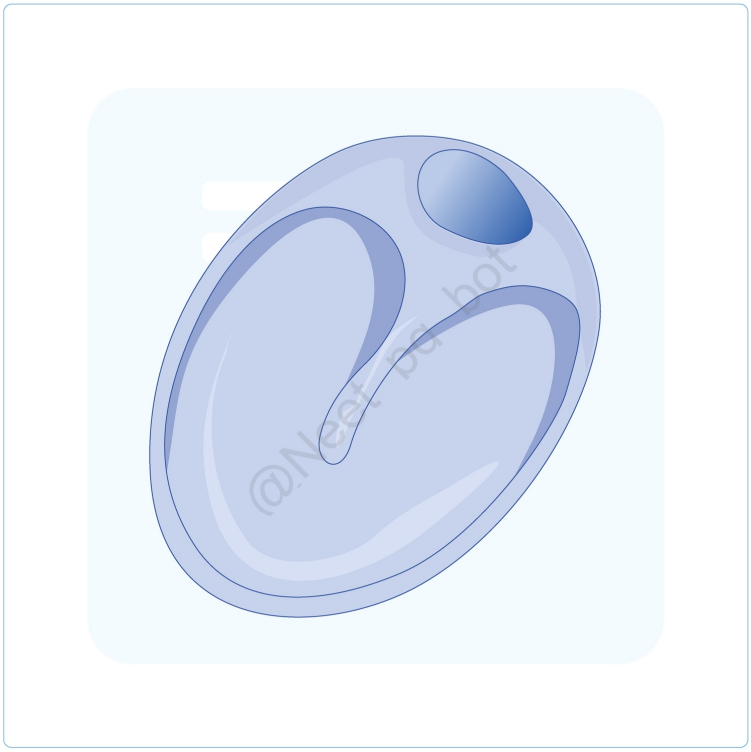
Q18: A 50-year-old woman presents with a perforation of the tympanic membrane. The image is given below. What type of perforation is this? (Q847692)

A. Central

B. Subtotal

C. Posterosuperior

D. Attic



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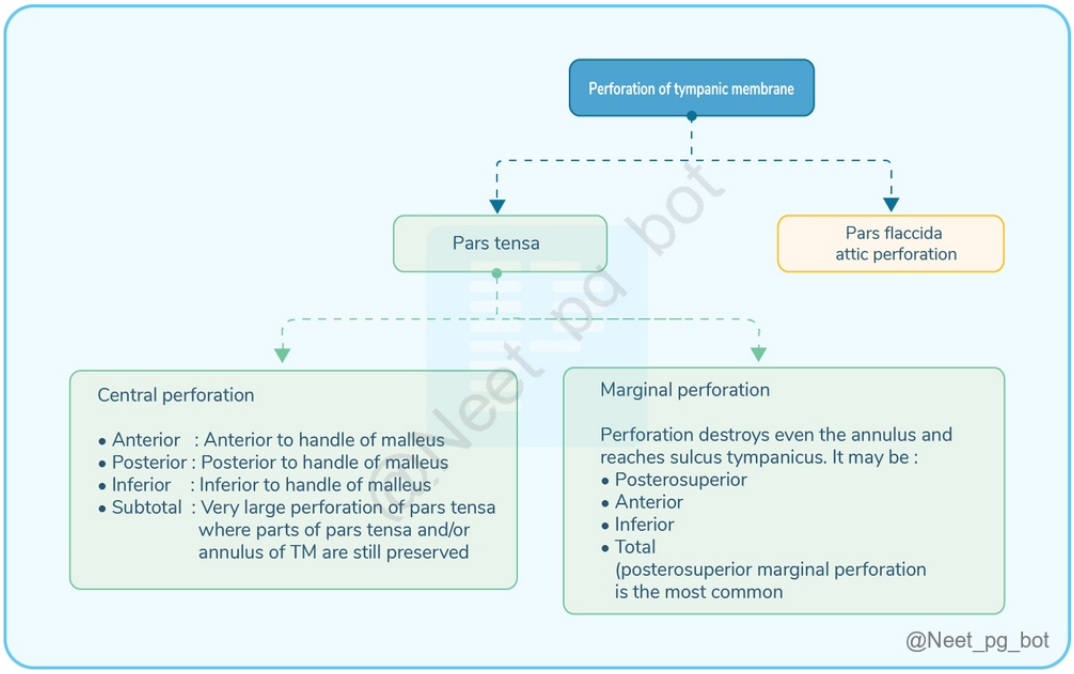
Correct Answer: D. Attic

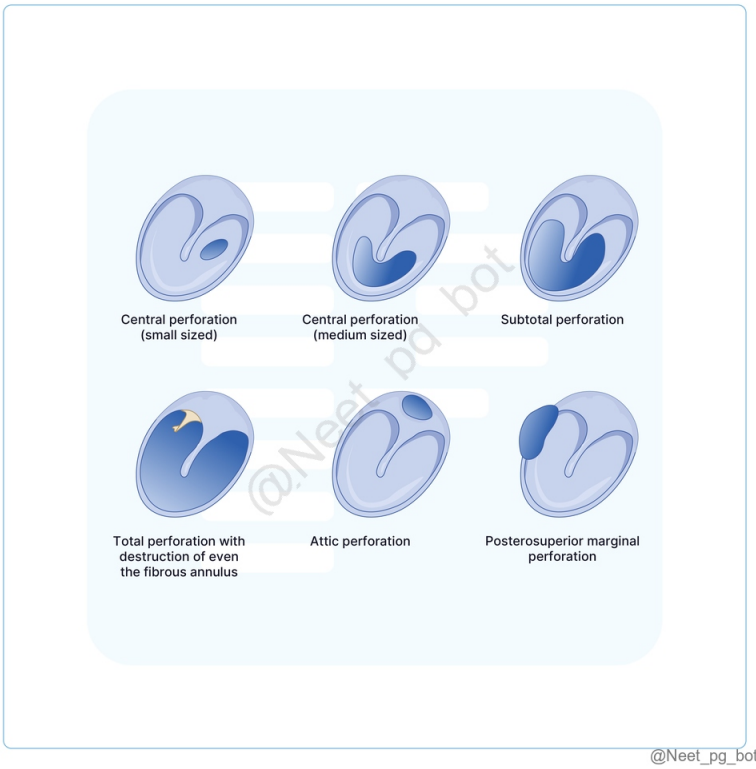
■ *Listen (English)*

■ *Listen (Hindi)*

Explanation: The image shows perforation in the pars flaccida - attic perforation The attic and posterosuperior marginal perforation are seen in dangerous types of CSOM and are often associated with a cholesteatoma. Stratified squamous epithelium from the external auditory canal can grow into the middle ear in any type of marginal perforation by immigration and form a cholesteatoma . Therefore, all marginal perforations are

considered dangerous. Central perforations are considered safe as cholesteatomas are usually not associated with them. It is seen in tubotympanic CSOM.





References:

Dhingra Diseases of Ear, Nose and Throat and Head and Neck Surgery 8th edition, pages 83-84

↑ *Back to this question in Part A*

@Neet_pg_bot

Q19: Which of the following statements is false? (Q847691)

A. Pars tensa forms the majority of the tympanic membrane

B. Umbo is central part of pars tensa

C. Sharpnells membrane is pars flaccida

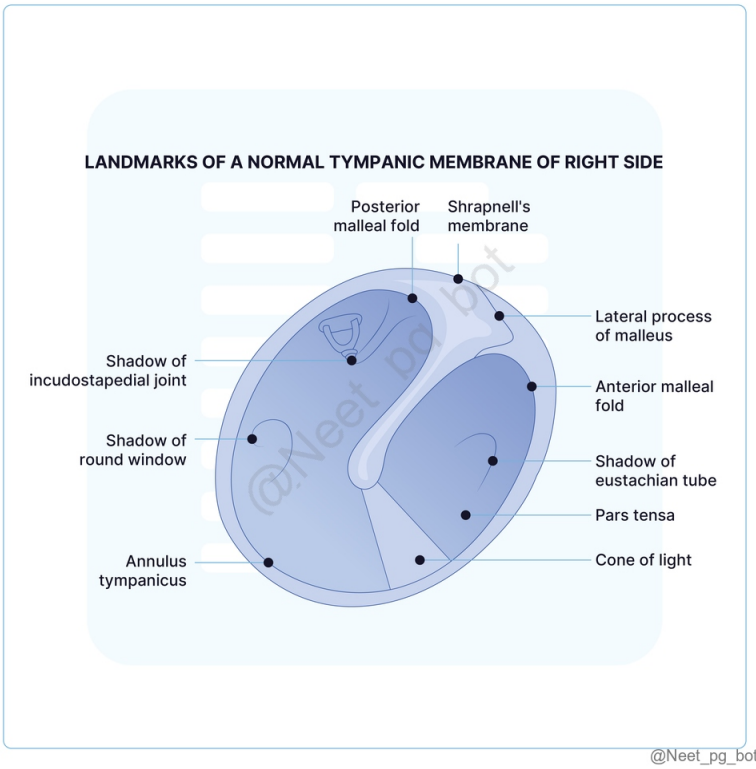
D. None of the above

Correct Answer: D. None of the above

■ *Listen (English)*

■ *Listen (Hindi)*

Explanation: All of the statements are true. Pars Tensa Forms most of the tympanic membrane. (Option A) Annulus Tympanicus - Thickened fibrocartilaginous ring at the periphery that fits into the tympanic sulcus. Umbo - Central part of pars tensa (Option B) , tented inward at the tip of the malleus. Cone of Light - Bright reflection radiating from the tip of the malleus to the periphery in the anteroinferior quadrant. Pars Flaccida (Shrapnell’s Membrane) (Option C) Located above the lateral process of the malleus, between the notch of Rivinus and the malleal folds. Less taut and may appear slightly pinkish.



References:

PL Dhingra's Diseases of Ear, Nose & Throat and Head and Neck Surgery, 8th Edition, Pages 3-5

↑ *Back to this question in Part A*

@Neet_pg_bot

Q20: Which of the following statements on tympanic membrane is false? (Q847690)

A. Partition between the external acoustic canal and the middle ear.

B. The posterosuperior part is more medial than the anteroinferior part.

C. Height 9-10 mm

D. 0.1mm thick

Correct Answer: B. The posterosuperior part is more medial than the anteroinferior part.

■ *Listen (English)*

■ *Listen (Hindi)*

Explanation: The posterosuperior part is more lateral than the anteroinferior part. Tympanic membrane/drumhead: Partition between the external acoustic canal and the middle ear. It is Obliquely set and as a result its posterosuperior part is more lateral than the anteroinferior part because TM is present at an angle of 55 degrees with horizontal. Dimensions: Height: 9–10 mm Width: 8–9 mm Thickness: 0.1 mm.

References:

Dhingra Diseases of Ear, Nose and Throat and Head and Neck Surgery 8th edition, page 3

↑ *Back to this question in Part A*

@Neet_pg_bot

Q21: Match the parts of the external ear with the corresponding nerve supply Part Nerve supply a.Lower half of medial and lateral surface of pinna 1.Auricular branch of vagus nerve b.Retroauricular groove of the pinna 2.Facial nerve c.Floor of external auditory canal 3.Greater auricular nerve (Q847689)

A. a3,b2,c1

B. a1,b2,c3

C. a3,b1,c2

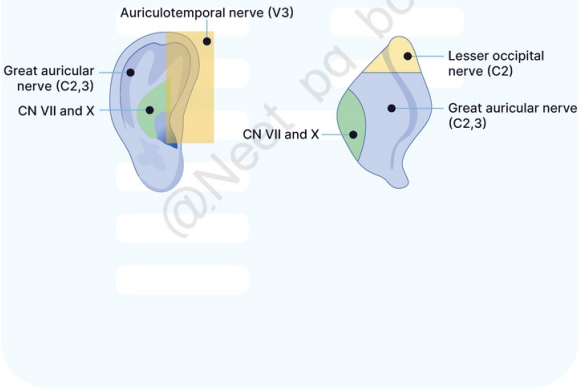
D. a2,b3,c1

Correct Answer: A. a3,b2,c1

■ *Listen (English)*

■ *Listen (Hindi)*

Explanation: Nerve supply of pinna: Part Nerve supply Most of the medial surface of pinna- lower half and posterior part of the lateral surface Greater auricular nerve (C2,3) Upper part of the medial surface Lesser occipital nerve (C2) Tragus, crus of helix, and adjacent part of the helix Auriculotemporal nerve (V3) Concha and corresponding eminence on the medial surface Auricular branch of vagus (CN X, Arnold’s nerve) Concha and retroauricular groove Facial nerve (CN VII) distributed with fibers of auricular branch of vagus Nerve supply of External Auditory Canal: Part Nerve supply Anterior wall and roof Auriculotemporal nerve (V3) Posterior wall and floor Auricular branch of vagus (CN X) Posterior wall (additional supply) Sensory fibers of facial nerve (CN VII) through auricular branch of vagus Nerve supply of tympanic membrane : Part Nerve supply Anterior half of lateral surface auriculotemporal (V3) Posterior half of lateral surface auricular branch of vagus (CN X). Medial surface tympanic branch of CN IX (Jacobson’s nerve)



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References:

Dhingra Diseases of Ear, Nose and Throat and Head and Neck Surgery 8th edition, page 5

↑ *Back to this question in Part A*

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Q22: A 3 year old child presents with swelling and pain in the region of the parotid gland, accompanied by ear discharge. Examination of the external auditory canal (EAC) reveals signs of infection. Which bony anatomical structure is responsible for the spread of infection between the EAC and the parotid gland? (Q847688)

A. Mastoid air cells

B. Foramen of Huschke

C. Isthmus

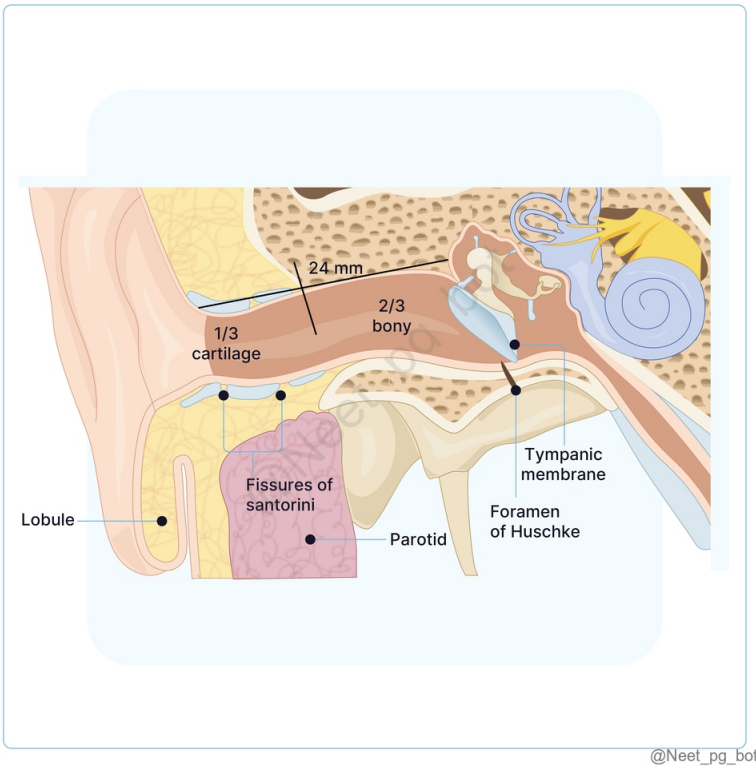
D. Tympanic membrane

Correct Answer: B. Foramen of Huschke

■ *Listen (English)*

■ *Listen (Hindi)*

Explanation: Foramen of Huschke: A deficiency in the anteroinferior bony EAC, present in some children under four and occasionally into adulthood. It allows infection to spread between the parotid gland and the EAC. (Option B) Fissures of Santorini: Two gaps in the cartilage of the outer EAC that allow infection to pass between the parotid glands and the EAC. Isthmus: A narrowing in the bony EAC, about 6 mm lateral to the tympanic membrane. It is not an opening but a constriction in the canal. (Option C) Tympanic membrane (Option D) separates the external ear from the middle ear and is not involved in spreading infections to the parotid gland. Mastoid Air Cells (Option A) do not directly connect the EAC to the parotid gland.



References:

PL Dhingra diseases of Ear, Nose & throat and Head and neck surgery, 8th Edition, Page 3

https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7048450/

↑ *Back to this question in Part A*

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Q23: A 10 year old boy presents with ear pain, swelling and redness around the ear. On examination, the external auditory canal is inflamed and furuncles are visible. What part of the external auditory canal is most likely affected? (Q847687)

A. Bony part of the external auditory canal

B. Tympanic membrane

C. Cartilaginous part of the external auditory canal

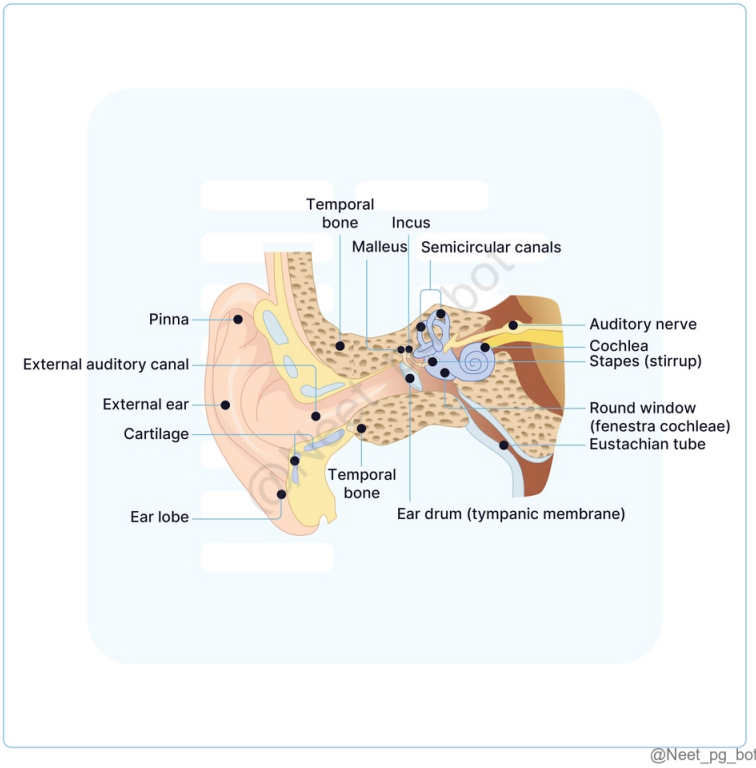
D. Mastoid air cells

Correct Answer: C. Cartilaginous part of the external auditory canal

■ *Listen (English)*

■ *Listen (Hindi)*

Explanation: Furuncles commonly form in the outer third of the canal, which is the cartilaginous portion containing hair follicles and ceruminous glands, making it prone to infections. External auditory canal - Parts Cartilaginous Part (Outer third, approximately 8 mm): Continuous with pinna cartilage. Fissures of Santorini allow infection to spread. Thick skin with ceruminous glands and hair follicles. Furuncles form here. (Option C) Bony Part (Inner two-thirds, approximately 16 mm): Thin skin extends over the tympanic membrane. No hair or ceruminous glands. Isthmus makes foreign body removal difficult. Anterior recess collects debris in infections. Foramen of Huschke (in children) allows infection to spread. Bony part of the external auditory canal (Option A): The bony part of the canal lacks hair follicles and ceruminous glands, which are necessary for furuncle formation. Tympanic membrane (Option B): The tympanic membrane is part of the middle ear and does not have structures like hair follicles that lead to furuncle formation in the external auditory canal. Mastoid air cells (Option D): The mastoid air cells are located posterior to the ear and are not directly involved in the external auditory canal's inflammation or furuncle formation.



References:

PL Dhingra diseases of Ear, Nose & throat and Head and neck surgery Edition 8, pg: 3

↑ *Back to this question in Part A*

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Q24: In reconstructive surgical procedures for nasal bridge deformities, if septal cartilage is unavailable, which part of the external ear is most commonly used as an alternative source for cartilage grafts? (Q847686)

A. Lobule

B. Tragus

C. Incisura terminalis

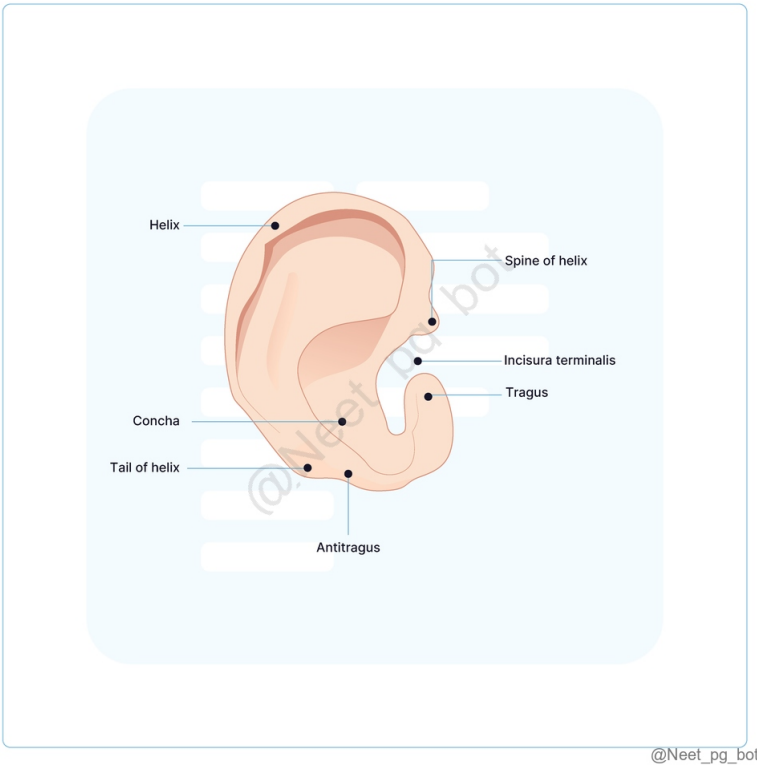
D. Conchal cartilage

Correct Answer: D. Conchal cartilage

■ *Listen (English)*

■ *Listen (Hindi)*

Explanation: Conchal cartilage is commonly harvested for reconstructive procedures, especially for correcting nasal bridge deformities due to its structural properties if septal cartilage is unavailable. The pinna provides graft materials for reconstructive surgeries, especially in the middle ear. Cartilage and perichondrium from the tragus or concha. (Option B) Fat from the lobule. (Option A) Conchal cartilage can be used to correct nasal bridge deformities. (Option D) Composite grafts of skin and cartilage from the pinna are used for nasal ala repairs. Incisura terminalis- Area where there is no cartilage between the tragus and crus of the helix. An incision (lempert incision) will not cut through the cartilage if made here. Used for endaural approach in surgery of the external auditory canal or of the mastoid. (Option C)



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References:

PL Dhingra diseases of Ear, Nose & throat and Head and neck surgery Edition 8, pg: 3

https://www.ncbi.nlm.nih.gov/books/NBK565863/

↑ *Back to this question in Part A*

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• [01_Ear] 002 Physiology And Assessment Of Hearing - I

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[01_Ear] 002 Physiology And Assessment Of Hearing - I — Quick Jump

Q1 (p. 496)	*Q2 (p. 497)*	*Q3 (p. 497)*	*Q4 (p. 502)*	*Q5 (p. 504)*	*Q6 (p. 506)*
Q7 (p. 509)	*Q8 (p. 509)*	*Q9 (p. 511)*	*Q10 (p. 513)*	*Q11 (p. 516)*	*Q12 (p. 519)*
Q13 (p. 520)	*Q14 (p. 521)*	*Q15 (p. 522)*	*Q16 (p. 523)*	*Q17 (p. 524)*	*Q18 (p. 525)*
Q19 (p. 527)	*Q20 (p. 528)*	*Q21 (p. 529)*	*Q22 (p. 530)*	*Q23 (p. 531)*	

Q1: A 60-year-old patient presents with hearing issues. During the examination, the audiologist performs the Bing Test and Gelle's Test to assess the type of hearing loss. What would be indicative of conductive hearing loss in the Bing and Gelle tests? (Q847808)

A. Bing: No change; Gelle: No change

B. Bing: Louder; Gelle: Decreased

C. Bing: Louder; Gelle: No change

D. Bing: No change; Gelle: Decreased

Correct Answer: A. Bing: No change; Gelle: No change

■ *Listen (English)*

■ *Listen (Hindi)*

Explanation: Both Bing and Gelle's tests will show negative results in conductive hearing loss, indicating no change in hearing. Aspect Bing Test Gelle's Test Purpose Assess the effect of ear canal occlusion on bone conduction (BC) hearing. Evaluates the effect of increased air pressure in the ear canal on BC hearing. Procedure A tuning fork is placed on the mastoid while the ear canal is alternately occluded and unoccluded. A tuning fork is placed on the mastoid while the air pressure in the ear canal is increased using Siegel's pneumatic speculum. Normal/SNHL Finding Sound appears louder when the ear canal is occluded. (Positive) Hearing decreases with increased air pressure (Positive) Conductive Loss Finding No change in sound loudness with ear canal occlusion. (Negative) No change in hearing with increased air pressure (Negative) Note: Gelle's test was primarily used to find out stapes fixation in otosclerosis (Gelle's negative). Nowadays, tympanometry is the investigation of choice for diagnosing stapes fixation in otosclerosis.

References:

Diseases of Ear, Nose, Throat - PL Dhingra, 8th edition, Page - 26,27

↑ *Back to this question in Part A*

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Q2: A 68-year-old retired librarian has experienced a gradual decline in hearing ability in her right ear. She attributes this issue to ageing and consults an audiologist. The test results show a hearing level of 67 dB in her right ear. What is the grade of her hearing loss? (Q847819)

A. Mild

B. Moderate

C. Moderately severe

D. Severe

Correct Answer: C. Moderately severe

■ *Listen (English)*

■ *Listen (Hindi)*

Explanation: The given case is diagnosed with presbycusis which is an age related hearing loss and the grade of hearing loss is moderately severe as per WHO's classification. WHO (1980) recommended the following classification on the basis of pure tone audiogram taking the average of the thresholds of hearing for frequencies of 500, 1000 and 2000 Hz with reference to ISO: R. 389-1970 (International Calibration of Audiometers).(0-25 dB is normal) Grade Range Mild (Option A) 21–34 dB Moderate (Option B) 35–49 dB Moderately severe (Option C) 50–64 dB Severe (Option D) 65–79 dB Profound ≥ 80 dB

References:

Diseases of Ear, Nose, Throat - PL Dhingra, 8th edition, Page 44.

↑ *Back to this question in Part A*

@Neet_pg_bot

Q3: A 45-year-old female with a recent upper respiratory infection presented with ear pain, fullness, hearing difficulties, and dizziness, along with increased pressure during flights and bending over. Which of the following tests is most reliable in this condition? (Q847818)

A. Valsalva test

B. Tympanometry

C. Politzer test

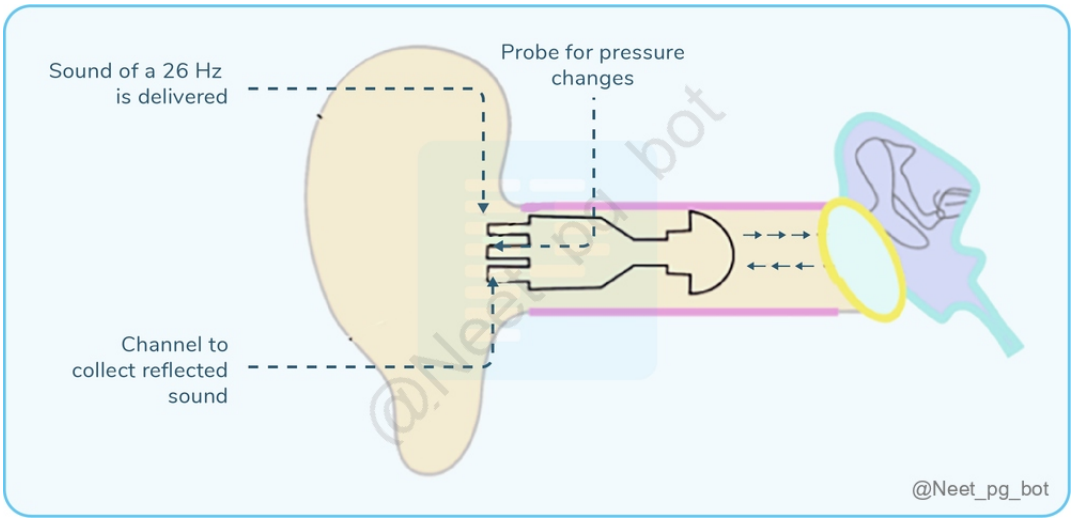
D. Toynbee’s test

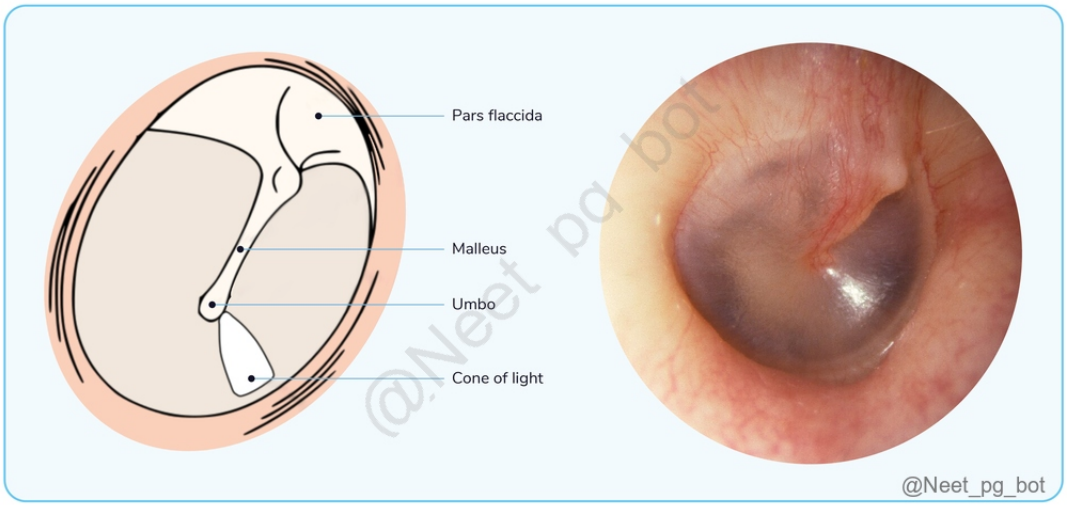
Correct Answer: B. Tympanometry

■ *Listen (English)*

■ *Listen (Hindi)*

Explanation: The above scenario suggests eustachian tube obstruction and the most reliable test for eustachian tube dysfunction is tympanometry , also known as the inflation-deflation test. Tests for Eustachian tube (ET) dysfunction Tympanometry/Inflation-deflation test (Option B) Principle: When a sound strikes the tympanic membrane, some of the sound energy is absorbed while the rest is reflected. Normal: The ability of the tube to equilibrate positive and negative pressures to the ambient pressure. Pneumatic otoscopy Normal tympanic membrane (tested by otoscope or Siegle’s speculum): Mobile, shiny, pearly grey, has a concave lateral surface (umbo) and a bright light cone in the anteroinferior quadrant. Nasopharyngoscopy A flexible nasopharyngoscope can examine the pharyngeal end of the eustachian tube. Eustachian tube catheterisation A bent Eustachian tube catheter is passed through the nose to the nasopharynx, where a Politzer's bag is connected to insufflate air. Entry of air into the middle ear is confirmed using an auscultation tube. Valsalva (Option A) Principle: Create positive pressure in the nasopharynx to allow air into the Eustachian tube. Pinching the nose and taking a deep breath with a closed mouth helps blow air into the ears, moving the tympanic membrane outward. Contraindication: Pharyngitis and sinusitis Politzer test (Option C) In children who can't perform the Valsalva test, the olive-shaped tip of a Politzer's bag is used; compressing the bag causes the tympanic membrane to bulge. Toynbee manoeuvre (Option D) Toynbee’s manoeuvre causes a negative pressure in the nasopharynx, causing inward retraction of the tympanic membrane. Frenzel manoeuvre Performed by divers to equalise middle ear pressure underwater.

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Malleus
Umbo
Cone of light
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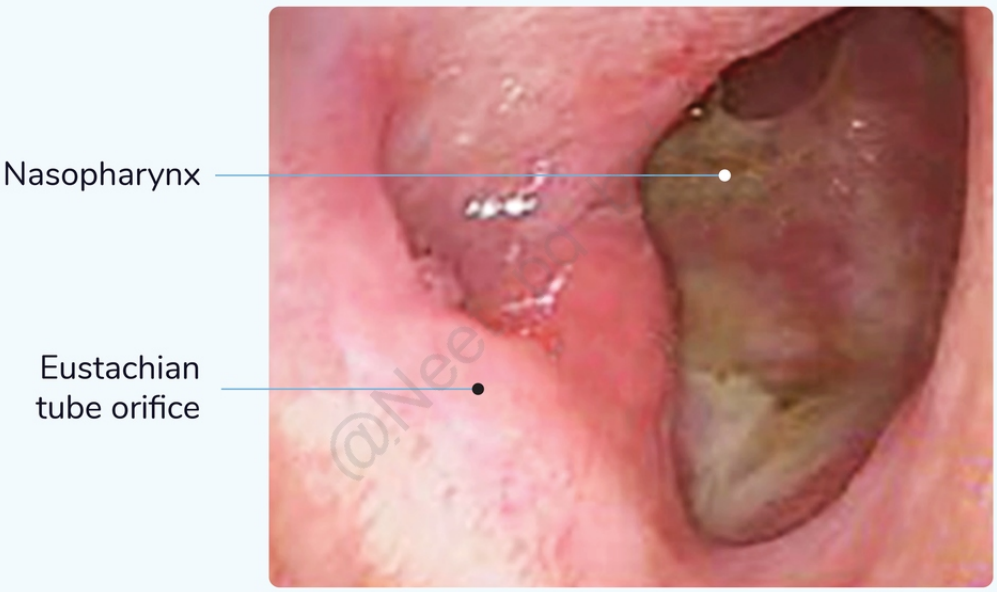

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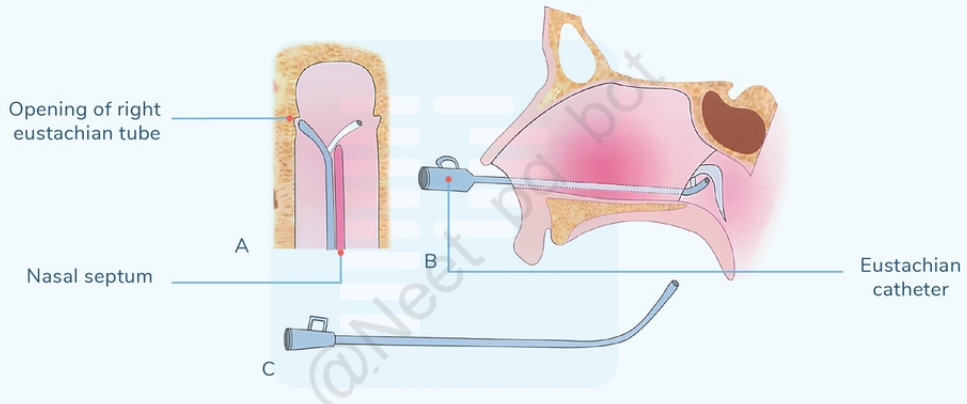

(A and B) Catheterization of eustachian tube
(C) Eustachian cannula.

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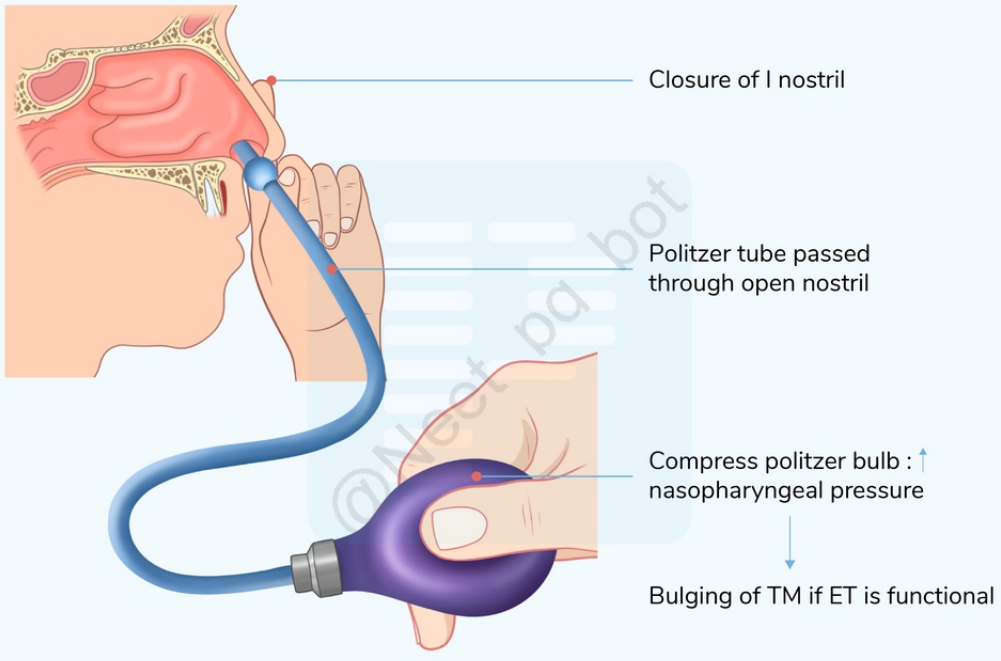
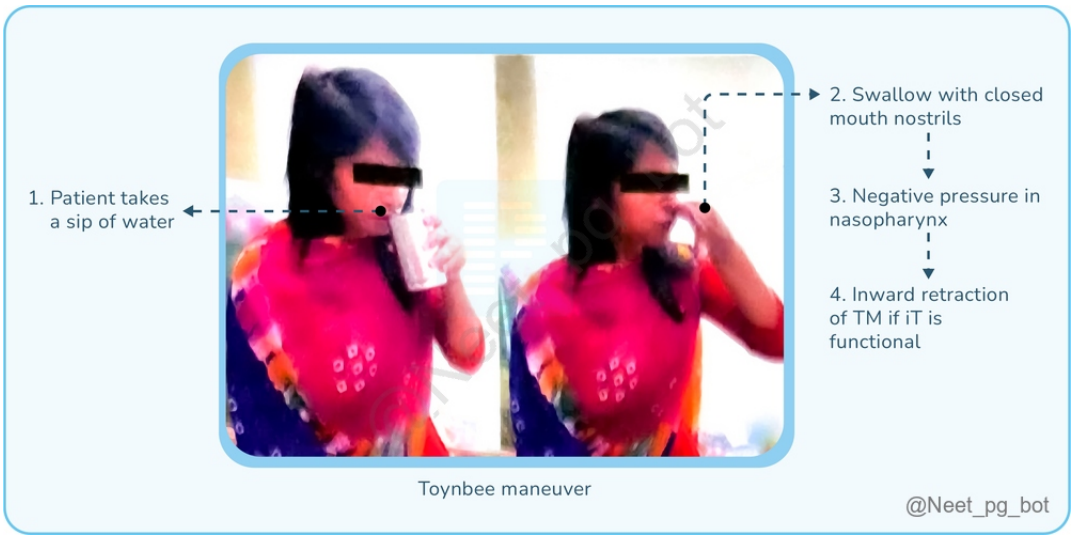
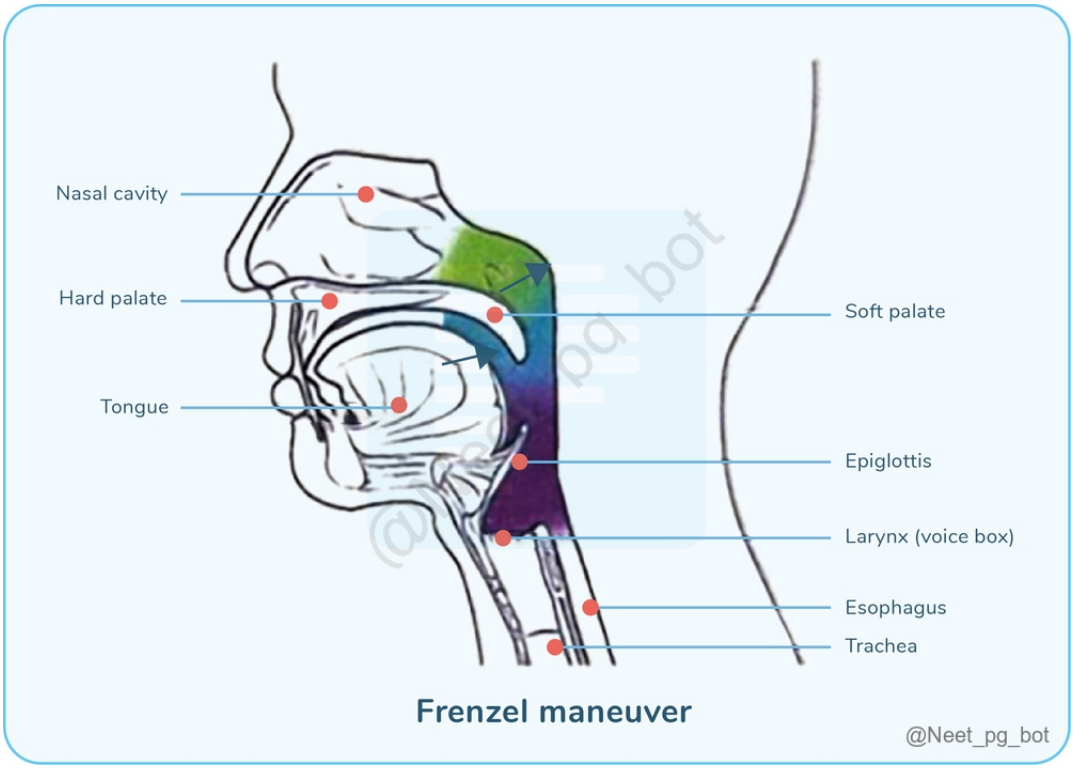


Politzer test





References:

Diseases of Ear, Nose, Throat - PL Dhingra, 8th edition, Pg 69, 70.

Scott-Brown’s Otorhinolaryngology, Head and Neck Surgery, 8th edition, pg 1040.

↑ *Back to this question in Part A*

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Q4: A 7-year-old boy is referred to the ENT clinic for difficulty hearing in noisy environments and discomfort from loud sounds, affecting his school performance. Which of the following indicates cochlear pathology? (Q847817)

A. Absence of stapedial reflex

B. Threshold tone decay >25 dB

C. SISI score 0-20%

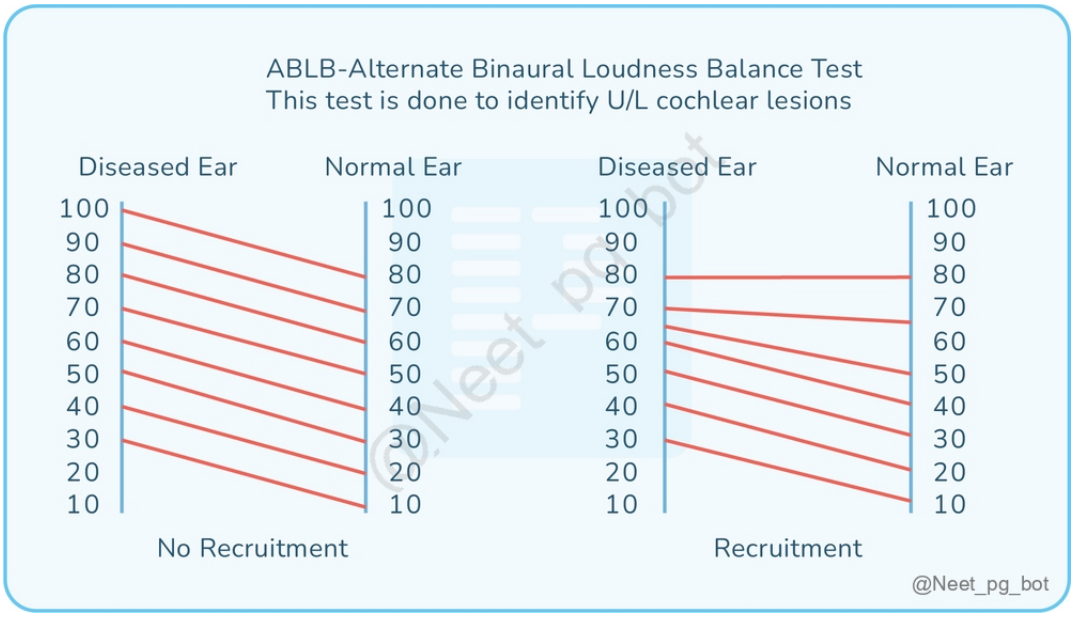
D. Presence of recruitment

Correct Answer: D. Presence of recruitment

■ *Listen (English)*

■ *Listen (Hindi)*

Explanation: The presence of recruitment, i.e., abnormal growth of loudness, indicates cochlear pathology. Recruitment Description Example Use The ear that fails to detect low-intensity sounds begins to perceive higher-intensity sounds at levels as loud as or louder than those heard by a normal ear. As a result, a sound that is tolerable in a normal ear may become uncomfortably loud in the recruiting ear. Cochlear lesions: Meniere's disease Presbycusis Distinguish cochlear pathology from retrocochlear. Tests to differentiate between cochlear and retro cochlear pathology: Normal Cochlear pathology Retrocochlear pathology Speech discrimination score 90-100% Below 90% Very poor Recruitment (Option D) Absent Present Absent SISI score (Option C) 0-15% >70% 0-20% Threshold tone decay Test (Option B) 0-15 dB <25 dB >25 dB Stapedial reflex (Option A) Present Present Absent Stapedial reflex decay Normal Normal Abnormal BERA Normal interval between wave I and V Normal interval between wave I and V Wave V delayed or absent Rollover phenomenon Absent primarily but seen in old age Absent Present Alternate Binaural Loudness Balance (ABLB) test Identifies recruitment in cases of unilateral hearing loss. It assesses the perceived loudness differences between ears A tone is alternately presented to the normal and affected ear, adjusting the intensity in the affected ear to match the normal ear's loudness.



References:

Diseases of Ear, Nose, Throat - PL Dhingra, 8th edition, Pg 30, 31.

Rollover Phenomenon

↑ *Back to this question in Part A*

@Neet_pg_bot

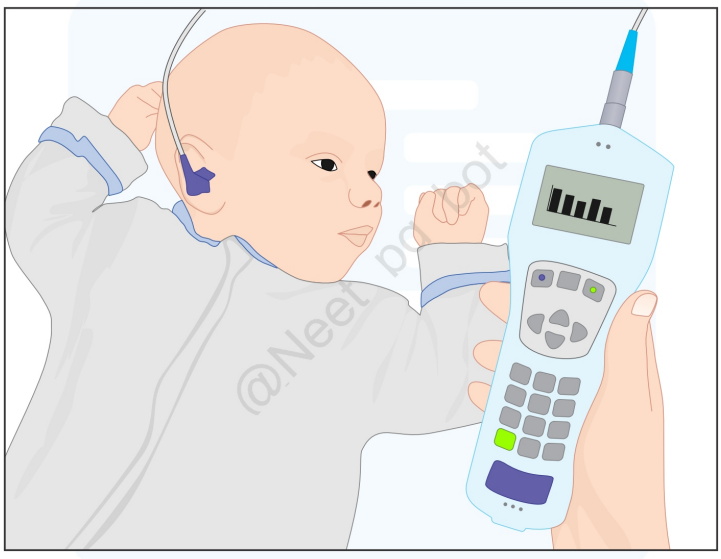
Q5: A 4-month-old was brought to the audiology clinic by his parents due to decreased responsiveness to environmental sounds, such as his name and household noises. Audiology tests were recommended. Which statement about the test shown in the image is correct? (Q847816)

A. Emissions are generated by inner hair cells

B. Spontaneous emissions are present in all individuals

C. Evaluates hearing in those with cognitive impairments

D. All of the above



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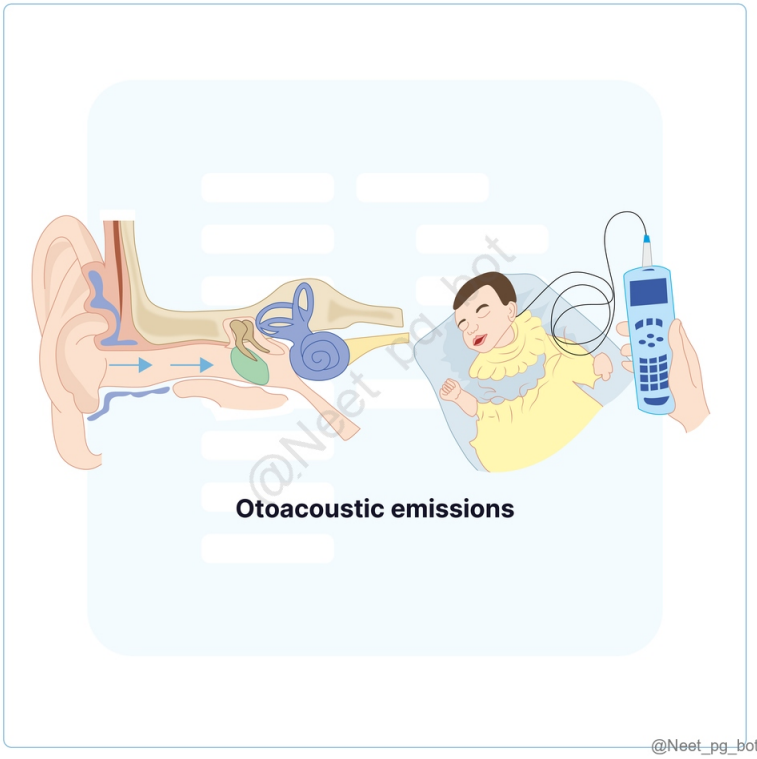
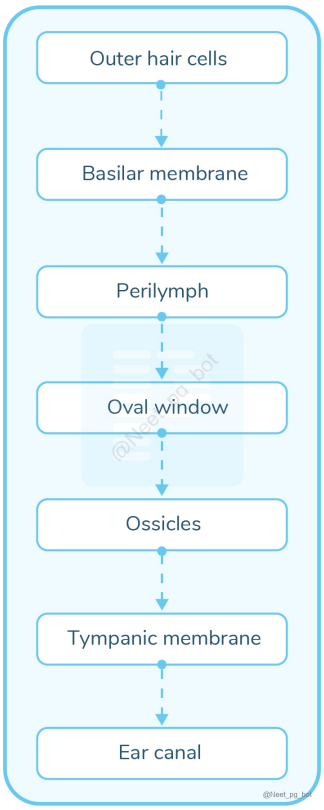
Correct Answer: C. Evaluates hearing in those with cognitive impairments

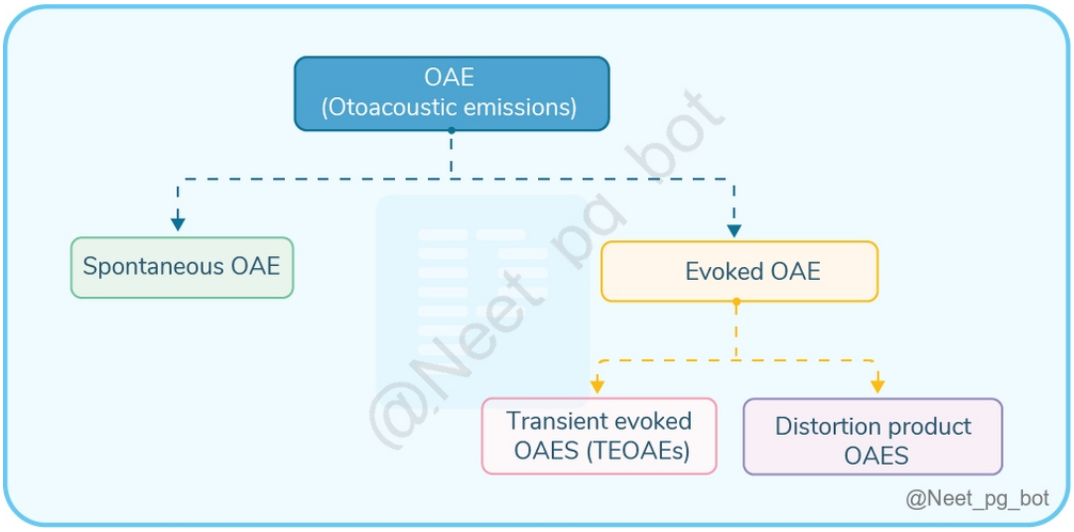
■ *Listen (English)*

■ *Listen (Hindi)*

Explanation: The image shows an Otoacoustic Emissions (OAE) test, a screening tool used to assess outer hair cell function in the cochlea. OAE testing does not require any active response from the patient. Because of this, it is especially useful in: Newborns Infants Uncooperative children Individuals with cognitive impairment OAEs are low-intensity sounds produced by the outer hair cells of a normal cochlea and can be elicited by a sensitive microphone placed in the external ear canal. (Option A) Pathway: The absence of OAE indicates damage in the outer hair cell (conditions like lesions of the cochlea, middle ear disorders, etc.). Types: Spontaneous OAEs involve emissions without any external stimulation (sound). They may be absent in 50% of the individuals. (Option B) Evoked OAEs require an external stimulus. Transient evoked OAEs (TEOAEs): Evoked by clicks (mixture of various frequencies). Distortion product OAEs: Two tones (specific frequencies) are simultaneously presented to the cochlea to produce distortion products. Uses of OAE: Newborn hearing screening Early detection of cochlear (outer hair cell) damage Screening in cognitively impaired or non-cooperative patients Differentiating cochlear vs retrocochlear hearing loss







References:

Diseases of Ear, Nose, Throat - PL Dhingra, 8th edition, Page 32

↑ *Back to this question in Part A*

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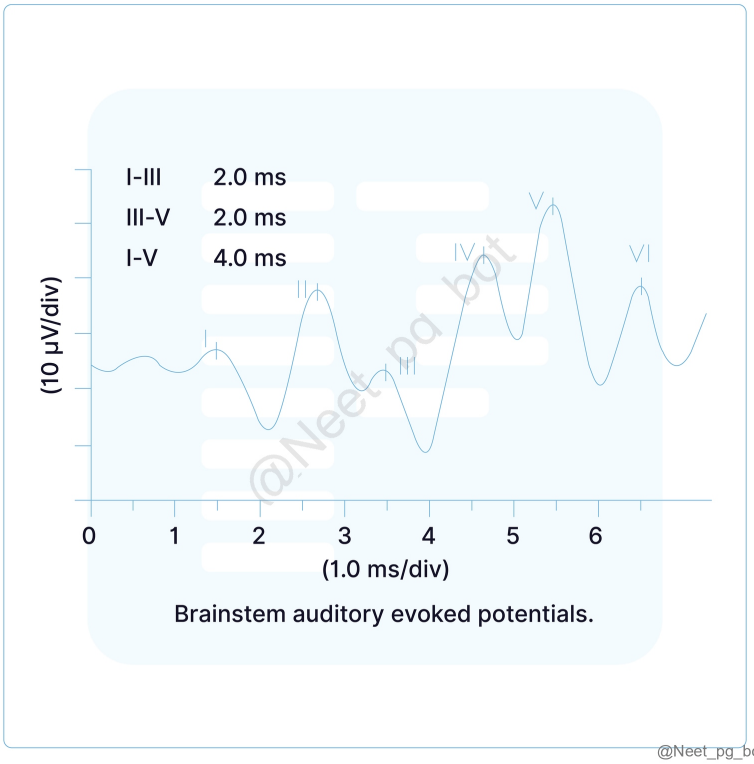
Q6: An infant was brought in due to concerns from her parents about her poor response to loud sounds and reduced reaction to environmental noises compared to her peers. The BERA test shows issues with wave V within the first 10 milliseconds. What site of pathology might this indicate? (Q847815)

A. Cochlear nucleus

B. Superior olivary complex

C. Lateral lemniscus

D. Inferior colliculus

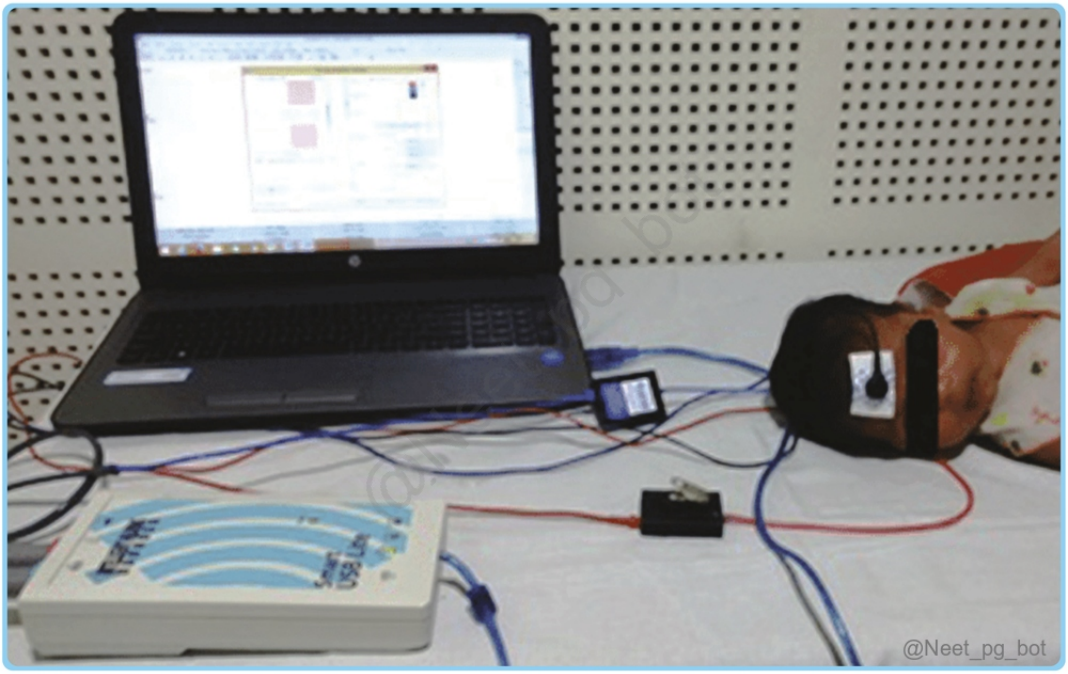


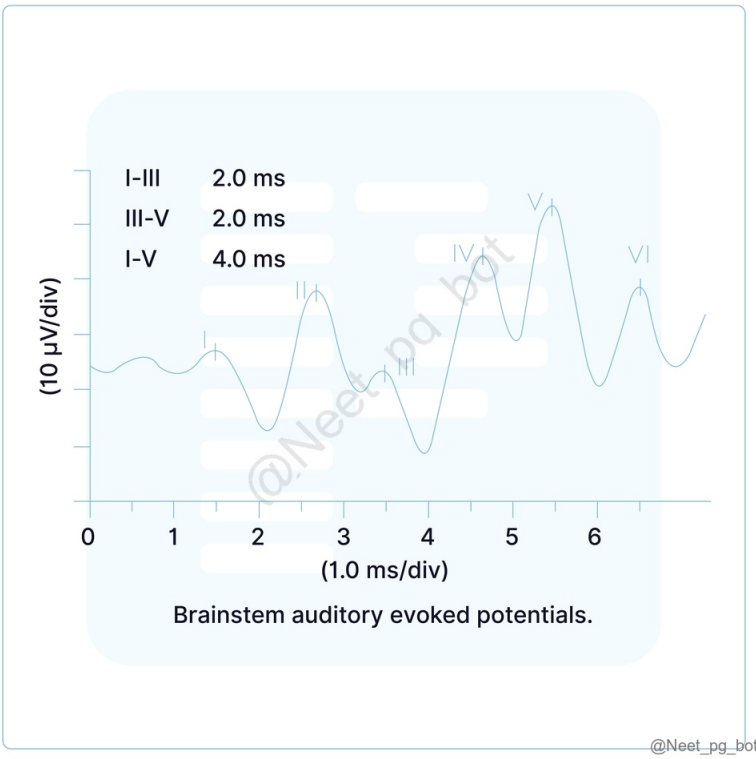
Correct Answer: C. Lateral lemniscus

■ *Listen (English)*

■ *Listen (Hindi)*

Explanation: The wave V in BERA (Brainstem evoked response audiometry) represents lateral lemniscus. BERA (brainstem-evoked response audiometry) also known as Auditory brainstem response (ABR) is a non-invasive technique to assess the auditory pathway from the cochlea through the 8th cranial nerve to the brain stem. In a normal person, 7 waves are produced in the first 10 ms indicating respective anatomical site as, Wave I Distal part of CN VIII Wave II Proximal part of CN VIII near the brainstem Wave III Cochlear nucleus (Option A) Wave IV Superior olivary complex (Option B) Wave V Lateral lemniscus (Option C) Wave VI and VII Inferior Colliculus (Option D)





References:

Diseases of Ear, Nose, Throat - PL Dhingra, 8th edition, Page 31, 32.

↑ *Back to this question in Part A*

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Q7: Which of the following is NOT true about Electrocochleography(ECochG)? (Q847814)

A. Measures the electrical potentials generated in the cochlea and 8th cranial nerve

B. A normal SP/AP ratio is greater than 0.3 or 30%

C. Can differentiate cochlear pathology from 8th nerve lesions

D. Investigation of choice for Meniere's disease

Correct Answer: B. A normal SP/AP ratio is greater than 0.3 or 30%

■ *Listen (English)*

■ *Listen (Hindi)*

Explanation: A normal SP/AP ratio is less than 0.3 or 30% . If the ratio is greater than 0.3 or 30%, it is suggestive of endolymphatic hydrops, which is a hallmark of Meniere's disease. Electrocochleography (ECochG): Measures the electrical potentials generated in the cochlea and auditory portion of the 8th cranial nerve in response to auditory stimuli (Option A) Recorded within the first 2-3 ms, capturing cochlear microphonics, summating potentials, and 8th nerve action potentials Typically recorded using a thin needle electrode passed through the tympanic membrane onto the promontory Clinical Applications: Assess hearing thresholds in young infants and children with an accuracy of 5-10 dB Differentiate cochlear from 8th nerve lesions (Option C) Cochlear pathologies affect the cochlear microphonics and summating potentials 8th nerve lesions affect the action potentials A normal SP/AP ratio is <0.3 or <30% It is the investigation of choice for diagnosing Meniere's disease (Option D)

References:

Diseases of Ear, Nose, Throat - PL Dhingra, 8th edition, Page 31

↑ *Back to this question in Part A*

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Q8: A 5-year-old child undergoes acoustic reflex testing during an evaluation for suspected hearing loss. The results indicate the absence of stapedial reflexes at elevated sound levels. Which of the following is the most likely interpretation of this finding? (Q847813)

A. Normal hearing with no middle ear pathology

B. Conductive hearing loss

C. Mild sensorineural hearing loss

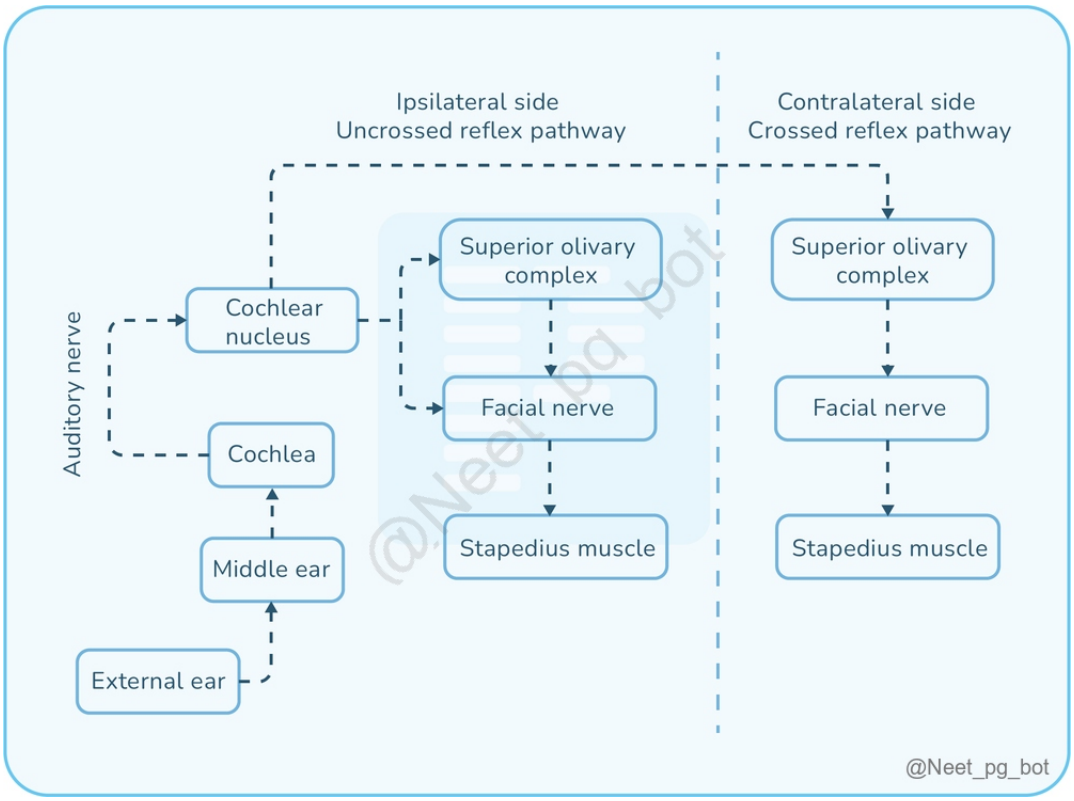
D. Lesion in auditory cortex

Correct Answer: B. Conductive hearing loss

■ *Listen (English)*

■ *Listen (Hindi)*

Explanation: The absence of stapedial reflexes at elevated sound levels suggests possible conductive hearing loss, such as fluid in the middle ear or ossicular chain dysfunction. While severe sensorineural hearing loss can also result in absent reflexes, elevated thresholds typically point to conductive issues. Normal hearing would not show absent reflexes, and mild sensorineural hearing loss is less likely to affect the reflex at elevated levels. Stapedial Reflex (Acoustic Reflex): It is an involuntary contraction of the stapedius muscle in response to loud sounds. This reflex serves to protect the inner ear from potentially damaging high sound levels and aids in sound localisation. Mechanism: Muscles Involved: The reflex involves the contraction of the stapedius muscle, which is attached to the stapes bone in the middle ear. Auditory Pathway: Upon detecting a loud sound, the auditory nerve sends signals to the brainstem, specifically to the cochlear nucleus and superior olivary complex. Reflex Arc: These signals then travel via the facial nerve (cranial nerve VII), resulting in the contraction of the stapedius muscle. This contraction reduces the movement of the stapes, thereby limiting sound transmission to the inner ear. Clinical Significance: Testing: Acoustic reflex testing is performed using an impedance audiometer to assess the presence and thresholds of the reflex in response to sound stimuli. Interpretation of Results: Normal Reflex: Indicates intact middle ear function and hearing thresholds within normal limits. Absence of Reflex : Suggests conductive hearing loss (e.g., due to fluid or ossicular chain dysfunction) or severe sensorineural hearing loss. Elevated Thresholds: May indicate hearing loss while still showing reflexes at higher sound levels. Typical Findings: Reflex thresholds are typically measured in decibels hearing level (dB HL), with normal reflexes present around 70-90 dB HL.



References:

Diseases of Ear, Nose, Throat - PL Dhingra, 8th edition, Pg 30

↑ *Back to this question in Part A*

@Neet_pg_bot

Q9: A 55-year-old patient with a history of chronic otitis media presents with progressive hearing loss. Impedance audiometry is performed. Which of the following findings would be pointing towards an underlying middle ear pathology? (Q847812)

A. Type A tympanogram

B. Type B tympanogram

C. A decreased physical volume of the external auditory canal

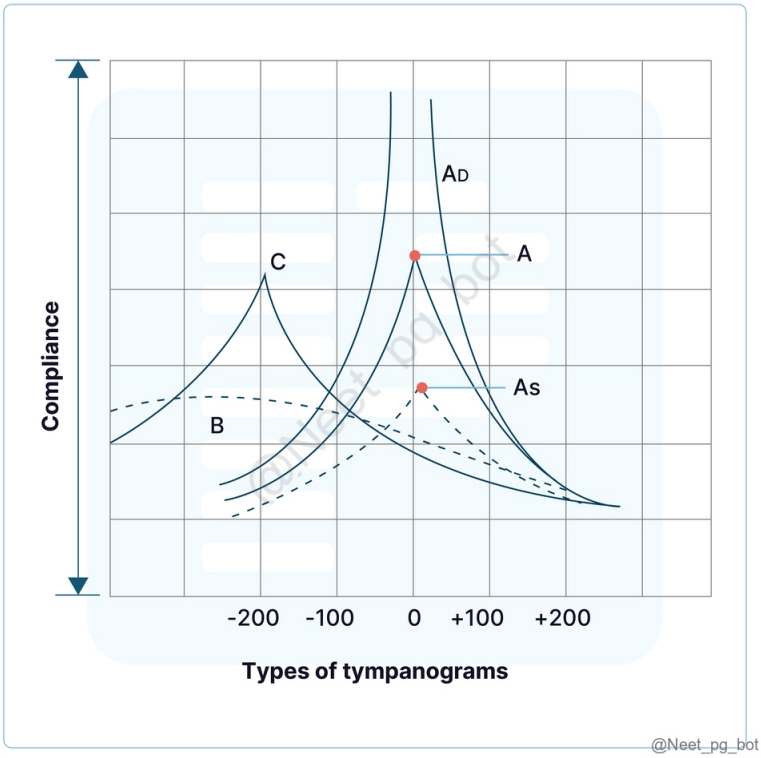
D. The presence of a robust acoustic reflex at normal sound intensities

Correct Answer: B. Type B tympanogram

■ *Listen (English)*

■ *Listen (Hindi)*

Explanation: Type B tympanogram , characterised by a flat, dome-shaped curve with no compliance changes , indicates middle ear pathology such as fluid or a thick tympanic membrane and is significant in hearing loss Impedance audiometry: Impedance audiometry comprises of acoustic reflex and tympanometry. Tympanometry : Measures the compliance (stiffness) of the tympano-ossicular system by detecting the reflected sound energy. Can also test Eustachian tube function by pressure changes and swallowing. Different tympanogram types indicate middle ear pathologies: Tympanogram Type Characteristics Indication Type A Normal peak Normal middle ear function Type As Shallow peak Ossicular fixation (e.g., otosclerosis) Type Ad Deep peak Ossicular discontinuity or thin tympanic membrane Type B Flat, no peak Middle ear fluid or thick tympanic membrane Type C Peak at negative pressure Eustachian tube dysfunction, middle ear negative pressure Acoustic Reflex (Stapedial Reflex): Measures the stapedial muscle contraction in response to loud sounds (70-100 dB above threshold). Useful for: Assessing hearing in infants and young children. Detecting malingering. Diagnosing cochlear and CN VIII pathologies. Assessing facial nerve function and brainstem lesions. A decreased physical volume of the external auditory canal (Option C) : Increased volume (>2.5 mL in adults) (not decreased) would be more indicative of tympanic membrane perforation or ventilation tube patency. The presence of a robust acoustic reflex at normal sound intensities (Option D) indicates a cochlear, rather than middle ear pathology for the hearing loss.



References:

Diseases of Ear, Nose, Throat - PL Dhingra, 8th edition, Pages 28, 29, 30

↑ *Back to this question in Part A*

@Neet_pg_bot

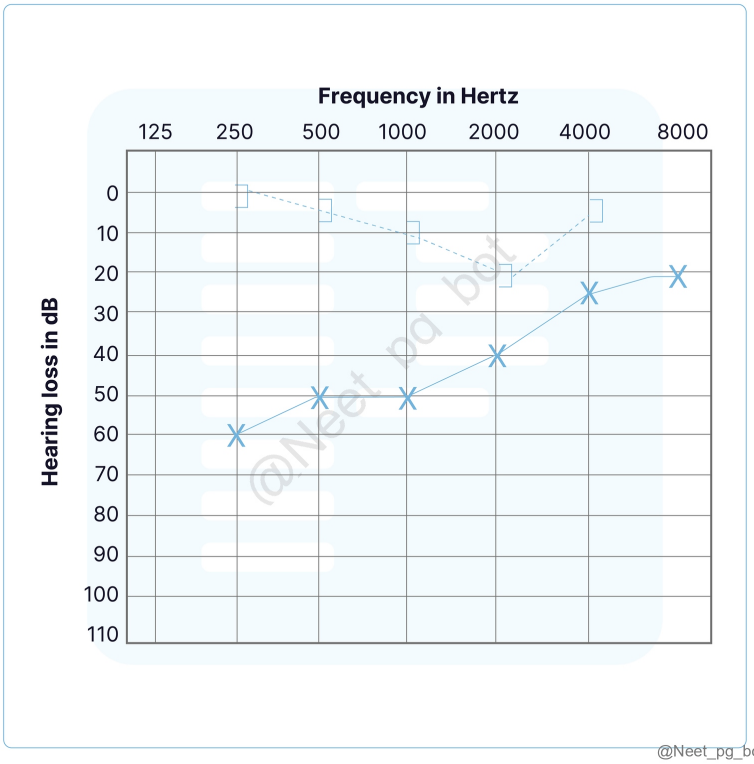
Q10: A 48-year-old woman presents with progressive left ear hearing loss. Audiometry reveals a characteristic dip in the bone conduction curve, more pronounced at 2000 Hz. Which of the following best describes this finding? (Q847811)

A. Carhart's notch

B. Boiler's notch

C. Age-related hearing loss

D. Meniere's disease



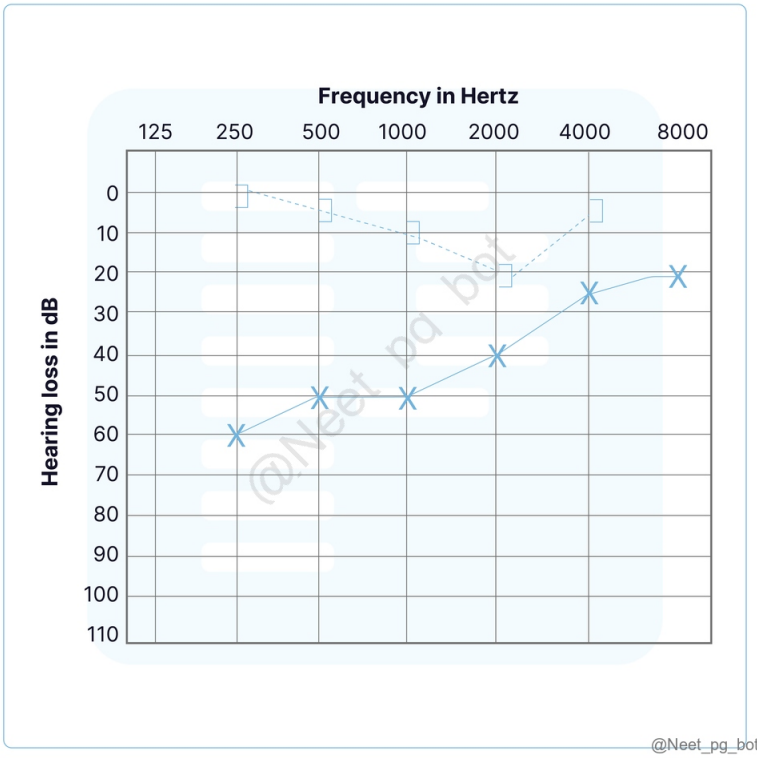
Correct Answer: A. Carhart's notch

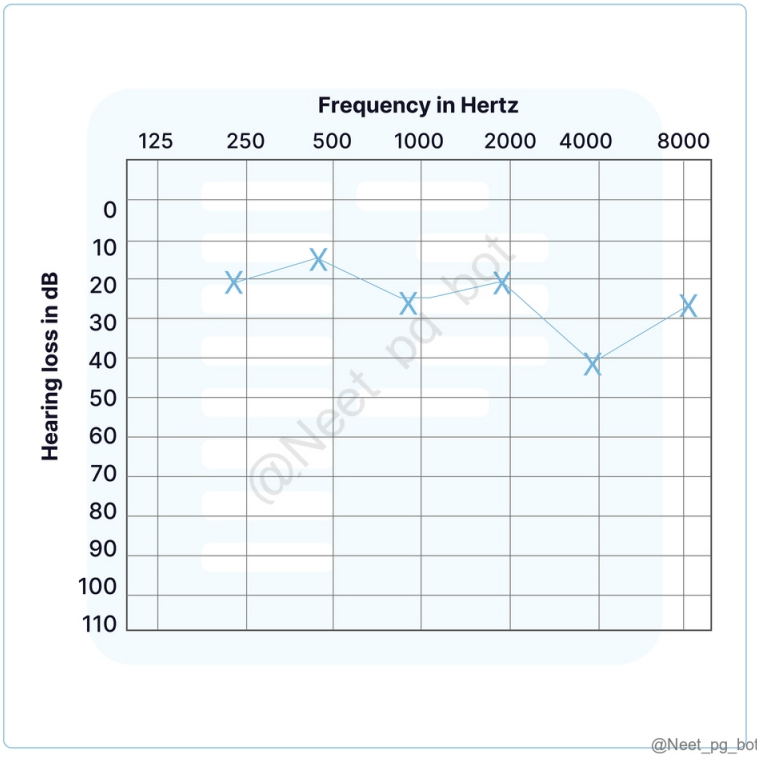
■ *Listen (English)*

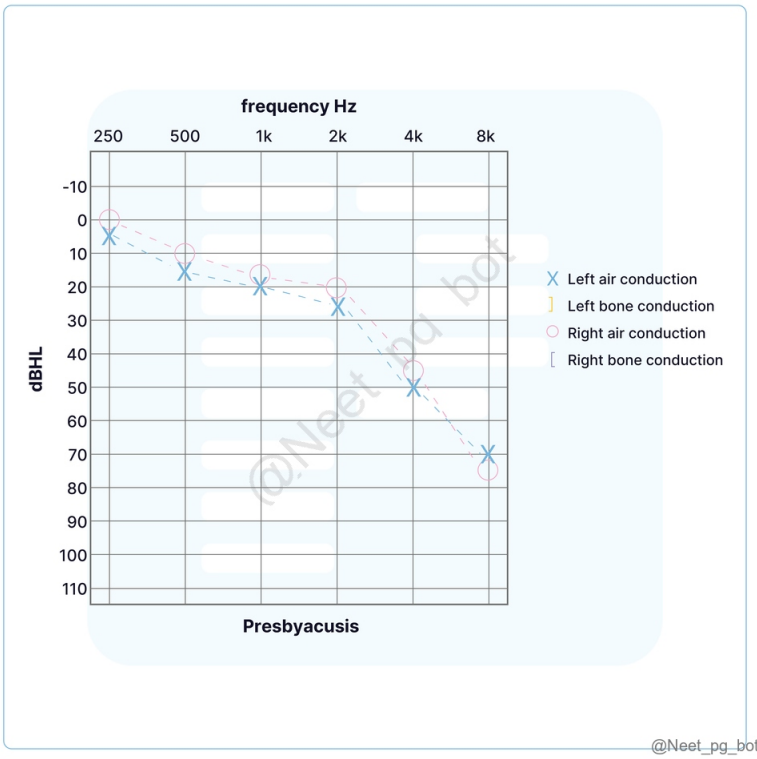
■ *Listen (Hindi)*

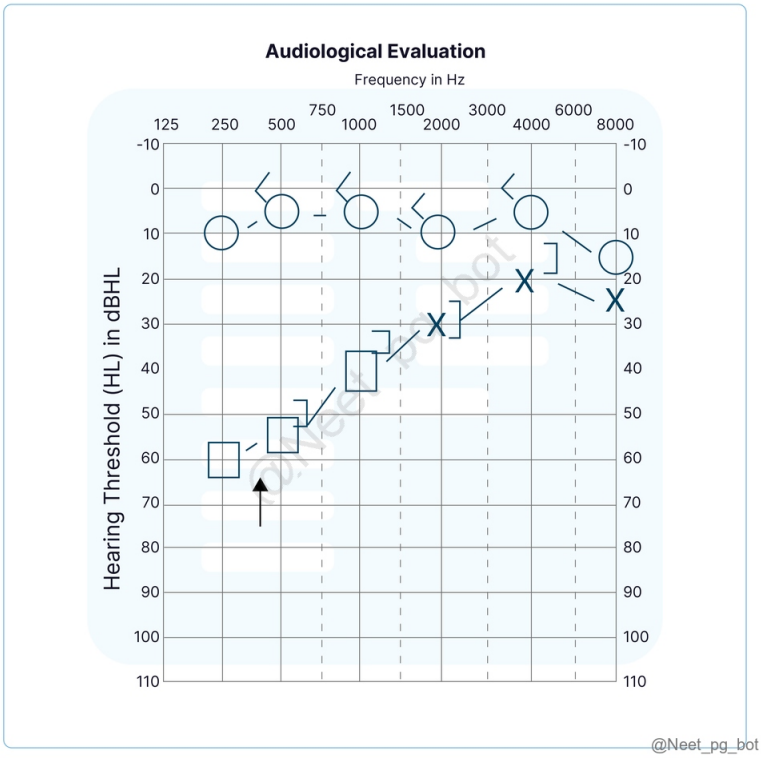
Explanation: The description of a dip in the bone conduction curve, more pronounced at 2000 Hz, is characteristic of the Carhart's notch seen in otosclerosis . This is due to the fixation of the stapes bone, which impairs sound transmission through the middle ear. Feature Otosclerosis Noise-Induced Hearing Loss (NIHL) Air Conduction Loss, more pronounced at lower frequencies - Bone Conduction and Characteristic pattern Normal, may show "Carhart's notch" at 2000 Hz (5-15 dB loss) Typical notch at 4000 Hz in both air and bone conduction (Boiler's notch) (Option B) Hearing Loss Mixed Sensorineural Age-related hearing loss (Option C): Age-related hearing loss typically shows a gradual, symmetrical high-frequency sensorineural hearing loss, without the characteristic

notched pattern. Meniere's disease (Option D) : Meniere's disease classically presents with fluctuating hearing loss, often with a flat or upward sloping audiogram, not a notched pattern.









References:

Diseases of Ear, Nose, Throat - PL Dhingra, 8th edition, Page 105, 40, 41

↑ *Back to this question in Part A*

@Neet_pg_bot

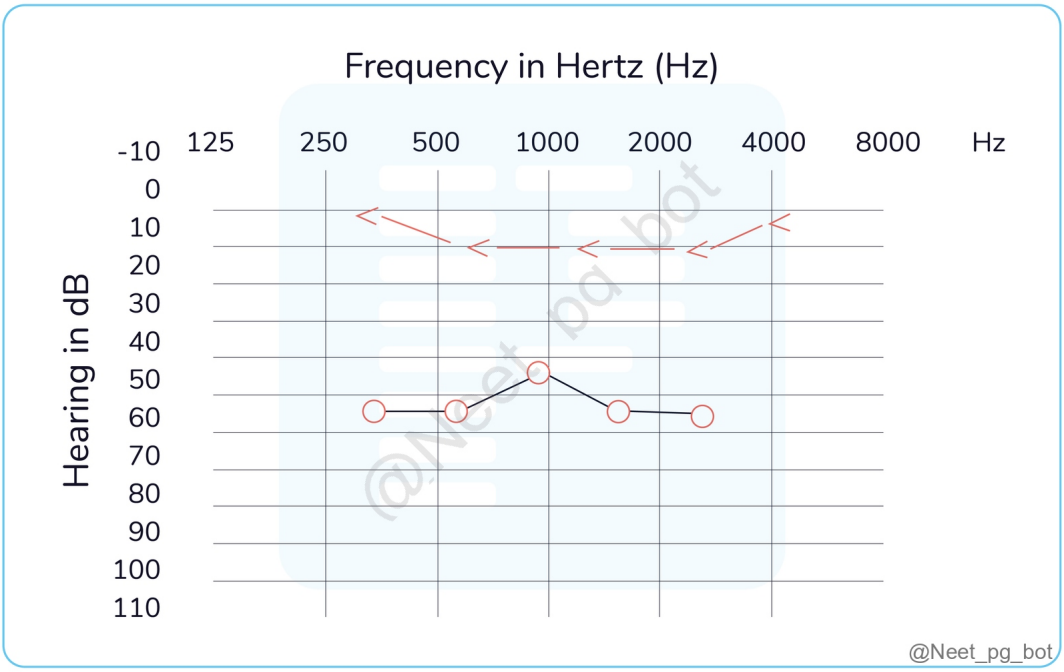
Q11: A 45-year-old patient reports difficulty hearing in the Right ear. Pure tone audiometry is done and the result is given in the image below. Given the audiometric findings, what is the most likely diagnosis? (Q847810)

A. Conductive Hearing Loss

B. Sensorineural Hearing Loss (SNHL)

C. Presbycusis

D. Meniere's Disease



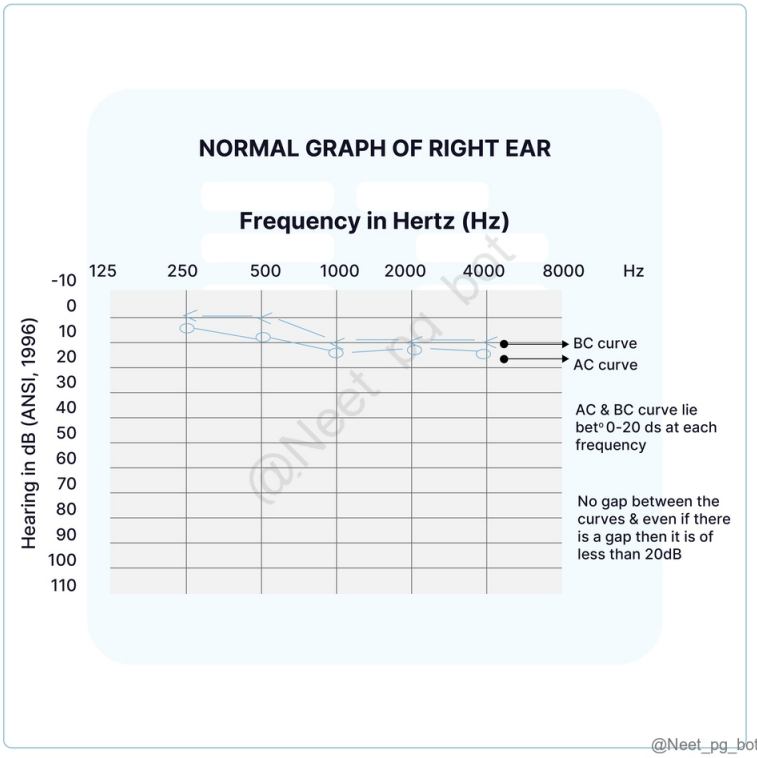
Correct Answer: A. Conductive Hearing Loss

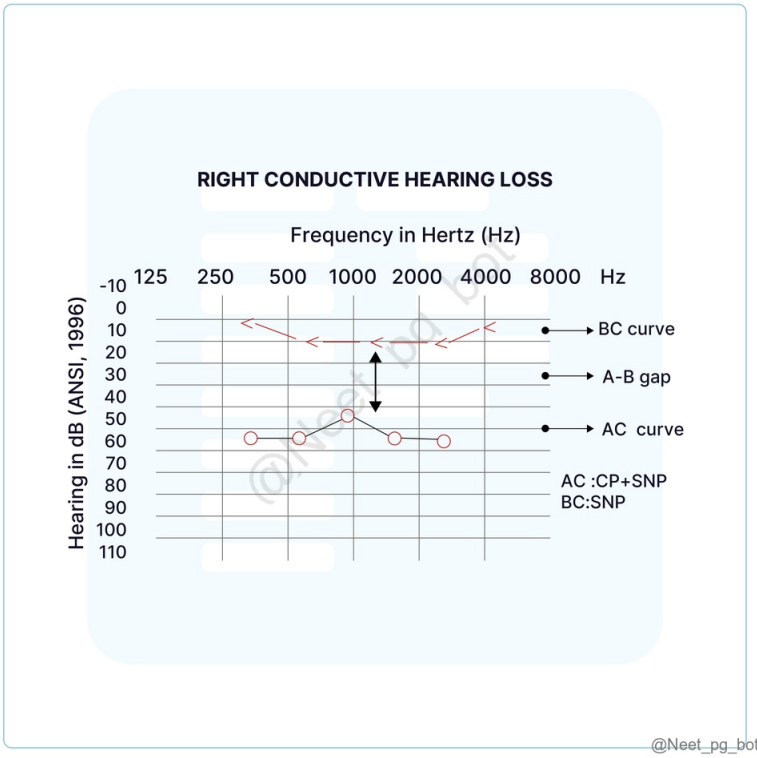
■ *Listen (English)*

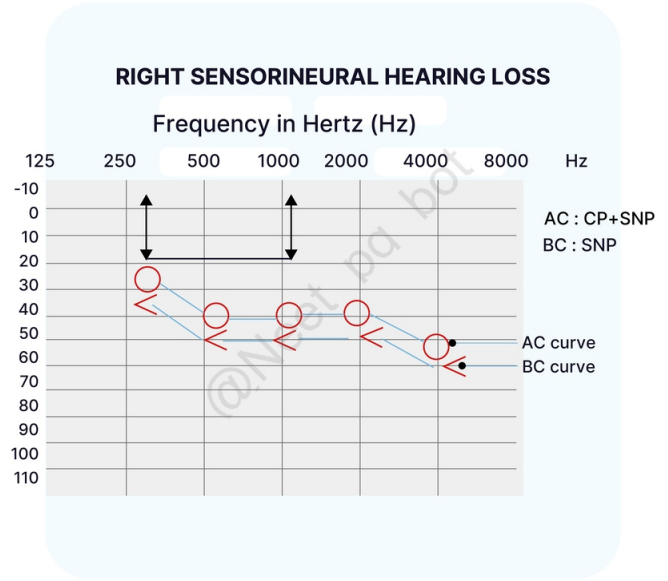
■ *Listen (Hindi)*

Explanation: Given that the audiometric findings show a significant A-B gap with normal BC thresholds and poorer AC thresholds, the most likely diagnosis is Conductive Hearing Loss, typically due to issues in the outer or middle ear. Normal Ear: Conductive Hearing Loss (Option A) : AC Thresholds: Elevated (poorer hearing) compared to normal. BC Thresholds: Within normal limits. A-B Gap (>20db): Significant Sensorineural Hearing Loss (SNHL) (Option B) : AC Thresholds: Elevated BC Thresholds: Elevated to the same degree as AC. A-B Gap: Minimal or absent Presbycusis (Option C) : AC Thresholds: Elevated, particularly in high frequencies. BC

Thresholds: Elevated with greater loss in higher frequencies. A-B Gap: Minimal Downsloping Meniere’s Disease (Option D): Upsloping A-B Gap: Typically minimal







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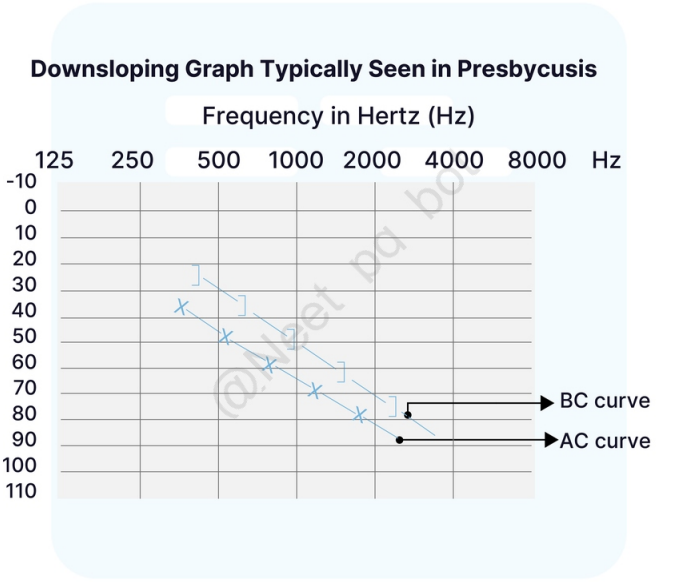

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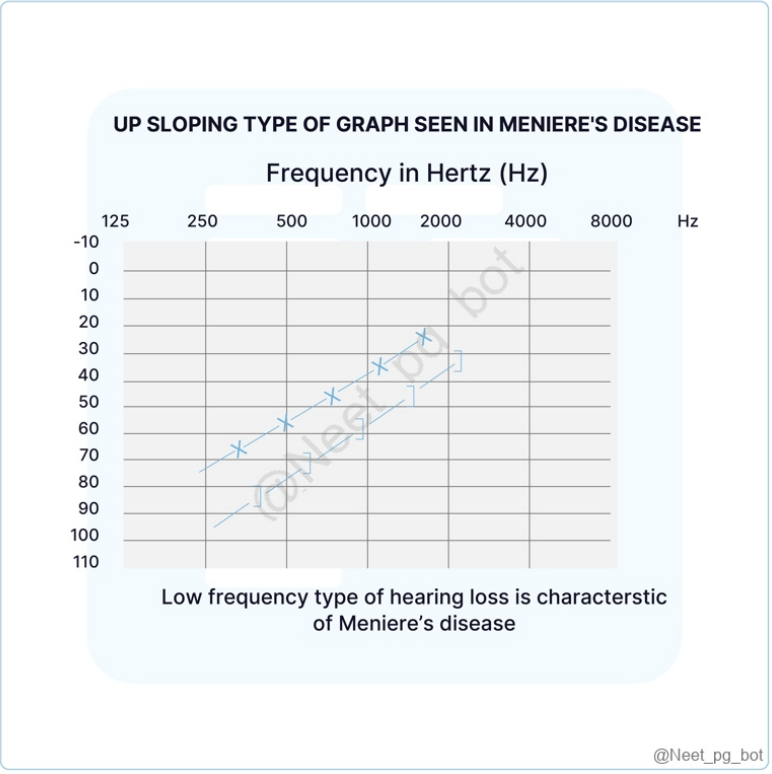


References:

Diseases of Ear, Nose, Throat - PL Dhingra, 8th edition, Page 27

↑ *Back to this question in Part A*

@Neet_pg_bot

Q12: A 60-year-old patient is being evaluated for hearing loss using various tuning fork tests. What are the expected findings for a patient with sensorineural hearing loss (SNHL)? (Q847809)

A. Rinne: Positive; Weber: Affected ear; Bing: louder

B. Rinne: Positive ; Weber: Better ear ; Schwabach: Shorter

C. Rinne: Negative; Schwabach: Longer; Gelle's: No change.

D. ABC: Same; Weber: Unaffected ear; Bing: No change with occlusion.

Correct Answer: B. Rinne: Positive ; Weber: Better ear ; Schwabach: Shorter

■ *Listen (English)*

■ *Listen (Hindi)*

Explanation: In a Patient with Sensorineural Hearing Loss (SNHL), the expected findings from tuning fork tests are as follows: The Rinne test will be positive, indicating AC>BC. The Weber test will lateralise to the better ear, reflecting the diminished hearing in the affected ear. The Schwabach test will show a shorter duration of hearing compared to the examiner, indicating SNHL. Tuning fork test findings: Test Conductive Hearing Loss Sensorineural Hearing Loss Rinne Test BC > AC (negative) AC > BC (positive) Weber Test Lateralises to the affected ear Lateralises to the unaffected ear ABC Test Same duration as the examiner Shorter duration than the examiner Schwabach Test Longer duration than the examiner Shorter duration than the examiner Bing Test No change with occlusion (negative) Louder with occlusion (positive) Gelle's Test No change with pressure (negative) Decreased hearing with increased pressure (positive)

References:

Diseases of Ear, Nose, Throat - PL Dhingra, 8th edition, Page - 26,27

↑ *Back to this question in Part A*

@Neet_pg_bot

Q13: Which of the following is the correct sequence of structures involved in the transmission of sound from the external environment? (Q847709)

A. Pinna → Tympanic membrane → Ossicles → Basilar membrane → Organ of Corti → Auditory nerve

B. Tympanic membrane → Pinna → Ossicles → Cochlea → Auditory nerve → Organ of Corti

C. Ossicles → Pinna → Tympanic membrane → Organ of Corti → Cochlea → Basilar membrane

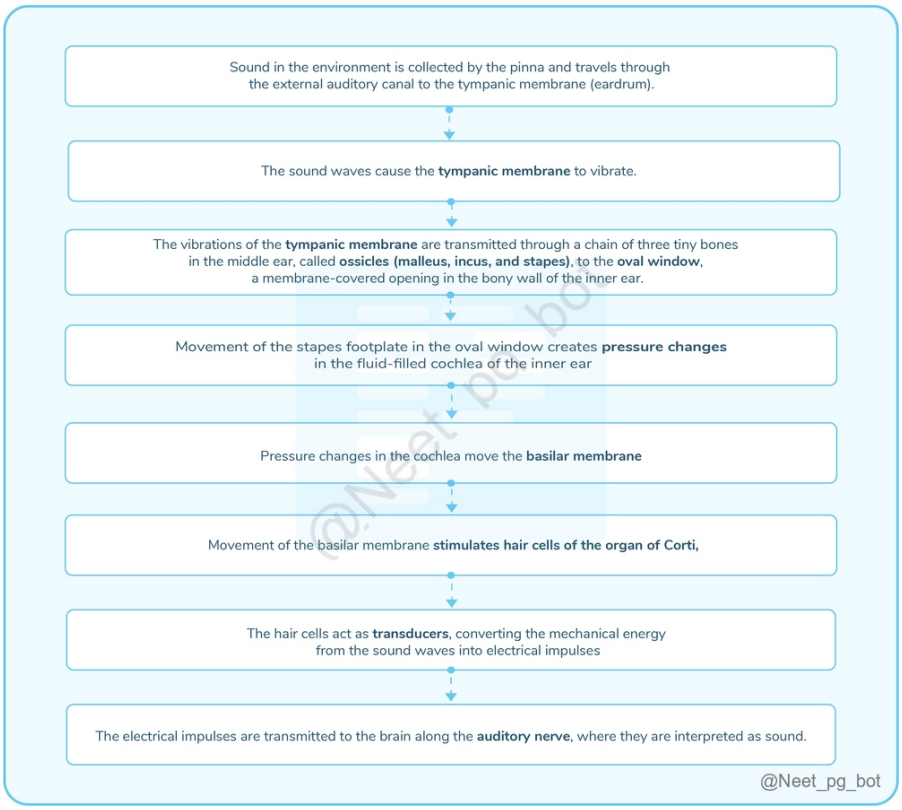
D. Pinna → Cochlea → Ossicles → Tympanic membrane → Auditory nerve → Basilar membrane

Correct Answer: A. Pinna → Tympanic membrane → Ossicles → Basilar membrane → Organ of Corti → Auditory nerve

■ *Listen (English)*

■ *Listen (Hindi)*

Explanation: Sound transmission starts at the pinna , which collects sound waves and directs them to the tympanic membrane. Vibrations pass through the ossicles to the cochlea , where the basilar membrane and Organ of Corti convert mechanical energy into electrical impulses, transmitted to the brain via the auditory nerve. Sound Transmission Pathway:



References:

Diseases of Ear, Nose, Throat - PL Dhingra, 8th edition, Pg 17,18.

↑ *Back to this question in Part A*

@Neet_pg_bot

Q14: A 55-year-old patient with sensorineural hearing loss (SNHL) undergoes hearing tests. The examiner performs the Absolute Bone Conduction (ABC) Test and the Schwabach Test. What are the expected findings of the duration of both tests? (Q847787)

A. Both are Longer

B. Both are Shorter

C. ABC - Longer, Schwabach - Shorter

D. ABC - Shorter, Schwabach - Same as Examiner

Correct Answer: B. Both are Shorter

■ *Listen (English)*

■ *Listen (Hindi)*

Explanation: In SNHL, both tests reveal shorter hearing durations for the patient compared to the examiner. Absolute Bone Conduction (ABC) Test: Purpose: To assess cochlear function by comparing the patient's bone conduction (BC) hearing to that of a person with normal hearing. (Examiner is assumed to have Normal hearing) Procedure: The tuning fork is placed on the mastoid bone of both the patient and an examiner with normal hearing. Both the patient's and examiner's External auditory meatuses are occluded (e.g., by pressing the tragus) to prevent ambient noise interference. Expected Findings: Sensorineural Hearing Loss (SNHL): In SNHL, the patient's cochlea is impaired, so they hear the bone conduction tuning fork for a shorter time. Normal : Both the patient and the examiner hear the tuning fork for the same duration. Schwabach Test: Purpose: To compare the duration of bone conduction hearing between the patient and an examiner with normal hearing but without occluding the ear canals. Expected Findings: Sensorineural Hearing Loss (SNHL): The duration of hearing the tuning fork is shorter for the patient compared to the examiner. Conductive Hearing Loss: The patient hears the tuning fork for a longer duration than the examiner.

References:

Diseases of Ear, Nose, Throat - PL Dhingra, 8th edition, Pg - 26

↑ *Back to this question in Part A*

@Neet_pg_bot

Q15: A 50-year-old patient presents with hearing loss in the left ear. On examination, the Weber test indicates that the vibrations are lateralised to the left ear. Given the Weber test findings, which of the following conditions could explain these findings? (Q847786)

A. Conductive hearing loss in the left ear

B. Sensorineural hearing loss in the left ear

C. Conductive hearing loss in the right ear

D. Normal hearing in the left ear

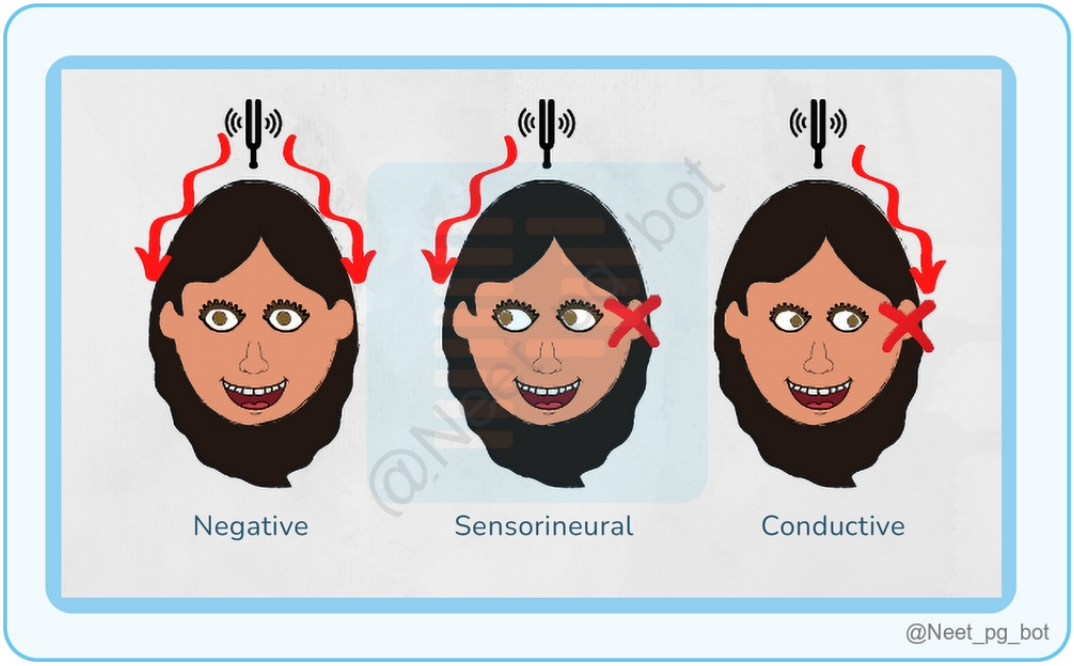
Correct Answer: A. Conductive hearing loss in the left ear

■ *Listen (English)*

■ *Listen (Hindi)*

Explanation: In this scenario, vibrations are lateralised to the left ear, which generally suggests that there is conductive hearing loss in the left ear. The sound is lateralised to the ear with conductive hearing loss due to the enhanced perception of bone-conducted sound in that ear . Weber test: Procedure: Strike a 512 Hz tuning fork (preferred) to make it vibrate. Place the vibrating fork on the centre of the patient's forehead/vertex of the skull.

Ask the patient to identify in which ear the sound is perceived as louder. Normal Finding: The sound is heard equally in both ears. Interpretation: Type of Hearing Loss Result Reason Conductive Hearing Loss (CHL) Sound lateralises to the affected ear In CHL, sound conducted through bone is perceived louder in the ear with impaired air conduction due to decreased ambient noise. Sensorineural Hearing Loss (SNHL) Sound lateralises to the unaffected (better) ear In SNHL, the sound is perceived to be louder in the ear with better cochlear function, as the affected ear struggles with both air-conducted and bone-conducted sounds.



References:

Diseases of Ear, Nose, Throat - PL Dhingra, 8th edition, Pg - 26

↑ *Back to this question in Part A*

@Neet_pg_bot

Q16: A 55-year-old patient presents with hearing difficulties. During the Rinne test, bone conduction (BC) is significantly better than air conduction (AC) in the right ear. The Weber test shows lateralisation to the right ear. What is the most likely cause of these findings? (Q847785)

A. Sensorineural hearing loss in the left ear

B. Conductive hearing loss in the right ear

C. Conductive hearing loss in the left ear

D. Mixed hearing loss in the right ear

Correct Answer: B. Conductive hearing loss in the right ear

■ *Listen (English)*

■ *Listen (Hindi)*

Explanation: Given that the Rinne test shows BC > AC in the right ear and the Weber test shows lateralisation to the right ear, these findings are consistent with conductive hearing loss in the right ear. Test Conductive Loss Sensorineural Loss Normal Hearing How to Perform Rinne Negative (BC > AC) Positive (AC > BC) Positive (AC > BC) Place the vibrating tuning fork on the mastoid bone (BC). When sound is no longer heard, move it near the ear canal (AC). Weber Lateralises to worse ear Lateralises to better ear Heard equally Place the vibrating tuning fork on the midline of the forehead or the top of the head. Absolute Bone Conduction (ABC) Hears as long as the examiner Hears for a shorter duration Hears as long as the examiner Both the patient's and examiner's ear canals are occluded. Place the vibrating tuning fork on the mastoid bone. Schwabach Lengthened Reduced Normal Place the vibrating tuning fork on the mastoid bone. Compare the duration the patient hears the sound with the examiner's hearing duration. False Negative Rinne Test: Seen in severe unilateral sensorineural (SN) hearing loss. Patient Response : The patient cannot perceive sound from the tuning fork via air conduction (AC). Responds to bone conduction (BC) testing, but this response is from the opposite ear due to transcranial sound transmission. Correct Diagnosis : Use masking of the nontest ear with Barany's noise box during BC testing. Additional Testing: Weber Test: Lateralizes to the better hearing ear.

References:

Diseases of Ear, Nose, Throat - PL Dhingra, 8th edition, Pg 26

↑ *Back to this question in Part A*

@Neet_pg_bot

Q17: A 60-year-old woman with suspected conductive hearing loss undergoes a Rinne test using different tuning forks. The test reveals a better perception of sound through bone conduction compared to air conduction. Which tuning fork frequency is most likely used in this test? (Q847784)

A. 256 Hz

B. 512 Hz

C. 1024 Hz

D. 2048 Hz

Correct Answer: B. 512 Hz

■ *Listen (English)*

■ *Listen (Hindi)*

Explanation: The 512 Hz tuning fork is the standard choice for the Rinne test, Weber test and Absolute Bone Conduction test. It strikes a balance between not being too low (which would produce a strong vibration) and not being too high (which would fade quickly). This frequency provides a clear and sustained tone that allows for a reliable comparison of air conduction and bone conduction. 256 Hz (Option A) produces a deeper tone with more prominent vibrations. While they can be used for tuning fork tests, they are not ideal for differentiating between air conduction and bone conduction because their primary function is to produce a strong vibratory sensation. 1024 Hz (Option C) produces a higher-pitched sound that tends to fade quickly. The rapid decay of the sound makes it less effective for the Rinne test, as it doesn't allow for a prolonged comparison of air and bone conduction. 2048 Hz (Option D) is even higher and has an even shorter duration of sound. They are often used for more specific hearing assessments or research purposes rather than routine clinical tests like the Rinne test.

References:

Diseases of Ear, Nose, Throat - PL Dhingra, 8th edition, Pg 26

Tuning Fork Frequency

↑ *Back to this question in Part A*

@Neet_pg_bot

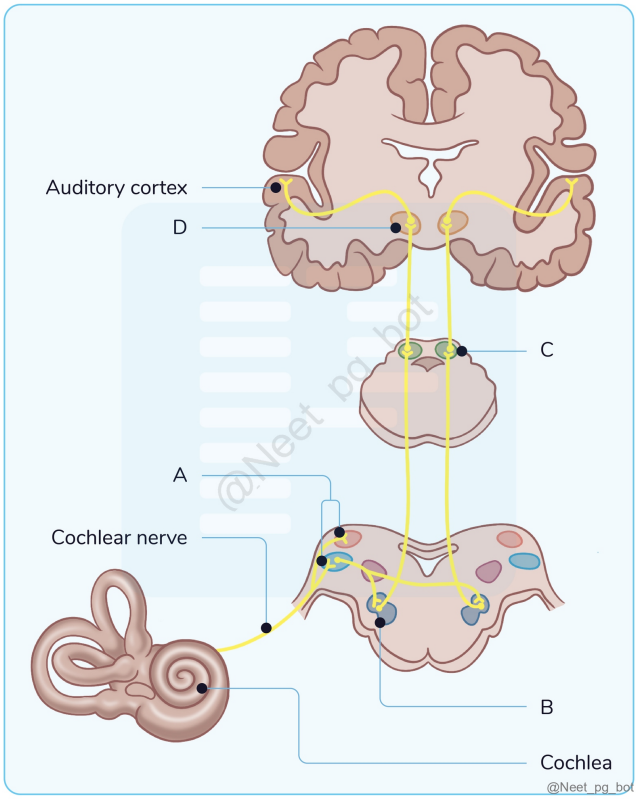
Q18: The image given below of the auditory pathway, depicts auditory signals travelling from the cochlea to the primary auditory cortex and passes through the following structures in sequences A, B, C, and D. Which sequence correctly identifies the order of these structures? (Q847783)

A. A - Cochlear Nucleus; B - Superior Olivary Complex; C - Inferior Colliculus; D - Medial Geniculate Nucleus

B. A - Medial Geniculate Nucleus; B - Cochlear Nucleus; C - Inferior Colliculus; D - Superior Olivary Complex

C. A - Inferior Colliculus; B - Cochlear Nucleus; C - Medial Geniculate Nucleus; D - Superior Olivary Complex

D. A - Superior Olivary Complex; B - Medial Geniculate Nucleus; C - Cochlear Nucleus; D - Inferior Colliculus

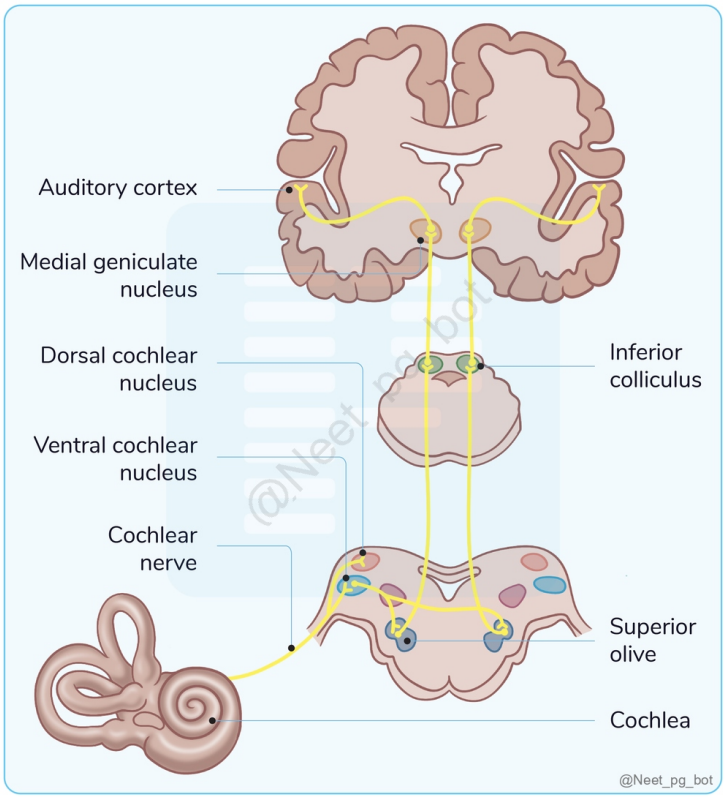


Correct Answer: A. A - Cochlear Nucleus; B - Superior Olivary Complex; C - Inferior Colliculus; D - Medial Geniculate Nucleus

■ *Listen (English)*

■ *Listen (Hindi)*

Explanation: The correct sequence of structures in the auditory pathway, from the cochlea to the primary auditory cortex, is: A. Cochlear Nucleus : The initial relay station in the brainstem where signals from the cochlea are first processed. B. Superior Olivary Complex : Involved in sound localisation and binaural processing. C. Inferior Colliculus : An important midbrain structure for auditory processing. D. Medial Geniculate Nucleus : The final relay in the thalamus that sends auditory signals to the primary auditory cortex.



References:

Diseases of Ear, Nose, Throat - PL Dhingra, 8th edition, Pg 17

↑ *Back to this question in Part A*

@Neet_pg_bot

Q19: A 40-year-old male presents with difficulty localising sounds and a reduced ability to discern speech in noisy environments. He reports no significant hearing loss. Imaging studies reveal normal cochlear and auditory nerve structures, but a lesion is detected in the brainstem. Which structure in the auditory pathway is most likely affected? (Q847782)

A. Cochlea

B. Auditory cortex

C. Superior olivary complex

D. Medial geniculate body

Correct Answer: C. Superior olivary complex

■ *Listen (English)*

■ *Listen (Hindi)*

Explanation: The patient's symptoms, including difficulty localising sounds and trouble discerning speech in noisy environments, suggest that the lesion is in the superior olivary complex. The superior olivary complex (located in the pons, which is a part of the brain stem) is responsible for sound localisation . It also involves processing complex auditory environments, such as distinguishing speech in noisy settings. Auditory pathway: Cochlea Cochlear Nerve Cochlear Nucleus (in the brainstem) Superior Olivary Complex Lateral Lemniscus Inferior Colliculus (in the midbrain) Medial Geniculate Nucleus (in the thalamus) Primary Auditory Cortex: Finally, the signals are sent to the primary auditory cortex in the temporal lobe (Heschl's gyrus) , where sound perception, including the identification of pitch, rhythm and speech occurs. Cochlea (Option A): Imaging shows that the cochlea is normal. Auditory cortex (Option B) is located in the brain and not in the brain stem. Medial geniculate body (Option D) is located in the brain and not in the brain stem

References:

Textbook of Practical Physiology (G.K. Pal and Pravati Pal), 4th Edition, Page1208

↑ *Back to this question in Part A*

@Neet_pg_bot

Q20: Which of the following best describes the role of the phase difference between the oval and round windows in sound transmission? (Q847781)

A. It amplifies sound waves by 10 dB

B. It prevents the cancellation of sound waves, allowing perilymph movement

C. It ensures simultaneous vibration of the oval and round windows

D. It decreases sound transmission efficiency, reducing hearing sensitivity by 4 dB

Correct Answer: B. It prevents the cancellation of sound waves, allowing perilymph movement

■ *Listen (English)*

■ *Listen (Hindi)*

Explanation: The phase difference between the oval window (which receives sound vibrations from the stapes) and the round window is crucial in preventing the cancellation of sound waves. The oval window receives compression waves, while the round window experiences the rarefaction phase, allowing proper movement of the perilymph in the cochlea. Without this phase difference, sound waves reaching the two windows at the same time would cancel each other out, leading to no movement of the perilymph and ineffective sound transmission. It amplifies sound waves by 10 dB (Option A): The phase difference between the oval and round windows contributes to sound transmission but does not amplify sound by 10 dB. The actual contribution of the phase difference to hearing

sensitivity is about 4 dB, not 10 dB . It ensures simultaneous vibration of the oval and round windows (Option C) : The oval and round windows do not vibrate simultaneously. In fact, their non-simultaneous movement is what prevents the cancellation of sound waves and ensures proper movement of the perilymph. It decreases sound transmission efficiency, reducing hearing sensitivity by 4 dB (Option D): The phase difference between the oval and round windows actually enhances sound transmission efficiency and contributes to increasing hearing sensitivity by about 4 dB , not decreasing it.

References:

Diseases of Ear, Nose, Throat - PL Dhingra, 8th edition, Page 18.

↑ *Back to this question in Part A*

@Neet_pg_bot

Q21: A 45-year-old man presents with progressive hearing loss in his right ear. Audiometry reveals sensorineural hearing loss, and an MRI shows no abnormalities in the cochlear nerve. A defect in converting mechanical sound vibrations into electrical signals is suspected. Which of the following structures is most likely affected? (Q847780)

A. Oval window

B. Organ of Corti

C. Tympanic membrane

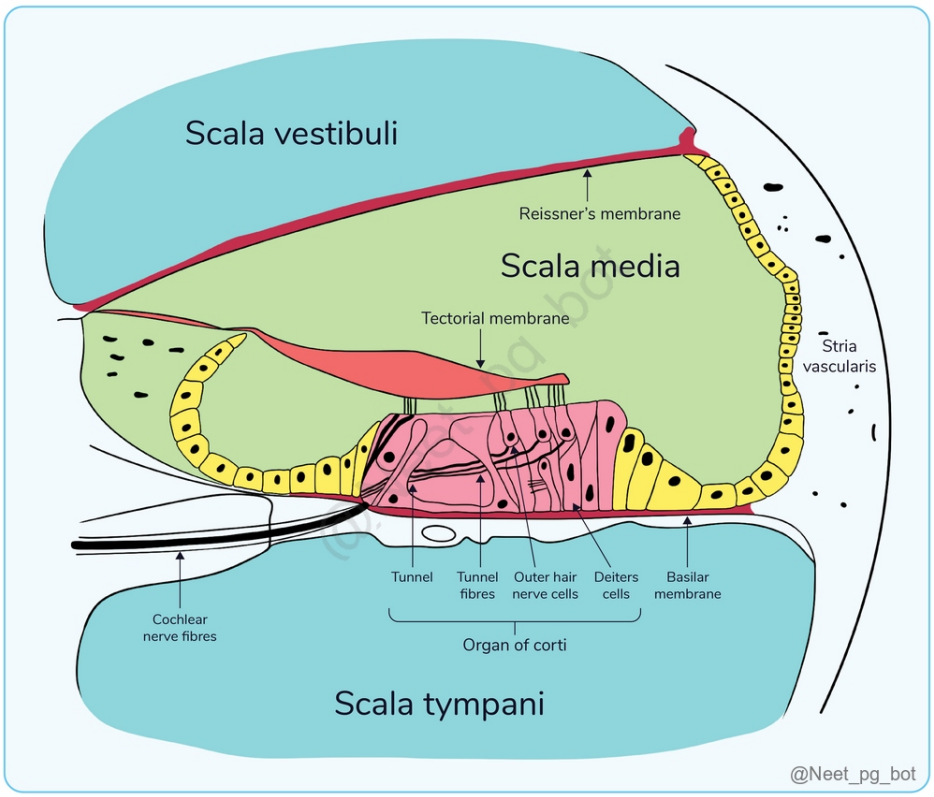
D. Stapes footplate

Correct Answer: B. Organ of Corti

■ *Listen (English)*

■ *Listen (Hindi)*

Explanation: The patient presents with sensorineural hearing loss, typically caused by damage to the inner ear or the neural pathways responsible for hearing. Given the defect in converting mechanical sound vibrations into electrical signals, the likely issue lies in the Organ of Corti, where the hair cells transduce sound vibrations into electrical impulses. The Organ of Corti , located on the basilar membrane inside the cochlea, contains the hair cells responsible for the hearing transduction mechanism . Oval window (Option A) It plays a role in the mechanical conduction of sound by transmitting vibrations from the stapes to the fluid in the cochlea, but not in converting those vibrations into electrical signals. Tympanic membrane (Option C) vibrates in response to sound and transmits from the external ear to the ossicles of the middle ear.Damage leads to conductive hearing loss but doesn't affect sound transduction. Stapes footplate (Option D): This structure amplifies sound waves but involves the conductive hearing process, not sensorineural conversion.



References:

Diseases of Ear, Nose, Throat - PL Dhingra, 8th edition, Page 18.

↑ *Back to this question in Part A*

@Neet_pg_bot

Q22: What is the total amplification of sound in the auditory system due to impedance matching, considering both the lever action of the ossicles and the area ratio between the tympanic membrane and the oval window? (Q847711)

A. 1.3 times from lever action × 17 times from area ratio = 22.1 times

B. 1.3 times from lever action × 20 times from area ratio = 26 times

C. 1.5 times from lever action × 22 times from area ratio = 33 times

D. 1.2 times from lever action × 18 times from area ratio = 21.6 times

Correct Answer: Unknown

■ *Listen (English)*

■ *Listen (Hindi)*

Explanation: The middle ear amplifies sound by combining the areal ratio (17:1) between the tympanic membrane and oval window and the ossicular lever ratio (1.3:1) . Multiplying these gives a total transformer ratio of approximately 22:1 . Effective vibratory area of tympanic membrane ≈ 55 mm² Stapes footplate area ≈ 3.2 mm² Areal ratio = 17:1 (standard teaching value) Lever ratio = 1.3:1 Total amplification = 17 × 1.3 = 22.1 times

References:

Diseases of Ear, Nose, Throat - PL Dhingra, 8th edition, Pg 18.

↑ *Back to this question in Part A*

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Q23: Which of the following factors is most important in the impedance-matching mechanism of the auditory system, facilitating the transfer of sound from the air-filled middle ear to the fluid-filled cochlea? (Q847710)

A. Acoustic Reflex of the Middle Ear Muscles

B. Area ratio between the tympanic membrane and the oval window

C. Lever action of the malleus and stapes

D. Resonance of the basilar membrane

Correct Answer: B. Area ratio between the tympanic membrane and the oval window

■ *Listen (English)*

■ *Listen (Hindi)*

Explanation: The impedance-matching mechanism ensures efficient sound transmission from the air-filled middle ear to the fluid-filled cochlea. The tympanic membrane has a much larger surface area than the stapes footplate at the oval window. This area ratio, approximately 14:1, amplifies the sound pressure by concentrating the vibrations from a large surface (tympanic membrane) to a smaller one (oval window). This is the most significant contributor to impedance matching. The middle ear serves as an impedance-matching transformer, increasing the pressure of sound waves to overcome this mismatch. There are three key mechanisms involved in this process: Mechanism Description Function Lever Action of the Ossicles (Option C ruled out) The malleus has a longer handle compared to the incus , forming a lever system. Amplifies vibrations from the tympanic membrane to the stapes footplate by a factor of 1.3. Hydraulic Action of the Tympanic Membrane The tympanic membrane is larger than the stapes footplate, with an area ratio of about 21:1, reduced to 14:1 due to functional area. Concentrates force at the smaller stapes footplate, significantly increasing sound pressure. Curved Membrane Effect The tympanic membrane is slightly conical, causing greater vibrations at the periphery than at the centre. Increases the force applied to the ossicles, enhancing sound energy transmission. Acoustic Reflex of the Middle Ear Muscles (Option A) : Contraction of the stapedius and tensor tympani muscles in response to loud sounds reduces the amplitude of sound transmission but does not significantly contribute to impedance matching. Resonance of the basilar

membrane (Option D) plays a role in frequency discrimination within the cochlea but is not part of the impedance-matching process in the middle ear.

References:

Diseases of Ear, Nose, Throat - PL Dhingra, 8th edition, Pg 18.

↑ *Back to this question in Part A*

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• [01_Ear] 003 Vestibular System Physiology Assessment And Associated Diseases

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[01_Ear] 003 Vestibular System Physiology Assessment And Associated Diseases — Quick Jump

Q1 (p. 533)	*Q2 (p. 534)*	*Q3 (p. 535)*	*Q4 (p. 537)*	*Q5 (p. 538)*	*Q6 (p. 539)*
Q7 (p. 540)	*Q8 (p. 542)*	*Q9 (p. 543)*	*Q10 (p. 547)*	*Q11 (p. 548)*	*Q12 (p. 550)*
Q13 (p. 554)	*Q14 (p. 555)*	*Q15 (p. 556)*	*Q16 (p. 557)*		

Q1: The inner ear, or the labyrinth has a central chamber called the vestibule with a spherical and elliptical recess, each accommodating important structures of the membranous labyrinth. What structure does the elliptical recess accommodate? (Q847738)

A. Saccule

B. Openings of the semicircular canals

C. Oval window

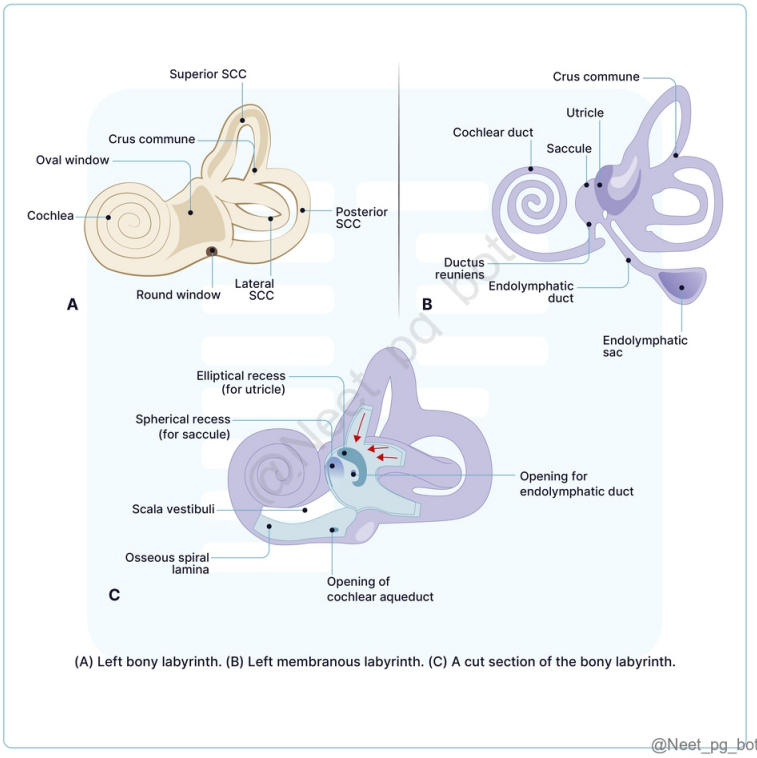
D. Utricle

Correct Answer: D. Utricle

■ *Listen (English)*

■ *Listen (Hindi)*

Explanation: The utricle is accommodated in the elliptical recess that is situated in the medial wall of the central chamber. The vestibular system is divided into Peripheral: made of membranous labyrinth (SCC, utricle, and saccule) and vestibular nerve Membranous labyrinth: It is present in the labyrinth/inner ear enclosed by the bony labyrinth. The lateral wall of the vestibule (central chamber) of the bony labyrinth has the oval window (Option C) The medial wall has two recesses , A spherical recess that carries the saccule (Option A) An elliptical recess that carries the utricle The opening of the aqueduct of the vestibule is located below the elliptical recess which has the endolymphatic duct. The posterosuperior part of the vestibule has 5 openings of semicircular canals (Option B) . Vestibular nerve: Central processes of the vestibular or Scarpa’s ganglion forms the vestibular nerve. Transmits the signals from hair cells in the inner ear to the vestibular nuclei Central: made of the nuclei (superior, medial, lateral, descending nuclei) and fiber tracts in CNS.



(A) Left bony labyrinth. (B) Left membranous labyrinth. (C) A cut section of the bony labyrinth.

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References:

Diseases of Ear, Nose, Throat - PL Dhingra, 8th edition, Pg: 11, 21.

↑ *Back to this question in Part A*

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Q2: A 35-year-old patient presents with complaints of vertigo and dizziness when turning their head side to side. Upon examination, the nystagmus is horizontal. Which of the following is the most likely stimulated structure? (Q847739)

A. Superior Semicircular Canal

B. Lateral Semicircular Canal

C. Posterior Semicircular Canal

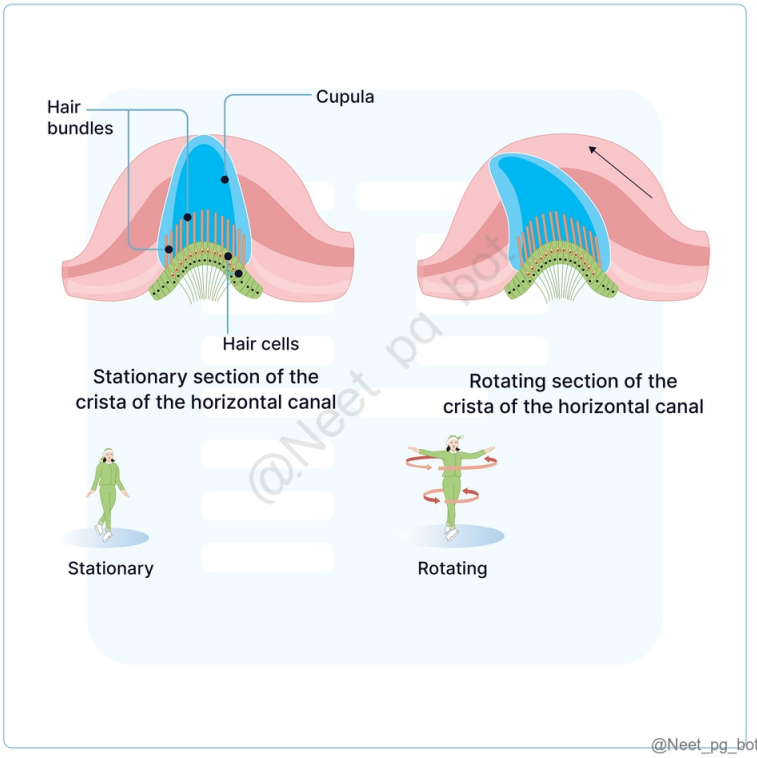
D. Utricle

Correct Answer: B. Lateral Semicircular Canal

■ *Listen (English)*

■ *Listen (Hindi)*

Explanation: The lateral/ horizontal semicircular canal responds to angular acceleration , especially in rotations along the vertical axis. When stimulated, it produces horizontal nystagmus . In the scenario described, the patient reports dizziness during head movement, and horizontal nystagmus suggests stimulation of this canal. Endolymph flow towards the cupula (ampullopetal flow) in the horizontal canal is more effective in generating this response. Orientation of SCC and Acceleration: Parameter Description Horizontal/Lateral Semicircular Canal (Option B) Detects rotations around the vertical axis; produces horizontal nystagmus. Superior/Anterior Semicircular Canal (Option A) Detects anterior-posterior head movements; produces rotatory nystagmus. Posterior Semicircular Canal (Option C) Detects vertical head movements; produces vertical nystagmus. Utricle and Saccule (Option D) Responds to linear acceleration and deceleration or gravitational pull during head tilts.



References:

Dhingra Diseases Of Ear, Nose And Throat & Head And Neck Surgery, 8th Edition , Page 22.

https://www.ncbi.nlm.nih.gov/books/NBK10792/

https://www.ncbi.nlm.nih.gov/books/NBK10863/

↑ *Back to this question in Part A*

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Q3: A 40-year-old male presents with vertigo, nausea, and vomiting. His vertigo worsens with sudden head movements, and he shows signs of horizontal nystagmus. Which of the following best describes the central vestibular connections responsible for his symptoms? (Q847740)

A. Vestibular nuclei efferents to the cerebellum provide motion awareness.

B. The vestibulo-ocular reflex involves CN III, IV, and VI via the MLF.

C. Vestibulospinal fibers connect directly to the cerebellum for balance.

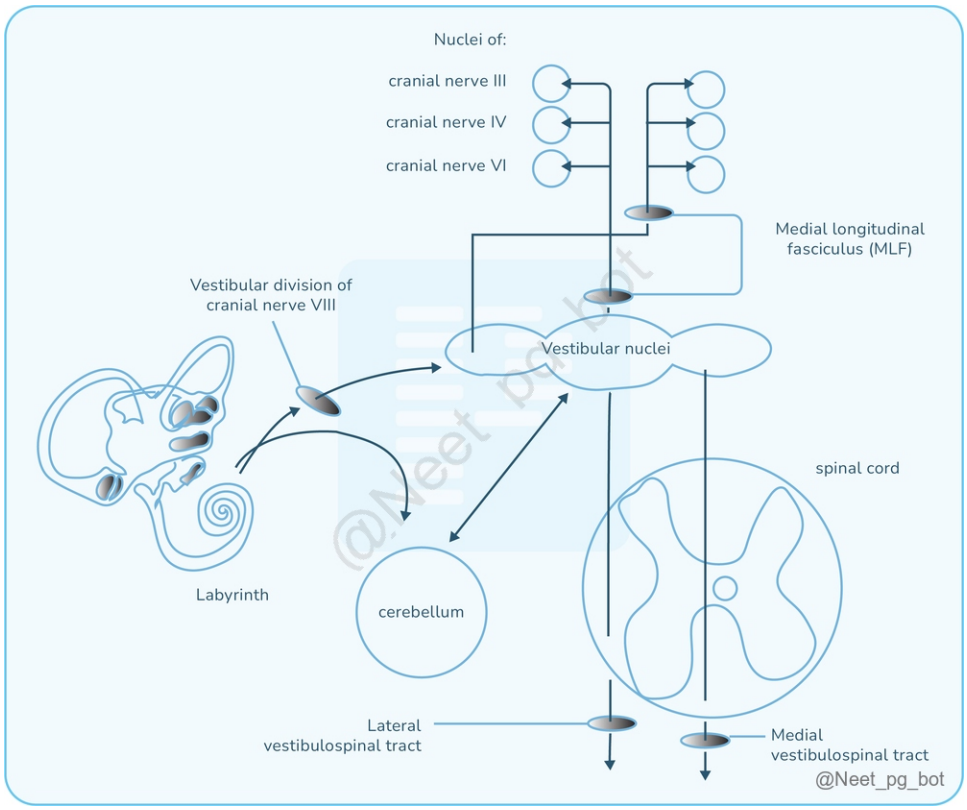
D. The autonomic system plays no role in vestibular disorders.

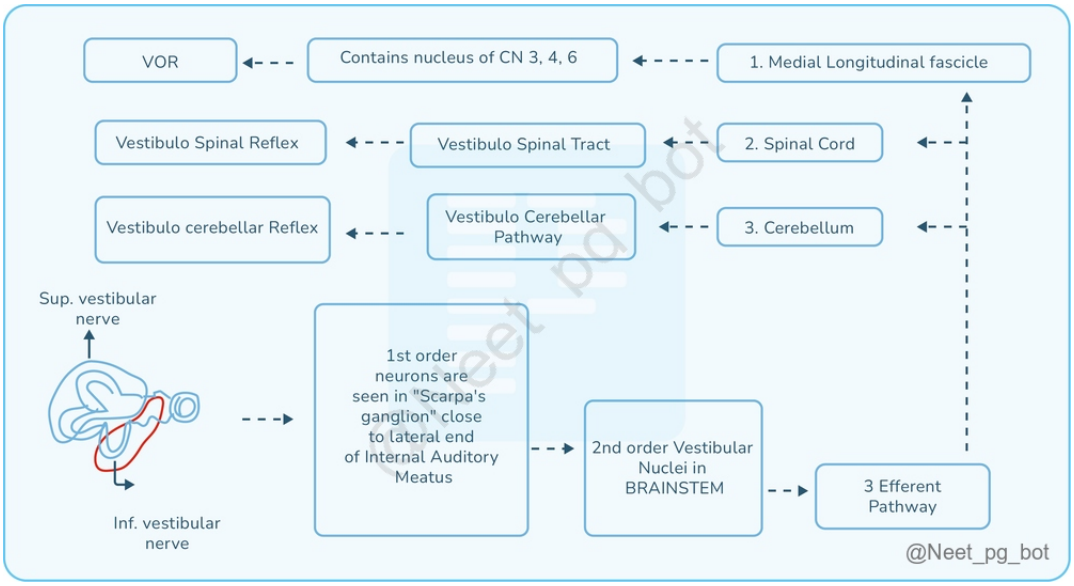
Correct Answer: B. The vestibulo-ocular reflex involves CN III, IV, and VI via the MLF.

■ *Listen (English)*

■ *Listen (Hindi)*

Explanation: The vestibulo-ocular reflex (VOR) is responsible for stabilizing gaze during head movements by coordinating eye movements with input from the vestibular system. The vestibular nuclei send efferent fibers to the motor nuclei of cranial nerves III, IV, and VI through the medial longitudinal bundle, facilitating this reflex and explaining the nystagmus. Vestibular Pathway Features: Vestibular nuclei efferents to the cerebellum provide motion awareness (Option A): The efferents to the cerebellum help coordinate balance and input integration, but the cerebral cortex (temporal lobe) is responsible for the subjective awareness of motion. Vestibulospinal fibers connect directly to the cerebellum for balance (Option C): The vestibulospinal fibers connect to the motor part of the spinal cord to coordinate movements of the head, neck, and body to maintain balance. The autonomic system plays no role in vestibular disorders (Option D): The autonomic nervous system is involved in vestibular disorders and is responsible for symptoms such as nausea, vomiting, sweating, and pallor seen in conditions like Ménière's disease.





References:

Dhingra Diseases Of Ear, Nose And Throat & Head And Neck Surgery, 8th Edition, Page 21

↑ *Back to this question in Part A*

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Q4: A 30-year-old presents with right-sided hearing loss, vertigo, and horizontal nystagmus with fast phase to the right. The nystagmus worsens in darkness and improves with fixation. There is no nausea or vomiting. What is the most likely diagnosis? (Q847741)

A. Central vestibular nystagmus due to a cerebellar lesion

B. Peripheral vestibular nystagmus due to serous labyrinthitis

C. Peripheral vestibular nystagmus due to purulent labyrinthitis

D. Central vestibular nystagmus due to Arnold-Chiari malformation

Correct Answer: B. Peripheral vestibular nystagmus due to serous labyrinthitis

■ *Listen (English)*

■ *Listen (Hindi)*

Explanation: The patient has horizontal nystagmus with fast phase to the right , which: Worsens in darkness (loss of fixation) Improves with visual fixation Is associated with unilateral hearing loss + vertigo No nausea or vomiting (consistent with mild peripheral lesion such as serous labyrinthitis) These features strongly indicate a peripheral vestibular lesion , and specifically serous labyrinthitis , where inflammation causes partial vestibular dysfunction without purulent destruction. Feature Peripheral Nystagmus Central Nystagmus Location of lesion Labyrinth or vestibulocochlear (VIII) nerve Central neural pathways (vestibular nuclei, brainstem, cerebellum) Latency 2-20 seconds No latency Duration Less than 1 minute More than 1 minute Type of Nystagmus Spontaneous nystagmus Gaze-Evoked Nystagmus Direction of Nystagmus Fixed, towards the undermost ear Change with direction of gaze Fatigability Fatigable Non-fatigable Response to Visual Fixation Suppressed by Optic fixation; Worsens in darkness or with Frenzel glasses (+20 dioptre glasses), both abolishing optic fixation Cannot be suppressed Accompanying Symptoms Severe vertigo Loss of hearing in one ear Ringing in one or both ears Difficulty focusing vision Loss of balance None or slight: Impairment in speech Weakness or numbness Gait disturbance Impairment in vision In Purulent Labyrinthitis (Option C) , Vertigo is due to the inner ear bacterial infection, with total loss of cochlear and vestibular functions. Nystagmus would be on the opposite side, and there would be severe nausea and vomiting. Central Vestibular Nystagmus (Option A and D) does not improve with optic fixation and has changing directions.

References:

Dhingra Diseases Of Ear, Nose And Throat & Head And Neck Surgery, Edition 8, Pg 47, 53.
https://www.ncbi.nlm.nih.gov/books/NBK430797/# https://www.ncbi.nlm.nih.gov/books/NBK441861/

↑ *Back to this question in Part A*

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Q5: Which of the following statements regarding the Fitzgerald-Hallpike manoeuvre is false? (Q847742)

A. The temperature of the water used for stimulation is 44°C for hot water and 30°C for cold water.

B. A gap of 8-10 minutes is maintained between the cold and hot water stimulations to avoid cross-contamination of effects.

C. A normal response to cold water stimulation is horizontal nystagmus towards the ipsilateral side.

D. The test helps to assess vestibular function and can indicate central pathology if directional preponderance is observed.

Correct Answer: C. A normal response to cold water stimulation is horizontal nystagmus towards the ipsilateral side.

■ *Listen (English)*

■ *Listen (Hindi)*

Explanation: The correct temperatures for the hot and cold water stimulation in the Fitzgerald-Hallpike manoeuvre are 44°C and 30°C. These specific temperatures are essential to provoke the expected responses from the labyrinth and assess the vestibular function effectively. (Statement A) A gap of 8-10 minutes between the cold and hot water stimulations is provided. This interval is important to allow the vestibular system to return to a baseline state, ensuring the stimuli are distinct and do not overlap, thus maintaining the accuracy of the test results. (Statement B) The correct response to cold water stimulation is horizontal nystagmus towards the contralateral side, not the ipsilateral side. On the other hand, hot water causes nystagmus towards the ipsilateral side. (Statement C) The Fitzgerald-Hallpike manoeuvre is a crucial test for evaluating vestibular function. If a directional preponderance (dominance of nystagmus in one direction) is observed, it suggests the possibility of central pathology, such as brainstem or cerebellar disorders, which may need further investigation. (Statement D) Fitzgerald-Hallpike Test (Bithermal Caloric Test) Procedure : Patient supine with head tilted 30° forward. Ears irrigated alternately with water at 30°C and 44°C for 40 s each. Observation : Record time taken from start of irrigation to end of nystagmus ; chart on a calorigram. Re-test : With water at 20°C if no nystagmus is seen. Observation: Cold water causes nystagmus to the opposite side and warm water to the same side. Assessment : Canal Paresis : Weaker response from one side compared to the other. Directional Preponderance : Nystagmus is more on one side than the other, 25%-30% or more difference. Occurs towards the side of a central lesion and away from the side of a peripheral lesion.

References:

Diseases of Ear, Nose, Throat - PL Dhingra, 8th edition, Pg: 49, 50.

↑ *Back to this question in Part A*

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Q6: While assessing a patient's vestibular function, an ENT surgeon repeatedly presses and releases the tragus of the patient, eliciting a positive response. What would this finding indicate? (Q847743)

A. Cholesteatoma covering the fistula

B. Perilymph fistula

C. Intact bony labyrinth

D. Dead labyrinth

Correct Answer: B. Perilymph fistula

■ *Listen (English)*

■ *Listen (Hindi)*

Explanation: The test being performed here is the fistula test in which a positive test shows nystagmus caused due to a perilymph fistula in the labyrinth. Fistula test: Purpose To Assess the integrity of the bony labyrinth and detect perilymph fistulas (abnormal openings in the bony labyrinth) Principle Pressure changes in the external ear canal can be transmitted to the inner ear through a fistula, triggering vestibulo-ocular reflex (VOR), resulting in nystagmus and possibly vertigo Procedure Pressure Application: Intermittent pressure applied on the tragus or using a Siegel's speculum. Observation: Eyes are observed for nystagmus and the patient is queried about vertigo. Interpretation Positive Fistula Test: Indicates a perilymph fistula Nystagmus direction helps locate the fistula Indicates a functional labyrinth Negative Fistula Test: Usually indicates intact bony labyrinth False negatives can occur if covered by cholesteatoma Positive test causes Erosion of horizontal semicircular canals as in cholesteatoma Surgically created window in horizontal canal Superior canal dehiscence Abnormal opening in the oval or round window Negative test No fistula False-negative causes Surgically confirmed cases of labyrinthine fistula Cholesteatoma covers the site of fistula Dead labyrinth False-Positive (Hennebert's Sign) Hennebert's Sign: Positive test without a fistula; can occur in: Congenital Syphilis: Hypermobile stapes footplate. Ménière's Disease: Due to a distended saccule lying against the stapes footplate.

References:

Diseases of Ear, Nose, Throat - PL Dhingra, 8th edition, Pg: 47, 48.

↑ *Back to this question in Part A*

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Q7: A 30-year-old woman is being evaluated in the ENT clinic for vertigo when she gets up from bed. Which of the following tests would be useful for diagnosing benign paroxysmal positional vertigo? (Q847744)

A. Dix-Hallpike test

B. Baranay’s rotational chair test

C. Galvanic test

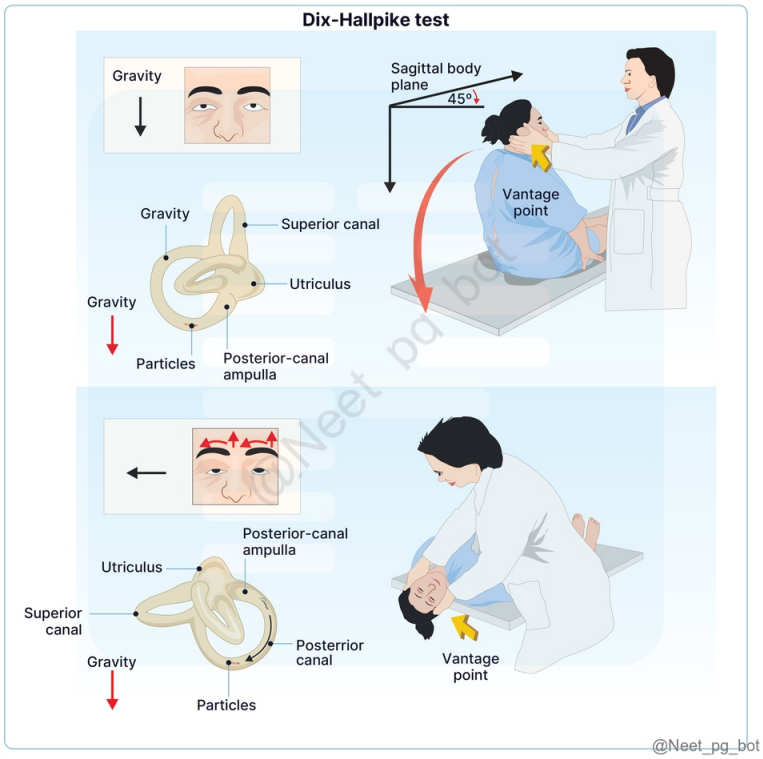
D. Dundas Grant test

Correct Answer: A. Dix-Hallpike test

■ *Listen (English)*

■ *Listen (Hindi)*

Explanation: The dix-Hallpike test is used to diagnose benign paroxysmal positional vertigo (BPPV). Dix-Hallpike Test: Identifies benign paroxysmal positional vertigo (BPPV). Procedure: The patient is moved from sitting with head turned at 45° to one side to lying with the head hanging off the edge of the table at 30° (to the horizontal) and rotated to target different semicircular canals. Observation: Observe nystagmus, which is typically delayed, lasts less than a minute, and has a torsional component. Use: Effective for diagnosing BPPV. Helps identify the affected semicircular canal. Baranay’s Rotational Chair test (Option B) : Assesses the vestibulo-ocular reflex (VOR) by rotating the patient in a chair. Galvanic test (Option C) : Differentiates between lesions affecting the vestibular end organ and the vestibular nerve. Dunda’s Grant test (Option D) : Also known as cold-air caloric test is an alternative to caloric testing using water, used when water irrigation is contraindicated (e.g., perforated eardrum)



References:

Diseases of Ear, Nose, Throat - PL Dhingra, 8th edition, Pg: 48, 50, 51

↑ *Back to this question in Part A*

Q8: Which of the following statements is false about vestibular evoked myogenic potentials? (Q847745)

A. The cervical VEMP is picked up in the sternocleidomastoid

B. The vestibulospinal arc mediates through the lower brainstem

C. The ocular muscle that show potentials are the inferior oblique and inferior rectus

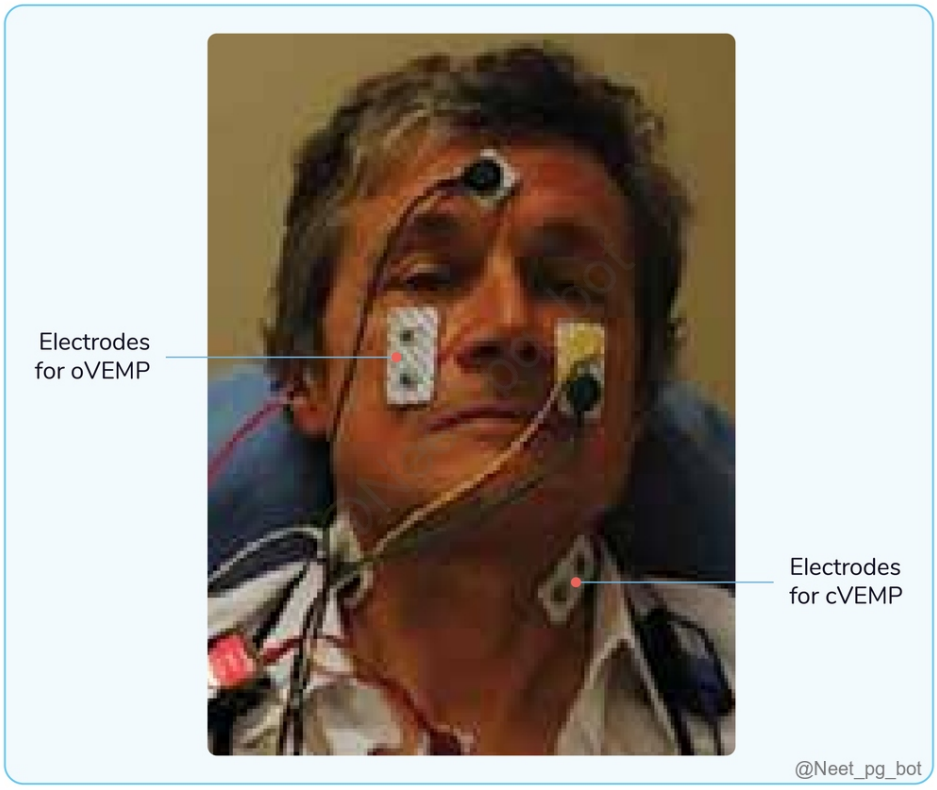
D. It can be used in diagnosing the origin of a neuroma

Correct Answer: C. The ocular muscle that show potentials are the inferior oblique and inferior rectus

■ *Listen (English)*

■ *Listen (Hindi)*

Explanation: The ocular muscles that show myogenic potential during a VEMP are the inferior oblique and superior rectus. Vestibular Evoked Myogenic Potentials (VEMP): It is a test to study the function of otolith organs, the saccule and utricle. Their normal function is linear acceleration. They are stimulated by the loud sound of air or bone conduction. cVEMP (Cervical VEMP) oVEMP (Ocular VEMP) Target muscle Sternocleidomastoid (SCM) muscle in the neck Ocular muscles (inferior oblique or superior rectus) Nerve pathway Saccule → Inferior vestibular nerve → Vestibular nuclei → Ipsilateral vestibulospinal tract → Spinal accessory nerve (CN XI) → SCM Utricle → Superior vestibular nerve → Vestibular nuclei → Medial longitudinal fasciculus → Oculomotor nerve (CN III) → Inferior oblique and superior rectus muscles Stimulation Primarily, air-conducted sounds stimulate the saccule Bone-conducted sounds, stimulating both saccule and utricle Clinical uses Assessing saccular function Investigating acoustic neuroma (inferior vestibular nerve) Diagnosing Ménière's disease Assessing utricular function Investigating acoustic neuroma (superior vestibular nerve) Diagnosing superior canal dehiscence Differences Sensitive to air-conducted sounds Vestibulospinal arc is mediated through the lower brain stem Responds to both air and bone conduction Vestibulo-ocular reflex is mediated through the upper brainstem



References:

Diseases of Ear, Nose, Throat - PL Dhingra, 8th edition, Pg: 51.

↑ *Back to this question in Part A*

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Q9: A 45-year-old patient presents with sudden-onset vertigo and difficulty maintaining gaze stability during head movements. Which of the following tests is most appropriate to assess vestibulo-ocular reflex? (Q847746)

A. Supine Roll Test

B. Romberg Test

C. Head Impulse Test

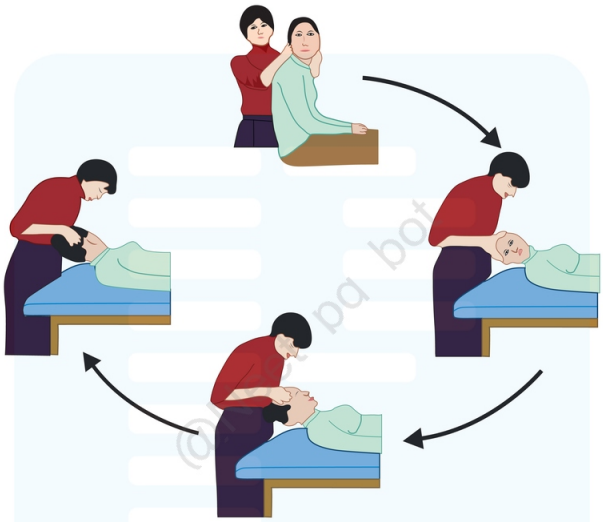
D. Unterberger Test

Correct Answer: C. Head Impulse Test

■ *Listen (English)*

■ *Listen (Hindi)*

Explanation: The head impulse test directly evaluates the Vestibulo-ocular reflex (VOR) , which is crucial for maintaining gaze stability during head movements. Supine Roll Test (Option A): Used to diagnose horizontal semicircular canal BPPV by eliciting horizontal nystagmus. Head Impulse Test/ Head Thrust Test (Option C): Evaluates the vestibulo-ocular reflex. Romberg Test (Option B): Removes visual and vestibular components that contribute to maintaining balance, helping to identify proprioception related neurologic disease. Unterberger Test/ Fukuda Stepping Test (Option D): Identifies unilateral vestibular deficit by rotations in the direction of the vestibular loss.



The roll test is done with the patient in long-sitting, then shifted to a supine position with the head flexed at 30º. The head is turned to one side, and after nystagmus or vertigo subsides, the test is repeated on the other side.

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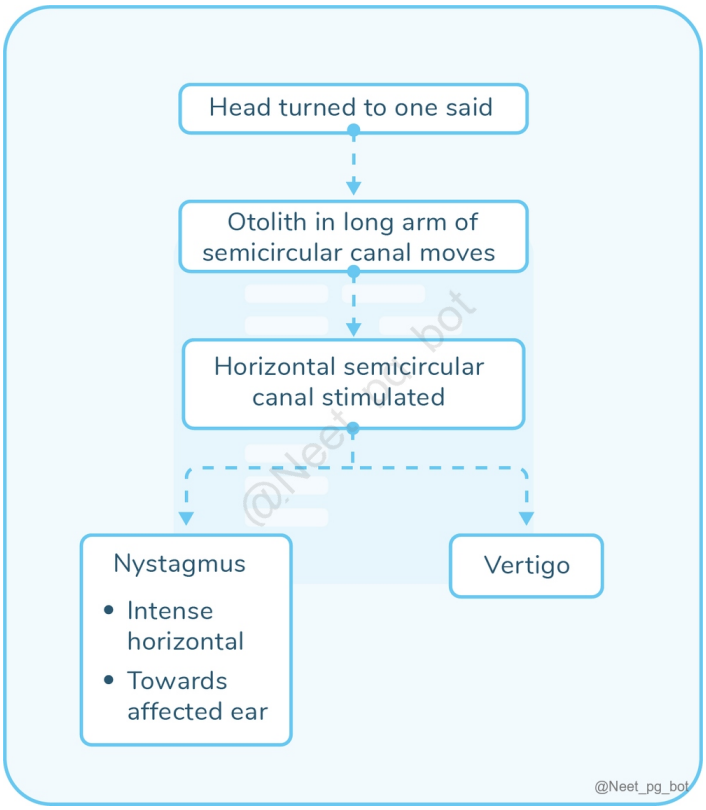
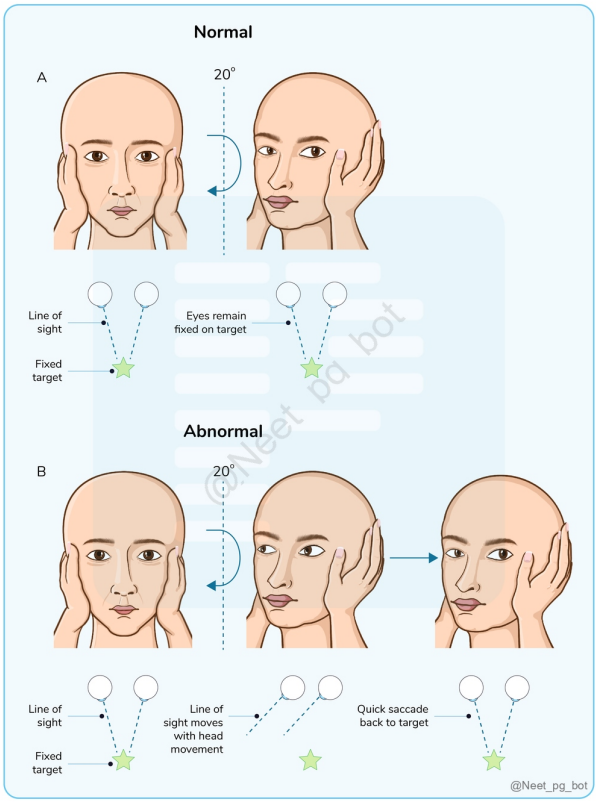
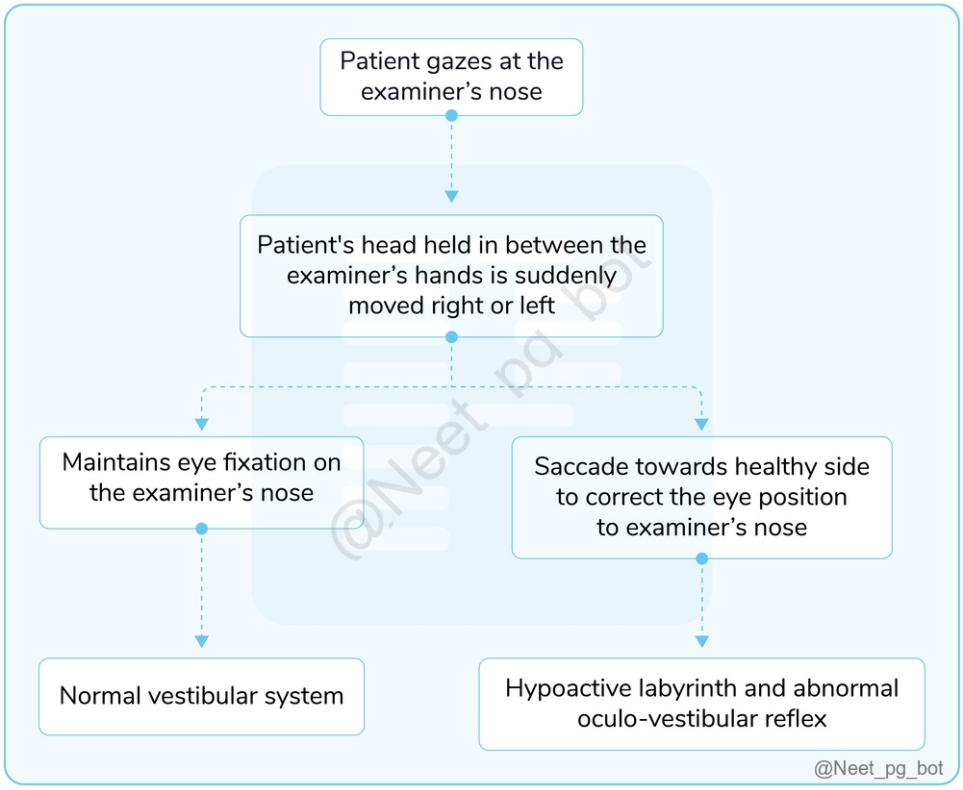

Head turned to one said
Otolith in long arm of semicircular canal moves
Horizontal semicircular canal stimulated
Nystagmus
Intense horizontal
Towards affected ear
Vertigo
@Neet_pg_bot


Normal
A
20°
Line of sight
Fixed target
Eyes remain fixed on target
Abnormal
B
20°
Line of sight
Fixed target
Line of sight moves with head movement
Quick saccade back to target
@Neet_pg_bot


Patient gazes at the examiner's nose
Patient's head held in between the examiner's hands is suddenly moved right or left
Maintains eye fixation on the examiner's nose
Saccade towards healthy side to correct the eye position to examiner's nose
Normal vestibular system
Hypoactive labyrinth and abnormal oculo-vestibular reflex
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Romberg test
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References:

Diseases of Ear, Nose, Throat - PL Dhingra, 8th edition, page no: 47-51 Logan Turner's Diseases of the Nose, Throat and Ear,11th edition page no: 386 Current Diagnosis and Treatment-Otolaryngology Head and Neck Surgery 2nd edition page no: 610 https://www.ncbi.nlm.nih.gov/pmc/articles/PMC9981954/ https://www.researchgate.net/figure/Supine-Roll-Test-A-pillow-of-about-4-inch-thickness-is-placed-at-the-head-end-of-the_fig2_350557338 https://www.ncbi.nlm.nih.gov/books/NBK563187/

↑ *Back to this question in Part A*

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Q10: A 56-year-old woman comes to the ENT department complaining of vertigo. She also has double vision, with nystagmus and difficulty in swallowing but no hearing loss . Which of the following disorders could be a cause of these symptoms? (Q847747)

A. Peripheral vestibular disorders

B. Central vestibular disorders

C. Ocular vertigo

D. Psychogenic vertigo

Correct Answer: B. Central vestibular disorders

■ *Listen (English)*

■ *Listen (Hindi)*

Explanation: The above clinical scenario points to central vestibular disorders as they present with vertigo with visual disturbances and other neurological symptoms like difficulty in swallowing but typically no hearing abnormalities. Peripheral Vestibular Disorders (Option A) Central Vestibular Disorders Origin Inner ear or vestibular nerve (cranial nerve VIII) Brainstem, cerebellum, or other central nervous system structures Examples Ménière's Disease Benign Paroxysmal Positional Vertigo (BPPV) Vestibular Neuronitis Labyrinthitis Vestibulotoxic Drugs Head Trauma Perilymph Fistula Acoustic Neuroma Syphilis Vertebrobasilar Insufficiency Posteroinferior Cerebellar Artery (PICA) Syndrome(Wallenberg syndrome) Basilar Migraine Cerebellar Disease Multiple Sclerosis Tumors of the Brainstem and Cerebellum Epilepsy Cervical vertigo Symptoms Vertigo, often with hearing loss, tinnitus, and aural fullness Vertigo, often with additional neurological symptoms like double vision, difficulty swallowing, drop attacks, or weakness Hearing Loss Common, especially with inner ear disorders (e.g., Ménière's disease, labyrinthitis) Less common, central disorders typically do not affect hearing directly Nystagmus Characteristics Often changes direction based on gaze; typically intermittent May be direction-fixed or more persistent; often associated with other neurological signs Compensation Often improves over time as the brain adapts; recovery can be expected Less predictable; central disorders may not fully compensate, leading to chronic symptoms Ocular vertigo (Option C) is caused by a mismatch of information from the eyes, labyrinths and somatosensory systems, which normally send signals that help maintain body balance. It may occur in cases of acute extraocular muscle paresis or high errors of refraction. Psychogenic vertigo (Option D) is suspected in patients suffering from emotional stress and anxiety. Other symptoms of neurosis, like palpitations, fatigue, insomnia, sweating and tremors, may be seen, but nystagmus and hearing loss are not seen.

References:

Diseases of Ear, Nose, Throat - PL Dhingra, 8th edition, Page no: 52-55.

↑ *Back to this question in Part A*

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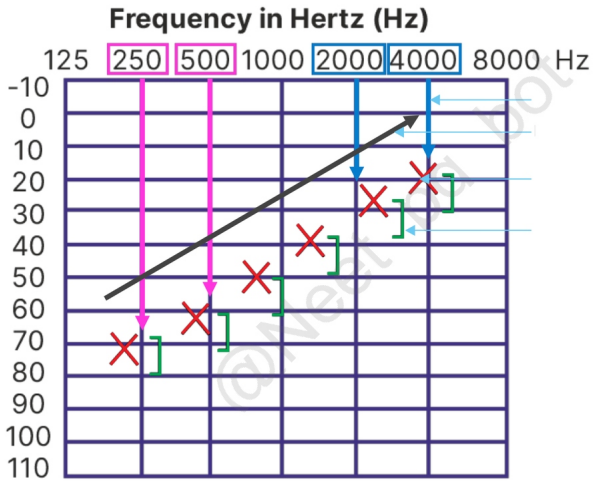
Q11: A 45-year-old male presents with recurrent episodes of severe vertigo, fluctuating sensorineural hearing loss, tinnitus, and a sensation of fullness in the left ear. An Audiogram is taken and is shown below. Which of the following structures is primarily involved in the pathophysiology of the diagnosis? (Q847748)

A. Semicircular canals

B. Endolymphatic sac

C. Stapes footplate

D. Scala vestibuli



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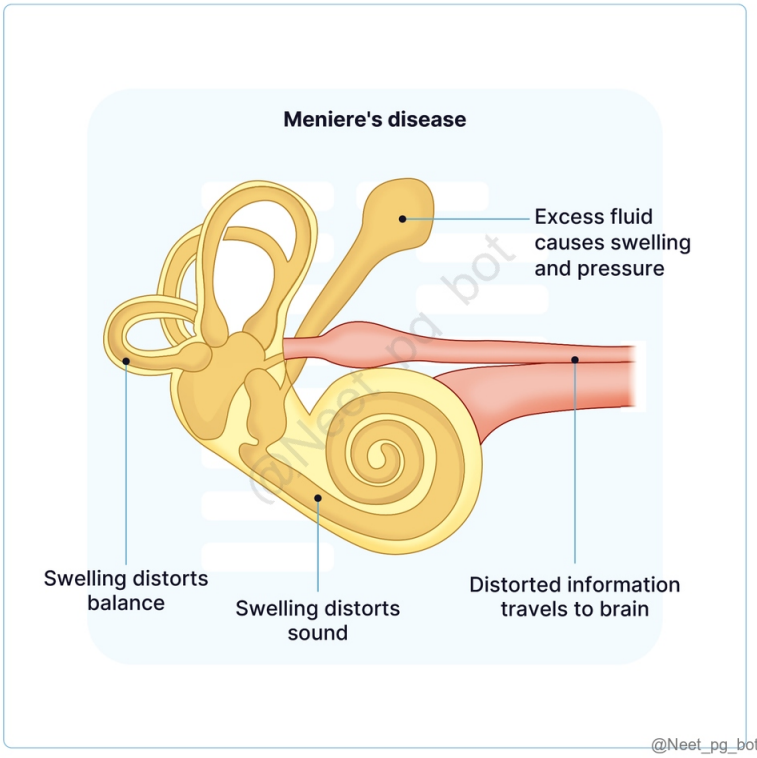
Correct Answer: B. Endolymphatic sac

- *Listen (English)*
- *Listen (Hindi)*

Explanation: Symptoms like vertigo, tinnitus, sensorineural hearing loss, and aural fullness along with audiogram findings of sensorineural hearing loss (low frequency sensorineural hearing loss, upslopping pattern) point towards diagnosis of Ménière's disease. It is caused by the dysfunction in the endolymphatic sac , caused by overproduction or malabsorption of endolymph , leading to Endolymphatic hydrops , which is the hallmark of this disease. The resulting accumulation of endolymph distends the membranous labyrinth, affecting the cochlea and vestibular system causing the classic symptoms. Sequence of symptoms in Ménière's disease: Tinnitus → Hearing loss → Vertigo (± vagal disturbances such as abdominal cramps, diarrhea, cold sweats, pallor and bradycardia) Structures Involved in Ménière's Disease: Structure Role in Ménière's Disease Endolymphatic sac Dysfunction causes defective absorption of endolymph, leading to endolymphatic hydrops, which results in vertigo, tinnitus, hearing loss, and aural fullness. Cochlear duct (scala media) Distension of the cochlear duct affects hearing, leading to sensorineural hearing loss . It is the primary site affected in the auditory portion of the inner ear. Saccule Distended saccule may press against the stapes footplate , potentially contributing to vestibular symptoms and vertigo in the advanced stages of the disease. (Option C) Semicircular canals Secondary involvement causes vestibular symptoms such as vertigo , but they are not the primary site of the pathology in Ménière's disease. (Option A) Reissner membrane In severe cases , the bulging of this membrane can result in herniation into the scala vestibuli , worsening the symptoms of vertigo and hearing loss. (Option D)



References:

Dhingra Diseases Of Ear, Nose And Throat & Head And Neck Surgery, Edition 8, Pg 119.

↑ *Back to this question in Part A*

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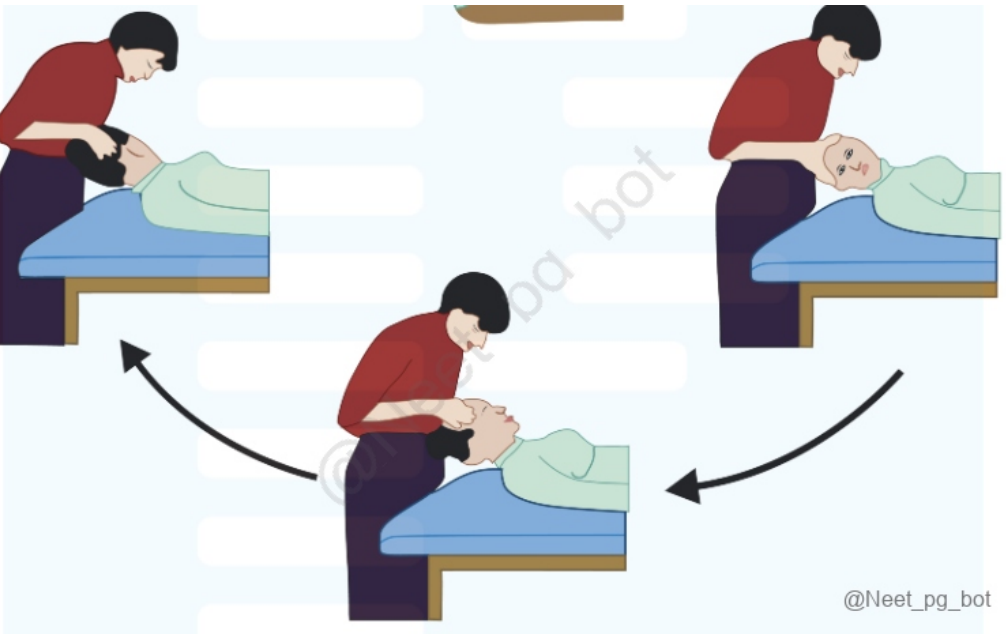
Q12: A 55-year-old woman experiences brief vertigo when turning in bed. A test is performed as shown below, and horizontal nystagmus is observed. Which of the following tests was performed? (Q847749)

A. Head impulse test

B. Dix-Hallpike maneuver

C. Supine roll test

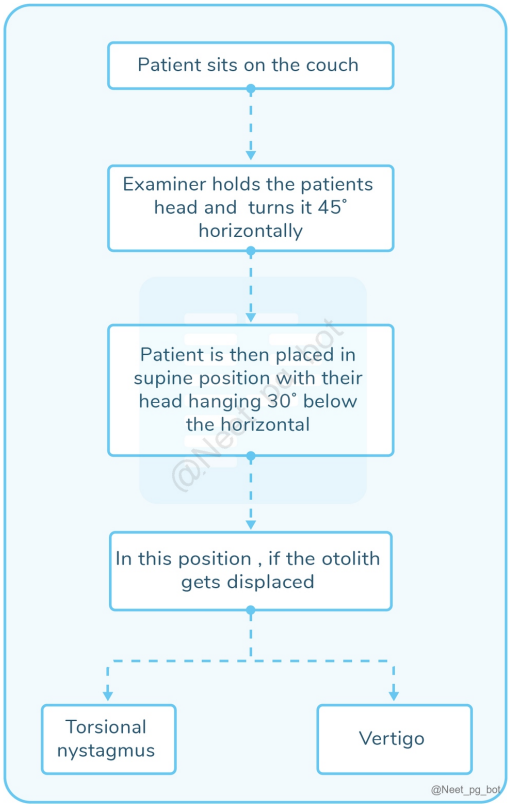
D. Epley maneuver

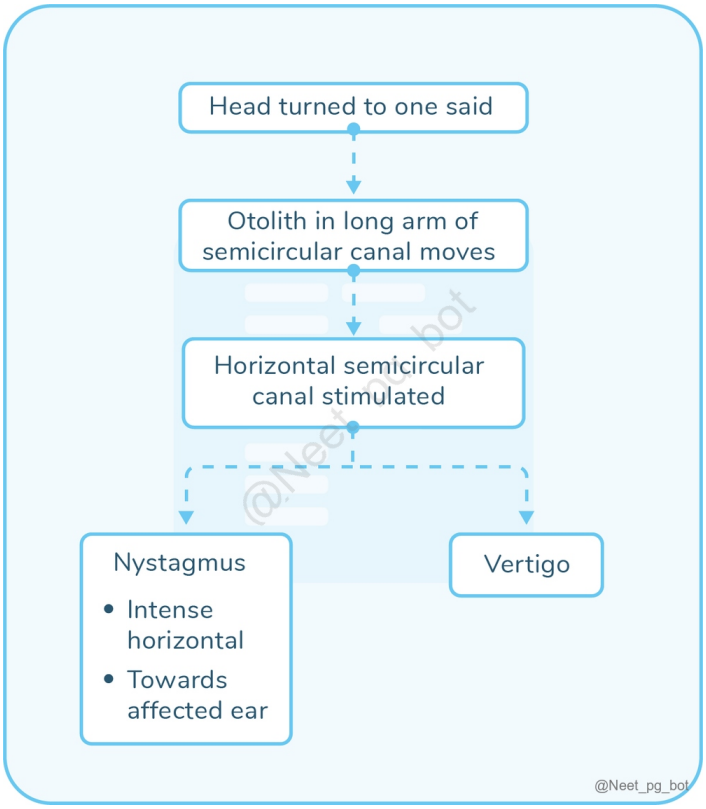


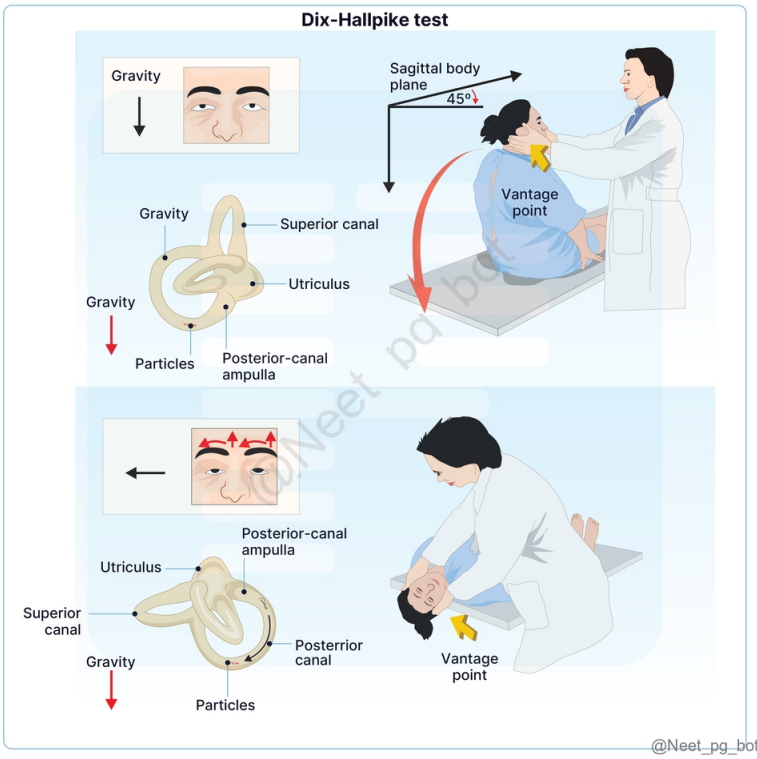
Correct Answer: C. Supine roll test

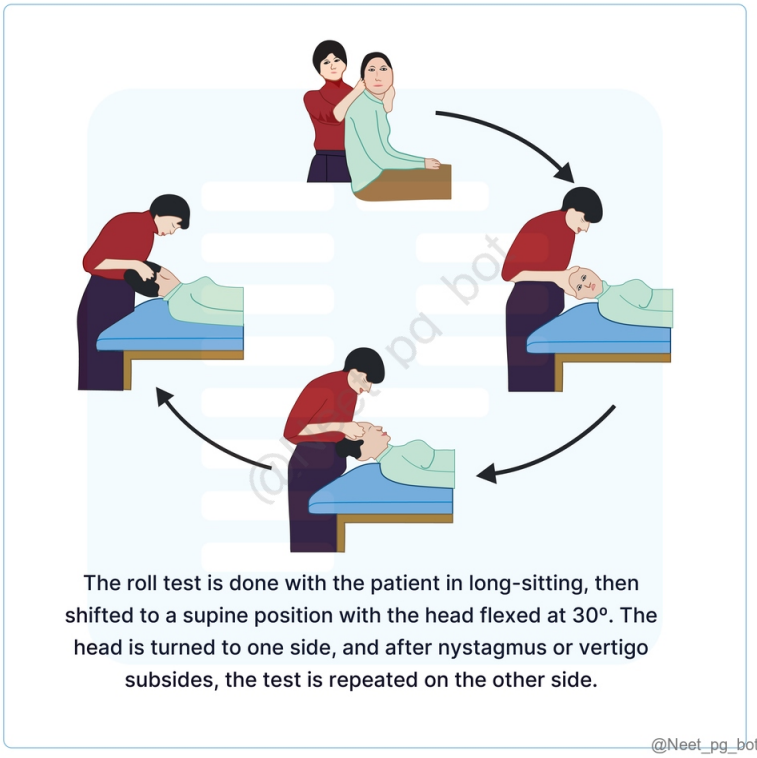
- *Listen (English)*
- *Listen (Hindi)*

Explanation: The supine roll test is used to diagnose horizontal semicircular canal BPPV . In this test, the patient lies supine, and the head is turned to each side. The presence of horizontal nystagmus , which is observed in this position, confirms the diagnosis of horizontal canal BPPV. Diagnostic Test Dix-Hallpike Maneuver (Option B) Supine Roll Test (Option C) Procedure Image Canal tested Posterior semicircular canal (P-SCC) > Anterior semicircular canal (A-SCC) Horizontal semicircular canal Nystagmus Towards affected side Upbeating torsional geotropic nystagmus: P-SCC affected Downbeating geotropic torsional nystagmus: A-SCC affected Horizontal geotropic nystagmus towards the affected side Head impulse test (Option A) evaluates the vestibulo-ocular reflex by having the patient focus on a fixed point while the examiner rapidly turns the head. It does not specifically diagnose horizontal semicircular canal BPPV, which requires the supine roll test to identify horizontal nystagmus. Epley maneuver (Option D) is a treatment maneuver for posterior canal BPPV , not a diagnostic test. It is performed to reposition otoliths within the semicircular canals and relieve symptoms rather than to identify the presence of nystagmus or diagnose BPPV.


Patient sits on the couch
Examiner holds the patients head and turns it 45° horizontally
Patient is then placed in supine position with their head hanging 30° below the horizontal
In this position , if the otolith gets displaced
Torsional nystagmus
Vertigo
@Neet_pg_bot


Head turned to one said
Otolith in long arm of semicircular canal moves
Horizontal semicircular canal stimulated
Nystagmus
Intense horizontal
Towards affected ear
Vertigo
@Neet_pg_bot





References:

PL Dhingra's Diseases of Ear, Nose & Throat and Head and Neck Surgery, 8th Edition, Pages 48,49,52

Logan Turner’s Diseases of the Nose, Throat and Ear,11th Edition, Page 388, 464

Current Diagnosis and Treatment-Otolaryngology Head and Neck Surgery, 2nd Edition, Page 714

Scott-Brown’s Otorhinolaryngology Head and Neck Surgery, 8th Edition, Page 831,832

https://www.ncbi.nlm.nih.gov/pmc/articles/PMC8141668/#

https://www.ncbi.nlm.nih.gov/pmc/articles/PMC9981954/

https://www.researchgate.net/figure/Supine-Roll-Test-A-pillow-of-about-4-inch-thickness-is-placed-at-the-head-end-of-the_fig2_350557338

↑ *Back to this question in Part A*

@Neet_pg_bot

Q13: A 55-year-old woman with vertigo triggered by head position changes is diagnosed with posterior semicircular canal (P-SCC) BPPV. Which of the following maneuvers is not used primarily for treating P-SCC BPPV? (Q847750)

A. Epley maneuver

B. Semont maneuver

C. Brandt-Daroff exercises

D. Gufoni maneuver

Correct Answer: D. Gufoni maneuver

■ *Listen (English)*

■ *Listen (Hindi)*

Explanation: The Gufoni maneuver is primarily used for horizontal semicircular canal BPPV , not posterior semicircular canal BPPV. Repositioning Maneuvers: Posterior Semicircular Canal BPPV Horizontal Semicircular Canal BPPV Epley’s maneuver (best) (Option A) Semont’s liberatory maneuver (Option B) Brandt-Daroff positional exercises (Option C) Forced prolonged position on the healthy side 270° Barbecue maneuver 360° Yaw rotation Liberatory maneuver Gufoni maneuver

References:

Diseases of Ear, Nose, Throat - PL Dhingra, 8th edition, page no: 52,53 Scott-Brown’s Otorhinolaryngology Head and Neck Surgery, 8th edition, page no: 834,836,838 https://www.ncbi.nlm.nih.gov/pmc/articles/PMC9226421/

↑ *Back to this question in Part A*

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Q14: A 45-year-old male presents with acute onset of severe vertigo, nausea, and vomiting that has been persistent for the last 24 hours. He has right horizontal nystagmus that worsens with head movement. His hearing is normal, and there are no signs of weakness or dysarthria. Which of the following is the most likely diagnosis? (Q847751)

A. Vestibular neuritis

B. Cerebellar stroke

C. Ménière's disease

D. Benign paroxysmal positional vertigo (BPPV)

Correct Answer: A. Vestibular neuritis

■ *Listen (English)*

■ *Listen (Hindi)*

Explanation: Vestibular neuritis is a peripheral vestibular disorder caused by inflammation of the vestibular nerve, often due to a viral infection. It presents with constant vertigo, nausea, vomiting, and unidirectional horizontal nystagmus that worsens with head movement. Importantly, hearing is typically unaffected , and no central neurological symptoms (e.g., weakness, dysarthria) are present. The symptoms generally peak within 24 to 48 hours and persist for several days . Vestibular Neuritis Feature Details Etiology Inflammation of the vestibular nerve, commonly due to viral infection (e.g., reactivation of HSV). Other causes include vascular and immunologic origins. Affected Structures Vestibular portion of the CN VIII, primarily affecting the superior portion of the vestibular labyrinth. Symptoms Vertigo Nausea/Vomiting Balance issues Management Antiemetics (promethazine, metoclopramide) Antihistamines (meclizine, diphenhydramine) Benzodiazepines (diazepam, lorazepam) Cerebellar stroke (Option B) is a central cause of vertigo. It can present with vertigo but is typically associated with additional neurological signs like dysarthria, incoordination, visual changes, or limb weakness. Additionally, nystagmus in cerebellar stroke can change direction, unlike the unidirectional nystagmus seen in peripheral causes like vestibular neuritis. Ménière's disease (Option C) is a peripheral vestibular disorder but is characterized by episodic vertigo, fluctuating sensorineural hearing loss, tinnitus, and a sense of aural fullness. Benign paroxysmal positional vertigo (BPPV) (Option D) is another peripheral cause of vertigo but is characterized by episodic vertigo triggered by specific head movements. It typically lasts for seconds to minutes rather than being constant, as in vestibular neuritis.

References:

Dhingra Diseases Of Ear, Nose And Throat & Head And Neck Surgery, Edition 8, Pg 52, 53.
https://www.ncbi.nlm.nih.gov/books/NBK549866/ https://www.ncbi.nlm.nih.gov/pmc/articles/PMC9511455/

↑ *Back to this question in Part A*

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Q15: A 12-year-old child with a history of temporal bone abnormalities presents with recurrent episodes of vertigo, fluctuating hearing loss, and tinnitus. Which of the following is the most likely diagnosis? (Q847752)

A. Meniere’s disease

B. Perilymph fistula

C. Vestibular neuritis

D. Labyrinthitis

Correct Answer: B. Perilymph fistula

■ *Listen (English)*

■ *Listen (Hindi)*

Explanation: Perilymph fistula is commonly associated with temporal bone anomalies, especially in children. It typically presents with fluctuating sensorineural hearing loss, vertigo, and tinnitus . In pediatric cases, congenital defects in the temporal bone can cause perilymph or cerebrospinal fluid (CSF) to leak into the middle ear due to the communication between the middle ear and inner ear , especially at the Oval window and round window , which may lead to recurrent meningitis or fluid accumulation behind the tympanic membrane. Surgical exploration is often required to confirm the diagnosis and seal the fistula. Features of Perilymph Fistula Feature Description Etiology Can occur after head trauma, barotrauma (e.g., diving), temporal bone anomalies, or ear surgery (e.g., stapedectomy). Symptoms Fluctuating sensorineural hearing loss, vertigo, tinnitus, and sometimes a sense of fullness in the ear. Complications Recurrent meningitis (especially in children with temporal bone defects), cerebrospinal fluid (CSF) leak. Diagnosis Often clinical, based on history and symptoms; confirmed through surgical exploration if suspected. Temporal bone CT: Shows pneumolabyrinth, accumulation of fluid in the middle ear, and/or ossicular chain disruption, but also can often be normal. Treatment Surgical closure of the fistula to prevent further complications, such as meningitis, and limited improvement in hearing. Prognosis Hearing improvement post-surgery is usually limited; however, vertigo symptoms often improve or resolve. Meniere’s disease (Option A) is characterized by episodic vertigo, fluctuating sensorineural hearing loss, tinnitus, and aural fullness, but it is more commonly seen in adults . The child’s temporal bone abnormality and associated symptoms make perilymph fistula a more likely diagnosis. Vestibular neuritis (Option C) presents with acute, severe vertigo but does not involve hearing loss or tinnitus . It is typically caused by viral inflammation of the vestibular nerve, and there is no connection to temporal bone anomalies, making it an unlikely diagnosis here. Labyrinthitis (Option D) is associated with severe vertigo and hearing loss, usually following viral or bacterial infections. However, it is not commonly related to temporal bone anomalies or fluctuating hearing loss, as seen in perilymph fistula.

References:

PL Dhingra's Diseases of Ear, Nose & Throat and Head and Neck Surgery, 8th Edition, Page 54

Scott-Brown’s Otorhinolaryngology Head and Neck Surgery, 8th Edition, Page 225

https://www.sciencedirect.com/topics/medicine-and-dentistry/perilymph-fistula#

↑ *Back to this question in Part A*

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Q16: A 45-year-old man presents with intermittent vertigo, hearing his footsteps loudly and a sensation of fullness in his ear. He experiences vertigo triggered by loud noises and changes in pressure, but there is no history of recent infection or trauma. An audiogram is done, and it suggests Mixed hearing loss. Which of the following is the most likely diagnosis? (Q847753)

A. Superior Semicircular Canal Dehiscence (SSCD)

B. Labyrinthitis

C. Ménière's Disease

D. Vestibular Neuronitis

Correct Answer: A. Superior Semicircular Canal Dehiscence (SSCD)

■ *Listen (English)*

■ *Listen (Hindi)*

Explanation: Superior Semicircular Canal Dehiscence (SSCD) is characterised by Mixed hearing loss (CHL) due to dehiscence (thinning or absence of bone) over the superior semicircular canal , creating a " third window " in the inner ear. Patients often report symptoms like autophony (hearing their own body sounds more loudly), pulsatile tinnitus , and vertigo triggered by loud noises (Tullio phenomenon) or changes in pressure (Valsalva maneuver). The air-bone gap in SSCD is due to a third window phenomenon caused by the dehiscence, which shunts acoustic energy away from the cochlea and enhances bone conduction, not due to pathology in the ossicles or tympanic membrane. Labyrinthitis (Option B) causes sensorineural hearing loss (SNHL) . It often occurs after viral or bacterial infections of the middle ear and presents with severe vertigo, hearing loss, and sometimes tinnitus. There is no association with autophony or vertigo triggered by loud sounds or pressure changes. Ménière's disease (Option C) presents with episodic vertigo, sensorineural hearing loss (SNHL) , tinnitus, and aural fullness. However, it does not cause the "third window" symptoms like those seen in SSCD. The episodes of vertigo are longer and occur in attacks, often lasting minutes to hours , whereas SSCD is more positional and triggered by sound or pressure. Vestibular neuronitis (Option D) is a purely vestibular condition , causing sudden onset vertigo without any associated hearing loss or tinnitus . It is believed to be due to a viral inflammation of the vestibular nerve, and symptoms typically resolve within days to weeks without lasting auditory symptoms.

References:

Dhingra Diseases Of Ear, Nose And Throat & Head And Neck Surgery, Edition 8, Pg 52, 53, 54. Scott-Brown’s Otorhinolaryngology Head and Neck Surgery 8th Edition, Chapter 65:Superior Semicircular Canal Dehiscence (SSCD), Pg 843

↑ *Back to this question in Part A*

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• [01_Ear] 004 Middle Ear Diseases Asom Som

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[01_Ear] 004 Middle Ear Diseases Asom Som — Quick Jump

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Q7 (p. 568)	*Q8 (p. 569)*	*Q9 (p. 570)*	*Q10 (p. 571)*	*Q11 (p. 573)*	*Q12 (p. 573)*
Q13 (p. 574)	*Q14 (p. 575)*	*Q15 (p. 576)*	*Q16 (p. 577)*		

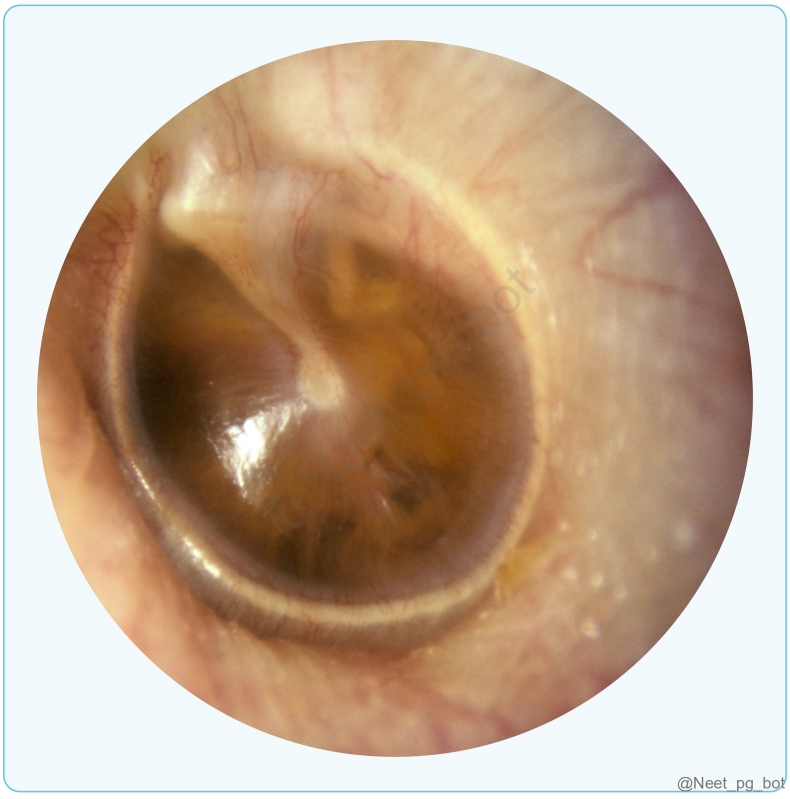
Q1: A 6 year old boy presents with ear pain, and hearing loss for the past 2 days. He also has a recent history of the common cold. Otoscopy shows a retracted tympanic membrane with fluid. What is the most likely cause of his condition? (Q847820)

A. Barotrauma from rapid pressure changes

B. Increased secretory activity of the middle ear mucosa

C. Biofilm formation in the middle ear

D. Eustachian tube dysfunction



Correct Answer: D. Eustachian tube dysfunction

■ *Listen (English)*

■ *Listen (Hindi)*

Explanation: The Eustachian tube regulates air pressure in the middle ear by allowing air exchange between the ear and the nasopharynx. When the tube is blocked, often due to inflammation from a respiratory infection, oxygen and the other gases in the middle ear are absorbed, creating negative pressure. This leads to the retraction of the tympanic membrane and fluid buildup behind it, which explains the patient's symptoms. Barotrauma from rapid pressure changes (Option A): Barotrauma occurs when there is a sudden change in air pressure, such as during aeroplane takeoff or diving. The rapid pressure shift can cause ear pain and tympanic membrane damage. In this case, however, there is no history of exposure to such conditions. Increased secretory activity of the middle ear mucosa (Option B): Allergic reactions can lead to hyperactivity of the mucosa lining the middle ear, resulting in fluid accumulation. However, this typically presents with other signs of allergic response, such as itching or sneezing, and is not as strongly associated with a recent cold as Eustachian tube dysfunction. Biofilm formation in the middle ear (Option C): Biofilm formation is associated with chronic conditions and resistance to treatment, but this patient's symptoms are more acute.

References:

Dhingra Diseases of Ear, Nose and Throat and Head and Neck Surgery, 8th Edition, Page 70, 76, 77, 78

Logan Turner's Diseases of the Nose, Throat and Ear: Head and Neck Surgery, 11th Edition, Page406

↑ *Back to this question in Part A*

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Q2: A 4 year old girl presents with ear pain, fever, and a recent upper respiratory tract infection. On examination, her tympanic membrane is red and bulging. What is the most likely route of infection for her condition? (Q847821)

A. Through the eustachian tube

B. Through the external ear

C. Through the bloodstream

D. Direct spread from the sinuses

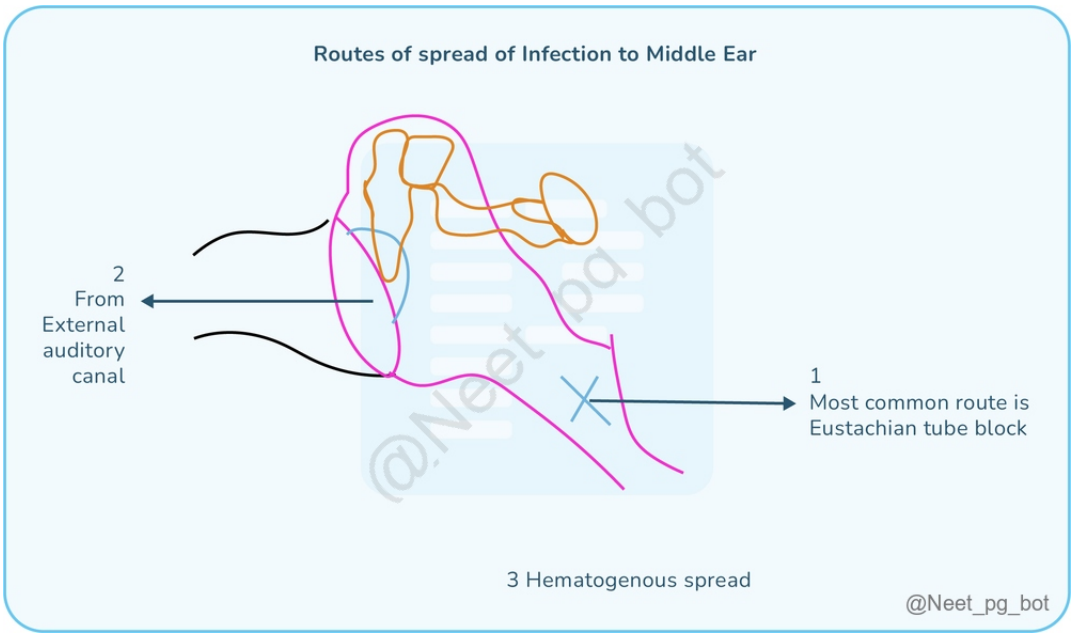
Correct Answer: A. Through the eustachian tube

■ *Listen (English)*

■ *Listen (Hindi)*

Explanation: The given condition describes Acute Suppurative Otitis Media (ASOM) , an acute infection of the middle ear space, characterised by inflammation caused by pus-forming organisms. Eustachian tube is the most

common pathway for infection , especially in children. Their Eustachian tubes are shorter and horizontal, making it easier for organisms from the nasopharynx to travel into the middle ear. Upper respiratory infections can lead to inflammation and blockage of the Eustachian tube, creating an environment for bacteria to migrate and infect the middle ear. Through the external ear (Option B): Infection can enter through the external ear if the tympanic membrane is perforated, usually following trauma or injury. However, this route is far less common in children without a history of ear trauma. Through the bloodstream (Option C): While bacteria can sometimes spread to the middle ear through the blood, this is a rare route of infection. It generally occurs in systemic infections. Direct spread from the sinuses (Option D): Although infections can spread from nearby structures such as the sinuses, direct extension to the middle ear is uncommon. ASOM Etiology Common Predisposing Factors Bacterial Causes Frequent colds and upper respiratory tract infections. Tonsil and adenoid infections. Chronic nasal conditions like rhinitis and sinusitis. Allergies involving the nasal passages. Nasopharyngeal tumours or nasal packing for epistaxis (nosebleeds). Cleft palate Streptococcus pneumoniae (30% of cases) Haemophilus influenza (20%) Moraxella catarrhalis (12%) Occasionally, Streptococcus pyogenes, Staphylococcus aureus, and Pseudomonas aeruginosa also contribute.



References:

Diseases of Ear, Nose and Throat and Head and Neck Surgery, PL Dhingra, 8th Edition, Page 73, 75

Logan Turner's Diseases of the Nose, Throat and Ear: Head and Neck Surgery, 11th Edition, Page 406

↑ *Back to this question in Part A*

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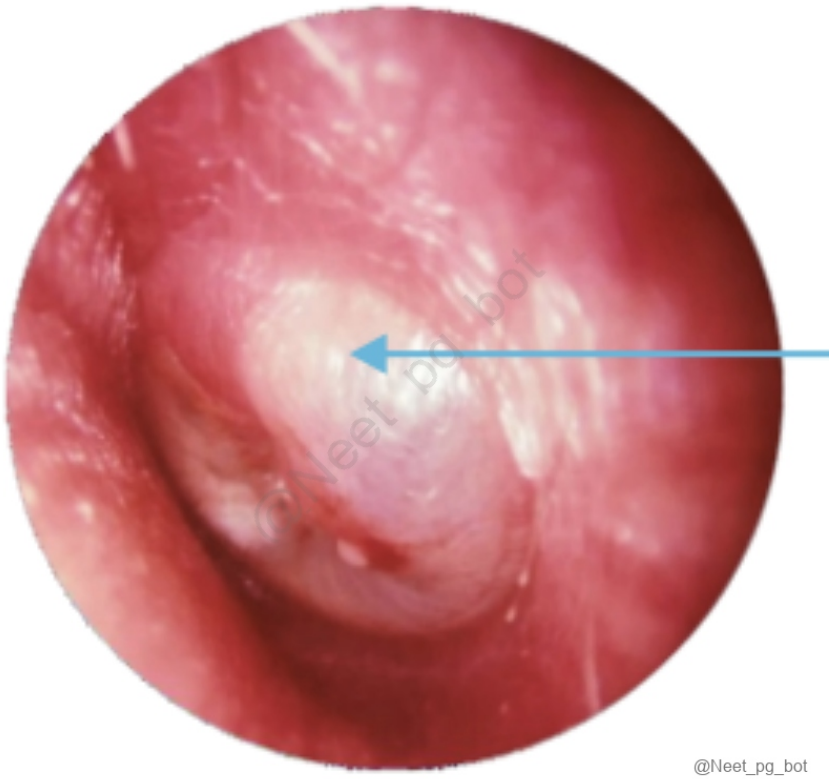
Q3: A 6 year old with severe earache and fever following an upper respiratory infection presents with a bulging, red tympanic membrane and a yellowish spot. What stage of ASOM is this? (Q847822)

A. Stage of Tubal Occlusion

B. Stage of Exudation

C. Stage of Suppuration

D. Stage of Resolution



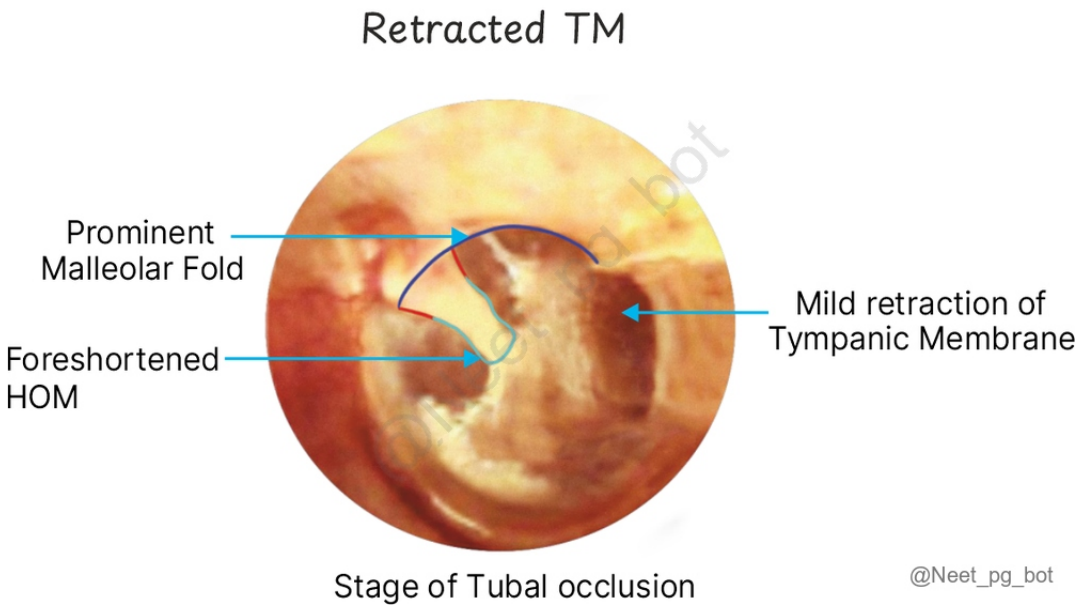
Correct Answer: C. Stage of Suppuration

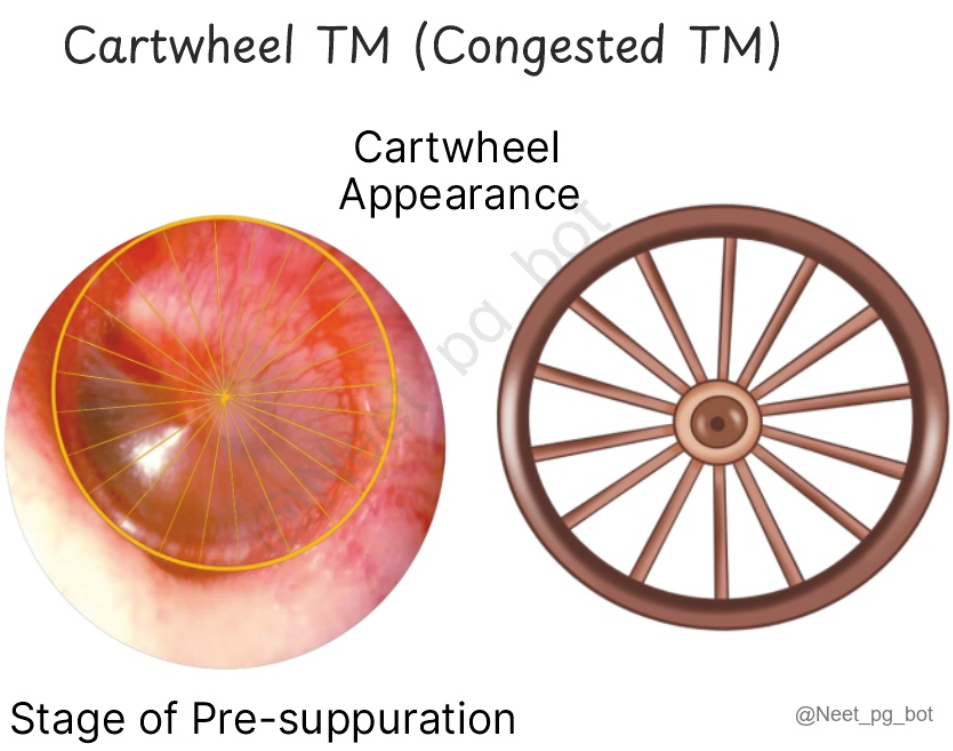
■ *Listen (English)*

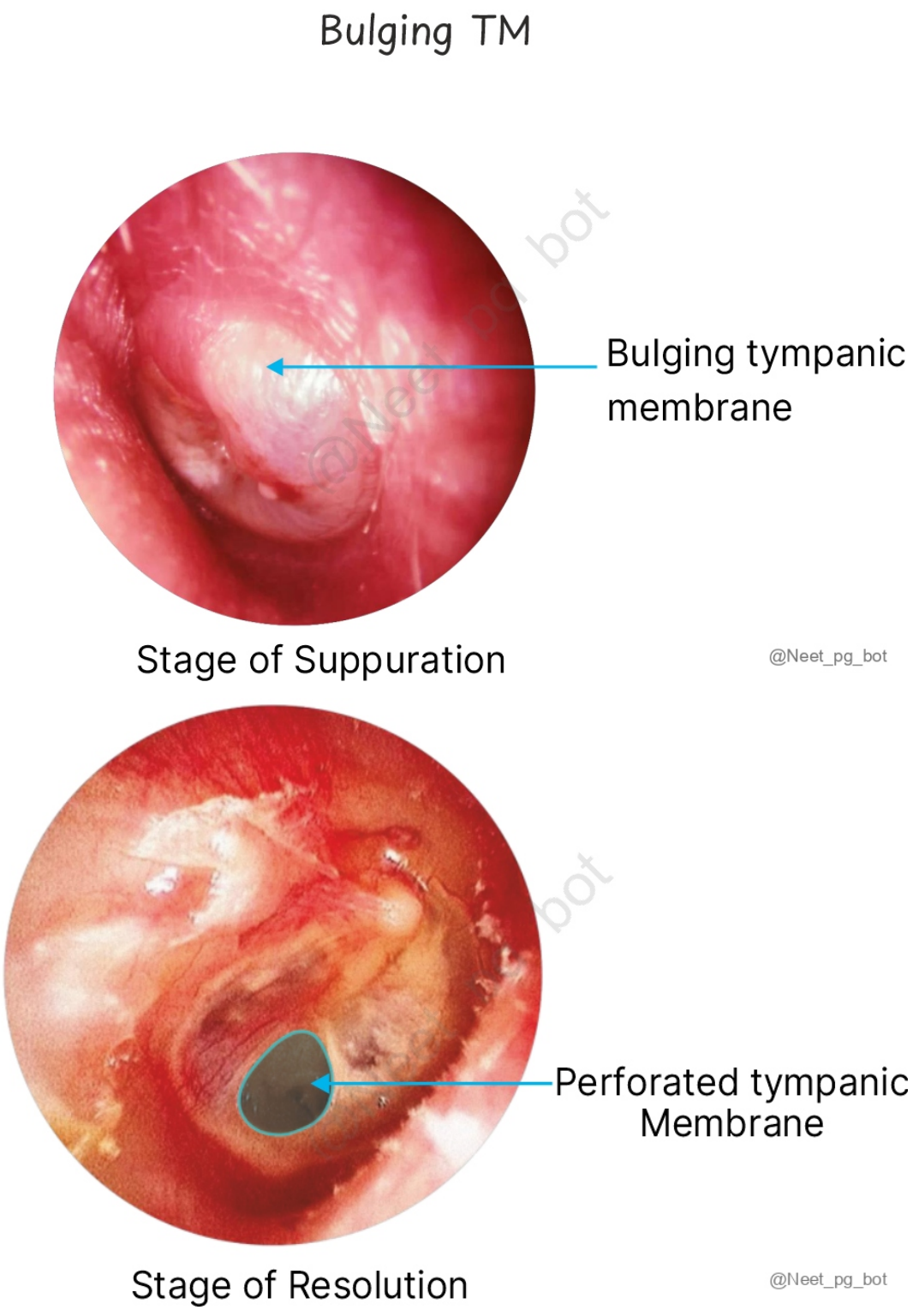
■ *Listen (Hindi)*

Explanation: Stages of Acute Suppurative Otitis Media (ASOM) Stages Feature & Symptoms Signs Stage of Tubal Occlusion (Option A ruled out) The Eustachian tube becomes blocked due to inflammation and increased blood flow, particularly at the nasopharyngeal end. Mild hearing loss and earache. Usually, no fever is present. Eardrum retraction, the handle of the malleus becomes horizontal, prominent lateral process of the malleus, and reduced light reflex. Stage of Exudation (Presuppuration) (Option B ruled out) If the Eustachian tube blockage continues, pyogenic bacteria invade the middle ear, leading to inflammation and fluid accumulation. Symptoms worsen, with significant earache that may disrupt sleep. Hearing loss and tinnitus may occur. Redness initially on the pars tensa, followed by visible blood vessels along the malleus handle and the eardrum's periphery creating a "cartwheel" appearance. Stage of Suppuration (Option C) Pus forms in the middle ear causing the eardrum to bulge outward due to the pressure. Excruciating earache, increased hearing loss, high fever (up to 102°F-103°F), vomiting, and possible convulsions. A red, bulging eardrum with obscured landmarks, a hidden malleus handle, and a yellow spot indicating potential eardrum rupture. Stage of Resolution (Option D ruled out) The eardrum ruptures spontaneously, releasing pus and alleviating pressure. Relief from earache and fever as the inflammatory

process subsides. Symptoms improve with pus drainage. Blood-tinged discharge initially, becoming mucopurulent. A small perforation in the anteroinferior quadrant of the pars tensa is usually visible. The eardrum's redness decreases and its landmarks become visible. Stage of Complications In severe cases, the infection may spread beyond the middle ear, leading to serious complications. Potential complications include acute mastoiditis, subperiosteal abscess, facial paralysis, labyrinthitis, petrositis, extradural abscess, meningitis, brain abscess, and lateral sinus thrombophlebitis.







References:

Diseases of Ear, Nose and Throat and Head and Neck Surgery, PL Dhingra, 8th Edition, Page 73, 74

Logan Turner's Diseases of the Nose, Throat and Ear: Head and Neck Surgery, 11th Edition, Page 407

↑ *Back to this question in Part A*

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Q4: A 5-year-old girl presents with severe earache, fever, and discharge from her right ear for 3 days. On examination, her tympanic membrane appears bulging and red. What is the most appropriate initial management for this child? (Q847823)

A. Myringotomy

B. Amoxicillin for 5 days

C. Ephedrine nasal drops

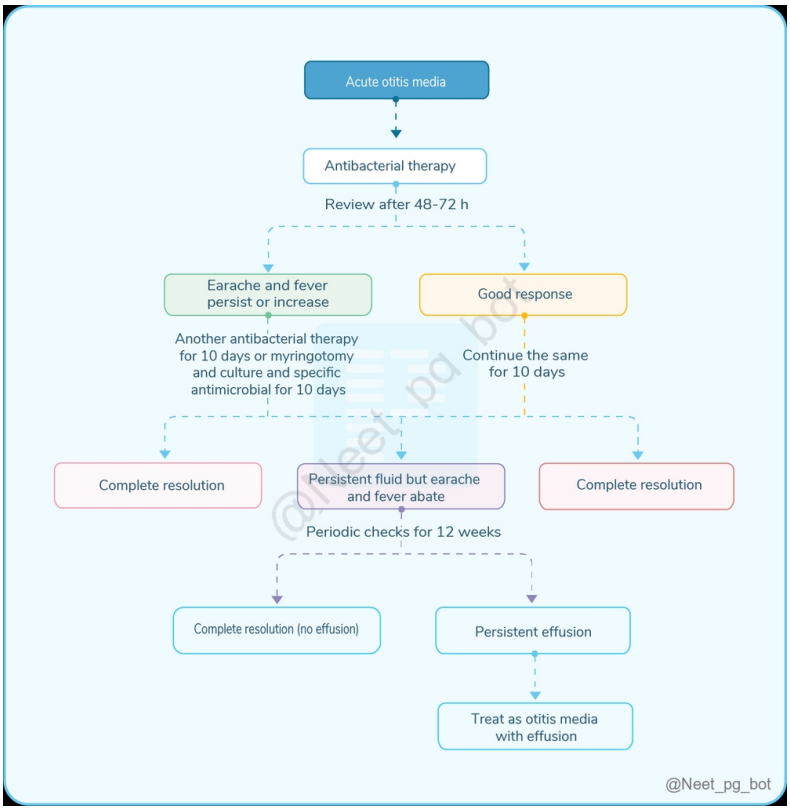
D. Amoxicillin for 10 days

Correct Answer: D. Amoxicillin for 10 days

■ *Listen (English)*

■ *Listen (Hindi)*

Explanation: Amoxicillin for 10 days is the first-line treatment for ASOM caused by organisms like S. pneumoniae and H. influenzae . Management of Acute Suppurative Otitis Media (ASOM) Antibiotics Supportive Management Myringotomy Indications : All cases with fever and severe earache. First-line : Ampicillin: 50 mg/kg/day in four divided doses. Amoxicillin: 40 mg/kg/day in three divided doses. Penicillin-allergic alternatives : Cefaclor, Co-trimoxazole, or Erythromycin. For β-lactamase-producing H. influenzae or M. catarrhalis : Amoxicillin-clavulanate, Cefuroxime axetil, or Cefixime. Duration : Minimum of 10 days until tympanic membrane and hearing normalize. Decongestant Nasal Drops Oral Nasal Decongestants Analgesics and Antipyretics Ear Toilet: Dry Local Heat: Indications : Bulging drum with acute pain. Incomplete resolution despite antibiotics (persistent conductive hearing loss). Persistent effusion beyond 12 weeks (chronic otitis media). Follow-up: Monitor until the tympanic membrane normalizes and conductive hearing loss resolves. Myringotomy (Option A): It is reserved for cases where there is persistent effusion or incomplete resolution after antibiotics. Amoxicillin for 5 days (Option B): A 5-day course of antibiotics is insufficient for ASOM, which requires a minimum of 10 days of therapy. Ephedrine nasal drops (Option C): Can help with Eustachian tube oedema but are not the primary treatment.



References:

Diseases of Ear, Nose and Throat and Head and Neck Surgery, PL Dhingra, 8th Edition, Page 74,75

Logan Turner's Diseases of the Nose, Throat, and Ear, 11th Edition, Page 408

↑ *Back to this question in Part A*

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Q5: A 7-year-old boy presents with a history of persistent hearing loss over the past 6 months. His parents report that he seems to be asking for the TV to be louder and often complains of a feeling of fullness in his ears. An otoscopic examination reveals a dull, opaque tympanic membrane with decreased mobility in both ears. What is the most likely underlying cause of this child's symptoms? (Q847824)

A. Cleft palate

B. Nasopharyngeal carcinoma

C. Adenoid hyperplasia

D. Viral infection

Correct Answer: C. Adenoid hyperplasia

■ *Listen (English)*

■ *Listen (Hindi)*

Explanation: The child’s symptoms—persistent hearing loss, a feeling of fullness in the ears, and a dull, opaque tympanic membrane with decreased mobility — suggest a condition known as secretory otitis media (otitis media with effusion). This condition is often associated with eustachian tube dysfunction, which can result from various underlying issues. The most common cause of eustachian tube dysfunction in children is adenoid hyperplasia . Enlarged adenoids can obstruct the eustachian tubes, impairing the drainage of fluid from the middle ear and leading to fluid accumulation behind the tympanic membrane. Cleft palate (Option A) can cause Eustachian tube dysfunction However, cleft palate is typically diagnosed early in infancy or childhood and would likely have been identified before age 7. The symptoms in this case are more characteristic of adenoid hyperplasia as a chronic cause. Nasopharyngeal carcinoma (Option B) is typically seen in adults and causes unilateral serous otitis media. Viral infections (Option D) : While a viral infection can initially lead to eustachian tube dysfunction and result in fluid accumulation in the middle ear, the persistent nature of the child's symptoms over the past 6 months points more toward a chronic underlying issue rather than an acute viral infection.

References:

Diseases of Ear, Nose and Throat and Head and Neck Surgery, PL Dhingra, 8th Edition, Pages 75, 76

Logan Turner's Diseases of the Nose, Throat and Ear: Head and Neck Surgery, 11th Edition, Pages 411, 412

↑ *Back to this question in Part A*

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Q6: A 15-year-old boy presents with a 2-month history of recurrent nasal obstruction and unilateral ear fullness. On examination, there is serous otitis media in the right ear. What is the most likely cause of this child's condition? (Q847825)

A. Adenoid hypertrophy

B. Nasopharyngeal carcinoma

C. Juvenile Nasopharyngeal Angiofibroma

D. Chronic sinusitis

Correct Answer: C. Juvenile Nasopharyngeal Angiofibroma

■ *Listen (English)*

■ *Listen (Hindi)*

Explanation: Juvenile Nasopharyngeal Angiofibroma (JNA) is the most common cause of unilateral serous otitis media in juvenile males and often presents with nasal obstruction and ear symptoms. The most common cause of

unilateral serous otitis media and unilateral epistaxis in children and teenagers is Juvenile Nasopharyngeal Angiofibroma (JNA) . The most common cause of unilateral serous otitis media in adults is nasopharyngeal Carcinoma (NPC) . The most common cause of bilateral serous otitis media in children is adenoid hypertrophy . Adenoid hypertrophy (Option A) typically causes bilateral otitis media in children, not unilateral. Nasopharyngeal carcinoma (Option B) is rare in children and more common in adults. Chronic sinusitis (Option D) may cause nasal obstruction but is not the most common cause of unilateral serous otitis media in this age group

References:

Logan Turner's Diseases of the Nose, Throat and Ear: Head and Neck Surgery, 11th Edition, Page 124,587

↑ *Back to this question in Part A*

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Q7: A 6 year old child presents with a history of mild hearing loss, difficulty following conversations, and a sensation of fullness in the ear. On examination, the tympanic membrane appears dull and retracted, with visible fluid levels behind it. Which of the following tuning fork test results is most likely to be observed in this patient? (Q847826)

A. Positive Rinne test and Weber test lateralized to the unaffected ear

B. Negative Rinne test, Weber test lateralized to the affected ear

C. Positive Rinne test and Weber test lateralized to the affected ear

D. Negative Rinne test, Weber test lateralized to the unaffected ear

Correct Answer: B. Negative Rinne test, Weber test lateralized to the affected ear

■ *Listen (English)*

■ *Listen (Hindi)*

Explanation: The findings in the above clinical scenario are indicative of Serous Otitis Media (SOM) . Patients with SOM typically present with conductive hearing loss (CHL). In CHL, Rinne’s test is negative and Weber’s test is lateralized to the affected ear. Diagnostic Tests for SOM: Test Description Rinne Test In conductive hearing loss (SOM), bone conduction is better than air conduction (negative Rinne test). Weber Test In conductive hearing loss (SOM), the sound is louder in the affected ear when the tuning fork is placed on the forehead. Absolute Bone Conduction (ABC) Test Both patient and examiner hear the tuning fork for a similar duration when placed on the mastoid bone (ear canals plugged) in conductive hearing loss (SOM). (Bone conduction not impaired) Schwabach's Test In conductive hearing loss (SOM), the patient hears the tuning fork for a longer duration than the examiner when placed on the mastoid bone (ear canals not plugged). Pneumatic Otoscopy Visualizes eardrum movement with air pressure changes; reduced/absent movement indicates fluid presence. Impedance audiometry Measures eardrum movement; typically shows a flat/dome-shaped curve with negative pressure, indicating reduced compliance. Audiometry Conductive hearing loss (20-40 dB). Sometimes, associated sensorineural

hearing loss (d/t fluid on the round window membrane. X-ray/CT Scan of Temporal Bone May show mastoid air cell clouding due to fluid

References:

Diseases of Ear, Nose and Throat and Head and Neck Surgery, PL Dhingra, 8th Edition, Page 75, 76

Logan Turner's Diseases of the Nose, Throat and Ear: Head and Neck Surgery, 11th Edition, Page 609

↑ *Back to this question in Part A*

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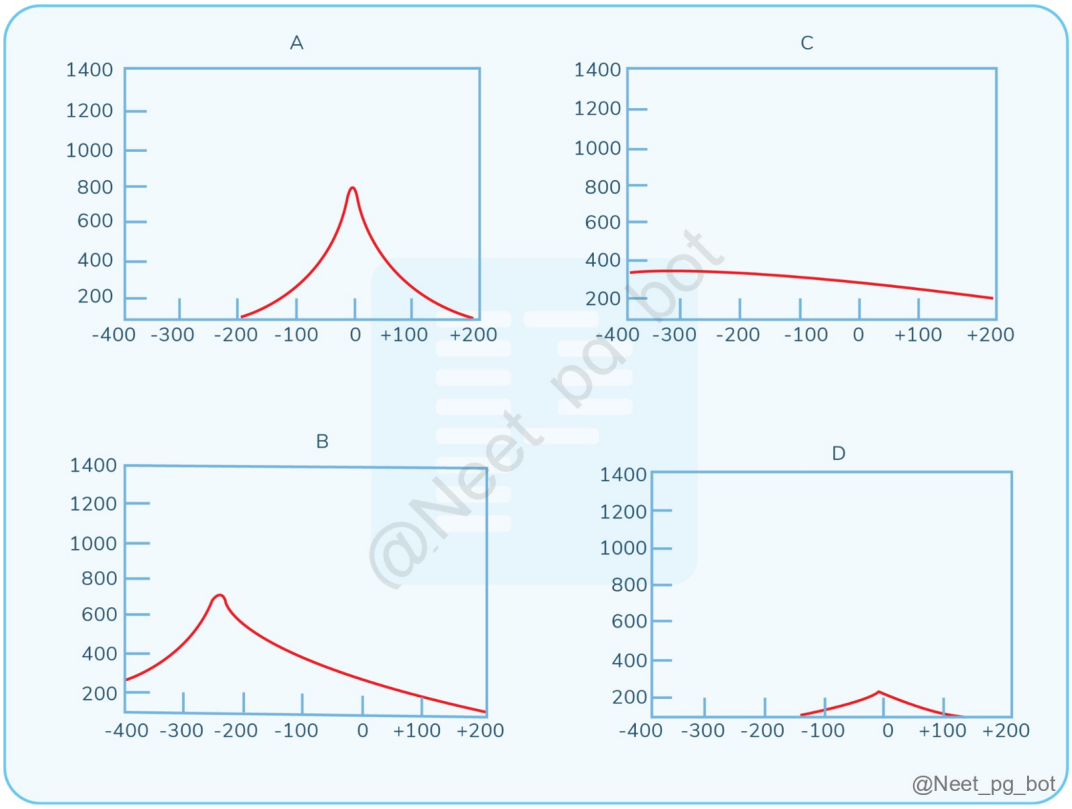
Q8: Which of the following tympanometry curves corresponds to Serous Otitis Media? (Q847827)

A. Curve A

B. Curve B

C. Curve C

D. Curve D

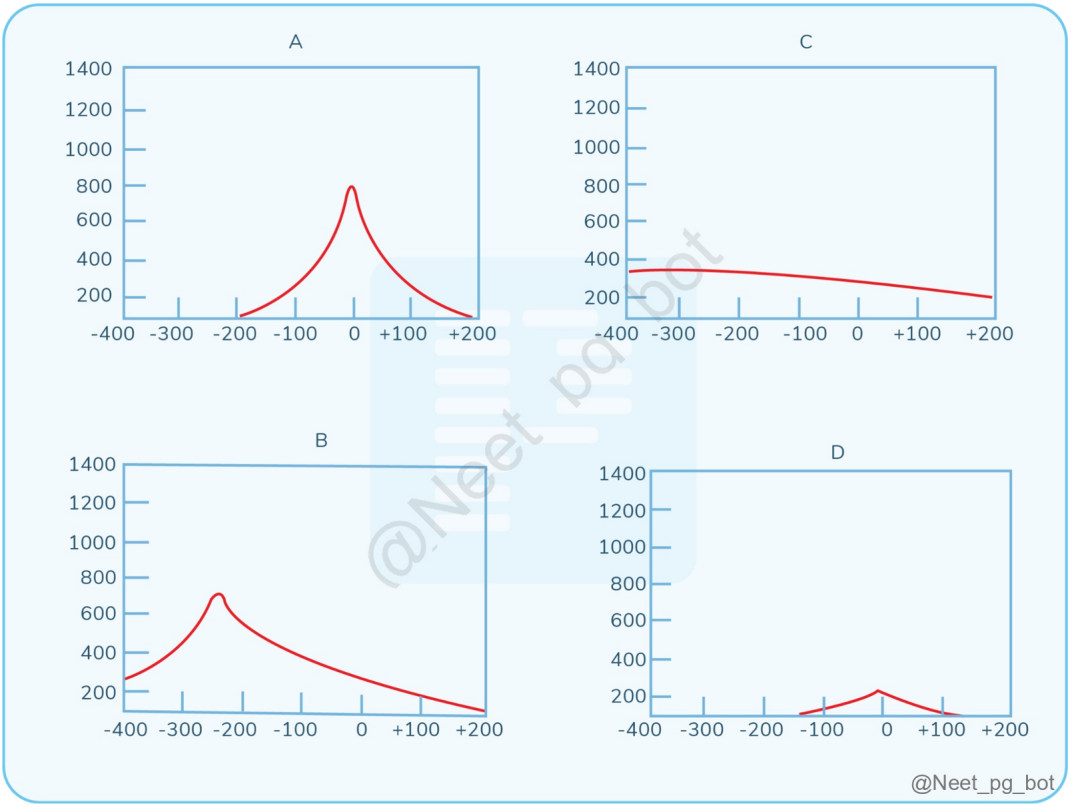


Correct Answer: C. Curve C

■ *Listen (English)*

■ *Listen (Hindi)*

Explanation: The type C curve, which appears flat or dome-shaped, shows no/very little variation in compliance with changes in pressure. There is reduced compliance in serous otitis media. It is observed in cases of middle ear fluid like in Serous otitis media or a thickened tympanic membrane. Curve A (Option A): This is a Type A tympanometry curve. This is a normal tympanogram. Curve B (Option B): It is a Type C tympanometry curve. It is seen in intact tympanic membrane with retraction. Usually seen in Eustachian Tube dysfunction. Curve D (Option D): It is a type Of tympanometric curve. Seen in fixation of ossicles, Otosclerosis.



References:

Diseases of Ear, Nose and Throat and Head and Neck Surgery, PL Dhingra, 8th Edition, Page 29, 76

Logan Turner's Diseases of the Nose, Throat and Ear: Head and Neck Surgery, 11th Edition, Page 380

↑ *Back to this question in Part A*

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Q9: A 5 year old child diagnosed with serous otitis media has persistent middle ear fluid despite medical treatment and even myringotomy and fluid aspiration. Which of

the following is the next appropriate step in management? (Q847828)

A. Continued use of systemic decongestants

B. Grommet insertion

C. Oral antibiotics for 2 weeks

D. Tympanotomy with mastoidectomy

Correct Answer: B. Grommet insertion

■ *Listen (English)*

■ *Listen (Hindi)*

Explanation: Serous otitis media (SOM) involves fluid accumulation in the middle ear without signs of acute infection. It often results from eustachian tube dysfunction. If it persists despite medical treatment, myringotomy and fluid aspiration, then, the next step is usually to consider Grommet insertion to maintain aeration to the middle ear.. Serous Otitis Media (SOM) Treatment: Medical Treatment: Treatment Details Decongestants Topical or systemic decongestants relieve eustachian tube oedema. Antiallergic Measures Use of antihistamines or steroids; allergen avoidance or desensitisation if possible. Antibiotics Useful for treating upper respiratory tract infections or unresolved acute suppurative otitis media. (Option C ruled out) Middle Ear Aeration Techniques include the Valsalva manoeuvre, politzerization, eustachian tube catheterization, insufflation, and chewing gum to open the tube. Surgical Treatment: Procedure Details Myringotomy and Aspiration of Fluid An incision in the tympanic membrane to aspirate fluid; thick mucus may require saline or mucolytic agents like chymotrypsin solution. Grommet Insertion If fluid recurs after myringotomy and aspiration, a grommet is inserted for continued middle ear aeration; remains in place for weeks or months. Tympanotomy or Cortical Mastoidectomy Required for removing loculated thick fluid or other pathologies like cholesterol granuloma. Surgical Treatment of Causative Factor Procedures like adenoidectomy, tonsillectomy, and/or maxillary antra washout may be needed, typically performed during myringotomy. Continued use of systemic decongestants (Option A) may help in the early stages by reducing eustachian tube oedema, but they are not sufficient when fluid persists despite initial medical treatment. Tympanotomy with mastoidectomy (Option D) is generally reserved for cases with complicated pathologies, such as loculated thick fluid or cholesterol granuloma, and not as the next step after the failure of medical therapy alone.

References:

Diseases of Ear, Nose and Throat and Head and Neck Surgery, PL Dhingra, 8th Edition, Page 76, 77

Complications of Myringotomy

Logan Turner's Diseases of the Nose, Throat and Ear: Head and Neck Surgery, 11th Edition, Page 613

↑ *Back to this question in Part A*

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Q10: A 4 year old child presents with a history of ear discomfort and hearing loss. On examination, the tympanic membrane is dull and retracted, with visible air-fluid levels behind it. The child has no fever or systemic symptoms. What is the most likely diagnosis? (Q847829)

A. Acute Suppurative Otitis Media

B. Serous Otitis Media

C. Otitis Externa

D. Chronic Suppurative Otitis Media

Correct Answer: B. Serous Otitis Media

■ *Listen (English)*

■ *Listen (Hindi)*

Explanation: Serous Otitis Media (SOM) also known as otitis media with effusion, is characterized by the presence of fluid in the middle ear without acute infection. The tympanic membrane in SOM is often dull and retracted, and air-fluid levels can be visible behind the membrane. There are usually no systemic symptoms such as fever, which fits the child's presentation. Comparison of ASOM and SOM: Aspect Acute Suppurative Otitis Media (ASOM) Serous Otitis Media (SOM) Definition Acute inflammation of the middle ear. Accumulation of non-purulent fluid in the middle ear; also called Otitis Media with Effusion (OME). Cause Mainly bacterial (e.g., Streptococcus pneumoniae, Haemophilus influenzae, Moraxella catarrhalis). Eustachian tube dysfunction due to respiratory infections, allergies, or enlarged adenoids; also can be due to unresolved AOM or viral infections. Symptoms Rapid onset of pain, red/bulging tympanic membrane, fever, systemic symptoms. (Option A) Often subtle: hearing loss (conductive), mild earaches, feeling of fullness, delayed speech. Discharge Purulent (contains pus). Non-purulent fluid. Key Distinctions Presence of Pus: ASOM has purulent discharge. Presence of Fluid: SOM has non-purulent fluid. Symptom Severity: ASOM has severe, rapid-onset symptoms. Symptom Severity: SOM has more subtle, gradual symptoms. Treatment Requires antibiotics for bacterial infection. May involve decongestants, antihistamines, and addressing underlying causes; antibiotics are not typically needed. Otitis Externa (Option C) affects the external ear canal and usually presents with pain, discharge, and tenderness when pulling the pinna. The tympanic membrane is not involved. Chronic Suppurative Otitis Media (CSOM) (Option D) is characterised by persistent ear discharge through a perforated tympanic membrane, usually without pain or systemic symptoms. The presence of a retracted, intact tympanic membrane with air-fluid levels is more indicative of SOM.

References:

Diseases of Ear, Nose and Throat and Head and Neck Surgery, PL Dhingra, 8th Edition, Page 73-76

Logan Turner's Diseases of the Nose, Throat and Ear: Head and Neck Surgery, 11th Edition, Page 595-598, 609-613

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@Neet_pg_bot

Q11: Which of the following conditions predispose to Eustachian tube obstruction? Choanal atresia Adenoid hypertrophy Allergic rhinitis Cleft palate (Q891938)

A. 2, 4

B. 1, 3, 4

C. 2, 3, 4

D. 1, 2, 3, 4

Correct Answer: C. 2, 3, 4

Explanation: Eustachian tube obstruction can be mechanical, functional, or both. Mechanical obstruction: Intrinsic causes such as inflammation or allergy (Upper respiratory infection, Sinusitis, Nasal polyps). (Statement 3) Extrinsic causes such as a tumour in the nasopharynx or adenoids. (Statement 2) Functional obstruction is caused by the collapse of the tube due to increased cartilage compliance, which resists the opening of the tube, or failure of the active tubal-opening mechanism due to poor function of the tensor veli palatini (Cleft palate, Submucous cleft palate, and Down syndrome). (Statement 4) Chonal Atresia (Statement 1) does not predispose to eustachian tube obstruction.

References:

Scott Brown's Otorhinolaryngology, Head & Neck Surgery, 8th Edition, Page 973.

PLDhingra's Diseases of Ear, Nose and Throat and Head and Neck Surgery, 8th Edition, Page 70-71.

↑ *Back to this question in Part A*

@Neet_pg_bot

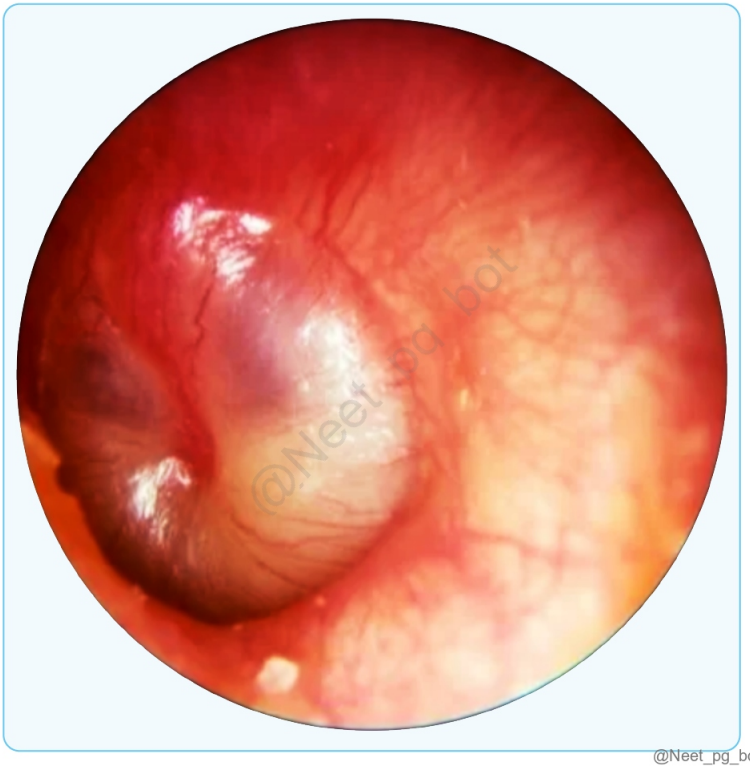
Q12: A 10-month-old infant presents with high-grade fever, incessant crying, and ear pulling. Below is the image of the otoscopic examination of the ear. Which of the following organisms is most likely responsible for this presentation? (Q891948)

A. Haemophilus influenzae

B. Streptococcus pneumoniae

C. Staphylococcus aureus

D. Pseudomonas aeruginosa



Correct Answer: B. Streptococcus pneumoniae

Explanation: The clinical scenario of fever and the image showing an erythematous, bulging tympanic membrane with effusion points to a diagnosis of acute suppurative otitis media. Organisms causing ASOM: Streptococcus pneumoniae (most common) (Option B) Haemophilus influenzae (Option A) Moraxella catarrhalis Adenovirus Staphylococcus aureus (Option C) is involved in otitis externa. Pseudomonas aeruginosa (Option D) is the most common cause of malignant otitis externa.

References:

Scott Brown's Otorhinolaryngology, Head & Neck Surgery, 8th Edition, Volume 2, Page 971-972.

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@Neet_pg_bot

Q13: In ASOM, which is the most common site of perforation of the tympanic membrane? (Q891954)

A. Anteroinferior part of the pars tensa

B. Superior half of the pars tensa

C. Posterosuperior part of the pars tensa

D. Inferior half of the pars tensa

Correct Answer: A. Anteroinferior part of the pars tensa

Explanation: Acute Suppurative Otitis Media (ASOM) is an acute inflammation of the middle ear. If left untreated or in severe cases, the pressure from the accumulated pus in the middle ear can lead to spontaneous perforation of the tympanic membrane. The anteroinferior part of the pars tensa is the most common and weakest site for such a perforation.

References:

PLDhingra's Diseases of Ear, Nose and Throat and Head and Neck Surgery, 8th Edition, Page 74.

https://www.ncbi.nlm.nih.gov/books/NBK557887/

↑ *Back to this question in Part A*

@Neet_pg_bot

Q14: In which quadrant is the incision made during myringotomy in a patient with otitis media with effusion? (Q891960)

A. Anteroinferior

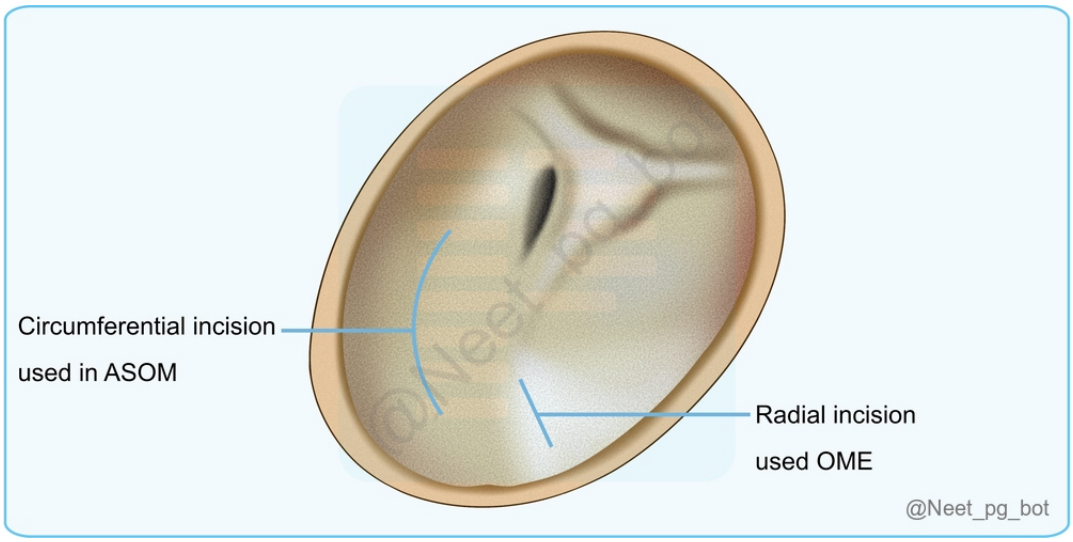
B. Posteroinferior

C. Anterosuperior

D. Posterosuperior

Correct Answer: B. Posteroinferior

Explanation: In acute suppurative otitis media, a circumferential incision is made in the posteroinferior quadrant of the tympanic membrane, midway between the handle of the malleus and tympanic annulus, avoiding injury to the incudostapedial joint. Anteroinferior (Option A): A small radial incision made in the anteroinferior quadrant is done in otitis media with effusion. Anterosuperior (Option C) is not preferred because of poor drainage due to gravity. Posterosuperior (Option D): incision is avoided due to increased risk of injury to the ossicles and the facial nerve.



References:

PLDhingra's Diseases of Ear, Nose and Throat and Head and Neck Surgery, 8th Edition, Page 471.

Scott Brown's Otorhinolaryngology, Head & Neck Surgery, 8th Edition, Volume 2, Page 126.

↑ *Back to this question in Part A*

@Neet_pg_bot

Q15: In which of the following conditions would you expect to observe the light-house effect? (Q891962)

A. Petrositis

B. Labyrinthitis

C. Acute suppurative otitis media

D. Acute mastoiditis

Correct Answer: D. Acute mastoiditis

Explanation: The light-house effect is seen in Acute mastoiditis, which is a complication of otitis media, characterized by mucopurulent or purulent discharge, often pulsatile, seen coming through a central perforation of the pars tensa. Petrositis (Option A) presents with Gradenigo's triad (VI nerve palsy, severe pain in the trigeminal nerve distribution, and middle ear infection). Labyrinthitis (Option B) presents with severe vertigo, nausea, vomiting, nystagmus, and permanent hearing loss. Acute suppurative otitis media (Option C) presents with a bulging, congested tympanic membrane with pus.

References:

PL Dhingra’s Diseases of Ear, Nose and Throat and Head and Neck Surgery, 8th Edition, Page 92

↑ *Back to this question in Part A*

@Neet_pg_bot

Q16: A 5-year-old child with measles presents with profuse otorrhea. Which of the following organisms is the most likely cause of his condition? (Q891963)

A. Streptococcus pneumoniae

B. ■-haemolytic streptococcus

C. Haemophilus influenzae

D. Moraxella catarrhalis

Correct Answer: B. ■-haemolytic streptococcus

Explanation: Acute necrotising otitis media is a variety of acute suppurative otitis media, often seen in children suffering from measles, scarlet fever, or influenza caused by ■ -haemolytic streptococcus . (Option B) There is rapid destruction of the whole of the tympanic membrane with its annulus, mucosa of promontory, ossicular chain, and even mastoid air cells, followed by fibrosis or ingrowth of squamous epithelium from the meatus (secondary acquired cholesteatoma). Managed by early institution of antibacterial therapy, continued for at least 7-10 days. Streptococcus pneumoniae, Haemophilus influenzae, and Moraxella catarrhalis are the most causative agents of Acute suppurative otitis media. (Options A, C, and D ruled out)

References:

PL Dhingra’s Diseases of Ear, Nose and Throat and Head and Neck Surgery, 8th Edition, Page 75.

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@Neet_pg_bot

• [01_Ear] 005 Cholesteatoma And Csom

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[01_Ear] 005 Cholesteatoma And Csom — Quick Jump

Q1 (p. 578)	*Q2 (p. 580)*	*Q3 (p. 580)*	*Q4 (p. 581)*	*Q5 (p. 583)*	*Q6 (p. 583)*
Q7 (p. 584)	*Q8 (p. 585)*	*Q9 (p. 586)*	*Q10 (p. 587)*	*Q11 (p. 588)*	*Q12 (p. 589)*
Q13 (p. 590)	*Q14 (p. 591)*	*Q15 (p. 593)*	*Q16 (p. 594)*	*Q17 (p. 594)*	*Q18 (p. 595)*
Q19 (p. 596)	*Q20 (p. 597)*	*Q21 (p. 598)*	*Q22 (p. 598)*	*Q23 (p. 599)*	

Q1: A 5-year-old child is diagnosed with Congenital cholesteatoma. According to Levenson's criteria, which factor is NOT used to diagnose this condition? (Q847843)

A. Whitish mass behind a normal tympanic membrane

B. Intact pars flaccida and pars tensa

C. Family history of Congenital Cholesteatoma

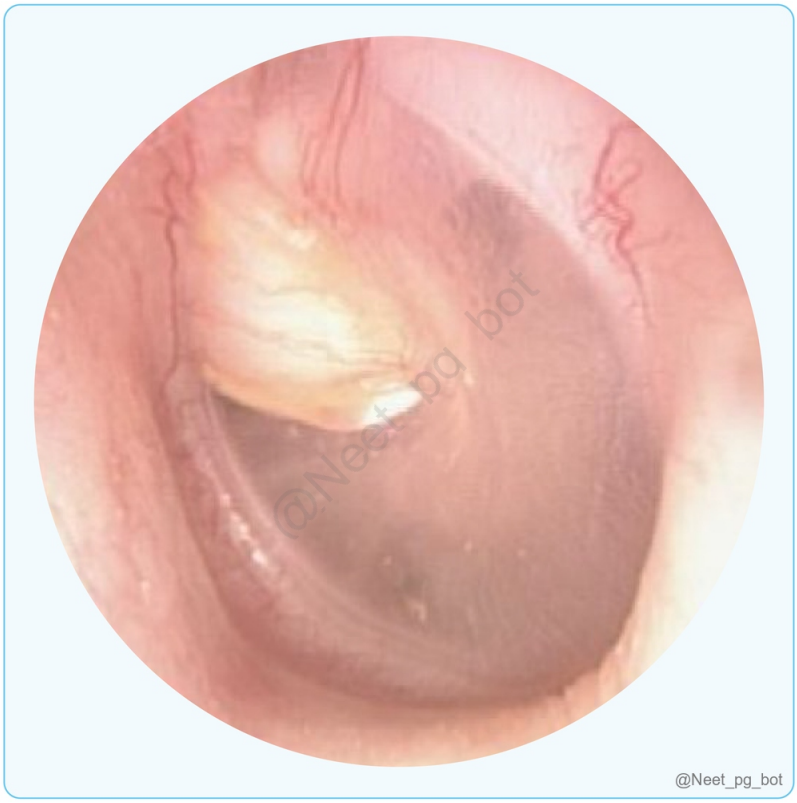
D. No prior ear surgeries

Correct Answer: C. Family history of Congenital Cholesteatoma

■ *Listen (English)*

■ *Listen (Hindi)*

Explanation: The child’s presentation aligns with congenital cholesteatoma , which is diagnosed using Levenson's criteria : Whitish mass visible behind an intact tympanic membrane Intact pars flaccida and pars tensa No history of ear discharge or surgeries Exclusion of conditions such as canal atresia While family history might be relevant in understanding the broader context of congenital conditions, Levenson’s criteria specifically do not use family history as a diagnostic factor for congenital cholesteatoma. Classification of Cholesteatoma Congenital Cholesteatoma Acquired Cholesteatoma Congenital cholesteatoma arises from embryonic epithelial rests, appearing as a white mass behind an intact tympanic membrane with conductive hearing loss; it may rupture and mimic CSOM. Diagnosed using Levenson's criteria : Presence of a whitish mass behind a normal tympanic membrane; (Option A ruled out) An intact pars flaccida and pars tensa; (Option B ruled out) No previous history of ear discharge or perforation; No prior ear surgeries; (Option D ruled out) Ruling out conditions such as canal atresia, intramembranous cholesteatoma, or giant cholesteatoma. A history of otitis media was not ruled out. Primary Acquired Cholesteatoma Occurs without a history of prior otitis media or a preexisting perforation. Its genesis is attributed to three main theories: (a) Invagination of pars flaccida (b) Basal cell hyperplasia (c) Squamous metaplasia. Secondary Acquired Cholesteatoma Occurs with a preexisting perforation in the pars tensa, often a posterosuperior marginal or large central perforation. Its development is attributed to: (a) Migration of squamous epithelium (b) Metaplasia.



References:

Dhingra Diseases of Ear, Nose and Throat and Head and Neck Surgery, 8th Edition, Page 79, 80

Logan Turner's Diseases of the Nose, Throat and Ear: Head and Neck Surgery, 11th Edition, Page 416

↑ *Back to this question in Part A*

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Q2: A 30 year old patient with chronic otitis media presents with a perforated tympanic membrane and erosion of the malleus. The surgeon plans to repair the tympanic membrane and place a graft on the remaining malleus. According to Wullstein's classification, which type of tympanoplasty is being performed? (Q847857)

A. Type I

B. Type II

C. Type III

D. Type IV

Correct Answer: B. Type II

■ *Listen (English)*

■ *Listen (Hindi)*

Explanation: In this case, the patient has a perforated tympanic membrane along with erosion of the malleus. Since the graft is planned over the remaining malleus , this corresponds to Type II tympanoplasty , where the ossicular chain is partially disrupted but reconstruction is done using the intact ossicles Types of Tympanoplasty (Wullstein's Classification): Type Description Type I Only tympanic membrane perforation; repaired with graft (myringoplasty). (Option A ruled out) Type II TM perforation with partial malleus erosion ; graft placed on remaining malleus or incus. (Option B) Type III Malleus and incus absent ; graft placed directly on stapes (columella effect). (myringostapediopexy or columella tympanoplasty). (Option C ruled out) Type IV Graft placed over the footplate of the stapes in the absence of the Malleus, Incus and Stapes suprastructure (cavum minor), allowing sound to act directly on the footplate. (Option D ruled out) Type V Fenestration operation : Creation of a new window on the lateral semicircular canal, creating an alternate pathway for the sound to travel instead of the natural pathway.

References:

Dhingra Diseases of Ear, Nose and Throat and Head and Neck Surgery, 8th Edition, Page 34, 35

↑ *Back to this question in Part A*

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Q3: A 10-year-old child presents with hearing loss and a retracted tympanic membrane on otoscopic examination. The pars flaccida is completely retracted, and the retraction pocket is fully visible, and the tympanic membrane is in contact with the malleus. According to the Tos & Poulsen classification, what is the appropriate classification for this retraction? (Q847856)

A. Type 0

B. Type I

C. Type II

D. Type III

Correct Answer: C. Type II

■ *Listen (English)*

■ *Listen (Hindi)*

Explanation: Type II: Complete retraction with the tympanic membrane in contact with the malleus, which is the situation described in this case. Tos & Poulsen Classification of Pars Flaccida Retraction Type 0: Normal Pars flacida Type I: Retraction in the direction of the malleus neck but not adherent to it, with a visible airspace behind the pocket (Option B ruled out) Type II: Retraction adherent to the malleus neck, full extent of retraction pocket visible, and no visible air space Type III: Retraction beyond the bony annulus, with or without slight bone resorption, part of the retraction pocket is not visible (Option D ruled out) Type IV: Retraction beyond the malleus neck with definite signs of bony erosion of the annulus

References:

www.otoscape.com/eponyms/tos-poulsen-classification-of-pars-flaccida-retraction.html

↑ *Back to this question in Part A*

@Neet_pg_bot

Q4: Which of the following is a typical characteristic of tubercular otitis media? (Q847855)

A. Persistent and severe ear pain

B. Multiple perforations of the tympanic membrane

C. Sudden onset of symptoms with rapid progression

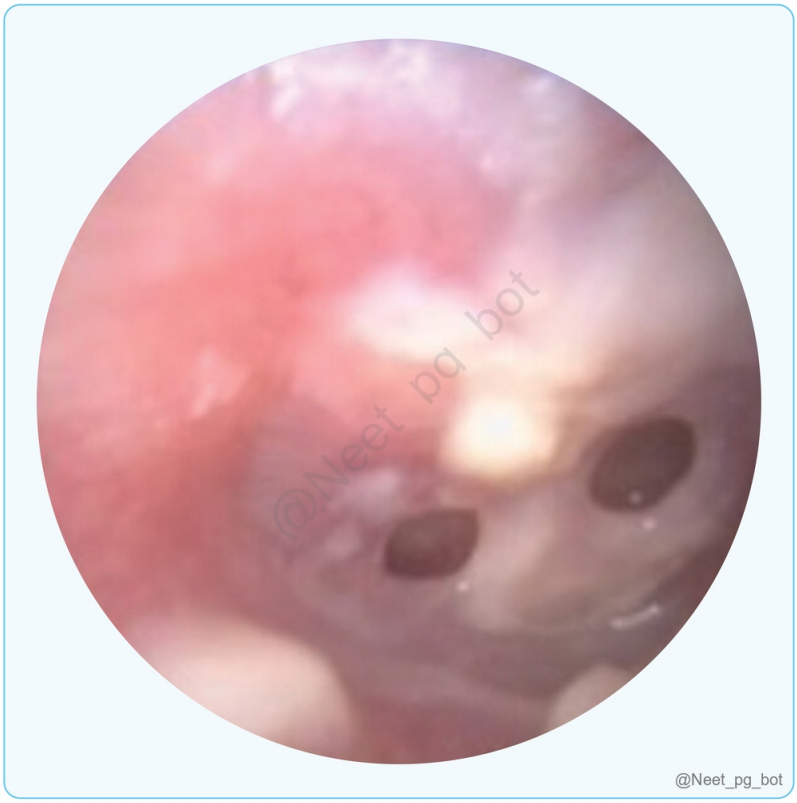
D. Mild hearing loss

Correct Answer: B. Multiple perforations of the tympanic membrane

■ *Listen (English)*

■ *Listen (Hindi)*

Explanation: Tubercular otitis media is distinguished by multiple small perforations in the tympanic membrane, which can eventually combine into one larger perforation, making it a key characteristic of the disease. Tubercles form in the submucosal layers of the middle ear, leading to caseation, necrosis of the tympanic membrane, and multiple perforations. It is also associated with painless, foul-smelling ear discharge and facial paralysis. Fig: Multiple perforations of the tympanic membrane Persistent and severe ear pain (Option A): Tubercular otitis media is typically painless , and earache is notably absent in most cases. There is typically painless necrosis of the tympanic membrane. Sudden onset of symptoms with rapid progression (Option C): The onset of tubercular otitis media is slow and insidious , not sudden or rapidly progressing, which is more typical of other types of ear infections like acute otitis media. Mild hearing loss (Option D): Hearing loss in tubercular otitis media is often severe and disproportionate to other symptoms such as ear discharge . It can also include a sensorineural component if the inner ear is affected.



References:

Dhingra Diseases of Ear, Nose and Throat and Head and Neck Surgery, 8th Edition, Page 88, 89

Scott-Brown's Otorhinolaryngology and Head and Neck Surgery, 8th Edition, Page 1058

↑ *Back to this question in Part A*

@Neet_pg_bot

Q5: Which of the following describes the characteristic features of inactive squamosal disease in CSOM? (Q847854)

A. Presence of cholesteatoma with mucopurulent discharge

B. Permanent perforation of the pars tensa with no active inflammation

C. The presence of retraction pockets with no active discharge

D. Healed tympanic membrane with tympanosclerosis and conductive hearing loss

Correct Answer: C. The presence of retraction pockets with no active discharge

■ *Listen (English)*

■ *Listen (Hindi)*

Explanation: The presence of retraction pockets with no active discharge is indicative of inactive squamosal disease, where pockets can collect debris but are not actively discharging. Newer Classification of Chronic Otitis Media (COM): Mucosal Disease: Affects the mucosal lining of the middle ear cleft. Type Description Active Mucosal Disease Perforation of the pars tensa. Inflammation of the middle ear mucosa. Mucopurulent discharge. Inactive Mucosal Disease (Option B ruled out) Permanent perforation of the pars tensa. Permanent perforation: Fusion of squamous epithelium and mucosa. No active inflammation or discharge. Healed Otitis Media (Option D ruled out) Healed but atrophic tympanic membrane Prone to retraction Tympanosclerosis may be present Conductive hearing loss Squamosal Disease: Involves squamous epithelium in the middle ear cleft. Type Description Active Squamosal Disease (Option A ruled out) Presence of cholesteatoma. Purulent, offensive discharge present. Inactive Squamosal Disease Presence of retraction pockets in the tympanic membrane. No active discharge. But keratin debris in retraction pockets can trigger infection and discharge.

References:

Dhingra Diseases of Ear, Nose and Throat and Head and Neck Surgery, 8th Edition, Page 81, 82 Logan Turner's Diseases of the Nose, Throat and Ear: Head and Neck Surgery, 11th Edition, Page413

↑ *Back to this question in Part A*

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Q6: Which of the following is a Canal wall-down procedure commonly performed in the surgical treatment of Atticoantral Chronic Suppurative Otitis Media (CSOM)? (Q847853)

A. Intact Canal Wall Mastoidectomy

B. Tympanoplasty

C. Modified Radical Mastoidectomy

D. Atticotomy

Correct Answer: C. Modified Radical Mastoidectomy

■ *Listen (English)*

■ *Listen (Hindi)*

Explanation: Modified Radical Mastoidectomy is a canal-wall-down procedure where the posterior wall of the ear canal is removed to create a single cavity for easier disease eradication and cleaning. Atticoantral CSOM: Surgical Treatment : Canal Wall Down Procedures : Removes the posterior wall of the ear canal, creating a single cavity. Atticotomy: Incision in the ear canal to remove cholesteatoma from the attic. Modified Radical Mastoidectomy: Removes cholesteatoma and diseased mastoid air cells while preserving the eardrum and ossicles. Radical Mastoidectomy : Rarely performed, involves removing all mastoid air cells and ossicles. Canal Wall-Up Procedures : Preserves the posterior wall of the ear canal. Intact Canal Wall Mastoidectomy : Removes disease through the ear canal and mastoid while keeping the posterior wall intact. Advantages: Dry ear and easier hearing reconstruction, but higher risk of residual cholesteatoma requiring regular follow-ups. Intact Canal Wall Mastoidectomy (Option A): Also known as a cortical mastoidectomy / Schwartz operation. Tympanoplasty (Option B): This procedure is focused on reconstructing the eardrum (myringoplasty) and/or the ossicular chain (ossiculoplasty) to enhance hearing. Atticotomy (Option D): This procedure involves accessing the attic (epitympanum) to remove diseased tissue. It is less extensive than a modified radical mastoidectomy and is typically appropriate for limited attic disease rather than the extensive involvement usually seen in Atticoantral CSOM.

References:

Dhingra Diseases of Ear, Nose and Throat and Head and Neck Surgery, 8th Edition, Page 84, 85, 87, 88

Logan Turner's Diseases of the Nose, Throat and Ear: Head and Neck Surgery, 11th Edition, Page 414

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Q7: Which examination method is most effective for visualising a suspected cholesteatoma and assessing the condition of the ossicles in a patient with CSOM? (Q847852)

A. Otoscope

B. CT Scan of Temporal Bone

C. Examination Under a Microscope

D. Tuning Fork Tests

Correct Answer: C. Examination Under a Microscope

■ *Listen (English)*

■ *Listen (Hindi)*

Explanation: Examination Under a Microscope provides a detailed view of the middle ear, allowing for visualisation of cholesteatoma, the condition of the ossicles, granulations, and any signs of bone erosion. Examination for Chronic Suppurative Otitis Media (CSOM): Examination Procedure Purpose Examination Under a Microscope (Otomicroscopy) Provides a detailed view compared to an otoscope. (Option A ruled out) Identifies discharge, cholesteatoma, ossicle condition, granulations, and signs of bone erosion. Tuning Fork Tests and Audiogram (Option D ruled out) An audiogram identifies the type and extent of hearing loss (conductive, sensorineural, or mixed). Tuning fork tests (Rinne, Weber, Schwabach) differentiate between conductive and sensorineural hearing loss. Usually, CHL but SNHL may also be present in long-standing cases. X-Ray Mastoids/High-Resolution CT Scan Temporal Bone (Option B ruled out) Determines the extent of bone destruction and mastoid pneumatization. A CT scan helps identify low-lying dura or anteposed sigmoid sinus, relevant for surgical planning. Culture and Sensitivity of Ear Discharge Identifies specific bacteria causing the infection. Guides appropriate antibiotic therapy.

References:

Dhingra Diseases of Ear, Nose and Throat and Head and Neck Surgery, 8th Edition, Page 83, 84

Logan Turner's Diseases of the Nose, Throat and Ear: Head and Neck Surgery, 11th Edition, Page 412, 413

↑ *Back to this question in Part A*

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Q8: A patient presents with a long-standing ear infection characterised by scanty, purulent, foul-smelling discharge and a marginal perforation of the tympanic membrane. The patient also shows signs of a red and fleshy polyp. What is the most likely diagnosis of this patient? (Q847851)

A. Tubotympanic CSOM

B. Atticoantral CSOM

C. Acute Otitis Media

D. Serous Otitis Media

Correct Answer: B. Atticoantral CSOM

■ *Listen (English)*

■ *Listen (Hindi)*

Explanation: Atticoantral CSOM is associated with scanty, purulent, foul-smelling discharge, attic or marginal perforations, and shows signs of a red and fleshy polyp and complications like cholesteatoma and granulations. CSOM: Definition and Types: Chronic Suppurative Otitis Media (CSOM): Definition : Long-standing infection of the middle ear cleft, characterised by ear discharge and a permanent perforation in the tympanic membrane. The perforation is considered permanent when covered by squamous epithelium, preventing spontaneous healing. Clinical Classifications Type Description Clinical Features Tubotympanic CSOM (Option A ruled out) Benign or Safe CSOM. Affects the antero-inferior region of the middle ear cleft (eustachian tube and mesotympanum). Profuse, mucoid, odourless discharge Central perforation Pale polyp (if present) Uncommon granulations Rarely associated with cholesteatoma. Rare complications Mild to moderate conductive hearing loss Atticoantral CSOM (Option B) Unsafe or Dangerous CSOM. Affects the posterosuperior region of the middle ear cleft (attic, antrum, and mastoid). Scanty, purulent, foul-smelling discharge Attic or marginal perforation Red and fleshy polyp (if present) Frequently associated with cholesteatoma. Common complications Conductive or mixed hearing loss Acute Otitis Media (Option C) generally presents with acute symptoms rather than chronic discharge or perforation. Serous Otitis Media (Option D) : Involves non-infectious fluid in the middle ear, with no perforation or foul-smelling discharge (typical of atticoantral CSOM).

References:

Dhingra Diseases of Ear, Nose and Throat and Head and Neck Surgery, 8th Edition, Page 81 Logan Turner's Diseases of the Nose, Throat and Ear: Head and Neck Surgery, 11th Edition, Page 412, 413

↑ *Back to this question in Part A*

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Q9: A patient with cholesteatoma is considering surgical options. Which of the following is a characteristic of a canal wall-up procedure compared to a canal wall-down procedure? (Q847850)

A. Requires regular cleaning of the mastoid cavity by a doctor

B. Has a lower risk of residual cholesteatoma

C. Allows for easier hearing aid fitting

D. The patients are advised not to swim due to the risk of ear infections.

Correct Answer: C. Allows for easier hearing aid fitting

■ *Listen (English)*

■ *Listen (Hindi)*

Explanation: Canal wall-up procedures do not require routine cleaning of the mastoid cavity and typically allow for easier fitting of hearing aids. Canal Wall Up vs. Canal Wall Down Procedures: Feature Canal Wall Up Canal Wall Down Definition It is a type of mastoidectomy in which the posterior bony canal wall is preserved. This maintains the natural anatomy of the ear canal and middle ear. It is a surgical procedure in which the posterior and

superior bony walls of the ear canal are removed. This creates an open cavity that connects the middle ear and mastoid. Recurrence of Disease High rate of recurrence or residual cholesteatoma Low rate of recurrence or residual cholesteatoma (Option B ruled out) Postoperative Care Does not require routine cleaning Requires regular cleaning of the mastoid cavity (once or twice a year) (Option A ruled out) Hearing Rehabilitation Easy to wear a hearing aid, if needed Difficult to fit a hearing aid due to large meatus and mastoid cavity Patient Limitations No limitations to activities like swimming. The patient requires a second-look surgery 6 months later to rule out residual cholesteatoma The patient is advised to not participate in activities like swimming as it can lead to infection of the mastoid cavity. There is no need for second-look surgery. (Option D ruled out)

References:

Dhingra Diseases of Ear, Nose and Throat and Head and Neck Surgery, 8th Edition, Page 87

Logan Turner's Diseases of the Nose, Throat and Ear: Head and Neck Surgery, 11th Edition, Page 417

↑ *Back to this question in Part A*

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Q10: Which of the following statements about the treatment of cholesteatoma is false? (Q847849)

A. Canal Wall Down Mastoidectomy involves removing of posterior canal wallto create an open cavity.

B. Tympanoplasty for cholesteatoma repair may use synthetic prostheses to repair the ossicles.

C. William Wilde's incision is made approximately 3 cm in front of the ear.

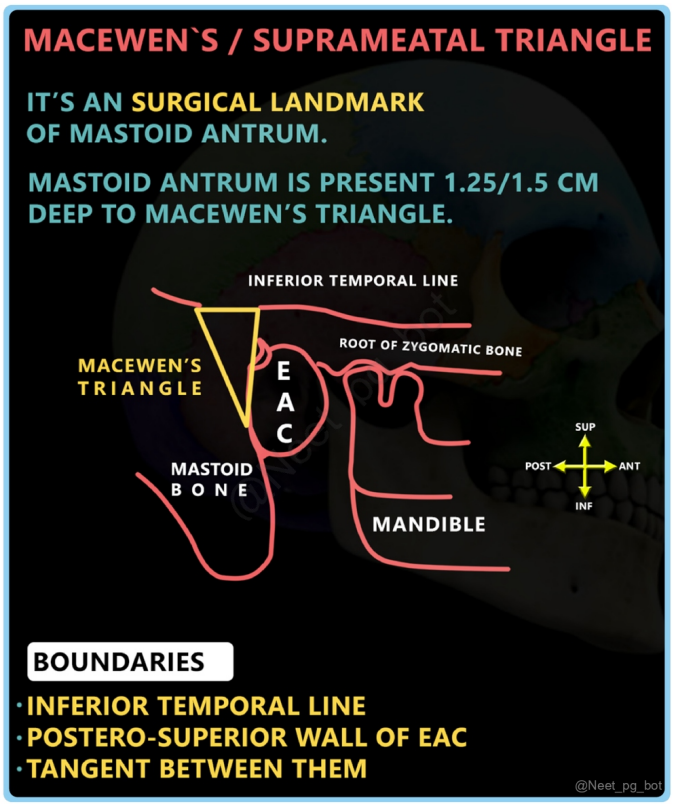
D. Canal Wall Up Mastoidectomy involves preserving the posterior canal wall.

Correct Answer: C. William Wilde's incision is made approximately 3 cm in front of the ear.

■ *Listen (English)*

■ *Listen (Hindi)*

Explanation: William Wilde's incision is made behind the ear, not in front, to access the mastoid during ear surgery. Treatment of Cholesteatoma Surgery : The primary treatment for cholesteatoma is surgery, typically involving: Mastoidectomy : Removal of disease from the mastoid bone, which may involve: Canal Wall Down (Radical Mastoidectomy) : Removing all bony walls to create an open cavity. (Option A ruled out) Canal Wall Up (Closed Cavity Mastoidectomy) : Preserving bony partitions. (Option D ruled out) William Wilde's incision: A curved incision behind the ear, approximately 1 cm from and parallel to the retroauricular sulcus behind the ear, starting at the top where the pinna attaches to the mastoid tip. (Option C) MacEwen’s triangle (suprameatal triangle): The mastoid antrum is revealed here. Tympanoplasty : Repair of the eardrum using grafts of cartilage or fascia; damaged ossicles may be repaired with natural bone, cartilage, or synthetic prostheses. (Option B ruled out) Procedure Details : Surgery is delicate and usually takes 2 to 3 hours. Patients often go home the same day. Complete removal of cholesteatoma is crucial to prevent regrowth; regular follow-up is essential, and sometimes a second surgery may be needed.



References:

Cholesteatoma Diagnosis & Treatment NYC | Mount Sinai - New York

Dhingra Diseases of Ear, Nose and Throat and Head and Neck Surgery, 8th Edition, Page 475, 476

↑ *Back to this question in Part A*

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Q11: A 45 year out female presents with persistent ear discharge, hearing loss, and a feeling of fullness in the ear. Upon examination, the otolaryngologist performs an otoscopic examination, which reveals an abnormal growth in the ear canal. Which diagnostic test is most useful for assessing the extent of her condition and guiding surgical planning? (Q847848)

A. Video-Otoscopy

B. High-resolution CT

C. Rinne Test

D. Diffusion-weighted MRI

Correct Answer: B. High-resolution CT

■ *Listen (English)*

■ *Listen (Hindi)*

Explanation: Based on the symptoms described-persistent ear discharge, hearing loss, a feeling of fullness in the ear, and the finding of abnormal growth in the ear canal, the most probable diagnosis is a cholesteatoma. High-resolution CT (HRCT) is critical for assessing the severity of the cholesteatoma, evaluating any osseous damage, and aiding in surgical planning. HRCT provides detailed imaging of bony structures and helps identify the extent of the cholesteatoma. Video-Otoscopy (Option A) is useful for visualizing the ear canal and eardrum directly but does not provide detailed information on the extent of disease or bony structures. Rinne Test (Option C) is an audiometric test used to differentiate between conductive and sensorineural hearing loss but does not provide information on the extent of cholesteatoma or guide surgical decisions. Diffusion-weighted MRI (Option D) helps detect recurrence or residual cholesteatoma, particularly after surgery, but HRCT is the primary imaging tool for pre-surgical assessment of the disease extent.

References:

www.ncbi.nlm.nih.gov/pmc/articles/PMC9731553/

↑ *Back to this question in Part A*

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Q12: Which is the correct order of ossicular erosion in cholesteatoma , from most common to least common? (Q847847)

A. Incus > Stapes > Malleus

B. Stapes > Incus > Malleus

C. Incus > Malleus > Stapes

D. Malleus > Incus > Stapes

Correct Answer: A. Incus > Stapes > Malleus

■ *Listen (English)*

■ *Listen (Hindi)*

Explanation: The incus is the most commonly eroded ossicle, with the long/lenticular process being the most frequently damaged part. The stapes is the second most commonly affected. The malleus is the least commonly damaged ossicle. Common sites of Ossicular Erosion (Option B, C & D ruled out) Incus: The most commonly damaged part is the long/Lenticular process The second most common damage is to the body Stapes: The second most common type of damage Erosion of the superstructure is more common than total loss Malleus: Least common damage Most common bony erosions in the middle ear: Scutum: Most frequently eroded Lateral attic wall: Also commonly eroded Incus: Most eroded ossicle in the middle ear

References:

www.ncbi.nlm.nih.gov/pmc/articles/PMC3846225/#

www.ncbi.nlm.nih.gov/pmc/articles/PMC3791954/#

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Q13: A 7-year-old child presents with a sensation of fullness. The child also reports occasional hearing loss. On otoscopy, a whitish mass behind the tympanic membrane is seen. Based on the information provided, which of the following is least likely to be a consequence of this patient's diagnosis? (Q847846)

A. Bone destruction due to release of enzymes

B. Bone destruction due to pressure necrosis

C. Extension into the aditus and mastoid

D. Destruction of the ear ossicles

Correct Answer: B. Bone destruction due to pressure necrosis

■ *Listen (English)*

■ *Listen (Hindi)*

Explanation: This 7-year-old child is diagnosed with Cholesteatoma through clinical symptoms such as smelly discharge, ear fullness, and hearing loss. The current understanding is that cholesteatoma causes bone destruction primarily through enzymatic activity rather than pressure necrosis. This option is thus least likely to be a direct consequence based on the revised theory. Properties of Cholesteatoma Path of invasion : Cholesteatoma invades surrounding structures by following the path of least resistance and enzymatic bone destruction. Attic cholesteatoma : May extend backwards into the aditus, antrum, and mastoid; downwards into the mesotympanum; and medially to surround the incus and/or head of the malleus. (Option C ruled out) Bone destruction : Cholesteatoma can destroy ear ossicles, and erode the bony labyrinth, canal of the facial nerve, sinus plate, and tegmen tympani. (Option D ruled out) Enzymes involved : Destruction is attributed to enzymes like collagenase, acid phosphatase, and proteolytic enzymes, which are released by osteoclasts and mononuclear inflammatory cells. (Option A ruled out) Revised theory : Bone destruction is now understood to be due to enzymatic activity rather than pressure necrosis. (Option B)

References:

Dhingra Diseases of Ear, Nose and Throat and Head and Neck Surgery, 8th Edition, Page. 80, 81

↑ *Back to this question in Part A*

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Q14: Which is the most common site of origin for cholesteatoma? (Q847845)

A. Sinus tympani

B. Prussac's space

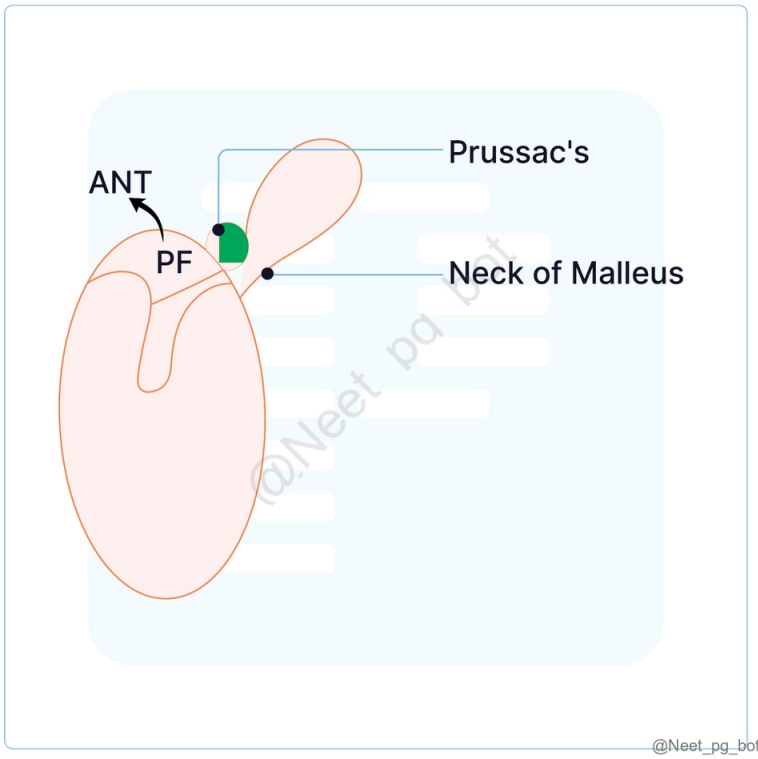
C. Oval window niche

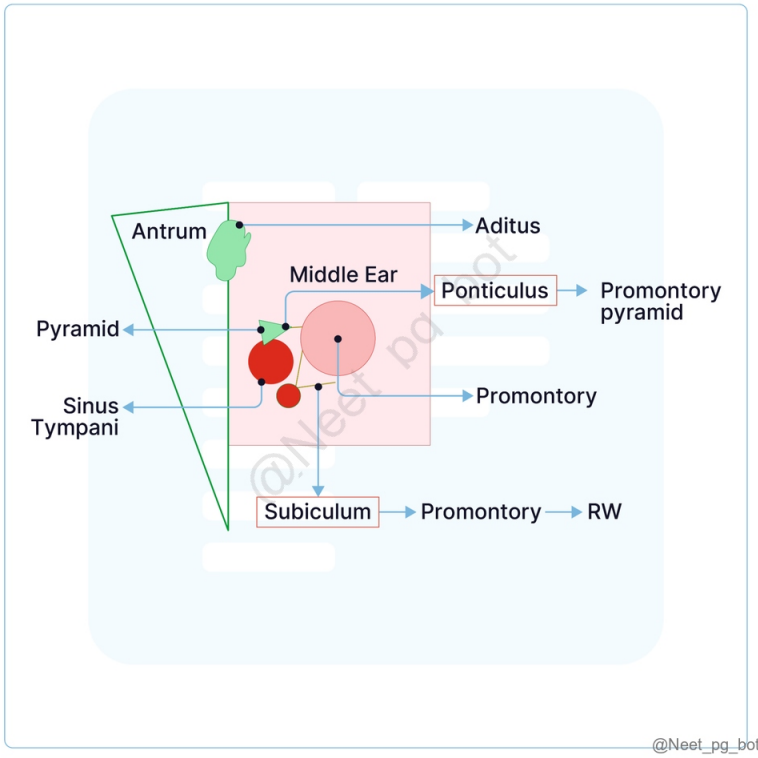
D. Pars tensa

Correct Answer: B. Prussac's space

- *Listen (English)*
- *Listen (Hindi)*

Explanation: Prussac's space is the most common site of origin for cholesteatomas. The majority of cholesteatomas (82%) arise from the pars flaccida in Prussac's space, where they often expand and cause various complications. Cholesteatomas most commonly originate from the pars flaccida from Prussac’s space (82% of cases). Superior extension : This is the most frequent pattern, where the cholesteatoma expands into Prussac's space, erodes the scutum, and displaces the ossicles medially. (Option B) Inferior extension : Less common but more frequently observed in children. Cholesteatomas originating from the pars tensa account for 18% of cases. (Option D ruled out) Posterosuperior extension : The cholesteatoma extends medial to the incus, pushing the ossicles laterally. Anterior and inferior extension : This pattern is less common. Site of Cholesteatoma Recurrence Sinus tympani: The most common site of recurrence, but not the most common site of origin. (Option A ruled out) Oval window niche : The second most frequent site of recurrence. (Option C ruled out) Tip cells. Supratubal recess Residual cells in the mastoid cavity Facial Recess





References:

radiopaedia.org/cases/cholesteatoma-pars-flaccida#

radiopaedia.org/articles/cholesteatoma#

www.ncbi.nlm.nih.gov/pmc/articles/PMC6779104/#

↑ *Back to this question in Part A*

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Q15: A patient with chronic suppurative otitis media reports that their hearing improves when the ear is discharging compared to when it is dry. Which phenomenon best explains this observation? (Q847844)

A. Cholesteatoma hearer effect

B. Round window shielding effect

C. Ossicular chain erosion

D. Both A & B

Correct Answer: B. Round window shielding effect

■ *Listen (English)*

■ *Listen (Hindi)*

Explanation: The round window shielding effect explains the improved hearing with ear discharge. The discharge helps maintain phase differential by shielding the round window, counteracting the simultaneous impact of sound waves hitting both the oval and round windows in a dry ear. Round Window Shielding Effect: In the Tubotympanic type of CSOM, hearing loss is characterized by conductive loss that rarely exceeds 50 dB, patients may experience a paradoxical effect where they hear better when there is discharge present in the ear compared to when the ear is dry. This phenomenon is attributed to the "round window shielding effect." The discharge helps maintain a phase differential by shielding the round window, which counteracts the simultaneous impact of sound waves hitting both the oval and round windows in the dry ear. In the dry state, the simultaneous stimulation of these windows can cancel each other out, reducing hearing ability. Cholesteatoma Hearers: Hearing loss is predominantly conductive in individuals with cholesteatoma especially the Atticoantral type of CSOM, though there may be an additional sensorineural component. Hearing ability remains normal if the ossicular chain is intact. However, when a cholesteatoma destroys the ossicles, it may bridge the gap left by the damaged ossicles, potentially allowing hearing to be preserved. (Options A & D ruled out) Post-surgical hearing loss is possible after removing the cholesteatoma, making preoperative counselling crucial to set proper expectations and prepare for potential changes in hearing levels. Ossicular chain erosion (Option C) typically leads to worsening hearing loss rather than improvement with discharge. It is not related to the phenomenon observed with ear discharge.

References:

Dhingra Diseases of Ear, Nose and Throat and Head and Neck Surgery, 8th Edition, Page 83, 85

↑ *Back to this question in Part A*

@Neet_pg_bot

Q16: Match the following theories of the origin of cholesteatoma with their descriptions: 1. Habermann's theory a) Retraction pocket theory 2. Wittmacks theory b) Basal cell hyperplasia theory 3. Sade's theory c) Epithelial invasion theory 4. Ruedi's theory d) Metaplastic theory (Q847842)

A. 1-a, 2-b, 3-c, 4-d

B. 1-c, 2-a, 3-d, 4-b

C. 1-d, 2-b, 3-a, 4-c

D. 1-b, 2-a, 3-d, 4-c

Correct Answer: B. 1-c, 2-a, 3-d, 4-b

■ *Listen (English)*

■ *Listen (Hindi)*

Explanation: Cholesteatoma is an abnormal growth in the middle ear or mastoid region characterised by the presence of keratinizing squamous epithelium, which is not normally found in these areas. It consists of two main components: (i) a matrix of keratinizing squamous epithelium with a thin fibrous stroma, and (ii) a central mass of keratin debris. Theory Description Congenital theory Presence of congenital cell remnants contributing to cholesteatoma formation. Habermann's theory Epithelial invasion theory Epithelial growth from the outer ear into the middle ear through perforations contributes to cholesteatoma. Wittmaack’s theory Retraction pocket theory Retraction of the tympanic membrane occurs in the attic or posterosuperior pars tensa. Stratified squamous epithelium lines the outer membrane. Invagination forms a retraction pocket, acting as a matrix for keratin buildup. The accumulation of keratin leads to the formation of a cholesteatoma. Sade's theory Metaplastic theory Metaplasia of middle ear mucosa into squamous epithelium due to repeated infections leads to cholesteatoma. Ruedi's theory Basal cell hyperplasia theory Basal cell hyperplasia in the skin's germinal layer leads to keratinizing squamous epithelium formation.

References:

Dhingra Diseases of Ear, Nose and Throat and Head and Neck Surgery, 8th Edition, Page 79, 80

↑ *Back to this question in Part A*

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Q17: Match the following: A. Cartilaginous part of the eustachian tube. 1. Ciliated columnar epithelium B. Bony part of the eustachian tube 2. Pseudostratified ciliated

columnar epithelium C. Posterior tympanic cavity 3. Flat non-ciliated epithelium D. Epitympanum 4. Cuboidal epithelium (Q891969)

A. A-2, B-1, C-4, D-3

B. A-1, B-2, C-3, D-4

C. A-2, B-3, C-1, D-4

D. A-3, B-4, C-2, D-1

Correct Answer: A. A-2, B-1, C-4, D-3

Explanation: A. Cartilaginous part of the eustachian tube 2 . Pseudostratified ciliated columnar epithelium B. Bony part of the eustachian tube 1 . Ciliated columnar epithelium C. Posterior tympanic cavity 4 . Cuboidal epithelium D. Epitympanum 3 . Flat non-ciliated epithelium

References:

PL Dhingra's Diseases of Ear, Nose and Throat and Head and Neck Surgery, 8th Edition, Page 10.

↑ *Back to this question in Part A*

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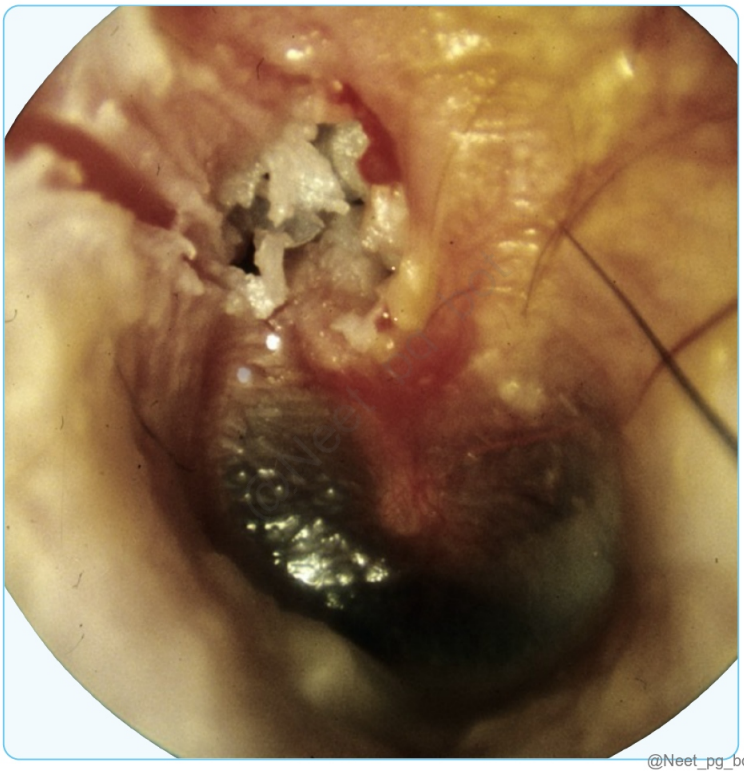
Q18: A patient with a long history of recurrent middle ear infections presents with hearing loss. Otoscopic examination reveals as shown in the image. Which of the following is the most likely diagnosis? (Q891995)

A. Cholesterol granuloma

B. Tympanosclerosis

C. Epidermosis

D. Glomus tympanicum



Correct Answer: C. Epidermosis

Explanation: The clinical scenario and the image showing keratin debris on the superior aspect of the tympanic membrane are suggestive of cholesteatoma, also known as epidermosis . A cholesteatoma consists of two parts: The matrix, which is made up of keratinising squamous epithelium resting on a thin stroma of fibrous tissues in the middle ear or mastoid. A central white mass consisting of keratin debris produced by the matrix, hence named epidermosis or keratoma. Cholesterol granuloma (Option A) appears bluish or dark purple and contains cholesterol crystals. Tympanosclerosis (Option B) presents as chalky-white plaques confined to the tympanic membrane or the middle ear mucosa. Glomus tympanicum (Option D) appears as a red, pulsatile mass. causing pulsatile tinnitus.

References:

PL Dhingra’s Diseases of Ear, Nose and Throat and Head and Neck Surgery, 8th Edition, Page 79

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Q19: Otoscopic examination of a patient shows keratin debris within the middle ear following a previous ear surgery for a tympanic membrane perforation. Which of the following mechanisms best explains the development of cholesteatoma in this patient? (Q891997)

A. Migration of squamous epithelium through a marginal retraction pocket

B. Metaplasia of the middle ear mucosa into keratinising epithelium

C. Implantation of squamous epithelium into the middle ear cavity

D. Congenital persistence of epidermoid rests in the temporal bone

Correct Answer: C. Implantation of squamous epithelium into the middle ear cavity

Explanation: The clinical scenario describes the presence of keratin debris (cholesteatoma) in a patient with a history of prior ear surgery. This is the classic presentation of Secondary Acquired Cholesteatoma caused by the Implantation Theory . During the previous surgical procedure (e.g., myringoplasty or tympanoplasty), viable squamous epithelial cells from the external canal or tympanic membrane were likely inadvertently implanted or seeded into the middle ear space. These cells continued to desquamate and accumulate keratin, forming an implantation pearl or cholesteatoma. Migration through a marginal retraction pocket (Option A) is the mechanism of primary acquired cholesteatoma, related to Eustachian tube dysfunction. Metaplasia of middle ear mucosa (Option B) refers to the Metaplasia Theory (Sade), which suggests that chronic inflammation induces the transformation of middle ear mucosa. Congenital persistence of epidermoid rests (Option D) refers to Congenital Cholesteatoma , which is diagnosed in patients with an intact tympanic membrane and no history of ear surgery, trauma, or infection.

References:

Scott Brown’s Otorhinolaryngology, Head & Neck Surgery, 8th Edition, Volume 2, Page 156.

↑ *Back to this question in Part A*

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Q20: Which of the following theories of origin of Cholesteatoma states invagination of the tympanic membrane from the attic or posterosuperior part of the pars tensa in the form of retraction pockets? (Q891999)

A. Wittmaack’s theory

B. Ruedi’s theory

C. Habermann’s theory

D. Sade’s theory

Correct Answer: A. Wittmaack’s theory

Explanation: The theory described is Wittmaack’s Theory, aka Invagination Theory (also known as the Retraction Pocket Theory), which is the most widely accepted mechanism for primary acquired cholesteatoma. The major theories of cholesteatoma genesis are: Wittmaack’s Theory (Invagination/Retraction Pocket Theory) proposes that

Eustachian tube dysfunction leads to sustained negative middle ear pressure. This causes the pars flaccida to retract or invaginate deeply into the attic or antrum, forming a pocket where desquamated keratin accumulates and cannot be cleared, eventually forming a cholesteatoma. (Option A) Ruedi's Theory (Basal Cell Hyperplasia) suggests that chronic inflammation stimulates the basal cells of the germinal layer of the pars flaccida to proliferate and invade the subepithelial tissue, forming micro-cholesteatomas. (Option B ruled out) Habermann's Theory (Epithelial Invasion/Migration) states that squamous epithelium from the external auditory canal or tympanic membrane migrates into the middle ear through a pre-existing marginal perforation. (Option C ruled out) Sade's Theory (Squamous Metaplasia) proposes that chronic inflammation induces the normal cuboidal mucosa of the middle ear to undergo metaplasia into keratinizing squamous epithelium. (Option D ruled out)

References:

PL Dhingra's Diseases of Ear, Nose and Throat and Head and Neck Surgery, 8th Edition, Pages 79 & 80.

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Q21: Assertion (A): Secondary acquired cholesteatoma develops due to the migration of squamous epithelium into the middle ear through a tympanic membrane perforation. Reason (R): Negative middle ear pressure causes invagination of the pars flaccida or posterosuperior pars tensa, leading to accumulation of keratin debris. (Q892017)

A. Both Assertion and Reason are true, and Reason is the correct explanation of Assertion.

B. Both Assertion and Reason are true, but Reason is not the correct explanation of Assertion.

C. The assertion is true, but the reason is false

D. The assertion is false, but the reason is true

Correct Answer: B. Both Assertion and Reason are true, but Reason is not the correct explanation of Assertion.

Explanation: of Assertion

References:

PL Dhingra's Diseases of Ear, Nose and Throat and Head and Neck Surgery, 8th Edition, Page 80.

↑ *Back to this question in Part A*

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Q22: A patient is diagnosed with atticoantral type of chronic suppurative otitis media (CSOM). Why is this type considered unsafe? (Q892020)

A. Because it causes severe conductive hearing loss

B. Because it is associated with cholesteatoma, causing bone erosion

C. Because ear discharge is foul-smelling and profuse

D. Because it commonly affects both ears

Correct Answer: B. Because it is associated with cholesteatoma, causing bone erosion

Explanation: Atticoantral Chronic Suppurative Otitis Media is classified as the unsafe or dangerous type primarily because it carries a significant risk of life-threatening complications. Cholesteatoma possesses the ability to cause progressive destruction of surrounding bony structures, including the ossicles, the tegmen tympani, and the facial nerve canal. This bone erosion results from a combination of pressure necrosis and the release of osteolytic enzymes such as collagenase, which can lead to meningitis, brain abscess, or labyrinthitis. Tubotympanic Chronic Suppurative Otitis Media is classified as the safe or benign type; it involves the anteroinferior part of the middle ear cleft, i.e., eustachian tube and mesotympanum, and is associated with a central perforation. Severe conductive hearing loss (Option A) is a common feature; it occurs in both safe and unsafe types. Ear discharge is foul-smelling and profuse (Option C): The discharge in unsafe type is foul-smelling but scanty. Profuse, mucoid, and odourless discharge is a hallmark of the tubotympanic type. Commonly affects both ears (Option D): Bilateral involvement is possible in any form of chronic ear disease and is not used to categorise the pathological risk or the unsafe nature of the atticoantral type.

References:

Dingra’s Diseases Of Ear, Nose And Throat & Head And Neck Surgery, 8th Edition, Page 81.

↑ *Back to this question in Part A*

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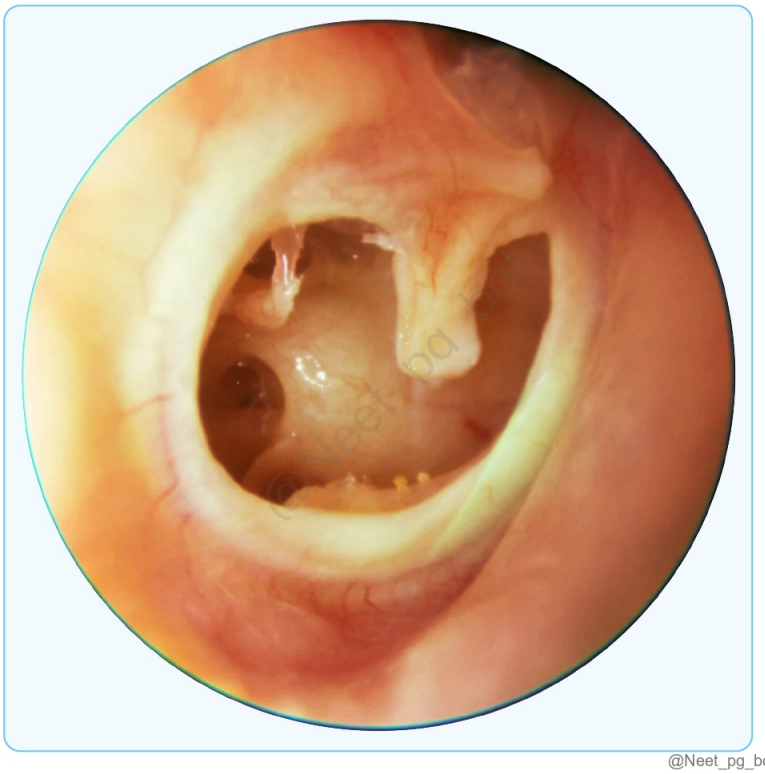
Q23: A 10-year-old child is brought in with complaints of hearing difficulty and declining school performance. Otoscopic examination reveals the finding shown in the image. What is the most likely diagnosis? (Q892021)

A. Large central perforation

B. Subtotal perforation

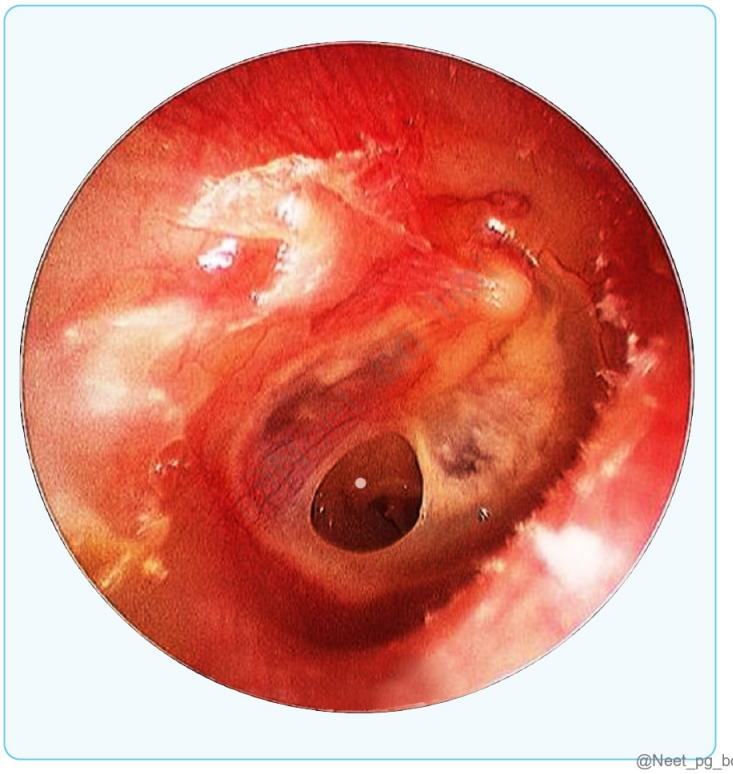
C. Total perforation

D. Attic perforation



Correct Answer: B. Subtotal perforation

Explanation: The clinical image demonstrates a massive defect in the tympanic membrane where the majority of the pars tensa is destroyed, yet a small, identifiable rim of the membrane remains intact along the periphery (annulus) . This finding is anatomically classified as a Subtotal Perforation . In children, such a large perforation results in significant conductive hearing loss, which often manifests as poor scholastic performance due to the inability to follow classroom instructions. This type of perforation is typically associated with the tubotympanic variety of Chronic Suppurative Otitis Media. Large central perforation (Option A) refers to a perforation situated in the pars tensa that does not reach the annulus, typically involving one or more quadrants but leaving a substantial amount of intact drum around it. Total perforation (Option B) occurs when the entire tympanic membrane, including the fibrocartilaginous annulus, is destroyed. Attic perforation (Option D) is a perforation limited to the pars flaccida (Shrapnell's membrane), located superior to the lateral process of the malleus, and is associated with the atticoantral variety of CSOM and cholesteatoma.



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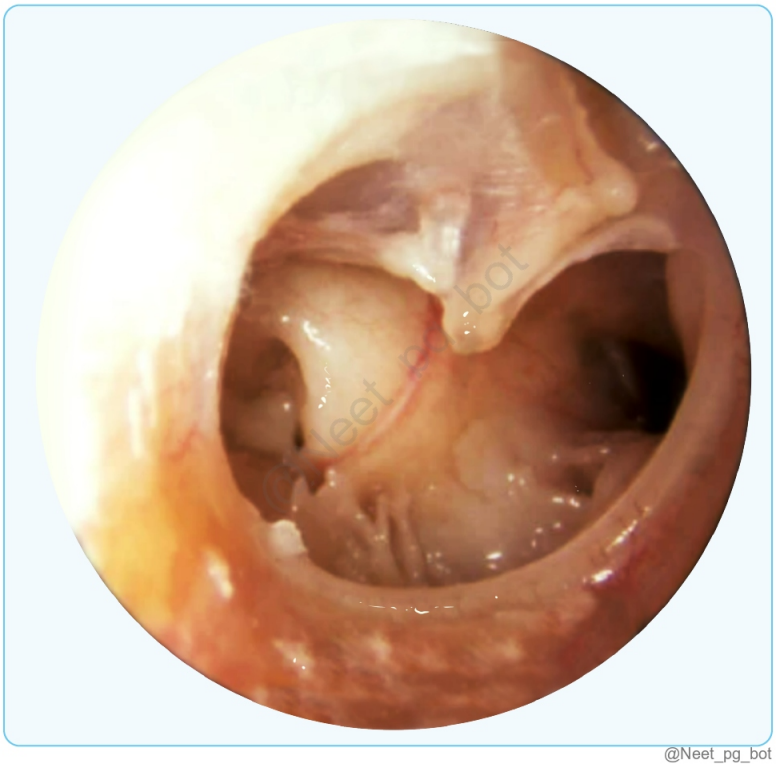

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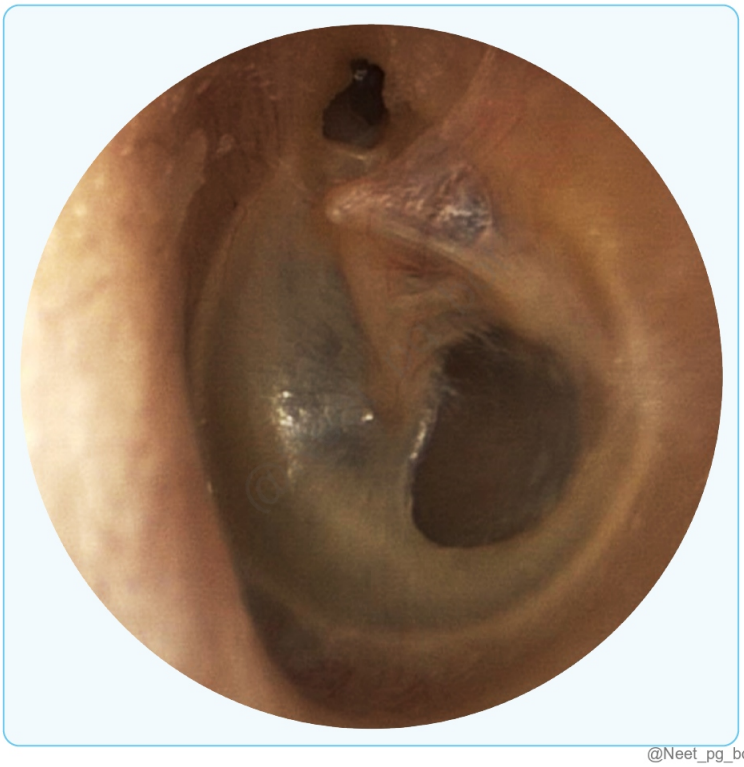

References:

PL Dhingra’s Diseases of Ear, Nose and Throat and Head and Neck Surgery, 8th Edition, Page 84.

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• [01_Ear] 006 Asom And Csom Complications

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[01_Ear] 006 Asom And Csom Complications — Quick Jump

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Q7 (p. 612)	*Q8 (p. 613)*	*Q9 (p. 613)*	*Q10 (p. 615)*	*Q11 (p. 616)*	*Q12 (p. 617)*
Q13 (p. 618)	*Q14 (p. 619)*	*Q15 (p. 620)*	*Q16 (p. 621)*	*Q17 (p. 622)*	*Q18 (p. 623)*

Q1: A 45-year-old patient presents with a severe headache and fever. The patient has a history of chronic otitis media. The CT scan is shown below. Which of the following statements best describes the most common complication in this patient? (Q847831)

A. Localized pus collection within the brain parenchyma .

B. Inflammation of the meninges.

C. Pus accumulation between the skull and dura mater.

D. Blood clot formation in the sigmoid sinus.

Correct Answer: A. Localized pus collection within the brain parenchyma .

■ *Listen (English)*

■ *Listen (Hindi)*

Explanation: The patient's presentation with severe headache and fever, along with a history of chronic otitis media and the CT finding (ring-enhancing lesion), is suggestive of an intracerebral abscess. This is the most common serious complication associated with chronic suppurative otitis media (CSOM), where the infection spreads to the brain, forming a localized pus collection. Temporal and cerebellar abscesses can arise from the direct spread of infection from the middle ear to the mastoid air cells, extending to the temporal lobe or cerebellum. Additionally, infection may spread directly from the petrous apex to these brain regions. Fig: Intracerebral abcess Meningitis (Option B): Pus erodes the tegmen (part of the temporal bone) and causes inflammation of the meninges. Extradural Abscess (Option C): Pus between the bone and the dura mater. Brain Abscess: Abscess within the brain parenchyma. (Option C) Sigmoid Sinus Thrombosis (Option D) Initial inflammation of the sinus wall (periphlebitis), followed by inflammation of the endothelium (endophlebitis), leading to platelet aggregation and thrombus formation in the sigmoid sinus, and presents as a delta sign

References:

Dhingra Diseases of Ear, Nose and Throat and Head and Neck Surgery, 8th Edition, Page 97-102

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Q2: A patient with otitic hydrocephalus develops headaches, visual disturbances, and papilledema but no focal neurological deficits. Which of the following findings would most likely be seen on lumbar puncture? (Q847841)

A. Normal CSF composition with elevated opening pressure

B. High neutrophil count in the CSF

C. Decreased glucose and elevated protein in the CSF

D. Low opening pressure and elevated protein

Correct Answer: A. Normal CSF composition with elevated opening pressure

■ *Listen (English)*

■ *Listen (Hindi)*

Explanation: In otitic hydrocephalus, the cerebrospinal fluid (CSF) typically remains normal in composition and bacteriologically sterile, but there is an elevated opening pressure when performing a lumbar puncture due to raised intracranial pressure. Otitic hydrocephalus: Pathophysiology: Formation of lateral sinus thrombosis due to middle ear infection obstructs the venous return causing raised intracranial tension. Clinical manifestations: Severe headache Nausea and vomiting Diplopia due to paralysis of the VIth cranial nerve Papilloedema Nystagmus due to raised intracranial tension Investigations: Lumbar puncture: Raised CSP pressure Normal in cell, protein, and sugar content and bacteriologically sterile CT scan - dilatation of ventricles Treatment: Acetazolamide Corticosteroids Frequent lumbar puncture or lumbar drain placement Lumboperitoneal shunting Middle ear infection: Antibiotics and mastoid exploration

References:

Dhingra Diseases of Ear, Nose and Throat and Head and Neck Surgery, 8th Edition, Page 102

↑ *Back to this question in Part A*

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Q3: A 30-year-old male with a history of chronic suppurative otitis media complaints of fever with chills and rigors, ear pain, and headache. On examination, he has mastoid tenderness. Fundoscopy reveals papilledema and engorgement of retinal veins when the jugular vein is compressed. A CT scan is done and shown below. Which of the following radiological findings is most consistent with lateral/sigmoid sinus thrombophlebitis? (Q847840)

A. Griesinger Sign

B. Delta sign

C. Ring enhancement

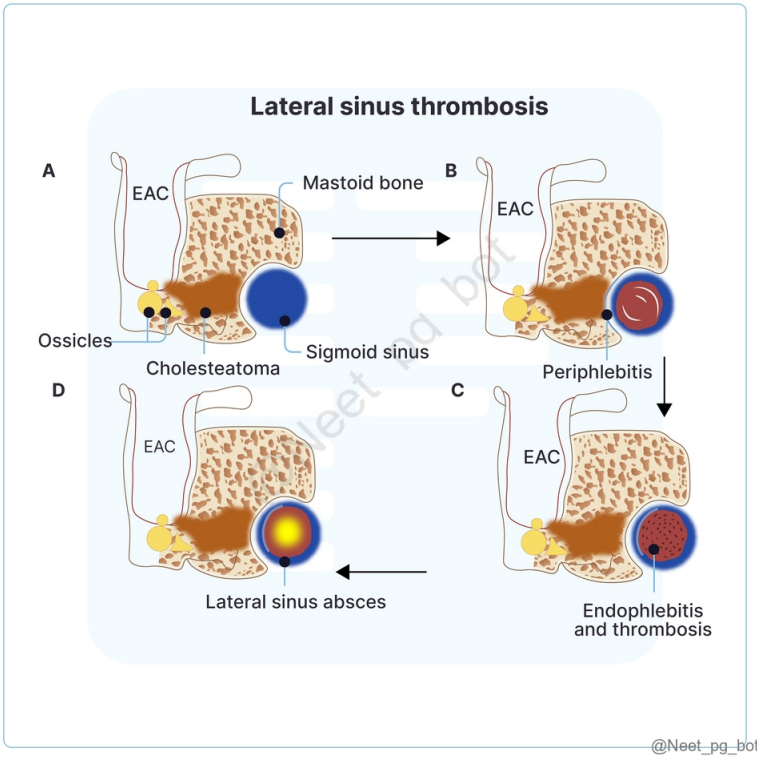
D. Crescent sign

Correct Answer: B. Delta sign

- *Listen (English)*
- *Listen (Hindi)*

Explanation: The "Delta sign" is the radiological finding on contrast-enhanced CT or MR venography, indicating a filling defect due to thrombus within the sinus. Delta or empty triangle sign Lateral/sigmoid sinus thrombophlebitis Inflammation of the inner wall of lateral venous sinus with formation of an intrasinus thrombus. Etiology Acute coalescent mastoiditis Chronic suppuration of middle ear Cholesteatoma Pathophysiology: Clinical manifestation: Hectic picket fence type of fever with chills and rigors (picture resembles malaria but lacks regularity) Headache Griesinger Sign: Oedema appears over the posterior part of the mastoid due to thrombosis of the mastoid emissary vein (Option A ruled out) Papilloedema with retinal hemorrhages or dilated veins Tobey-Ayer Test: Compression of the jugular vein on the normal side causes a rise in the CSF pressure Crowe-Beck Test: Engorgement of retinal veins and supraorbital veins when the jugular vein on the normal side is compressed Tenderness along the jugular vein Diagnosis: Contrast-enhanced CT: Triangular filling defect area with rim enhancement and central low-density (Delta sign) (Option B) Others: Contrast-enhanced MRI, MR venography Treatment: IV antibiotics Mastoidectomy and exposure of Sinus Ring enhancement (Option C): Contrast-enhanced CT/ MRI with contrast shows a rim-enhancing lesion with surrounding brain parenchyma edema in brain abscess. Crescent sign (Option D): In subdural hemorrhage, a CT scan is characterized by a crescent-shaped hyperdense collection along the convexity of the brain, indicating blood accumulation between

the dura and the arachnoid mater.



References:

Dhingra Diseases of Ear, Nose and Throat and Head and Neck Surgery, 8th Edition, Page 100-102

The interdural hematoma: A subtype of convexity subdural/dural hematoma with specific radioanatomical characteristics - PMC (nih.gov)

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Q4: A 45-year-old male with a history of chronic otitis media, presents with severe headache, fever, and confusion. Fundoscopy reveals papilledema. Collection of pus between the dura mater and the arachnoid mater is visualized on MRI brain. What is the most likely diagnosis for this patient? (Q847839)

A. Extradural abscess

B. Subdural abscess

C. Cerebral abscess

D. Epidural abscess

Correct Answer: B. Subdural abscess

■ *Listen (English)*

■ *Listen (Hindi)*

Explanation: A subdural abscess is a collection of pus between dura and arachnoid (subdural space). It presents with fever, headache, and vomiting with localizing neurological signs. Pus collection is visualized on an MRI brain. Extradural abscess Subdural abscess Pathology Collection of pus between the bone and dura mater (Option A) Collection of pus between the dura mater and the arachnoid (Option B) Clinical manifestations Most of the time, it is asymptomatic, a SILENT abscess . Persistent headache on the side of otitis media Severe ear pain Pulsatile purulent ear discharge Disappearance of headache with free flow of pus from the ear (spontaneous abscess drainage) Meningeal irritation Cortical Venous Thrombophlebitis Raised Intracranial Tension Focal neurological deficits Diagnosis CT/MRI CT/MRI Treatment Mastoidectomy for clearance of the disease IV antibiotics Drainage of pus Burr holes or a craniotomy to drain subdural empyema IV antibiotics Later, mastoidectomy for clearance of disease Cerebral abscess (Option C) , also known as a brain abscess, is an abscess located in the cerebrum parenchyma. Epidural abscess (Option D): Epidural and extradural space refers to the same space between the dura mater and the bones of the skull or vertebral column. The terms extradural and epidural are commonly used when referring to the brain and spinal cord, respectively.

References:

Dhingra Diseases of Ear, Nose and Throat and Head and Neck Surgery, 8th Edition, Pages 97-98

https://www.ncbi.nlm.nih.gov/books/NBK535450/

↑ *Back to this question in Part A*

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Q5: A 42-year-old right-handed patient with a history of chronic suppurative otitis media presents with headache, fever, and left-sided weakness. On examination, nominal aphasia, homonymous hemianopia, and reduced power in his left limbs are noted. CT scan is shown below. Which of the following is the most likely route of infection spread in this patient? (Q847838)

A. Retrograde thrombophlebitis

B. Direct extension from the mastoid cavity

C. Retrograde spread through the lymphatic system

D. Both A and B are correct

Correct Answer: D. Both A and B are correct

- *Listen (English)*
- *Listen (Hindi)*

Explanation: CT brain shows a discrete lesion with a thin rim-enhancing lesion . The patient is most likely suffering from a temporal lobe abscess based on the clinical history of CSOM, symptoms, and signs. In patients with CSOM , it develops due to direct extension from the middle ear through the tegmen or by retrograde thrombophlebitis . Otogenic brain abscess: It is the most common intracranial complication of CSOM . 50% of brain abscesses in adults are otogenic in origin . Organism: Both aerobic and anaerobic bacteria. Routes of spread: (Option D) Direct extension of middle ear infection through the tegmen . Retrograde thrombophlebitis . Clinical Features: Raised intracranial pressure, Headache, vomiting, lethargy, drowsiness, confusion, stupor. Papilledema and bradycardia. Temporal lobe abscess - epilepsy, nominal aphasia, homonymous hemianopia, contralateral motor paralysis. Cerebellar abscess- suboccipital headache, spontaneous nystagmus, ipsilateral weakness and ataxia, dysmetria, and dysdiadochokinesia. Diagnosis: Contrast-Enhanced CT/ MRI with contrast: Rim-enhancing lesion with surrounding brain parenchyma edema. Lumbar puncture: Raised pressure, increase in protein, and white cell count, normal glucose level. Treatment: Medical: IV antibiotics, dexamethasone, and mannitol to stabilize the patient. Surgical: Drainage of brain abscess. Otologic- Modified radical mastectomy for CSOM/Cholesteatoma. Retrograde spread through the lymphatic system (Option C): There is no known evidence for the spread of infection from the ear or mastoid air cells to the brain to form an abscess. Retrograde lymphatic spread of cancer cells occurs against the direction of lymphatic flow.

References:

Dhingra Diseases of Ear, Nose and Throat and Head and Neck Surgery, 8th Edition, Page 98-100

https://www.researchgate.net/figure/Brain-CT-with-contrast-media-shows-an-abscess-in-the-right-temporal-lobe_fig1_267699676

https://radiopaedia.org/articles/cerebral-abscess-1

https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4504565/

↑ *Back to this question in Part A*

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Q6: A 6-year-old child is admitted with high fever, headache, neck stiffness, and altered mental status. The child was recently treated for acute otitis media. Lumbar puncture shows a predominance of polymorphs, protein level is raised, sugars reduced and chlorides diminished. Otoscopic examination reveals bulging of the tympanic membrane. Which of the following is the most appropriate immediate intervention to manage the underlying cause? (Q847837)

A. Myringotomy

B. Radical mastoidectomy

C. Modified radical mastoidectomy

D. Culture and sensitivity of CSF

Correct Answer: A. Myringotomy

■ *Listen (English)*

■ *Listen (Hindi)*

Explanation: The child is most probably suffering from bacterial meningitis secondary to acute otitis media in this case. Myringotomy is indicated here to relieve pressure (bulging tympanic membrane), drain the middle ear infection, and prevent further spread of infection into the intracranial space. Meningitis: Most common intracranial complication of otitis media In infants and children, otogenic meningitis usually follows acute otitis media In adults, it is due to chronic middle ear infection Clinical manifestations: High-grade fever with chills and rigors. Projectile vomiting Headache Altered sensorium Drowsiness and irritability Photophobia Brudzinski's sign: Flexion of neck results in flexion of hip and knee Kernig's sign: With the thighs flexed on the abdomen there is pain while trying to extend it Diagnosis: CSF analysis with culture and sensitivity- helps in deciding on the antibiotic therapy (Option D) CT or MRI with contrast Treatment: Antibiotics Corticosteroids If the source of infection is: Acute otitis media- myringotomy or cortical mastoidectomy (Option A) Chronic otitis media with cholesteatoma- radical or modified radical mastoidectomy (Options B & C)

References:

Dhingra Diseases of Ear, Nose and Throat and Head and Neck Surgery, 8th Edition, Page 98

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Q7: A 58-year-old patient has intermittent vertigo, particularly triggered while cleaning his ear. Otoscopic examination reveals a tympanic membrane perforation. A fistula test is positive, and imaging confirms localized erosion of the horizontal semicircular canal. What is the most common cause of this condition? (Q847836)

A. CSOM with cholesteatoma

B. Acute otitis media

C. Sequelae of serous labyrinthitis

D. Glomus tumour

Correct Answer: A. CSOM with cholesteatoma

■ *Listen (English)*

■ *Listen (Hindi)*

Explanation: Circumscribed Labyrinthitis is the most probable diagnosis in this scenario. The most common cause is chronic suppurative otitis media with cholesteatoma which leads to thinning or erosion of the bony capsule of the labyrinth, usually of the horizontal semicircular canal. Labyrinthitis: Inflammation of the labyrinth It is of three types: Circumscribed Diffuse serous Diffuse suppurative Pathology Thinning or erosion of the bony capsule of the labyrinth Most commonly horizontal semicircula r canal is involved Diffuse intralabyrinthine inflammation without pus formation It is reversible Diffuse pyogenic infection of the labyrinth. Permanent loss of vestibular and cochlear functions Etiology Most common: Chronic suppurative otitis media with cholesteatoma (Option A) Neoplasms of the middle ear like carcinoma or glomus tumour (Option D ruled out) Surgical or accidental trauma Most common: progression of preexisting circumscribed labyrinthitis associated with chronic middle ear suppuration or cholesteatoma. Acute otitis media (Option B ruled out) Following a stapedectomy or fenestration operation Progression of serous labyrinthitis associated with pyogenic organisms (Option C ruled out) Clinical manifestations Transient nystagmus and vertigo induced by pressure on the tragus, cleaning the ear, or Valsalva maneuver Fistula sign is positive Vertigo (single long episode) with sensorineural hearing loss. Severe vertigo with nausea and vomiting Total sensorineural hearing loss Nystagmus Positive pressure- nystagmus to the same side Negative pressure- nystagmus to the opposite side Nystagmus to the affected side Nystagmus to the opposite side Treatment Management of the cause Antibacterial therapy Labyrinthine sedatives Surgery: Cortical mastoidectomy or modified radical mastoidectomy It is the same as diffuse serous labyrinthitis Drainage of the labyrinth to evacuate the pus

References:

Dhingra Diseases of Ear, Nose and Throat and Head and Neck Surgery, 8th Edition, Page 96, 97

↑ *Back to this question in Part A*

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Q8: Which of the following is the classic triad of symptoms associated with Gradenigo Syndrome? (Q847835)

A. Fever, facial swelling, and hearing loss

B. Lateral rectus palsy, retro-orbital pain, and Ear discharge

C. Nausea, vertigo, and tinnitus

D. Headache, neck stiffness, and photophobia

Correct Answer: B. Lateral rectus palsy, retro-orbital pain, and Ear discharge

■ *Listen (English)*

■ *Listen (Hindi)*

Explanation: Gradenigo Syndrome is characterized by a triad of symptoms due to petrous apicitis: lateral rectus palsy (which causes eye movement difficulties), retro-orbital pain (deep pain behind the eye), and persistent ear discharge. These symptoms result from the spread of infection from the middle ear to the petrous apex of the temporal bone. Petrositis (Petrous Apicitis) Definition: Infection spreading from the middle ear and mastoid to the petrous part of the temporal bone is known as petrositis Clinical Features: Gradenigo Syndrome - Classic triad: Lateral rectus palsy (VIth nerve palsy). Deep-seated ear or retro-orbital pain (Vth nerve involvement). Persistent ear discharge. Additional Symptoms: Persistent ear discharge despite mastoidectomy. Fever, headache, vomiting, neck rigidity. Facial paralysis and recurrent vertigo may occur. Fever, facial swelling, and hearing loss (Option A): These signs are not specific to Gradenigo Syndrome. Nausea, vertigo, and tinnitus (Option C): These signs are typical of vestibular disorders. Headache, neck stiffness, and photophobia (Option D): These are rather the signs of meningitis.

References:

Dhingra Diseases of Ear, Nose and Throat and Head and Neck Surgery, 8th Edition, Page 95

↑ *Back to this question in Part A*

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Q9: A 5-year-old child with persistent fever, severe ear pain, and swelling behind the ear, despite antibiotic treatment for acute otitis media. Physical examination reveals significant mastoid tenderness. What would you expect to see on the CT scan, and what is the most appropriate treatment? (Q847834)

A. Normal air cells;Observation and follow-up

B. Clear air cells; Cortical mastoidectomy

C. Clear air cells; Antifungal therapy

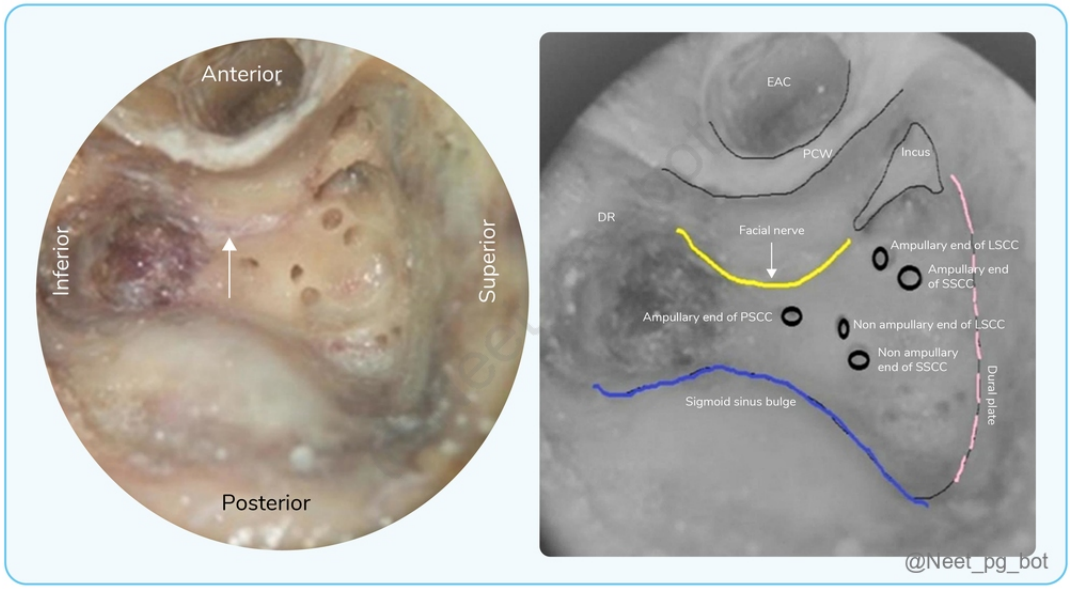
D. Cavity formation; Antibiotics

Correct Answer: D. Cavity formation; Antibiotics

■ *Listen (English)*

■ *Listen (Hindi)*

Explanation: This presentation is consistent with acute mastoiditis, where the CT scan would typically show cavity formation due to pus accumulation in the mastoid air cells. The most appropriate treatment involves starting broad-spectrum antibiotics to manage the infection and performing a myringotomy to relieve pressure. Acute mastoiditis Investigations Blood Counts: Polymorphonuclear leucocytosis. Erythrocyte Sedimentation Rate: Elevated. CT Scan: Clouding of air cells, indistinct bony partitions, potential cavity formation (Options A, B & C) Ear Swab: Culture and sensitivity for aerobic and anaerobic organisms. Treatment Hospitalization: Required for management. Antibiotics: Start with amoxicillin or ampicillin; adjust based on sensitivity report. Include metronidazole if anaerobes are present. Myringotomy: To relieve pus under tension; often combined with antibiotic treatment. Treatment of Choice: Cortical Mastoidectomy (Schwartz Operation) Also known as Intact Canal Wall Mastoidectomy Procedure: Remove all mastoid air cells Create a single cavity Landmarks: Tegmen Sigmoid sinus Tip of the mastoid Bulge of the lateral semicircular canal All these landmarks should be visible if the patient has undergone cortical mastoidectomy First figure depicts left temporal bone showing cortical mastoidectomy showing facial nerve (white arrow) in the deepest part of the posterior canal wall. Second figure is an illustrative picture showing structures in dissected temporal bone (yellow line: facial nerve, blue line: sigmoid sinus bulge and pink dotted line: dural or tegmen plate). (DR: Digastric ridge; EAC: External auditory canal; PCW: Posterior canal wall; LSCC: Lateral semicircular canal; PSCC: Posterior semicircular canal; SSCC: Superior semicircular canal)



References:

Dhingra Diseases of Ear, Nose and Throat and Head and Neck Surgery, 8th Edition, Page 91,92

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Q10: Which of the following statements about acute mastoiditis is false? (Q847833)

A. Persistent fever despite antibiotics.

B. Mastoid swelling is seen.

C. Sagging of the posterosuperior meatal wall.

D. Pinna usually pushed backwards and upwards.

Correct Answer: D. Pinna usually pushed backwards and upwards.

■ *Listen (English)*

■ *Listen (Hindi)*

Explanation: Pinna is usually pushed forward and downwards in acute mastoiditis . Acute Mastoiditis: Definition: Inflammation of the mucosal lining of the mastoid air cells due to infection spreading from acute otitis media, involving the bony walls of the mastoid air-cell system. Aetiology Primary Cause: Follows or accompanies acute suppurative otitis media. Determining Factors: High virulence of organisms or lowered patient resistance (e.g., measles, exanthematous fevers, poor nutrition, systemic diseases like diabetes). Common Organisms: Beta-haemolytic streptococcus is most common. Clinical Features: Symptoms: Persistent or worsening pain behind the ear. Persistent or recurrent fever despite antibiotics (Option A) . Increased, profuse, or obstructed ear discharge. Signs: Ironed Out Appearance of the Mastoid: First sign of acute mastoiditis:Due to inflammation of the mastoid periosteum. Mastoid tenderness. Mucopurulent or purulent ear discharge. Sagging of posterosuperior meatal wall (Option C) . Tympanic membrane perforation or dullness. Swelling over the mastoid (Option B) . Pushes the pinna forward and downwards. Deepening of the retroauricular sulcus. Conductive hearing loss. Ill appearance with fever, especially in children. Light House Sign: Discharge reflects light and is pulsatile on otoscopy. Positive Reservoir Sign: Immediate Reappearance of Pus After Mopping. Fig: Mastoiditis

References:

Dhingra Diseases of Ear, Nose and Throat and Head and Neck Surgery, 8th Edition, Page 91, 92

↑ *Back to this question in Part A*

@Neet_pg_bot

Q11: Which of the following is the most common extracranial complication of Acute Otitis Media? (Q847832)

A. Labyrinthitis

B. Facial Nerve Palsy

C. Mastoiditis

D. Septicemia

Correct Answer: C. Mastoiditis

■ *Listen (English)*

■ *Listen (Hindi)*

Explanation: Mastoiditis is the most common extracranial complication of Acute Otitis Media (AOM) because the infection can spread from the middle ear to the mastoid bone, leading to inflammation and infection of the mastoid air cells. This condition often requires prompt treatment to prevent further complications. Symptoms include swelling behind the ear, fever, and ear pain. Extracranial complications Acute Mastoiditis: Disease progresses from the middle ear to the mastoid bone via the aditus. Labyrinthitis: Disease progresses from the middle ear to the inner ear. Facial Nerve Palsy: Disease progresses to the internal auditory meatus or along the course of the facial nerve, leading to facial nerve palsy. Petrositis: Infection progresses towards the apex of the petrous bone, causing petrositis. Osteomyelitis: Involves the squamous portion of the temporal bone. Septicemia: Infection spreads to the bloodstream, resulting in septicemia. Meningitis is the most common intracranial complication of Acute Otitis Media Labyrinthitis, facial nerve palsy, and septicemia are less common complications of AOM compared to mastoiditis (Options A, B & D)

References:

Dhingra Diseases of Ear, Nose and Throat and Head and Neck Surgery, 8th Edition, Page 91-97

↑ *Back to this question in Part A*

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Q12: All of the following are the usual routes of spread of middle ear infections except? (Q847830)

A. Bony erosion

B. Lymphatic spread

C. Preformed pathways or natural communications

D. Venous thrombophlebitis

Correct Answer: B. Lymphatic spread

■ *Listen (English)*

■ *Listen (Hindi)*

Explanation: Lymphatic spread is not the usual route of spread of middle ear infections to the adjacent structures, leading to various intracranial and extracranial complications. Routes of the spread of middle ear infections include: Direct Bone Erosion (Option A) Acute Infections : Characterized by hyperaemic decalcification. Chronic Infections : Osteitis Erosion by cholesteatoma or granulation tissue Venous Thrombophlebitis (Option D) Connection : Veins in Haversian canals of bone are linked with: Dural veins Dural venous sinuses Superficial veins of the brain Infection Spread : Infection from the mastoid bone can lead to: Thrombophlebitis of venous sinuses Cortical vein thrombosis Encephalitis Common in Acute Infections Pre-formed Pathways (Option C) Congenital Dehiscences : Bony facial canal Floor of middle ear over the jugular bulb Patent Sutures : Petrosquamous suture Previous Skull Fractures : Heal with fibrous scar, permitting infection Surgical Defects : Stapedectomy Fenestration Mastoidectomy with exposure of dura Oval and Round Windows Infection Spread from Labyrinth

References:

Dhingra Diseases of Ear, Nose and Throat and Head and Neck Surgery, 8th Edition, Page90

↑ *Back to this question in Part A*

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Q13: A patient with a permanent central perforation and conductive hearing loss is diagnosed with the mucosal type of chronic suppurative otitis media. To reconstruct the hearing mechanism and seal the middle ear cleft, which surgical intervention is considered the mainstay of treatment? (Q892022)

A. Cortical mastoidectomy

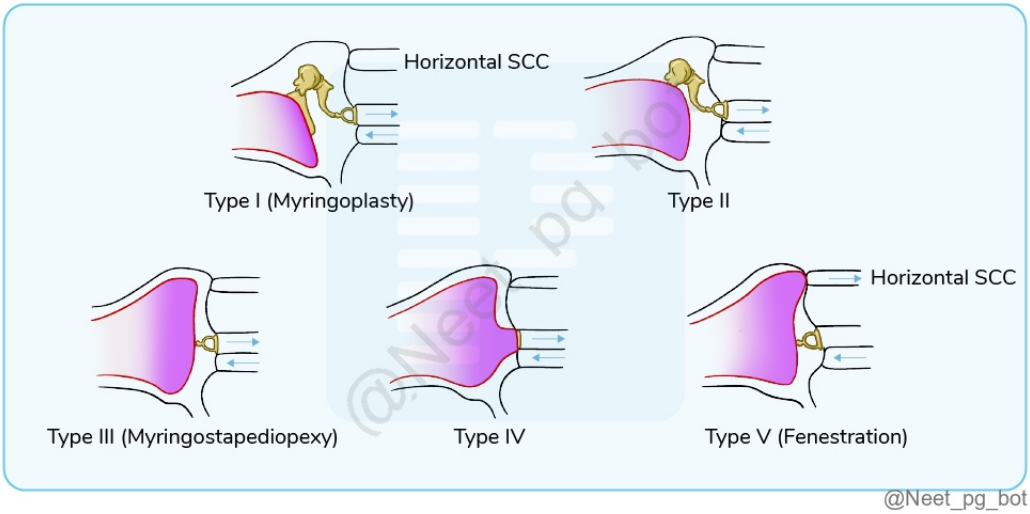
B. Radical mastoidectomy

C. Tympanoplasty

D. Modified radical mastoidectomy

Correct Answer: C. Tympanoplasty

Explanation: Tubotympanic type of chronic suppurative otitis media is classified as the safe variety because it involves the anteroinferior part of the middle ear cleft and is not associated with bone-eroding cholesteatoma. The primary surgical goal for these patients is to close the tympanic membrane perforation with myringoplasty and, if necessary, reconstruct the ossicular chain to restore hearing. Collectively, these procedures are termed Tympanoplasty . Types of tympanoplasty Cortical mastoidectomy (Option A) involves clearing the mastoid air cells but preserving the posterior canal wall; it is primarily used for acute mastoiditis with abscess. Radical mastoidectomy (Option B) is an aggressive procedure that converts the middle ear, mastoid, and external canal into a single cavity, sacrificing the hearing mechanism and tympanic membrane; it is reserved for advanced, unsafe disease. Modified radical mastoidectomy (Option D) is the surgery of choice for unsafe (atticoantral) CSOM involving cholesteatoma.



References:

PL Dhingra's Diseases of Ear, Nose and Throat and Head and Neck Surgery, 8th Edition, Pages 34, 35, 85.

↑ *Back to this question in Part A*

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Q14: A patient is scheduled for an elective middle ear reconstruction to repair a chronic central perforation. During the routine pre-operative workup for this uncomplicated mucosal-type case, which of the following is generally considered not indicated as a mandatory investigation? (Q892023)

A. Pure Tone Audiometry

B. Evaluation of Eustachian tube function

C. High-Resolution CT (HRCT) scan of the temporal bone

D. Routine haematological investigations and informed consent

Correct Answer: C. High-Resolution CT (HRCT) scan of the temporal bone

Explanation: Tubotympanic CSOM is primarily a clinical diagnosis, and the decision for surgery is based on otoscopic findings and audiological assessment. In uncomplicated cases with a clear central perforation and no signs of unsafe features, an HRCT scan of the temporal bone is not routinely required. Imaging is typically reserved for cases where cholesteatoma is suspected, if there are complications, or if the patient is undergoing revision surgery. Pure Tone Audiometry (Option A) is an essential pre-operative investigation used to document the degree of conductive hearing loss, establish a baseline for post-operative comparison, and check the reserve of

the inner ear. Evaluation of Eustachian tube function (Option B) : A patent and functional Eustachian tube is a prerequisite for a successful tympanoplasty, as the graft is less likely to heal or remain in position if there is persistent negative pressure or poor aeration of the middle ear. Routine haematological investigations and informed consent (Option D) : These are standard medico-legal and safety requirements for any surgical procedure performed under anaesthesia, including haemoglobin estimation to ensure the patient can tolerate the surgery.

References:

PL Dhingra's Diseases of Ear, Nose and Throat and Head and Neck Surgery, 8th Edition, Page 35-37.

↑ *Back to this question in Part A*

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Q15: Which of the following classifications is universally utilised by ENT surgeons to categorise middle ear reconstruction procedures? (Q892024)

A. Cotton-Myer classification

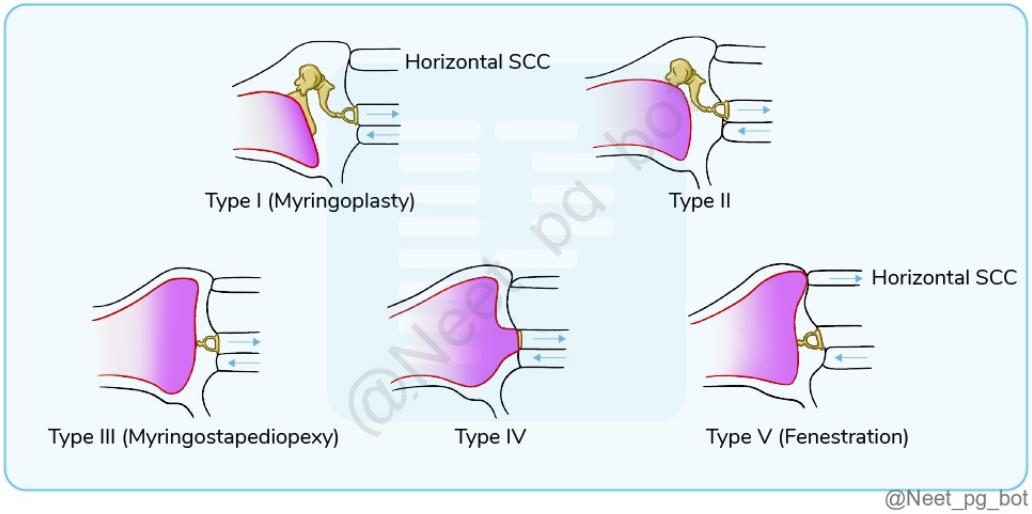
B. Wullstein classification

C. House-Brackmann classification

D. Glasscock-Jackson classification

Correct Answer: B. Wullstein classification

Explanation: The Wullstein classification is the standard system used to describe and categorise the various types of tympanoplasty based on the degree of ossicular destruction and the level at which the reconstruction is performed. Type Defect Repair Type I TM perforation only; ossicles intact TM graft placed (myringoplasty) Type II Malleus eroded Graft placed onto the incus or malleus remnant Type III Malleus & incus absent; stapes present Graft placed directly on the stapes head Type IV Only the mobile stapes footplate is present Graft placed over the footplate with round window protection Type V Stapes footplate fixed New fenestra created (lateral semicircular canal) Cotton-Myer classification (Option A) is used in pediatric otolaryngology to grade the severity of subglottic stenosis based on the percentage reduction in the cross-sectional area of the airway. House-Brackmann classification (Option C) is a clinical grading scale used to quantify the degree of facial nerve paralysis. Glasscock-Jackson classification (Option D) is utilised to describe the anatomical extent and surgical complexity of glomus jugulare and glomus tympanicum tumours.



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References:

Scott-Brown's Otorhinolaryngology, Head and Neck Surgery, 8th Edition, Volume 2, Page 1022.

PLDhingra's Diseases of Ear, Nose and Throat and Head and Neck Surgery, 8th Edition, Page 35.

↑ *Back to this question in Part A*

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Q16: A 30-year-old man presents with painless, odourless, and profuse discharge from the ear. Which of the following management strategies are employed for the treatment of this condition? Aural toilet to remove debris and mucoid discharge Administration of topical antibiotic ear drops Tympanoplasty to seal the perforation and restore hearing Modified radical mastoidectomy to remove bone-eroding disease (Q892032)

A. 1 and 2 only

B. 1, 2, and 3 only

C. 1, 3, and 4 only

D. All of the above

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Correct Answer: B. 1, 2, and 3 only

Explanation: The patient presents with the classic symptoms of tubotympanic (safe) type of chronic suppurative otitis media, confirmed by the image showing a central perforation. Initial management is medical, involving meticulous aural toilet (statement 1) to clean the canal and the use of topical antibiotic drops (statement 2) to render the ear dry. Once the infection is controlled and the ear is dry for a minimum of 3 to 6 months, the definitive treatment is Tympanoplasty (statement 3) to reconstruct the hearing mechanism and provide a permanent seal against future infections. Modified radical mastoidectomy (Statement 4) is reserved for the atticoantral (unsafe) type of chronic otitis media characterised by bone-eroding cholesteatoma.

References:

PL Dhingra's Diseases of Ear, Nose and Throat and Head and Neck Surgery, 8th Edition, Page 74-75.

↑ *Back to this question in Part A*

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Q17: Which autologous tissue is the most common graft material for tympanoplasty due to its low metabolic rate and high success rate in grafting? (Q892035)

A. Tragal perichondrium

B. Temporalis fascia

C. Areolar fascia

D. Cartilage island graft

Correct Answer: B. Temporalis fascia

Explanation: The primary objective of tympanoplasty is to provide a biocompatible scaffold for the closure of a tympanic membrane perforation. The temporalis fascia is the most common graft material because it is an autologous tissue with an exceptionally low basal metabolic rate, allowing it to survive in the relatively avascular middle ear cleft until neovascularisation occurs. Graft materials used are: Temporalis fascia (most common) (Option B) Areolar fascia overlying the temporal fascia (Option C ruled out) Perichondrium from the tragus (Option A ruled out) Cartilage (Option D ruled out) Vein Periosteum

References:

PL Dhingra's Diseases of Ear, Nose and Throat and Head and Neck Surgery, 8th Edition, Page 480.

↑ *Back to this question in Part A*

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Q18: A surgeon is performing a myringoplasty and decides to use the Underlay technique. Which of the following is correct regarding the anatomical placement of the graft in this method? (Q892036)

A. The graft is placed lateral to the malleus handle

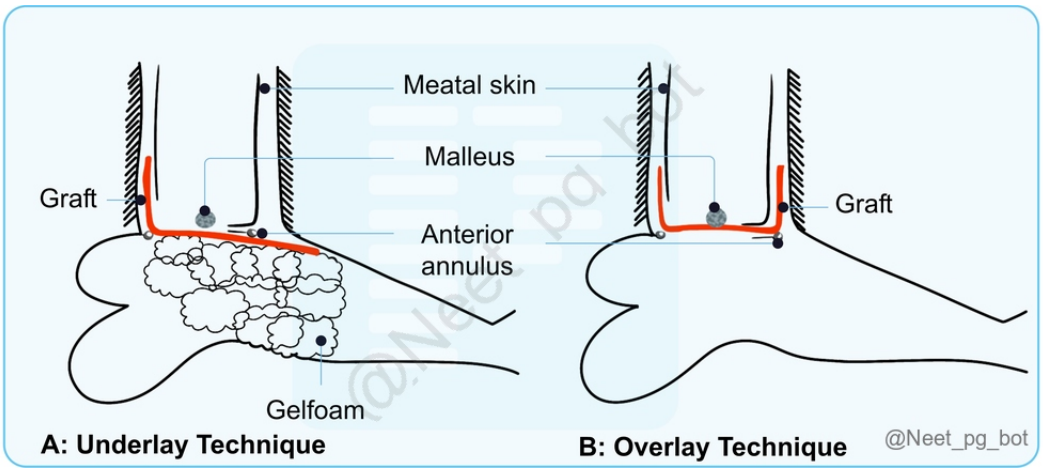
B. The graft is placed medial to the annulus

C. The graft is placed lateral to the annulus

D. The graft is placed lateral to the fibrous layer

Correct Answer: B. The graft is placed medial to the annulus

Explanation: Underlay Technique: The graft is positioned medial to the fibrous layer of the tympanic membrane and the bony annulus. (Option B) It is typically tucked medial to the handle of the malleus to provide structural support and prevent lateralisation. (Option A ruled out) This method has a high success rate and avoids the formation of epithelial pearls or blunting of the anterior angle. Overlay Technique: The graft is positioned lateral to the fibrous layer of the tympanic membrane and lateral to the bony annulus. (Option C & D ruled out) This technique requires the meticulous removal of the outer squamous epithelium to prevent iatrogenic cholesteatoma. It carries a significant risk of lateralisation, where the graft heals in a plane lateral to the annulus, and blunting of the anterior sulcus.



References:

Scott-Brown’s Otorhinolaryngology, Head and Neck Surgery, 8th Edition, Volume 2, Page 1026.

PLDhingra’s Diseases of Ear, Nose and Throat and Head and Neck Surgery, 8th Edition, Page 480-481.

↑ *Back to this question in Part A*

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• [01_Ear] 007 Otosclerosis

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[01_Ear] 007 Otosclerosis — Quick Jump

Q1 (p. 625)	*Q2 (p. 626)*	*Q3 (p. 627)*	*Q4 (p. 628)*	*Q5 (p. 629)*	*Q6 (p. 630)*
Q7 (p. 631)	*Q8 (p. 632)*	*Q9 (p. 633)*	*Q10 (p. 634)*	*Q11 (p. 635)*	*Q12 (p. 638)*
Q13 (p. 640)	*Q14 (p. 641)*	*Q15 (p. 641)*	*Q16 (p. 642)*	*Q17 (p. 643)*	*Q18 (p. 643)*
Q19 (p. 645)	*Q20 (p. 646)*				

Q1: Which of the following is NOT a characteristic of the inactive phase of otosclerosis? (Q847789)

A. Dense hypercellular bone

B. Excessive osteoclast activity

C. Mineralized sclerotic bone

D. Minimal remodeling

Correct Answer: B. Excessive osteoclast activity

■ *Listen (English)*

■ *Listen (Hindi)*

Explanation: The inactive phase is marked by dense hypercellular, sclerotic bone with minimal remodeling. Excessive osteoclastic activity is a feature of the active phase. Ossification and Bone Remodeling The otic capsule and ossicles undergo endochondral ossification, which is completed by the end of the first year of life. After this, minimal bone remodeling occurs, with few osteoclasts and osteoblasts. Otosclerosis occurs with excessive remodeling in otosclerotic foci. Phases of Otosclerosis Phase Features Histological features Active phase Characterized by Vascular proliferation Excessive remodeling (Option B) Increased osteoclast and osteoblast activity. The bone becomes spongy in appearance due to fibroblasts and histiocytes in the stroma, leading to the term otospongiosis . The new blood vessels are surrounded by a layer of new bone which stains blue on H and E stain hence known as the blue mantle of Manasse Inactive phase Marked by dense, hypercellular, sclerotic bone, with minimal remodeling (Options A, C , D) Mature foci show less vascularity and lay off more bone and more of fibrillar substance than cementum and are stained red.

References:

Logan Turner’s Diseases of the nose, throat, and ear, ed.11, page 434.

Dhingra Diseases of the Ear, Nose, and Throat. Ed.8, page 104

↑ *Back to this question in Part A*

Q2: A 50-year-old patient is scheduled for a stapedectomy to treat stapedial otosclerosis. Which of the following statements about the stapedectomy procedure is false? (Q847799)

A. Small incision is made in the ear canal or behind the ear

B. Stapes bone along with its superstructure is removed, and the footplate is fenestrated

C. A metal or plastic prosthetic device replaces the stapes.

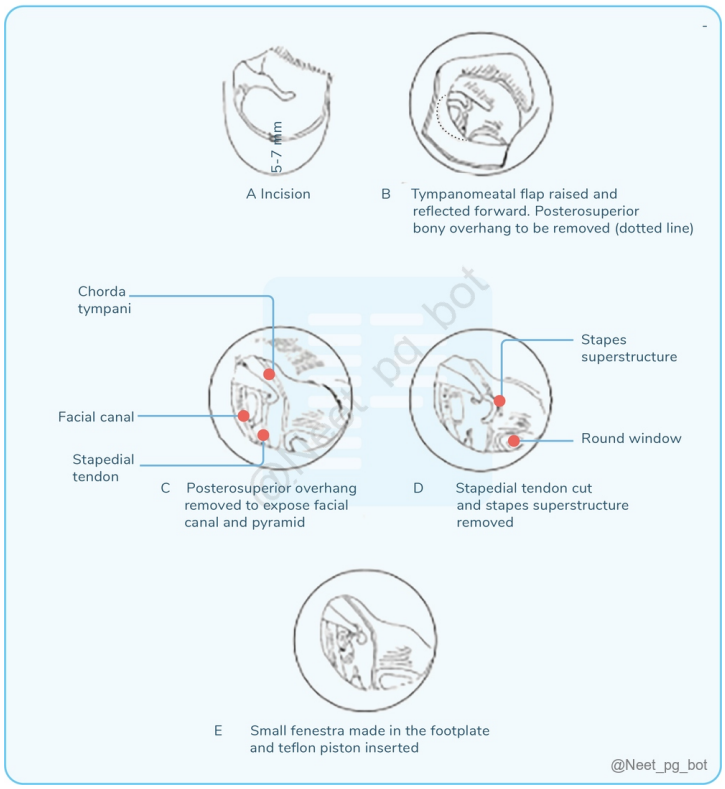
D. Lower complication rate

Correct Answer: D. Lower complication rate

■ *Listen (English)*

■ *Listen (Hindi)*

Explanation: Stapedectomy is associated with a higher risk of complications compared to stapedotomy, which generally has lower complication rates. Stapedectomy Access: Small incision in the ear canal or behind the ear. (Option A) Stapes Removal: Stapes bone along with its superstructure is removed, and the footplate is fenestrated (Option B) Prosthesis Placement: Insertion of a metal or plastic prosthetic device to replace the stapes, functioning as a piston to transmit sound to the inner ear. (Option C) .



References:

Dhingra Diseases of the Ear, Nose,and Throat, Edition 8, Pg 105, 106

https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3846245/

↑ *Back to this question in Part A*

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Q3: A 45-year-old male presents with progressive hearing loss in his left ear over the past few years. Audiometry shows hearing loss predominantly in lower frequencies, and otoscopic examination reveals a normal tympanic membrane. The patient denies experiencing tinnitus or vertigo. The patient's hearing loss is mild and not significantly affecting his daily life. What is the most appropriate initial management strategy for this patient? (Q847798)

A. Immediate stapedectomy surgery

B. Bisphosphonates

C. Observation and monitoring

D. Sodium fluoride therapy

Correct Answer: C. Observation and monitoring

■ *Listen (English)*

■ *Listen (Hindi)*

Explanation: This presentation is consistent with Stapedial otosclerosis. In mild cases of stapedial otosclerosis where hearing loss is not significantly impacting daily life, observation with regular hearing tests is the preferred initial approach. Management of Stapedial Otosclerosis Observation & Monitoring: (Option C) Recommended for mild cases or when hearing loss is not severe. Regular audiograms track hearing loss progression. Hearing Aids: Effective for conductive hearing loss due to the fixed stapes. Non-invasive option to improve sound transmission. Treatment for otosclerosis Mechanism Duration Benefits Sodium Fluoride (NaF) (Option D) Stabilizes hearing thresholds and vestibular symptoms. Combined with calcium carbonate and vitamin D for enhanced effect. At least 6 months Delays worsening tinnitus Reduces conductive and sensorineural hearing loss Bisphosphonates (Option B) Stabilizes hearing loss, reduces dizziness and tinnitus. At least 6 months Stabilizes hearing loss Relieves vestibular symptoms Immediate stapedectomy surgery (Option A) : Surgery is considered in more advanced or symptomatic cases. In case of bilateral otosclerosis the worse ear is operated first and a wait time of 6 months is warranted before next surgery. C/I: Positive Schwartz sign, Pregnancy, active infection, only hearing ear, flying, diving and working at height.

References:

Dhingra Diseases of the Ear, Nose,and Throat, 8th Edition, Pages 105, 106.

https://www.ncbi.nlm.nih.gov/pmc/articles/PMC10008770/

https://my.clevelandclinic.org/health/diseases/22033-otosclerosis

↑ *Back to this question in Part A*

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Q4: A patient who underwent stapedectomy for otosclerosis returns with complaints of dizziness and taste disturbances. Which of the following is a possible complication of stapedectomy that could explain these symptoms? (Q847797)

A. Progressive cochlear hearing loss

B. Persistent tinnitus

C. Reparative granuloma

D. Infection following surgery

Correct Answer: C. Reparative granuloma

■ *Listen (English)*

■ *Listen (Hindi)*

Explanation: Reparative granuloma is a rare complication that can lead to abnormal tissue growth around the stapes prosthesis, potentially causing dizziness and taste disturbances. Complications of Otosclerosis Hearing Loss: Progression may occur even with treatment, especially with cochlear otosclerosis affecting inner ear structures. (Option A) Tinnitus: Persistent ringing or buzzing that may not fully resolve. (Option B) Vertigo and Balance Problems: Potentially caused by cochlear otosclerosis affecting the inner ear. Surgical Complications (Stapedectomy) Further Hearing Los s- Due to slippage of prosthesis or progression of disease, Infection (Option D) , Dizziness, Taste Disturbances, Reparative Granuloma (Option C) Note: Most individuals with otosclerosis have a good prognosis with treatment and regular monitoring.

References:

Dhingra Diseases of the Ear, Nose , and Throat, Edition 8, Pg 104, 106.

↑ *Back to this question in Part A*

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Q5: A 35-year-old patient presents with progressive sensorineural hearing loss. Pure-tone audiometry shows a sloping SNHL pattern. Bone conduction does not show a Carhart notch. High-resolution CT scan identifies fenestral otosclerotic foci but shows no definite pericochlear (retrofenestral) changes. What is the most appropriate interpretation? (Q847796)

A. The CT scan confirms cochlear otosclerosis

B. The absence of a Carhart notch rules out cochlear otosclerosis

C. Cochlear otosclerosis should still be suspected despite CT not showing cochlear involvement

D. The sloping SNHL pattern rules out cochlear otosclerosis

Correct Answer: C. Cochlear otosclerosis should still be suspected despite CT not showing cochlear involvement

■ *Listen (English)*

■ *Listen (Hindi)*

Explanation: Cochlear (retrofenestral) otosclerosis produces sensorineural hearing loss , typically with a sloping SNHL pattern . A Carhart notch and absent stapedial reflex indicate fenestral (stapes fixation) disease, not cochlear disease. In this case, the absence of a Carhart notch and presence of stapedial reflexes make stapes fixation less likely . High-resolution CT often detects fenestral foci, but retrofenestral cochlear involvement can be subtle and may not be visible on imaging. Therefore, cochlear otosclerosis should still be suspected even when CT does not show clear pericochlear changes The CT scan confirms cochlear otosclerosis (Option A): CT does not always

show retrofenestral involvement; a normal CT does not confirm cochlear otosclerosis. The absence of a Carhart notch rules out cochlear otosclerosis (Option B): Absence of Carhart notch does not rule out cochlear otosclerosis (it rules out stapedial otosclerosis). The sloping SNHL pattern rules out cochlear otosclerosis (Option D): Sloping SNHL is consistent with cochlear otosclerosis, not against it.

References:

Logan Turner's Diseases of the Nose, Throat and Ear, 11th Edition, Page 434, 435, 436, 437

↑ *Back to this question in Part A*

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Q6: A 40-year-old woman with early-stage otosclerosis presents with progressive conductive hearing loss and a normal tympanic membrane. Which CT finding indicates the active phase of the disease? (Q847795)

A. Dense sclerotic bone around the stapes footplate

B. Lucent (hypodense) foci in the otic capsule near the stapes footplate

C. Erosion of the cochlear capsule with hypodense areas

D. Normal bone density with no abnormalities

Correct Answer: B. Lucent (hypodense) foci in the otic capsule near the stapes footplate

■ *Listen (English)*

■ *Listen (Hindi)*

Explanation: In active otosclerosis , there is pathological bone remodeling in the otic capsule, particularly in the area anterior to the oval window known as the fissula ante fenestram . This phase is characterized by resorption of normal dense endochondral bone and its replacement by spongy vascular bone — a process referred to histologically as otospongiosis . On high-resolution CT of the temporal bone , this active phase appears as hypodense (lucent) foci near the stapes footplate, especially in the region of the fissula ante fenestram. This finding is subtle but highly suggestive of early, active disease , before significant stapes fixation or cochlear involvement occurs. Otosclerosis Imaging High-Resolution CT Scan (Option C ruled out) Sensitive and specific for active otosclerosis. The role of CT in stapedial otosclerosis is limited. CT is primarily used for atypical presentations or to evaluate cochlear otosclerosis , where it can reveal hypodense lesions in the otic capsule. Reveals hypodense lesions in active disease. Less effective for inactive disease due to dense otic capsule. Fig: HRCT of Otosclerosis Dense sclerotic bone around the stapes footplate (Option A): Seen in the inactive or late stage, reflecting bone deposition and fixation. Erosion of the cochlear capsule with hypodense areas (Option C): Suggests extensive cochlear involvement, more typical of advanced otosclerosis, not early active disease. Normal bone density with no abnormalities (Option D): Would not be expected in active otosclerosis; subtle hypodense lesions are usually visible with proper imaging technique.

References:

Logan Turner’s Diseases of the Nose, Throat and Ear, Ed.11, Pg 435, 436, 437.

Image: Logan Turner’s Diseases of the Nose, Throat and Ear, Ed.11, Pg 437.

↑ *Back to this question in Part A*

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Q7: A 50-year-old man reports progressive hearing loss without tinnitus or vertigo. Otoscopy shows a normal tympanic membrane. Audiometry reveals a low-frequency air-bone gap with preserved speech discrimination. What is the most likely diagnosis? (Q847794)

A. Cochlear otosclerosis

B. Stapedial otosclerosis

C. Presbycusis

D. Tympanosclerosis

Correct Answer: B. Stapedial otosclerosis

■ *Listen (English)*

■ *Listen (Hindi)*

Explanation: The patient has progressive low-frequency conductive hearing loss with a normal tympanic membrane and no tinnitus or vertigo , which is characteristic of stapedial otosclerosis . It results from stapes footplate fixation , causing a low-frequency air-bone gap on audiometry with preserved speech discrimination . Feature Stapedial Otosclerosis (Option B) Cochlear Otosclerosis (Option A) Location Stapes footplate (attached to the oval window) Bony capsule of the cochlea Hearing loss type Conductive hearing loss Sensorineural hearing loss Effect on sound transmission Restricts movement of the stapes, impairing sound vibrations Disrupts cochlear structures, impairing signal conversion Vestibular symptoms Absent in most cases Vertigo or dizziness in some cases Frequency of hearing loss Lower frequencies affected first Higher frequencies affected first Tympanic membrane Normal - Other symptoms - Tinnitus (ringing in the ears) Presbycusis (Option C): An age-related bilateral sensorineural hearing loss affecting high frequencies. It does not produce an air-bone gap and would typically affect speech discrimination. Tympanosclerosis (Option D) is characterised by calcified plaques on the tympanic membrane or ossicles, often visible on otoscopy. A normal tympanic membrane in this case makes this diagnosis unlikely.

References:

Dhingra Diseases of the Ear, Nose , and Throat, 8th Edition, Page 104

↑ *Back to this question in Part A*

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Q8: A 35-year-old woman presents with progressive hearing loss. She reports that she hears better in noisy environments, such as when talking to people in crowded places. This phenomenon is known as: (Q847793)

A. Paracusis Willisii

B. Presbycusis

C. Hyperacusis

D. Diplacusis

Correct Answer: A. Paracusis Willisii

■ *Listen (English)*

■ *Listen (Hindi)*

Explanation: Paracusis Willisii is a phenomenon commonly seen in otosclerosis, where patients hear better in noisy environments . This is because in noisy situations, people tend to speak louder, and the conductive hearing loss caused by otosclerosis allows patients to better perceive louder sounds. Symptoms of otosclerosis: Hearing

Loss: This is the presenting symptom and usually starts in the twenties . It is painless and progressive and bilateral conductive type . Paracusis Willisii: An otosclerotic patient hears better in noisy than in quiet surroundings. This is because a normal person will raise his voice in noisy surroundings. Tinnitus: It is more commonly seen in cochlear otosclerosis and active lesions. Vertigo: Uncommon symptom, can occur if vestibule is involved. Speech: The patient has a monotonous, well-modulated soft speech .

References:

Dhingra Diseases of the Ear, Nose,and Throat. Ed.8, page 104.

Logan Turner's Diseases of the nose, throat, and ear, ed.11, page 434.

↑ *Back to this question in Part A*

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Q9: A 35-year-old female presents with bilateral, progressive hearing loss. She reports that she hears better in noisy environments. Tuning fork tests reveal bilateral negative Rinne's test, and audiometry shows conductive hearing loss. A CT scan shows sclerosis of the otic capsule. Which of the following genes is not implicated in this condition? (Q847792)

A. OTSC1

B. SERPINF1

C. COL1A2

D. TGFB1

Correct Answer: C. COL1A2

Explanation: The scenario indicates otosclerosis , characterized by conductive hearing loss and paracusis Willisii. Genes like OTSC1, SERPINF1, and TGFB1 are implicated in otosclerosis, but COL1A2 is not. Here is a concise summary of the key points from the two pages under each heading: Etiology of Otosclerosis: Etiology and triggers Remarks Genetic Predisposition Multiple genes have been associated with otosclerosis: OTSC 1-5 (Option A) SERPINF1 (Option B) COL1A1 TGFB1 (Option D) RELN Mode of inheritance: Autosomal dominant with incomplete penetrance. Race Whites > Blacks Indians > Chinese; Japanese. Sex Overall, Female > Males In India, Males > Females Viral Infection A persistent viral infection, particularly from the measles virus , has been proposed as a potential cause, with some otosclerotic foci showing chronic inflammation and viral antigens. Autoimmune Disease Antibodies to type II collagen have been implicated. Cytokines Cytokines like TGF-β1 and BMPs (bone morphogenetic proteins) are involved in abnormal bone remodeling in otosclerosis. Hormonal Factors Hormones from the renin-angiotensin-aldosterone system (RAAS) , particularly angiotensin II , may stimulate inflammatory pathways (TNF-α) contributing to otosclerosis. Initiated or made worse by pregnancy Deafness may increase during menopause, after an accident or a major operation.

References:

Scott Brown’s otorhinolaryngology,(vol. 2) ed.8, page 1065, 1066.

Dhingra Diseases of the Ear, Nose, and Throat. Ed.8, page 103.

Logan Turner’s Diseases of the nose, throat, and ear, ed.11, page 434.

↑ *Back to this question in Part A*

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Q10: A patient with otosclerosis undergoes a stapedectomy, but the air-bone gap persists. The surgeon suspects a third window effect. In which type of otosclerosis does this occur? (Q847791)

A. Histologic Otosclerosis

B. Cavitating Otosclerosis

C. Stapedial Otosclerosis

D. Biscuit-type Otosclerosis

Correct Answer: B. Cavitating Otosclerosis

Explanation: Cavitating otosclerosis involves the formation of large cavities within the otosclerotic foci. These cavities can act as a third window , leading to persistent conductive hearing loss after stapedectomy. Types of Otosclerosis: Stapedial otosclerosis Cochlear otosclerosis Histological otosclerosis Types Features Stapedial otosclerosis (Option C) Causes fixation of stapes and conductive deafness is the most common variety. Types include Anterior focus Posterior focus Biscuit type (Option D) Circumferential Obliterative Cochlear otosclerosis Involves a region of a round window or other areas in the otic capsule, and may cause sensorineural hearing loss probably due to the liberation of toxic materials into the inner ear fluid. Histologic Otosclerosis (Option A) asymptomatic and causes neither conductive nor sensorineural hearing loss. Cavitating Otosclerosis (Option B) : Very rarely, large cavities may form within otosclerotic foci, a condition termed cavitating otosclerosis. These cavities may act as a ‘third window’ in cases where the cavitation is in contact with the endosteum of the scala tympani and may be implicated in the persistence of the air–bone gap following a successful stapedectomy.

References:

Scott Brown’s Otorhinolaryngology, Volume 2, 8th Edition, Page 1063.

Dhingra Diseases of the Ear, Nose, and Throat. 8th Edition, Page 104

↑ *Back to this question in Part A*

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Q11: A 45-year-old patient presents with progressive conductive hearing loss. During a stapedectomy, the surgeon notes that the stapes footplate is fixed, but the annular ligament remains free. Which type of stapedial otosclerosis is most likely present in this patient? (Q847790)

A. Posterior focus

B. Circumferential type

C. Biscuit type

D. Obliterative type

Correct Answer: C. Biscuit type

■ *Listen (English)*

■ *Listen (Hindi)*

Explanation: The biscuit type of stapedial otosclerosis is characterized by fixation of the stapes footplate while the annular ligament remains free. Type of stapedial otosclerosis Site of the lesion Image Anterior focus Front of the oval window in an area called “fissula ante fenestram” Most common type Posterior focus (Option A ruled out) Behind the oval window Circumferential (Option B ruled out) Around the margin of the stapes footplate Biscuit type (Option C) In the footplate the annular ligament is free Obliterative type (Option D ruled out) Completely obliterates the oval window niche

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References:

Dhingra Diseases of the Ear, Nose, and Throat, 8th Edition, Page 104

↑ *Back to this question in Part A*

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Q12: Which of the following statements about otosclerosis are correct? Otosclerosis primarily affects the region of the fissula ante fenestram, located anterior to the round window. The bony labyrinth is involved in otosclerosis, but the membranous labyrinth usually remains unaffected. Peri-otic duct is filled with endolymph. Otic capsule ossifies from 2 centers. (Q847788)

A. 2 only

B. 1, 2, and 3 only

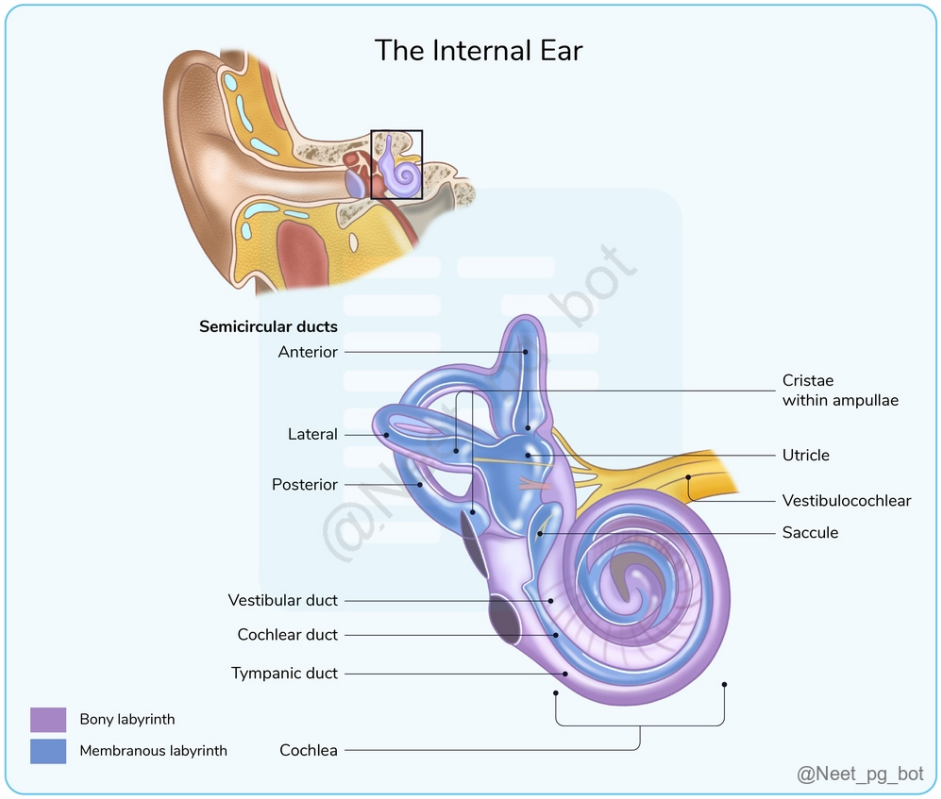
C. 2 and 4 only

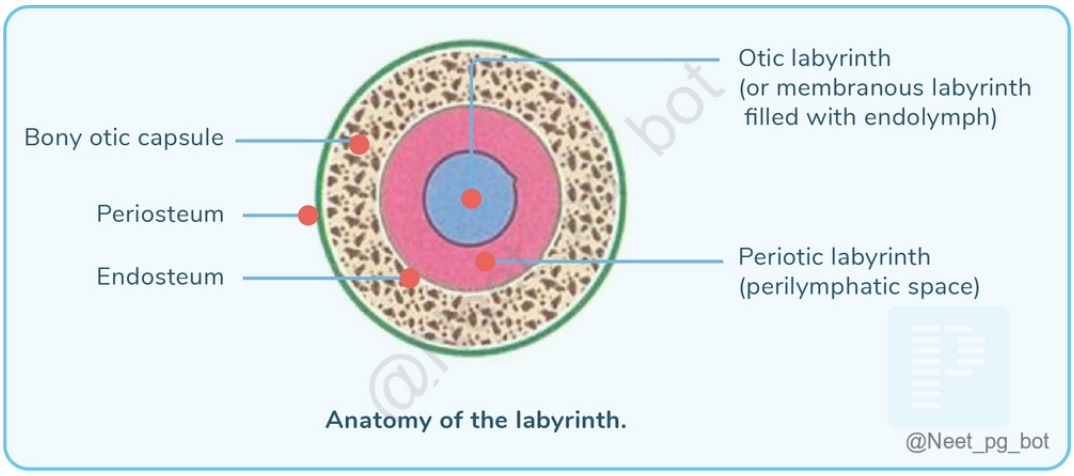
D. All of the above

Correct Answer: A. 2 only

- *Listen (English)*
- *Listen (Hindi)*

Explanation: Otosclerosis typically affects the fissula ante fenestram , which is located anterior to the oval window (not the round window). The bony labyrinth is involved in otosclerosis, while the membranous labyrinth is usually unaffected . The peri otic duct is filled with perilymph . Otic capsule ossifies from 14 centers. Anatomy of the Inner Ear: Otic labyrinth/ membranous labyrinth/ endolymphatic labyrinth : Consists of the utricle, cochlea, saccule, semicircular ducts, endolymphatic duct , and sac . It is filled with endolymph . Periotic labyrinth/ perilymphatic labyrinth (or space): It surrounds the otic labyrinth and is filled with perilymph. It includes the vestibule, scala tympani, scala vestibuli, perilymphatic space of semicircular canals , and the periotic duct (Statement 3) , which surrounds the endolymphatic duct of otic labyrinth. Otic capsule/ bony labyrinth: It has three layers: Endosteal : The innermost layer. It lines the bony labyrinth. Enchondral : Develops from the cartilage and later ossifies into bone. It is in this layer that some islands of cartilage are left unossified that later give rise to otosclerosis (Statement 2) . Periosteal : Covers the bony labyrinth. Development of the Inner ear: The otic capsule or the bony labyrinth ossifies from 14 centers (Statement 4) , the first one appears in the region of the cochlea at 16 weeks and the last one appears in the posterolateral part of the posterior semicircular canal at the 20th week.





References:

Dhingra Diseases of the Ear, Nose, and Throat. Ed.8, page 104

↑ *Back to this question in Part A*

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Q13: Which layer of the otic capsule is primarily affected in the primary metabolic bone remodelling process seen in otosclerosis? (Q892047)

A. Endosteal

B. Enchondral

C. Periosteal

D. Perichondral

Correct Answer: B. Enchondral

Explanation: The bony labyrinth or otic capsule is unique as it is composed of three distinct layers of bone that normally undergo very little turnover throughout adult life. Layers of Otic Capsule: Endosteal- innermost layer. Enchondral- middle layer. Periosteal- outermost layer. Otosclerosis is a localised primary osteodystrophy that arises from the enchondral layer of the otic capsule. In this condition, the normal dense enchondral bone is replaced by irregular, vascular, spongy bone, which later becomes sclerotic and dense. This process most commonly involves the fissula ante fenestram, leading to stapedial fixation. Perichondral (Option D) is the connective tissue covering cartilage; the otic capsule is composed of mature bone layers rather than active perichondrium in the adult state.

References:

Scott-Brown’s Otorhinolaryngology, Head and Neck Surgery, 8th Edition, Volume 2, Page 1062.

PLDhingra’s Diseases of Ear, Nose and Throat and Head and Neck Surgery, 8th Edition, Page 104.

↑ *Back to this question in Part A*

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Q14: What is the most common inheritance pattern for clinical otosclerosis? (Q892048)

A. Autosomal dominant

B. Autosomal recessive

C. X-linked dominant

D. X-linked recessive

Correct Answer: A. Autosomal dominant

Explanation: Otosclerosis has a strong genetic component, with a positive family history identifiable in approximately 50% of clinical cases, and the rest are sporadic. Otosclerosis most commonly shows an autosomal dominant inheritance pattern with incomplete penetrance . Incomplete penetrance: Not all individuals carrying the gene develop clinical disease. Variable expressivity: The severity of hearing loss may differ among affected family members. It often presents in young adults (20-40 years) and is more common in females . Symptoms may worsen during pregnancy due to hormonal influence.

References:

PL Dhingra’s Diseases of Ear, Nose and Throat and Head and Neck Surgery, 8th Edition, Page 103.

↑ *Back to this question in Part A*

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Q15: In which of the following age groups does the hearing loss in otosclerosis most commonly manifest? (Q892049)

A. 5-10 years

B. 10-20 years

C. 20-30 years

D. 30-40 years

Correct Answer: C. 20-30 years

Explanation: The onset of progressive conductive hearing loss most commonly manifests in the 20-30-year age group, with symptoms rarely appearing before 10 years or after 40 years of age. While histological foci of otosclerosis may be present earlier in life, the mechanical fixation of the stapes footplate usually reaches a level of clinical significance after the second decade of life. The disease causes progressive fixation of the stapes footplate , leading to conductive hearing loss . It is more common in females and may worsen during pregnancy .

References:

PL Dhingra's Diseases of Ear, Nose and Throat and Head and Neck Surgery, 8th Edition, Page 103.

↑ *Back to this question in Part A*

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Q16: Which of the following statements regarding otosclerosis are true? The inheritance pattern is autosomal dominant with incomplete penetrance. Clinical otosclerosis is seen twice as frequently in females as in males. Hypodense double ring sign on HRCT is a characteristic finding in stapedial otosclerosis. Chronic infection with the measles virus is a proposed etiological factor. (Q892055)

A. 1, 2, and 3 only

B. 1, 2, and 4 only

C. 1 and 4 only

D. All of the above

Correct Answer: B. 1, 2, and 4 only

Explanation: Otosclerosis is a primary metabolic bone disease of the otic capsule that leads to progressive conductive or mixed hearing loss. It exhibits a distinct female preponderance, with a clinical ratio of approximately 2:1, often exacerbated by hormonal changes such as pregnancy. In India, otosclerosis predominates in males. (Statement 2) The genetic basis is typically autosomal dominant with a penetrance of about 40% (Statement 1) , involving various OTSC loci. Recent molecular studies have also suggested a viral aetiology, specifically identifying measles virus RNA in otosclerotic footprints, further supporting the multifaceted nature of its pathogenesis. (Statement 4) Hypodense double ring sign on HRCT is a characteristic feature of cochlear otosclerosis (retro-fenestral type), caused by demineralisation of the bone surrounding the cochlea, whereas stapedial otosclerosis presents with radiolucency at the fissula ante fenestram. (Statement 4)

References:

Scott-Brown's Otorhinolaryngology, Head and Neck Surgery, 8th Edition, Volume 2, Page 1071.

PLDhingra’s Diseases of Ear, Nose and Throat and Head and Neck Surgery, 8th Edition, Page 103-105.

↑ *Back to this question in Part A*

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Q17: In a stapedectomy specimen obtained from a patient with active otosclerosis, histopathological examination reveals areas of bone with increased basophilia surrounding the vascular spaces. What is this classic finding called? (Q892057)

A. Blue mantle sign

B. Blue dot sign

C. Schwartze sign

D. Blue cement sign

Correct Answer: A. Blue mantle sign

Explanation: The histopathological hallmark of the active phase of otosclerosis, also known as otospongiosis, is the replacement of dense enchondral bone with highly vascular, cellular, and spongy bone. Within these active foci, Manasse’s blue mantles are observed, which are areas of new bone formation that appear intensely basophilic when stained with hematoxylin and eosin. These basophilic mantles surround the enlarged vascular spaces and represent the disordered metabolic bone remodelling characteristic of the disease. Blue dot sign (Option B) is a clinical finding associated with the torsion of the appendix testis in the scrotum. Schwartze sign (Option C) is a clinical otoscopic finding of a reddish hue on the promontory due to increased vascularity in active otosclerosis. Blue cement sign (Option D) does not correspond to any recognised histopathological feature in the enchondral layer of the otic capsule.

References:

PL Dhingra’s Diseases of Ear, Nose and Throat and Head and Neck Surgery, 8th Edition, Page

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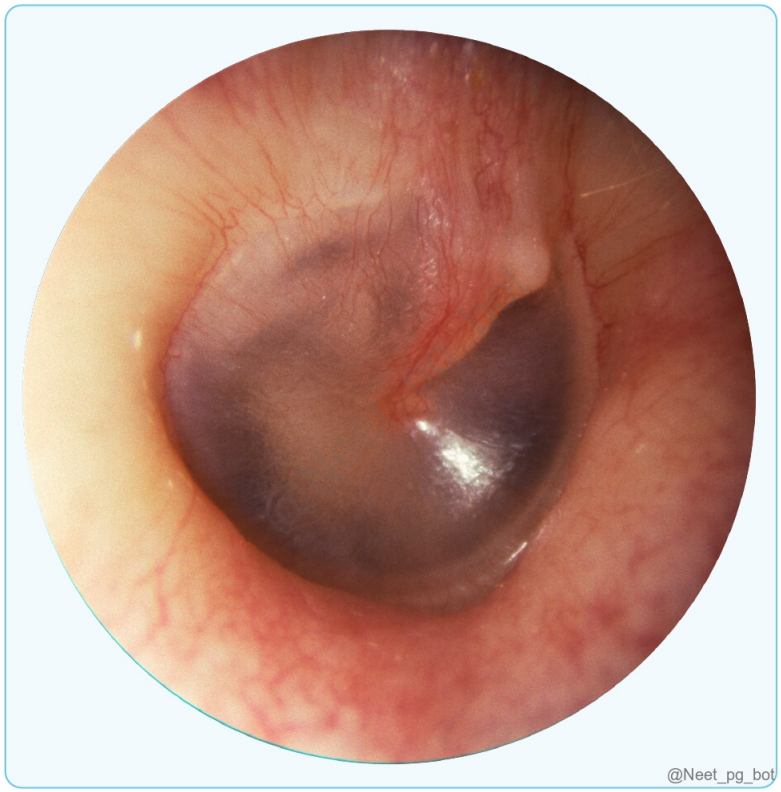
Q18: A 30-year-old female presents with bilateral progressive hearing loss and mentions that she hears better in noisy environments. Otoscopy reveals the following. What is the most likely diagnosis? (Q892058)

A. Otosclerosis with mature foci

B. Otosclerosis with active focus

C. Glue ear

D. Glomus tympanicum



Correct Answer: A. Otosclerosis with mature foci

Explanation: The patient exhibits Paracusis Willisii , a hallmark symptom of conductive hearing loss (specifically stapedial fixation), where hearing improves in noisy surroundings. In the demographic of a 30-year-old female with progressive bilateral loss, paracusis willisii strongly indicates Otosclerosis . The presence of a normal tympanic membrane, as shown in the image, is the key clinical differentiator, signifying that the disease has progressed into the mature (sclerotic) phase . In this stage, the highly vascular active bone of the otospongiotic phase has been replaced by dense, avascular sclerotic bone, leading to a dead white or normal-appearing drum. Otosclerosis with active focus (Option B) , also known as the otospongiotic phase, is characterised by increased vascularity on the promontory. On otoscopy, this manifests as a reddish or flamingo-pink hue seen through the intact drum (Schwartze sign) Glue ear (Option C) , also known as Otitis Media with Effusion (OME), typically presents with a dull, lusterless, retracted, or amber-colored tympanic membrane with impaired mobility on pneumatic otoscopy. Glomus tympanicum (Option D) is a vascular tumour of the middle ear that classically presents with pulsatile tinnitus and a rising sun appearance-a red or purple mass visible behind the inferior portion of the tympanic membrane.

References:

Scott-Brown’s Otorhinolaryngology, Head and Neck Surgery, 8th Edition, Volume 2, Page 1062-1063.

https://www.ncbi.nlm.nih.gov/books/NBK560671/

↑ *Back to this question in Part A*

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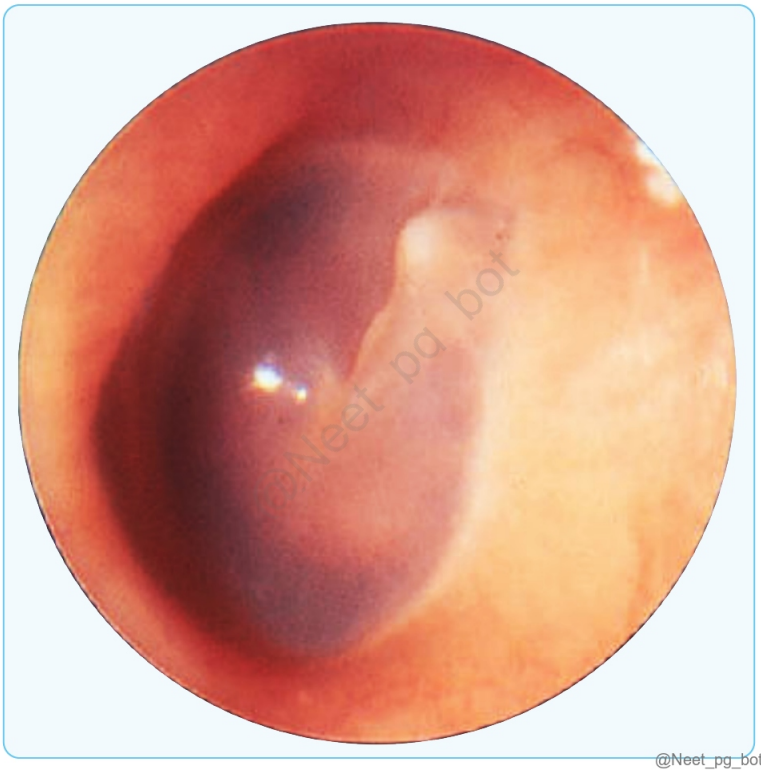
Q19: A 20-year-old female patient presents with features of bilateral conductive hearing loss. The following image shows the otoscopic findings of her tympanic membranes. What is this sign called? (Q892070)

A. Rising sun sign

B. Schwartze sign

C. Setting sun sign

D. Lyre sign



Correct Answer: B. Schwartze sign

Explanation: The clinical presentation of a young female with bilateral progressive conductive hearing loss, with the image revealing reddish or flamingo pink hue seen through an intact tympanic membrane, is the Schwartze sign , which is suggestive of otosclerosis. This finding occurs during the active phase of the disease (otospongiosis), where there is a significant increase in the vascularity of the new bone forming over the promontory. Its presence indicates that the disease is in an active, rapidly remodelling stage rather than the mature,

sclerotic stage. Rising sun sign (Option A) is a classic otoscopic sign of a glomus tumour, where a red/purple vascular mass is seen rising from the floor of the middle ear behind the inferior portion of the tympanic membrane. Setting sun sign (Option C) is a clinical sign in paediatrics and neurology associated with increased intracranial pressure or hydrocephalus, where the eyes are rotated downward. Lyre sign (Option D) is a radiological finding associated with a Carotid Body Tumour, where the internal and external carotid arteries are splayed apart at the bifurcation on an angiogram or CT scan.

References:

Scott-Brown's Otorhinolaryngology, Head and Neck Surgery, 8th Edition, Volume 2, Page 1079.

PLDhingra's Diseases of Ear, Nose and Throat and Head and Neck Surgery, 8th Edition, Page 104.

↑ *Back to this question in Part A*

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Q20: Which of the following tuning fork tests is specifically designed to confirm the reduced mobility of the ossicular chain? (Q892072)

A. Gelle's test

B. Stenger's test

C. Schwabach test

D. Bing test

Correct Answer: A. Gelle's test

Explanation: Gelle's test is a clinical tuning fork test used specifically to evaluate the mobility of the ossicular chain. It is performed by increasing the air pressure in the external auditory canal using a Siegel's speculum while a vibrating tuning fork is placed on the mastoid. In a normal ear, the increased pressure reduces ossicular mobility, causing the patient to perceive a decrease in sound intensity (Gelle's positive). In otosclerosis with stapedial fixation, the sound intensity remains unchanged because the ossicles are already fixed (Gelle's negative), thus confirming the diagnosis. Stenger's test (Option B) is used for the detection of malingering or functional hearing loss in cases of suspected unilateral deafness. Schwabach test (Option C) compares the bone conduction of the patient with that of the examiner to detect sensorineural hearing loss, where bone conduction is shortened. Bing test (Option D) utilises the occlusion effect to distinguish conductive from sensorineural hearing loss; sound becomes louder upon ear canal occlusion in normal ears but remains unchanged in conductive loss.

References:

PL Dhingra's Diseases of Ear, Nose and Throat and Head and Neck Surgery, 8th Edition, Page 27.

↑ *Back to this question in Part A*

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• [01_Ear] 008 Meniere S Disease And Glomus Tumor

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[01_Ear] 008 Meniere S Disease And Glomus Tumor — Quick Jump

Q1 (p. 648)	*Q2 (p. 649)*	*Q3 (p. 650)*	*Q4 (p. 651)*	*Q5 (p. 653)*	*Q6 (p. 659)*
Q7 (p. 662)	*Q8 (p. 664)*	*Q9 (p. 664)*	*Q10 (p. 665)*	*Q11 (p. 666)*	*Q12 (p. 667)*
Q13 (p. 668)	*Q14 (p. 669)*	*Q15 (p. 671)*	*Q16 (p. 671)*	*Q17 (p. 672)*	*Q18 (p. 673)*
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Q1: A 45-year-old male patient presents with episodes of vertigo, fluctuating hearing loss, tinnitus, and aural fullness. Which of the following mechanisms is associated with the pathogenesis of this condition? (Q847731)

A. Excessive production of perilymph fluid

B. Defective absorption of endolymph

C. Dilatation of the internal auditory artery

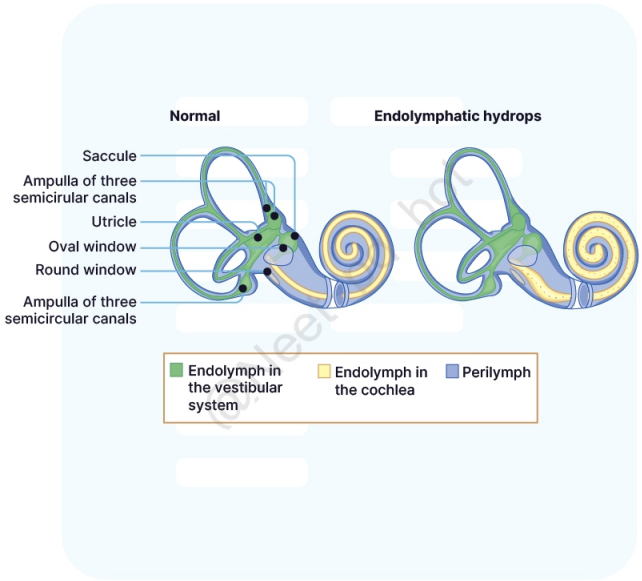
D. Vestibular nerve degeneration

Correct Answer: B. Defective absorption of endolymph

■ *Listen (English)*

■ *Listen (Hindi)*

Explanation: The given scenario is suggestive of Meniere’s disease, which is primarily associated with increased endolymph volume within the inner ear resulting from defective absorption/increased production of endolymph leading to increased endolymphatic pressure, which manifests as vertigo, fluctuating hearing loss, tinnitus, and aural fullness. Aetiology of Meniere’s disease: Increased Endolymph Volume (Option A) Defective Absorption (Option B) Vasomotor Disturbances: Sympathetic overactivity causing spasms in the internal auditory artery (Option C) may disrupt cochlear or vestibular function, leading to vertigo and hearing loss. Allergy: Allergic reactions may cause the inner ear to produce excess endolymph. Many patients with Meniere’s disease have related allergies. Sodium and Water Retention: Excess fluid retention can exacerbate endolymphatic hydrops, so reducing salt intake is recommended. Hypothyroidism (Option D) : A small percentage of cases are linked to hypothyroidism and can improve with thyroid replacement therapy. Autoimmune and Viral Factors (Herpes family)



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References:

Diseases of Ear, Nose, Throat - PL Dhingra, 8th edition, Page 119

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Q2: According to Fisch's classification of glomus tumors, tumors with intracranial invasion measuring less than 2 cm are classified under which type? (Q847770)

A. Type D2

B. Type C

C. Type B

D. Type D1

Correct Answer: D. Type D1

■ *Listen (English)*

■ *Listen (Hindi)*

Explanation: According to Fisch’s classification, the tumors with intracranial invasion of less than 2 cm are categorized under Type D1. Fisch’s classification for glomus tumors Type A Tumours restricted to middle ear (Glomus tympanicum tumour) Type B Tumours restricted to tympanomastoid site Type C Tumours involving the infra-labyrinth portion towards the petrous apex Type D1 Tumour with intracranial invasion (<2cm) Type D2 Tumour with intracranial invasion (>2cm)

References:

Scott-Brown Otorhinolaryngology, Head and Neck Surgeries, Pg, 1303.

↑ *Back to this question in Part A*

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Q3: A 50-year-old male presents with progressive hearing loss in his right ear over the past year, accompanied by a sensation of fullness and occasional tinnitus. Examination shows a pulsatile neck mass, and radiology reveals a 5 cm tumour located below the right middle ear. What is the most appropriate management for this condition? (Q847768)

A. Surgical excision

B. Embolisation

C. Radiotherapy

D. Both A and B

Correct Answer: D. Both A and B

■ *Listen (English)*

■ *Listen (Hindi)*

Explanation: The given clinical scenario is diagnosed as a glomus tumor with pulsatile tinnitus, hearing loss and pulsatile mass in the neck, which is managed by embolization followed by surgical excision. Management of glomus tumor Surgical excision: Mostly surgical excision is the treatment of choice in glomus tumors and it consists of Transcanal Approach For a localized glomus tympanicum tumor where the entire circumference of the tumor is visible. Hypotympanic Approach For tumors limited to the promontory and hypotympanum, a superiorly based tympanomeatal flap is elevated via a postauricular approach, and the bony inferior tympanic ring is drilled to expose the tumor's lower margin Extended Facial Recess Approach It is used for small glomus tympanicum tumors extending into the mastoid but not reaching the jugular bulb. For more extensive cases, a modified radical mastoidectomy is performed. Mastoid-Neck Approach This technique is used for glomus jugulare tumors that do not extend into the internal carotid artery, posterior cranial fossa, or neck. Infratemporal Fossa Approach (Fisch) It is employed for large glomus jugulare tumors. Transcondylar Approach Used for tumors extending to the foramen magnum, often recurrent glomus jugulare tumors, it provides access to the craniocervical junction and exposes the occipital condyle and jugular tubercle Embolization (Option B) is used to reduce tumor vascularity before surgery

or as the sole treatment for inoperable patients who have already undergone radiation. Radiation (Option C) does not cure the tumor but can reduce its vascularity and halt growth. It is used for inoperable tumors, residual or recurrent tumors after surgery, and for older patients where extensive skull base surgery is unsuitable.

References:

Diseases of Ear, Nose, Throat - PL Dhingra, 8th edition, Pg 130.

↑ *Back to this question in Part A*

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Q4: A 45-year-old female presents with progressive hearing loss, ear fullness, and occasional tinnitus in her right ear, as well as a faint pulsating sound when lying down. During otoscopy, pressure applied with a Siegel speculum causes the tumor to vibrate vigorously and then blanch. Which sign does this indicate? (Q847767)

A. Aquinos sign

B. Phelps sign

C. Rising sun appearance

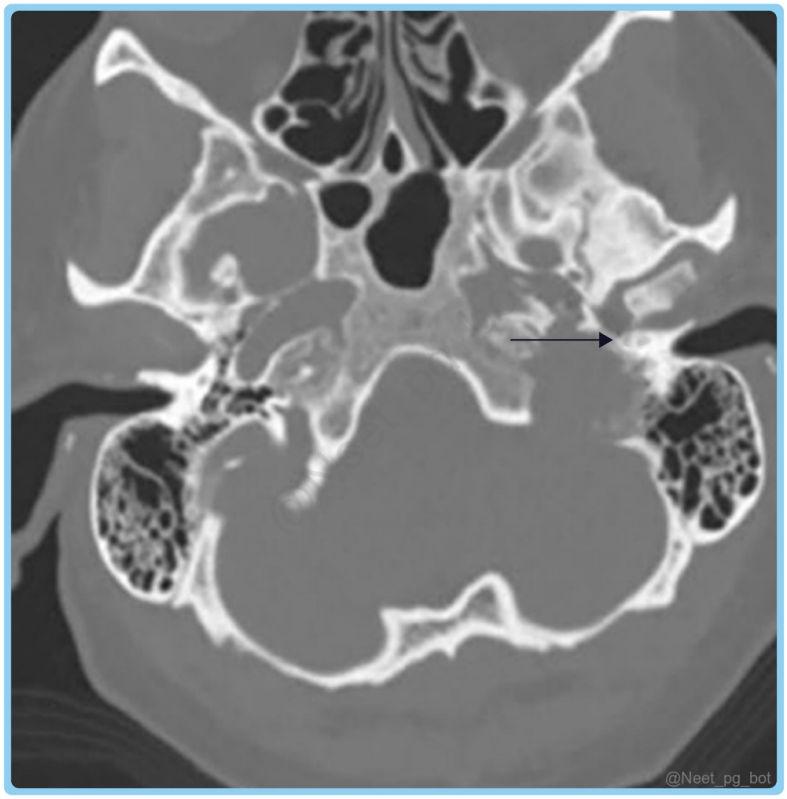
D. Brown sign

Correct Answer: D. Brown sign

■ *Listen (English)*

■ *Listen (Hindi)*

Explanation: The given scenario is a case of glomus tumour describing the Brown sign or Pulsating sign. Signs of Glomus Tumour Pulsation sign or Brown sign (Option D) When ear canal pressure is increased with Siegel's speculum, the tumor pulsates vigorously and then blanches; the opposite occurs when the pressure is released. Aquinos sign (Option A) Applying pressure to the neck compresses the internal carotid artery, reducing blood flow to the ascending pharyngeal artery and the tumor. This results in a color change of the tumor from red to pale during otoscopic examination as the blood supply diminishes. Phelps sign (Option B) In a CECT scan, the carotico-jugular spine (a dense bony structure between the jugular vein and the mastoid process) remains intact on the unaffected side. On the affected side, erosion of this spine is observed. CT shows enlargement of the left jugular foramen with bone erosion (arrow) Salt pepper appearance In an MRI scan, microhemorrhages within the tumor are identified as white and gray speckles, creating a characteristic "salt-and-pepper" appearance. MRI shows a well-defned mass (arrow) in the left jugular foramen. The mass shows a "salt and pepper appearance, Rising sun appearance (Option C) In glomus jugulare tumor, otoscopy may reveal a "rising sun" appearance when the tumor originates from the floor of the middle ear. On otoscopic examination, the jugulotympanic glomus tumor appears as a reddish tumor formation highlighted by the transparency of the tympanic membrane, the so-called “rising sun” sign.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References:

Diseases of Ear, Nose, Throat - PL Dhingra, 8th edition, Pg 129, 130.

Scott-Brown Otorhinolaryngology, Head and Neck Surgeries, pg 1194.

↑ *Back to this question in Part A*

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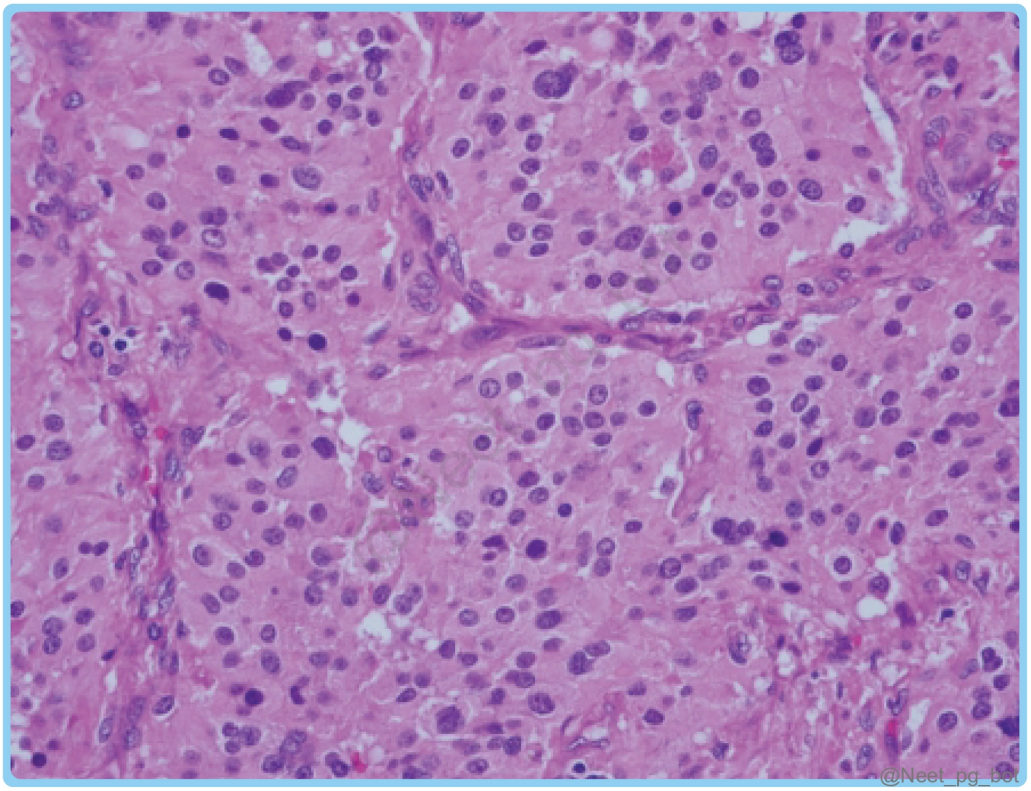
Q5: A 48-year-old woman presents with worsening right ear hearing loss and tinnitus resembling a heartbeat for 6 months. Examination reveals a pulsatile neck mass and a red, bulging tympanic membrane. Biopsy and MRI findings are given below. What is the most likely diagnosis? (Q847766)

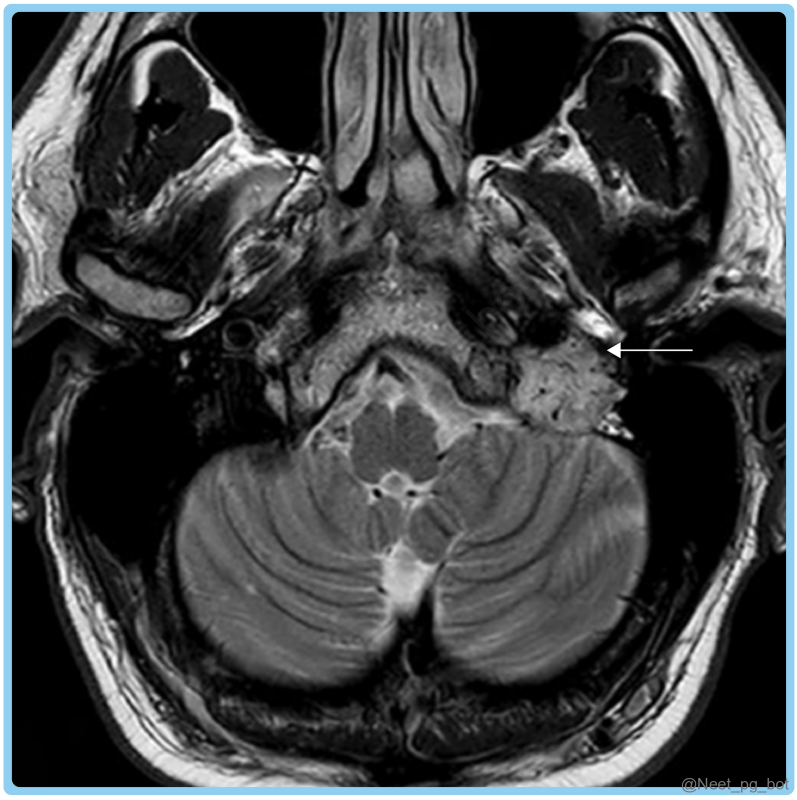
A. Branchial cyst

B. Tubercular lymph nodes

C. Thymic cyst

D. Paraganglioma



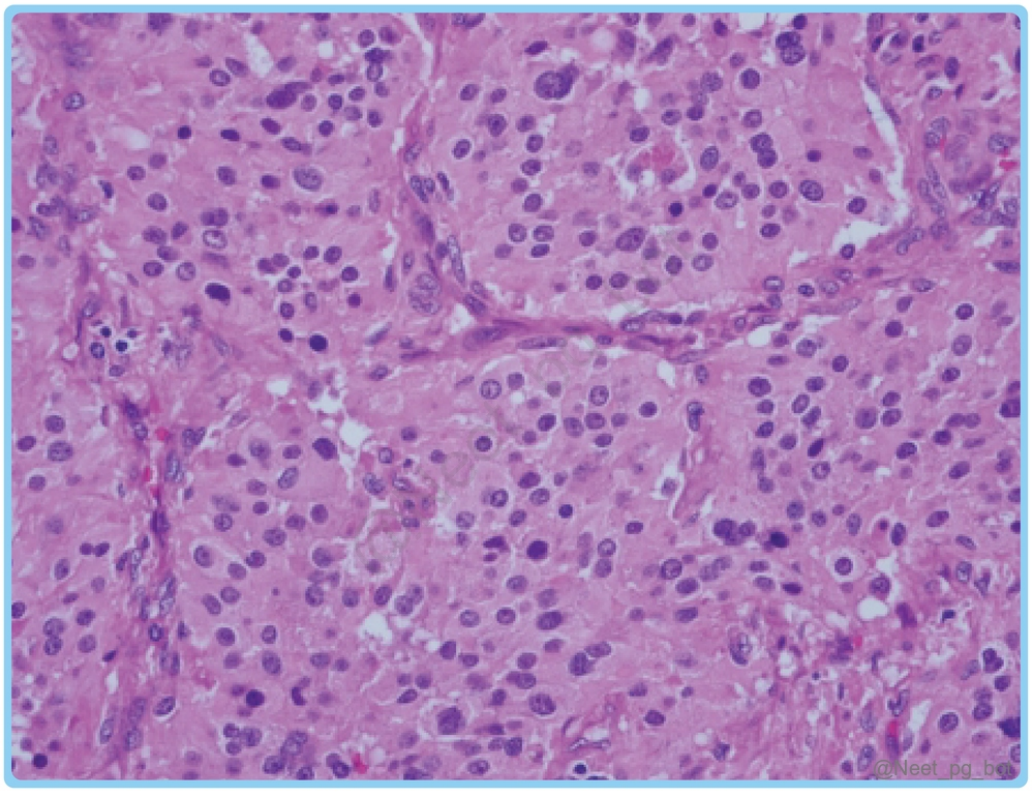


Correct Answer: D. Paraganglioma

■ *Listen (English)*

■ *Listen (Hindi)*

Explanation: The given scenario along with biopsy findings (Zellballen patterns) and MRI appearance (salt and pepper), supports the diagnosis of Paraganglioma or Glomus tumour. Glomus tumor (Paraganglioma) Definition Tumors originating from the paraganglia are known as paragangliomas, with glomus tumors being a specific type of paraganglioma. Clinical manifestations Hearing loss (gradually progressive conductive hearing loss) Pulsatile tinnitus (heartbeat like sounds): It is synchronous with pulse and can be temporarily stopped by carotid pressure. Bleeding from ear (profuse bleeding in case of polyp) Dizziness or vertigo and facial paralysis may appear. Symptoms like headache, sweating, palpitation, hypertension, anxiety due to sympathetic excess (catecholamine release) Histopathology No capsule (locally invasive) HPE reveals Zell Ballen pattern, where epithelioid chief cells and sustentacular supporting cells form clusters (Zell Ballen) encircled by extensive vascular sinusoids. Preoperative biopsy of the tumour is not performed due to the risk of profuse bleeding from its highly vascular thin-walled blood sinusoids and potential injury to the high jugular bulb or aberrant internal carotid artery. Fig: Zell Ballen Appearance of Glomus Tumour Otoscopy Red reflex through intact tympanic membrane and bulging tympanic membrane (glomus tympanicum). “Rising sun" appearance due to the tumor originating from the floor of middle ear (glomus jugulare). Diagnosis CECT (IOC) shows erosion of the carotico-jugular spine on the diseased side, known as Phelp’s sign. CT shows enlargement of the left jugular foramen with bone erosion (arrow) MRI scan revealed microhemorrhages within the tumor which appear as white and gray dots on MRI, creating a "salt and pepper " appearance. MRI shows a well-defined mass (arrow) in the left jugular foramen. The mass shows a "salt and pepper appearance, Angiography is used to identify the arteries supplying the tumor. Branchial cyst (Option A): Typically presents as a non-pulsatile, nontender, non transilluminant mass asymptomatic neck mass rather than a pulsatile one. It is usually found in the lateral aspect of the neck and does not typically cause red, bulging tympanic membrane or tinnitus. Tubercular lymph nodes (Option B) result from tuberculosis infection spreading to the lymph nodes. Diagnosis is made through FNAC or biopsy, which reveals granulomatous lesions. Acid-fast bacilli (AFB) may be present, and cultures can determine drug sensitivity, especially in multidrug-resistant cases. Thymic cyst (Option C) are located in the anterior mediastinum , show homogeneous fluid density on imaging. It is often asymptomatic but can cause symptoms if it grows large enough to compress adjacent structures and do not present with pulsatile tinnitus.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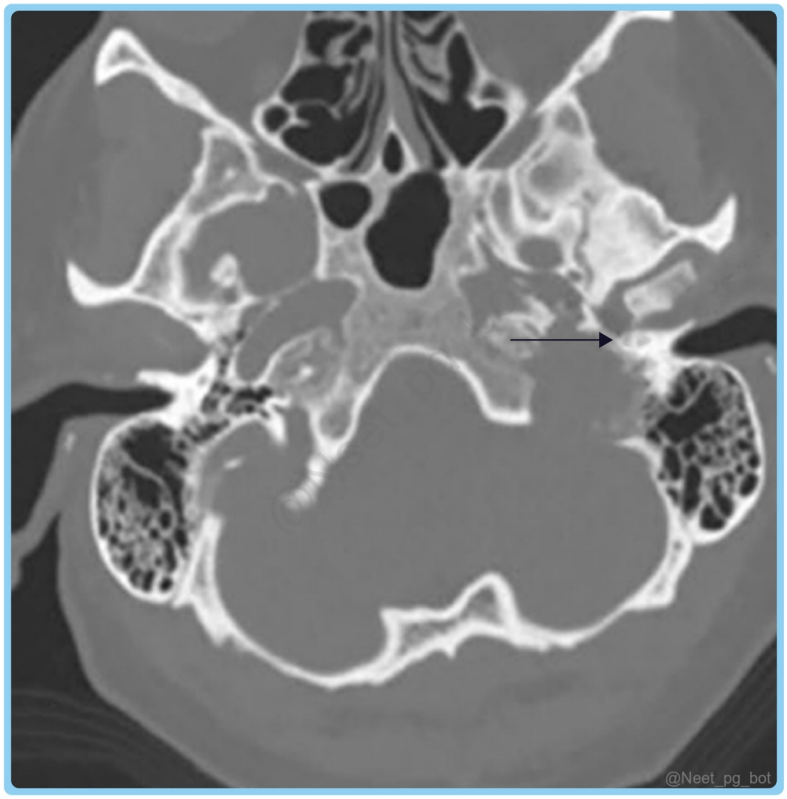
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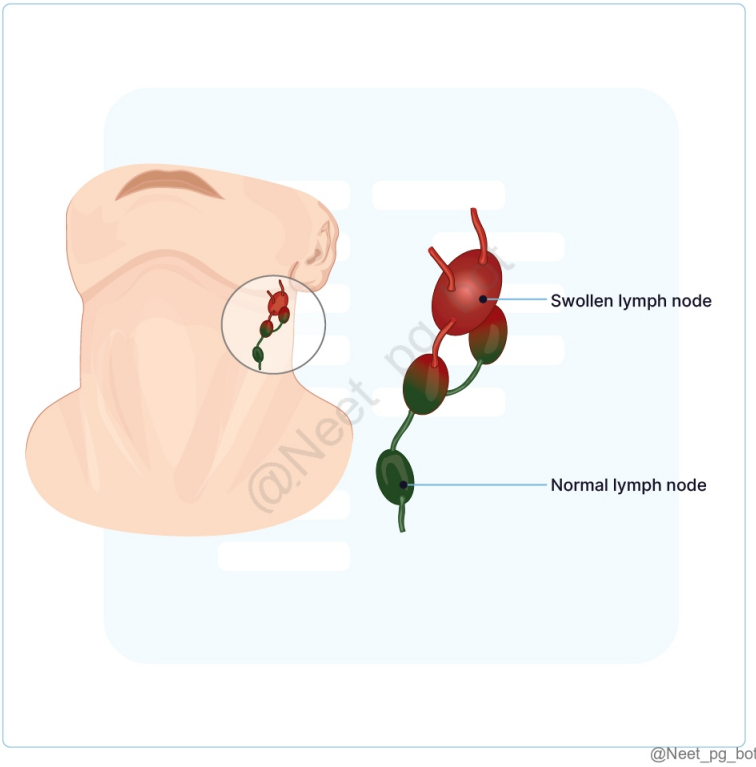

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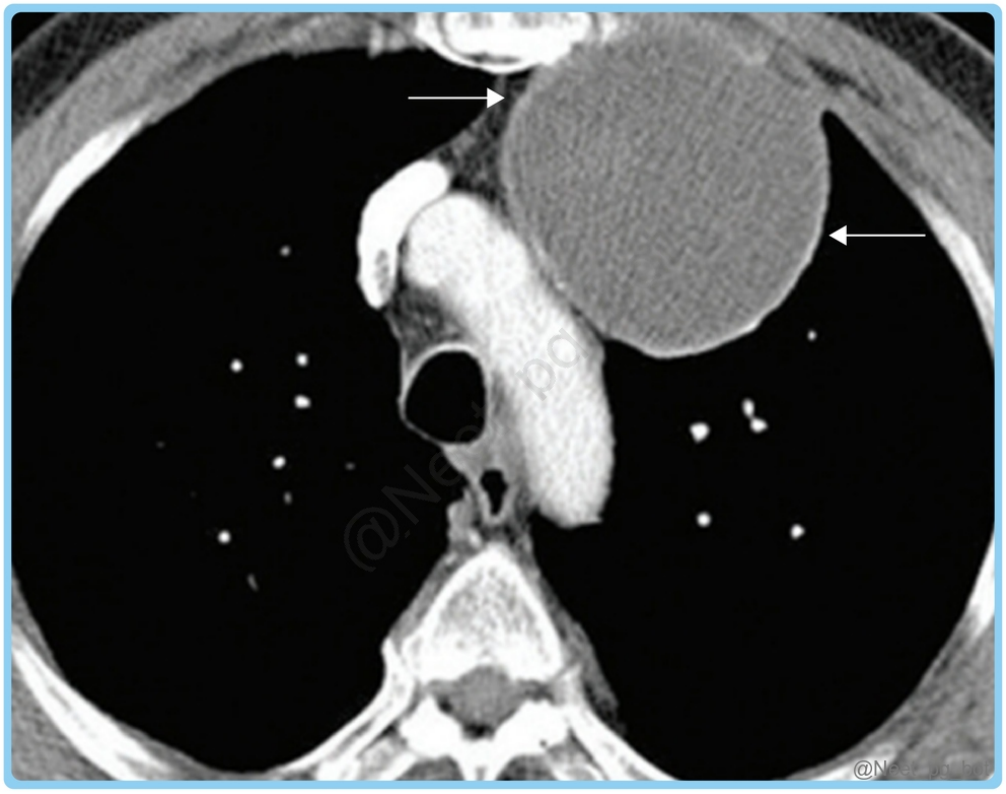

References:

Diseases of Ear, Nose, Throat - PL Dhingra, 8th Edition, Page 128, 129, 130

↑ *Back to this question in Part A*

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Q6: A 42-year-old female presents with progressive conductive hearing loss in her left ear over the past year, accompanied by a sensation of fullness, occasional tinnitus, and a recently discovered pulsating mass behind the left tympanic membrane. What is the investigation of choice for diagnosing this condition? (Q847765)

A. Contrast-enhanced CT scan

B. MRI

C. Biopsy

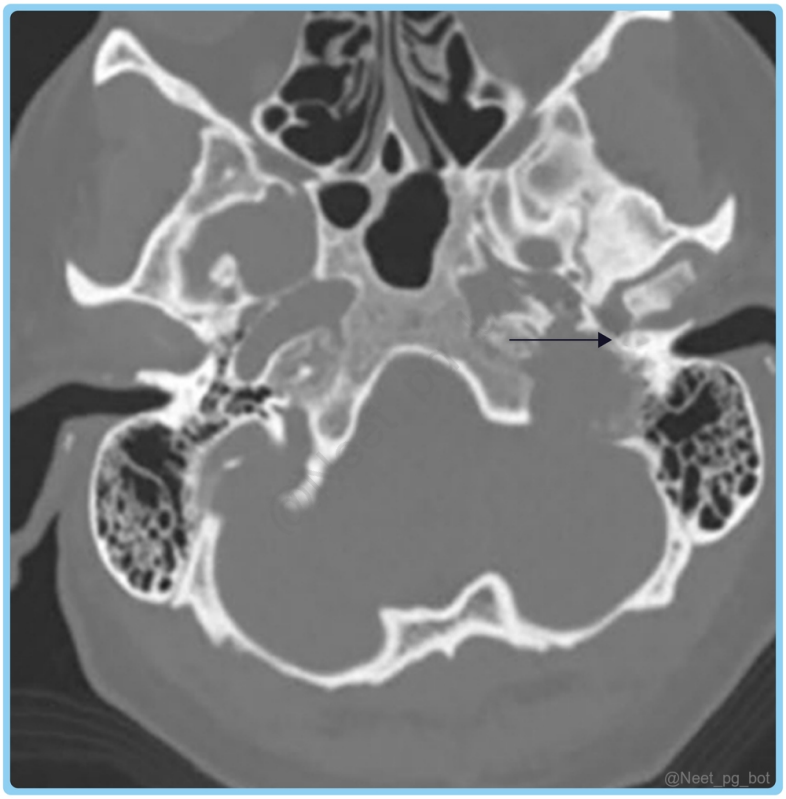
D. Angiography

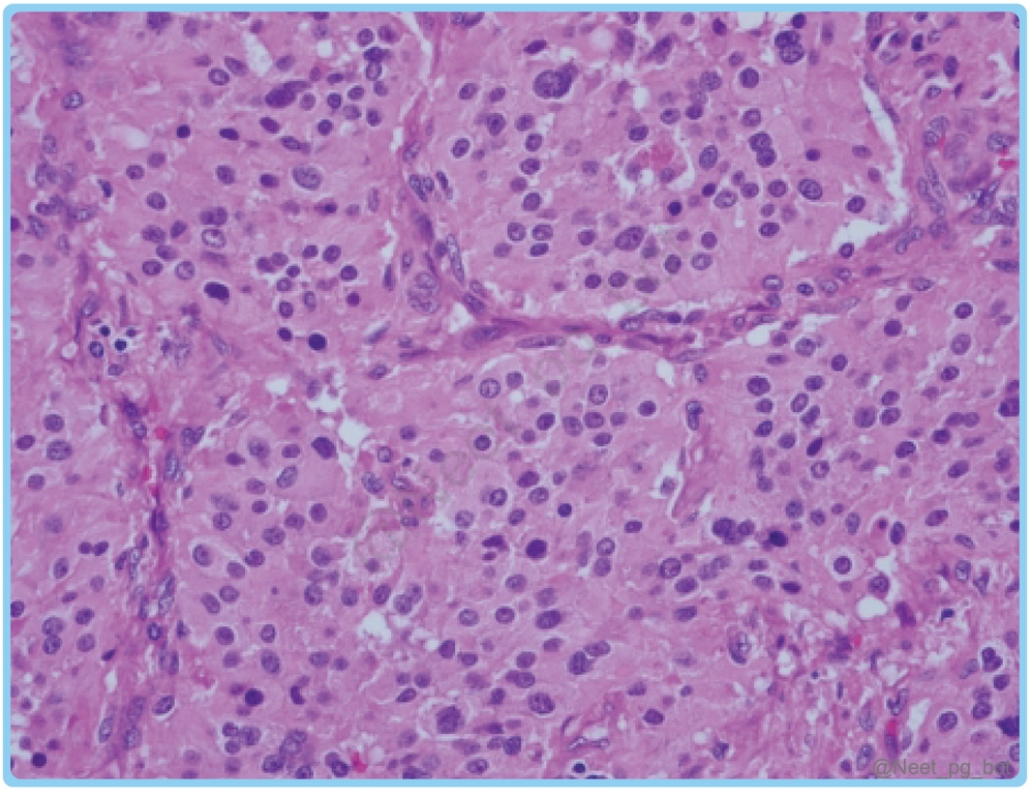
Correct Answer: A. Contrast-enhanced CT scan

■ *Listen (English)*

■ *Listen (Hindi)*

Explanation: The given scenario is suggestive of glomus tumor or paraganglioma in which Contrast-enhanced CT scan (CECT) is the investigation of choice. Investigations of Glomus Tumour CT scan (Option A) CECT (contrast-enhanced computed tomography) is the investigation of choice to distinguish between glomus tympanicum and glomus jugulare tumours and to differentiate them from an aberrant carotid artery, a high jugular bulb, or a dehiscent jugular bulb. Phelps sign: On the normal side, the carotico-jugular spine (a dense bone structure between the jugular and mastoid) is intact. On the affected side, erosion of the carotico-jugular spine is observed. CT shows enlargement of the left jugular foramen with bone erosion (arrow) MRI scan (Option B) It demonstrates the extent of the tumour within the soft tissue. Salt and pepper sign: Microhemorrhages within the tumour are visualized as white and gray dots on MRI, resulting in a "salt-and-pepper" appearance. MRI shows a well-defned mass (arrow) in the left jugular foramen. The mass shows a "salt and pepper appearance, Angiography (Option D) It is essential when CT indicates involvement of the jugular bulb, carotid artery, or intradural extension. It also aids in identifying additional glomus tumors, locating feeding vessels, and guiding embolization. Brain Perfusion and Flow Studies These are essential if the tumor compresses the internal carotid artery. They assess brain perfusion, contralateral carotid artery function, and may involve xenon blood flow and isotope studies to gauge stroke risk and the need for artery replacement. Biopsy (Option C) Histopathological studies show the Zell Ballen pattern, where epithelioid chief cells and sustentacular supporting cells form clusters (Zell Ballen) encircled by extensive vascular sinusoids. Fig: Zell Ballen Appearance of Glomus Tumor Preoperative biopsy of the tumour is not performed due to the risk of profuse bleeding from its highly vascular thin-walled blood sinusoids and potential injury to the high jugular bulb or aberrant internal carotid artery.





References:

Diseases of Ear, Nose, Throat - PL Dhingra, 8th Edition, Page 130.

↑ *Back to this question in Part A*

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Q7: A 55-year-old patient presents with pulsatile tinnitus, hearing loss, a reddish mass behind the tympanic membrane, difficulty swallowing, and hoarseness. Examination reveals glossopharyngeal nerve involvement. What is the most likely diagnosis? (Q847764)

A. Glomus Tympanicum

B. Glomus Jugulare

C. Glomus Vagale

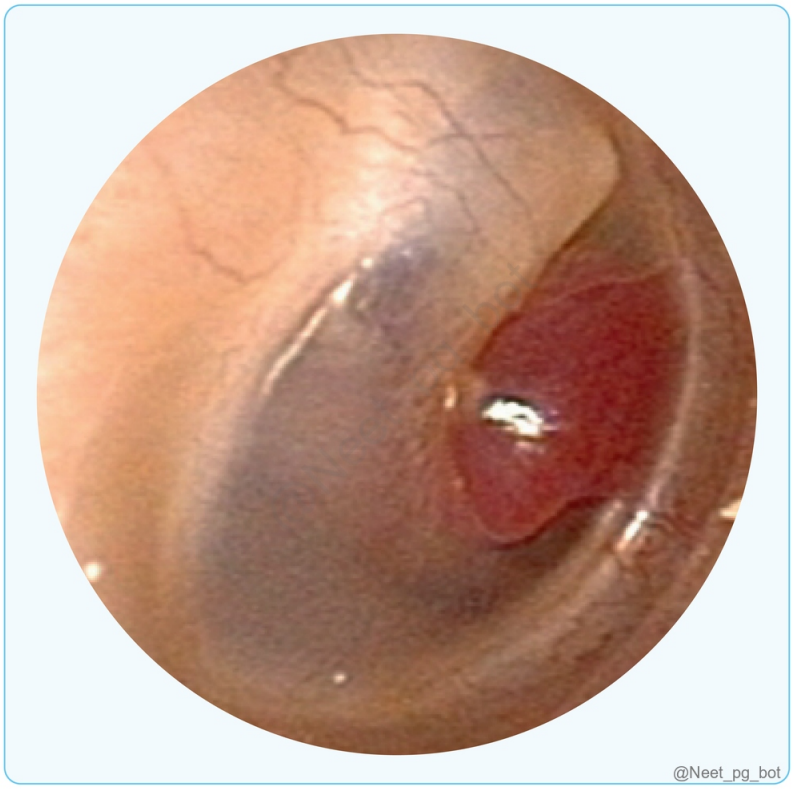
D. Glomus Caroticum

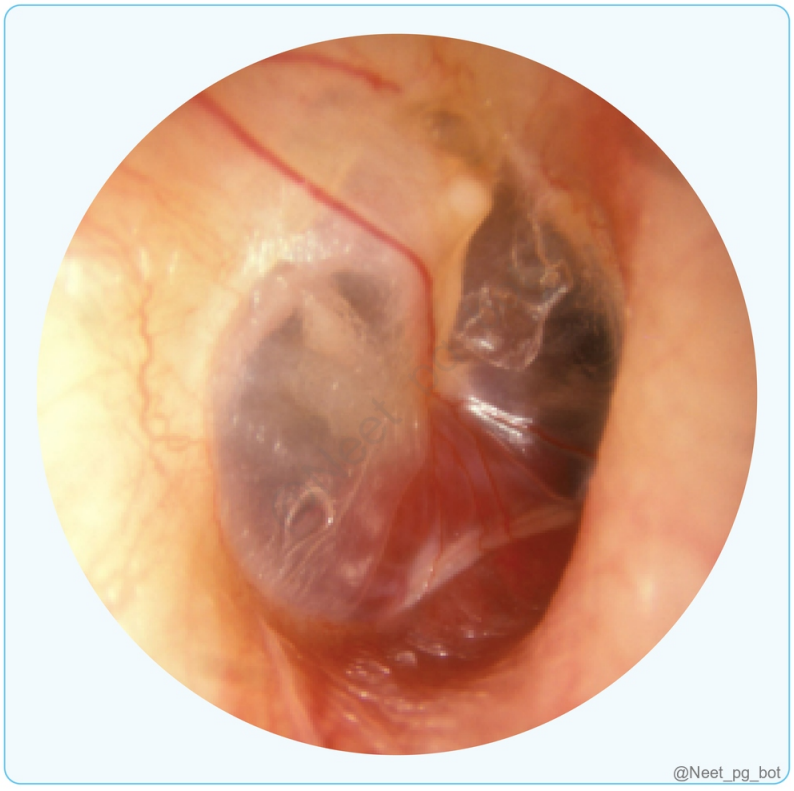
Correct Answer: B. Glomus Jugulare

■ *Listen (English)*

■ *Listen (Hindi)*

Explanation: The involvement of the glossopharyngeal nerve, combined with otoscopic findings of a reddish mass and pulsatile tinnitus , indicates a Glomus Jugulare tumour. Type Glomus Tympanicum (Option A) Glomus Jugulare (Option B) Location Tumours arise from the promontory of the middle ear. Tumours originate from the dome of the jugular bulb and can extend into the middle ear and surrounding structures. Manifestations Pulsatile tinnitus, hearing loss, and a reddish mass behind the tympanic membrane. Pulsatile tinnitus, hearing loss, and may involve multiple cranial nerves (IX, X, XI) Otoscopy findings Reddish, pulsatile mass behind the tympanic membrane. This may lead to conductive hearing loss and a feeling of fullness in the ear. Fig: Glomus Tympanicum Reddish mass behind the tympanic membrane, often pulsatile. It is associated with neurological symptoms due to cranial nerve involvement, including glossopharyngeal nerve involvement. Fig: Glomus Jugular Glomus Vagale (Option C) tumours originate from the vagal nerve and are typically found in the neck. Symptoms relate to vagal nerve dysfunction, such as voice changes and difficulty swallowing. Glomus Caroticum (Option D) tumour originates from carotid bifurcation and presents with a palpable neck mass and symptoms related to carotid body involvement such as pulsatile mass, pain, dysphagia, hoarseness, and potential hypertension due to altered carotid body function.





References:

PL Dhingra Diseases of Ear, Nose, Throat, 8th Edition, Page 128,129

↑ *Back to this question in Part A*

@Neet_pg_bot

Q8: A 52-year-old patient presents with recurrent episodes of vertigo but has no reported hearing loss, tinnitus, or aural fullness. Diagnostic tests reveal no abnormalities in the cochlea or hearing function. What is the most likely diagnosis among the variants of Meniere's disease? (Q847763)

A. Cochlear Hydrops

B. Vestibular Hydrops

C. Tumarkin's Otolithic Crisis

D. Lermoyez Syndrome

Correct Answer: B. Vestibular Hydrops

■ *Listen (English)*

■ *Listen (Hindi)*

Explanation: The given scenario is most likely Vestibular Hydrops , as it involves vertigo without cochlear symptoms. Variants of Meniere's disease Variant Presentation Pathophysiology Cochlear Hydrops Symptoms primarily involve the cochlea: fluctuating hearing loss, tinnitus, and fullness, but no vertigo. Increased fluid pressure confined to the cochlea, often due to a blockage at the ductus reuniens. Vestibular Hydrops Presents with episodic vertigo while cochlear function remains normal (no hearing loss, tinnitus, or fullness). Fluid pressure affects the vestibular structures, particularly the saccule and utricle, sparing cochlear function. Tumarkin's Otolithic Crisis Sudden "drop attacks" without loss of consciousness and no vertigo or hearing loss Deformation of otolith membrane of the utricle or saccule due to change in endolymphatic pressure Lermoyez Syndrome Symptoms of Meniere's are seen in reverse order—progressive hearing loss followed by vertigo.

References:

Diseases of Ear, Nose, Throat - PL Dhingra, 8th edition, Pg 122.

↑ *Back to this question in Part A*

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Q9: A 45-year-old woman with Ménière's disease has severe, recurrent vertigo despite conservative treatments. Her ENT specialist recommends a surgical procedure to reduce vertigo attacks while aiming to preserve her hearing. Which surgical

procedure is most appropriate for her condition? (Q847737)

A. Endolymphatic sac decompression

B. Vestibular nerve section

C. Labyrinthectomy

D. Meniett device therapy

Correct Answer: A. Endolymphatic sac decompression

■ *Listen (English)*

■ *Listen (Hindi)*

Explanation: Endolymphatic sac decompression is typically considered when conservative and medical treatments fail. It aims to relieve fluid pressure by decompressing the endolymphatic sac while preserving hearing. S urgical management of Meniere's disease Decompression of the Endolymphatic Sac Reduces pressure in the endolymphatic system by decompressing the sac. Controls vertigo while preserving hearing. Endolymphatic Shunt Operation A tube is placed to connect the endolymphatic sac with the subarachnoid space to drain excess endolymph. Sacculotomy (Fick's Operation) A needle is used to puncture the saccule through the stapes footplate to decompress it. Cody's Tack Procedure A stainless steel tack is placed through the stapes footplate to allow periodic decompression of the saccule. Selective Section of the Vestibular Nerve (Option B) The vestibular nerve is cut while preserving the cochlear nerve to control vertigo. Generally, it preserves hearing but possesses the risk of hearing loss . Labyrinthectomy (Option C) Removal of the affected labyrinth leads to complete hearing loss on that side but effective control of vertigo. Controls vertigo while hearing is significantly impaired. Intermittent Low-Pressure Pulse Therapy (Meniett Device Therapy) (Option D): This is the non-invasive approach used to deliver intermittent positive pressure waves to inner ear fluids via a ventilation tube inserted through the tympanic membrane, aimed at reducing endolymph pressure. It alleviates vertigo, tinnitus, and ear fullness and improves hearing.

References:

Diseases of Ear, Nose, Throat - PL Dhingra, 8th edition, Pg 124.

↑ *Back to this question in Part A*

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Q10: A 50-year-old patient presents with recurrent episodes of vertigo lasting several hours, associated with fluctuating hearing loss, tinnitus, and aural fullness in one ear. The symptoms have progressively worsened, and episodes are unpredictable. What is the first line of management for this condition? (Q847736)

A. Intratympanic gentamicin

B. Low-salt diet and diuretics

C. Vestibular rehabilitation therapy

D. Endolymphatic sac surgery

Correct Answer: B. Low-salt diet and diuretics

■ *Listen (English)*

■ *Listen (Hindi)*

Explanation: The patient presents with symptoms suggestive of Meniere's disease , in which the first-line treatment includes lifestyle changes, such as a low-sodium diet to reduce fluid retention and diuretics like furosemide to decrease endolymphatic fluid pressure. More invasive treatments like intratympanic gentamicin (Option A) are reserved for severe cases. Vestibular rehabilitation therapy (Option C) is useful for long-term balance but not as an initial treatment. Endolymphatic sac surgery (Option D) is considered a last resort when other treatments fail. Management of Meniere's disease Lifestyle Modifications Low-salt diet Caffeine, alcohol, nicotine avoidance Stress management (yoga, relaxation exercises) Hydration Medications Diuretics (e.g., furosemide, hydrochlorothiazide): Decreases fluid buildup in the inner ear Vestibular sedatives (e.g., prochlorperazine): Controls symptoms of vertigo and nausea during acute attacks. Betahistine (Vertin): Acts as a vasodilator to improve blood flow to the inner ear, potentially reducing vertigo. Antihistamines (e.g., Meclizine): Provides symptomatic relief for vertigo. Intratympanic Injections Gentamicin: Used in refractory cases to destroy vestibular hair cells and reduce vertigo. Corticosteroids: Reduces inflammation in the inner ear, potentially alleviating symptoms. Surgical Options Endolymphatic sac decompression: Decreases fluid pressure within the endolymphatic system Vestibular nerve section: Severing the vestibular nerve to relieve vertigo while preserving hearing (in severe cases). Labyrinthectomy : Complete destruction of the balance organs (last resort, leads to complete hearing loss).

References:

Diseases of Ear, Nose, Throat - PL Dhingra, 8th edition, Pg 123,124.

↑ *Back to this question in Part A*

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Q11: A 45-year-old man presents with vertigo triggered by loud noises. His medical history includes a surgical fenestration for a middle ear condition. Audiometric tests are within normal limits, but vestibular testing reveals abnormal pressure responses. What is the most likely diagnosis? (Q847735)

A. Hennebert's Sign

B. Tullio Phenomenon

C. Lhermitte's Sign

D. Meniere’s Disease

Correct Answer: B. Tullio Phenomenon

■ *Listen (English)*

■ *Listen (Hindi)*

Explanation: Tullio phenomenon is characterised by vertigo, dizziness, or imbalance triggered by loud sounds . This occurs due to an abnormal third window effect in the inner ear, which could be caused by congenital conditions, trauma, or a surgical procedure like fenestration. The pressure changes from sound waves affect the balance organs, particularly the semicircular canals , causing vertigo. Hennebert’s sign (Option A) refers to vertigo or nystagmus induced by pressure changes in the ear without an underlying middle ear infection. It is seen in conditions like syphilis or Meniere’s disease , where pressure on the inner ear (e.g., via the Valsalva manoeuvre) provokes balance disturbances. Lhermitte’s sign (Option C) is an electric shock-like sensation that travels down the spine and into the limbs when the neck is flexed. It is commonly associated with multiple sclerosis or cervical cord compression. Meniere’s disease (Option D) involves episodic vertigo, tinnitus, hearing loss, and a sense of fullness in the ear. It results from excess fluid buildup in the inner ear, affecting both hearing and balance.

References:

Diseases of Ear, Nose, Throat - PL Dhingra, 8th edition, Pg 120,550.

↑ *Back to this question in Part A*

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Q12: In MRI with gadolinium contrast for Meniere’s disease, which of the following findings is typical? (Q847734)

A. Gadolinium in scala vestibuli & absent in scala tympani

B. Gadolinium is present in all three compartments

C. Gadolinium in scala media only

D. Gadolinium in the cochlear duct only

Correct Answer: B. Gadolinium is present in all three compartments

■ *Listen (English)*

■ *Listen (Hindi)*

Explanation: In Meniere’s disease, gadolinium contrast typically shows up in all cochlear compartments (scala vestibuli, scala tympani, and scala media) due to the rupture of the Reissner's membrane , allowing gadolinium to mix with the endolymph. MRI with Gadolinium Contrast in Meniere’s Disease: Gadolinium-based contrast agents in MRI differentiate between perilymphatic and endolymphatic spaces, aiding in the diagnosis of endolymphatic hydrops, a hallmark of Meniere’s disease. Gadolinium Injection : Administered either intravenously 4 hours before

MRI or intratympanically 24 hours before the scan. Normal Findings : In healthy ears , gadolinium loads into the perilymphatic space but does not enter the endolymph. In Meniere's , gadolinium is present in all three compartments due to the rupture of Reissner's membrane. Diagnostic Threshold : Endolymphatic space enlargement > 33% is considered abnormal

References:

Scott Brown ENT, 8th Edition, Pg - 821

↑ *Back to this question in Part A*

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Q13: A 52-year-old patient is evaluated for symptoms of recurrent vertigo, fluctuating hearing loss, and a feeling of fullness in the ear. After a comprehensive assessment, which diagnostic test is most definitive for confirming Meniere's disease?■■■ (Q847733)

A. Pure Tone Audiometry

B. Speech Audiometry

C. Electrocochleography

D. Glycerol Test

Correct Answer: C. Electrocochleography

■ *Listen (English)*

■ *Listen (Hindi)*

Explanation: Electrocochleography is useful for diagnosing Meniere's disease due to its ability to show an elevated summating potential to action potential ratio . While tests like pure tone audiometry and the glycerol test provide supportive information, electrocochleography offers specific diagnostic criteria. Investigations of Meniere's Disease Pure Tone Audiometry Measures hearing sensitivity across various frequencies. Sensorineural hearing loss affects lower frequencies , resulting in a rising audiogram curve. Speech Audiometry Assesses the ability to understand and discriminate speech. Scores typically range from 55%-85% between attacks but worsen significantly during and immediately after an attack, with normal scores (90%-100%) in unaffected periods. Special Audiometric Tests Help differentiate Cochlear from Retrocochlear lesions Recruitment Test : Positive in Meniere's disease, indicating increased sensitivity to sound. Short Increment Sensitivity Index (SISI) Test : Scores greater than 70% in about two-thirds of Meniere's patients (normal score is 15%). Tone Decay Test : Normally shows less than 20 dB decay, indicating a cochlear issue. Electrocochleography (Diagnostic) Measures the electrical potentials from the inner ear in response to sound. In normal ears, the summating potential (SP) to action potential (AP) ratio is around 30%, while in Meniere's disease, it is >30%. Caloric Test Assesses the function of the vestibular system by irrigating the ear canal with warm or cold water. Typically, it shows reduced response on the affected side in about 75% of cases. Glycerol Test Evaluates the effect of glycerol in reducing endolymphatic

pressure. A positive result is indicated by: 10 dB improvement in two or more adjacent octaves 10% increase in speech discrimination score. Improvement in tinnitus and ear fullness.

References:

Diseases of Ear, Nose, Throat - PL Dhingra, 8th edition, Pg - 121

↑ *Back to this question in Part A*

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Q14: A 45-year-old male presents with recurrent vertigo, tinnitus, and a sensation of fullness in his left ear, along with progressive hearing loss. He is diagnosed with Meniere's disease, and audiometric testing is performed. Which part of the cochlea and what frequency range is typically affected first? (Q847732)

A. Apical turn of the cochlea is affected causing high-frequency hearing loss

B. Basal turn of the cochlea is affected causing low-frequency hearing loss

C. Apical turn of the cochlea is affected causing low-frequency hearing loss

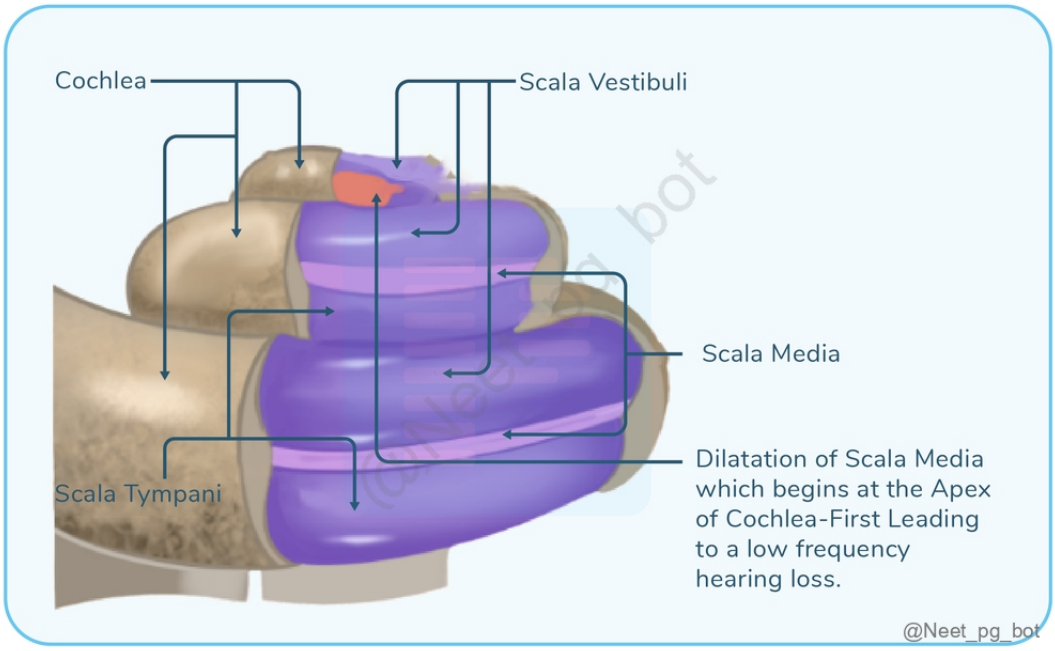
D. Basal turn of the cochlea is affected causing high-frequency hearing loss

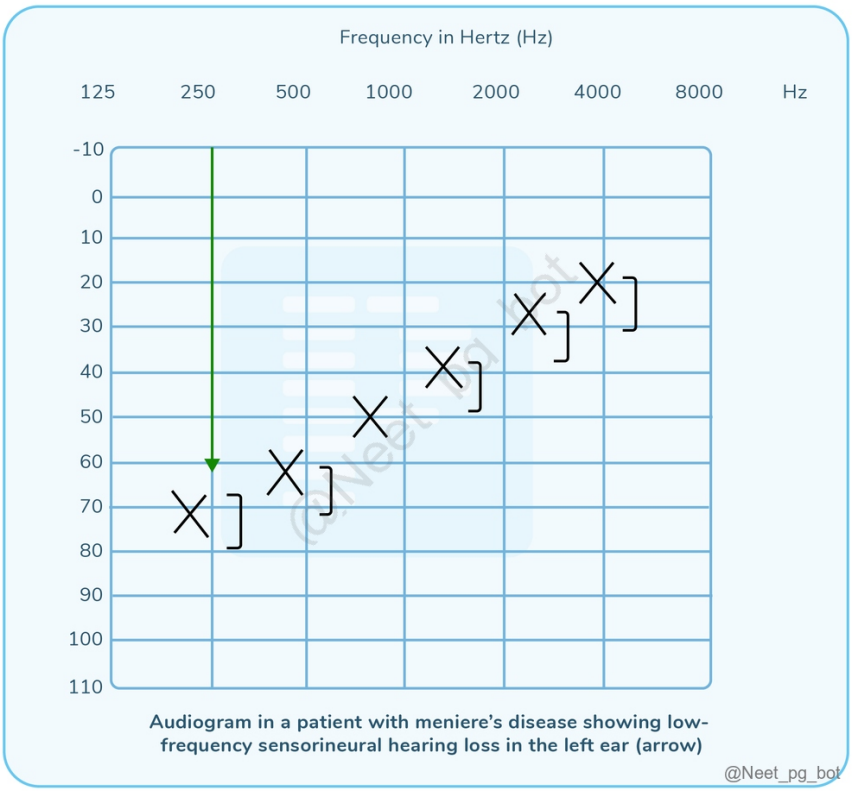
Correct Answer: C. Apical turn of the cochlea is affected causing low-frequency hearing loss

■ *Listen (English)*

■ *Listen (Hindi)*

Explanation: In Meniere's disease , low-frequency hearing is typically affected first. This is due to the involvement of the apical turn of the cochlea , which is responsible for detecting lower frequencies. Early stages of the disease often present with a rising audiogram pattern , with hearing loss predominantly affecting lower frequencies . As the disease progresses, higher frequencies may also become involved, leading to a more complex audiometric profile. Audiometry Findings: Sensorineural hearing loss (No AB Gap) initially affecting lower frequencies and can also involve higher frequencies in later stages. Upsloping Type The curve becomes flat/falling type in later stages once higher frequencies get affected.





References:

Diseases of Ear, Nose, Throat - PL Dhingra, 8th edition, Pg - 121

↑ *Back to this question in Part A*

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Q15: Which of the following is the most characteristic feature of Meniere's disease? (Q847730)

A. Progressive unilateral hearing loss with gradual onset

B. Episodic vertigo with fluctuating hearing loss and tinnitus

C. Sudden onset of unilateral hearing loss without vertigo

D. Persistent vertigo with stable hearing loss and no tinnitus

Correct Answer: B. Episodic vertigo with fluctuating hearing loss and tinnitus

■ *Listen (English)*

■ *Listen (Hindi)*

Explanation: Meniere’s disease is most characterised by episodic vertigo, fluctuating hearing loss, and tinnitus. Meniere’s disease/Endolymphatic hydrops : An inner ear disorder is characterised by the excessive buildup of endolymph fluid. Age/Sex: Typically affects individuals aged 35-60, with a higher prevalence in males. Cardinal Symptoms : Vertigo Episodic with sudden onset Attacks occur in clusters, interspersed with periods of remission accompanied by nausea, vomiting, ataxia & nystagmus. Loud noises might trigger vertigo due to the Tullio phenomenon. Hearing Loss Fluctuating hearing loss may improve between attacks but may progressively worsen over time, with some degree of permanent hearing loss. Sensorineural hearing loss initially affecting lower frequencies . Patients might experience distorted hearing or Diplacusis Tinnitus Low-pitched & Roaring type It can be aggravated during acute attacks and might persist during periods of remission Aural Fullness Fluctuates & may vary in intensity Emotional Impact The recurrent nature of symptoms can lead to emotional stress and apprehension about future attacks, contributing to overall distress.

References:

Diseases of Ear, Nose, Throat - PL Dhingra, 8th edition, Pg - 119,120

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Q16: Which of the following is not a pathological variant or synonym of Ménière's disease? (Q892097)

A. Vestibular hydrops

B. Cochlear hydrops

C. Perilymphatic hydrops

D. Endolymphatic hydrops

Correct Answer: C. Perilymphatic hydrops

Explanation: Ménière's disease is pathologically defined as idiopathic endolymphatic hydrops , a condition characterised by the distension of the membranous labyrinth due to an accumulation of endolymph. It has 2 variants: Cochlear hydrops characterised by auditory symptoms like hearing loss only. Vestibular hydrops characterised by vestibular symptoms like episodes of vertigo only.

References:

PL Dhingra’s Diseases of Ear, Nose and Throat and Head and Neck Surgery, 8th Edition, Page 120, 122.

↑ *Back to this question in Part A*

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Q17: Which of the following statements are true regarding Ménière's disease? Affects the individuals in the age group of 35-60 years It is an inner ear disorder that primarily results in conductive hearing loss. Symptoms characteristically occur in paroxysmal episodes. The condition is usually unilateral at onset but may become bilateral over time. (Q892104)

A. 1, 2, and 4 only

B. 1, 3, and 4 only

C. 2, 3, and 4 only

D. All of the above

Correct Answer: B. 1, 3, and 4 only

Explanation: Ménière's disease is an idiopathic disorder of the inner ear characterized by endolymphatic hydrops. It typically affects adults in the 35–60 year age group , with a peak incidence in the 40s and 50s. (Statement 1) The disease is defined by its paroxysmal nature , where symptoms of vertigo and hearing loss occur in distinct attacks rather than being constant. (Statement 3) It is unilateral at onset in the majority of cases, a significant proportion of patients (up to 50%) eventually develop bilateral involvement. (Statement 4) It is a pathology of the cochlea and labyrinth, which results in sensorineural hearing loss . (Statement 2)

References:

PL Dhingra’s Diseases of Ear, Nose and Throat and Head and Neck Surgery, 8th Edition, Page 119-120.

↑ *Back to this question in Part A*

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Q18: A 45-year-old male presents with episodic vertigo, tinnitus, and aural fullness. The patient specifically reports a painful intolerance to loud sounds during these episodes. What is the probable cause of this intolerance? (Q892124)

A. Tullio phenomenon

B. Rollover phenomenon

C. Recruitment phenomenon

D. Hyperacusis

Correct Answer: C. Recruitment phenomenon

Explanation: The painful intolerance to loud sounds is a clinical sign of the Recruitment phenomenon . This occurs in cochlear disorders like Ménière's disease, where damaged outer hair cells result in an abnormal growth in the perception of loudness. Once the patient's elevated hearing threshold is reached, the sensation of loudness increases much more rapidly than in a normal ear, often becoming uncomfortably or painfully loud at intensities that are well-tolerated by healthy individuals. They are poor candidates for hearing aids. Tullio phenomenon (Option A) refers to the induction of vertigo by loud sounds due to the distended saccules lying against the stapes footplate. Rollover phenomenon (Option B) is a characteristic of retrocochlear pathology, such as a vestibular schwannoma, where speech discrimination scores actually decline as the intensity of the sound is increased beyond the patient's optimal level. Hyperacusis (Option D) is an abnormal intolerance or sensitivity to everyday sounds (normal hearing thresholds), which are perceived as uncomfortably or painfully loud.

References:

PL Dhingra’s Diseases of Ear, Nose and Throat and Head and Neck Surgery, 8th Edition, Page 120.

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Q19: Lermoyez syndrome is characteristically defined by which of the following clinical patterns? (Q892125)

A. Recurrent vertigo followed by sudden sensorineural hearing loss

B. Progressive deterioration of hearing followed by recovery after an attack of vertigo

C. Fluctuating hearing loss accompanied by constant aural fullness

D. Vertigo induced by loud sounds with baseline normal hearing

Correct Answer: B. Progressive deterioration of hearing followed by recovery after an attack of vertigo

Explanation: Lermoyez syndrome is a rare and paradoxical clinical variant of Ménière's disease. In the classic form of the disease, an attack of vertigo is typically accompanied or followed by a decline in hearing. In Lermoyez syndrome, the sequence is reversed: the patient experiences a period of progressive hearing loss, which then remarkably recovers or returns to baseline immediately following an acute paroxysmal attack of vertigo. This vertigo that makes one hear occurs when the pressure in the endolymphatic system reaches a critical point and then ruptures or decompresses, triggering the vestibular system while relieving the cochlear hydrops. Recurrent vertigo followed by sudden SNHL (Option A) describes the typical clinical sequence of classic Ménière's disease, where the vestibular insult precedes or coincides with auditory decline. Fluctuating hearing loss with aural fullness (Option C) is a component of endolymphatic hydrops. Vertigo induced by loud sounds (Option D) is known as the Tullio phenomenon, which is characterized by the induction of vertigo by loud sounds due to the distended saccules lying against the stapes footplate.

References:

PL Dhingra’s Diseases of Ear, Nose and Throat and Head and Neck Surgery, 8th Edition, Page 122.

↑ *Back to this question in Part A*

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Q20: A patient with a ten-year history of Ménière's disease experiences a sudden, forceful fall to the ground without any loss of consciousness. He describes the sensation as being thrown down by an invisible force. There are no associated neurological deficits or cardiovascular symptoms. What is this phenomenon called? (Q892127)

A. Tullio phenomenon

B. Tumarkin's otolithic crisis

C. Hennebert's sign

D. Lermoyez phenomenon

Correct Answer: B. Tumarkin's otolithic crisis

Explanation: Tumarkin's otolithic crisis , also known as drop attacks, is a dramatic manifestation seen in patients with early or late-stage Ménière's disease. It is characterized by sudden, unexpected falls without any loss of consciousness or prior warning. The patient typically feels as though they have been pushed or thrown to the ground. Occurs due to changes in endolymphatic pressure leading to sudden mechanical deformation of the

otolithic organs (utricle and saccule). Tullio phenomenon (Option A) refers to the induction of vertigo by loud sounds due to the distended saccules lying against the stapes footplate. Hennebert's sign (Option C) is the induction of vertigo or nystagmus by applying pressure to the external auditory canal using a Siegel's speculum in the presence of an intact tympanic membrane, often seen in syphilis or perilymph fistula. Lermoyez phenomenon (Option D) is characterized by improvement in hearing after a vertigo attack.

References:

Scott-Brown’s Otorhinolaryngology, Head and Neck Surgery, 8th Edition, Volume 2, Page 819.

PLDhingra’s Diseases of Ear, Nose and Throat and Head and Neck Surgery, 8th Edition, Page 122.

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Q21: In the clinical evaluation of a patient with suspected Ménière's disease, which of the following conditions should be considered in the differential diagnosis of episodic vertigo and sensorineural hearing loss? Vestibular neuronitis Vestibular schwannoma Perilymph fistula Chronic Suppurative Otitis Media (Q892133)

A. 1 and 3 only

B. 1, 2, and 3 only

C. 2, 3, and 4 only

D. All of the above

Correct Answer: B. 1, 2, and 3 only

Explanation: Chronic Suppurative Otitis Media is a middle ear pathology characterized by a permanent perforation; the presence of such a mechanical defect and aural discharge clinically distinguishes it from the primary inner ear pathology of endolymphatic hydrops. (Statement 4) Ménière's disease is diagnosed based on paroxysmal vertigo and fluctuating sensorineural hearing loss. Differentials of Ménière's disease: Perilymph fistula presents with fluctuating hearing loss and episodic vertigo following trauma or exertion, closely mimicking hydrops. (Statement 3) Basilar migraine: Associated with vertigo but without aural symptoms. Vestibular neuronitis: Associated with vertigo lasting for several days, no aural symptoms. (Statement 1) Benign paroxysmal positional vertigo: Associated with vertigo related to head movements, lasting seconds to minutes, no aural symptoms. Medications (e.g., aminoglycosides and loop diuretics). Central vertigo: Causes include stroke, multiple sclerosis, and seizure disorder. Peripheral vertigo of non-otogenic origin: Commonly seen in elderly patients with peripheral neuropathy and deconditioning. Orthostatic hypotension: Not true vertigo, but patients may describe themselves as dizzy. Neoplasm: Vestibular schwannoma, meningioma, malignancy. (Statement 2) Infectious causes: Meningitis, syphilis, and HIV cerebritis.

References:

https://www.ncbi.nlm.nih.gov/books/NBK536955/

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Q22: Which of the following pharmacological agents are not categorized as vestibular sedatives for the management of an acute attack of vertigo? Loratadine Prochlorperazine Promethazine Cetirizine (Q892146)

A. 1 and 2 only

B. 3 and 4 only

C. 1 and 4 only

D. All of the above

Correct Answer: C. 1 and 4 only

Explanation: Acute vertigo in Ménière's disease requires vestibular sedatives that act centrally to suppress the vestibular nuclei. Effective agents must cross the blood-brain barrier, such as the first-generation antihistamine. Drugs useful in acute attacks: Promethazine (Drug 3) Prochlorperazine (Drug 2) Dimenhydrinate Diazepam Loratadine and Cetirizine are Second-generation antihistamines that do not cross the blood-brain barrier and are not CNS depressants. (Drugs 1 & 4)

References:

PL Dhingra’s Diseases of Ear, Nose and Throat and Head and Neck Surgery, 8th Edition, Page 123.

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• [01_Ear] 009 Facial Nerve And Acoustic Neuroma

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[01_Ear] 009 Facial Nerve And Acoustic Neuroma — Quick Jump

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Q1: A 55-year-old patient experiences sudden right-sided facial drooping and weakness in the left arm and leg following a stroke. The stroke is in the ventral part of the pons (basis pontis). Infranuclear fascicular fibers of cranial nerve VII (CN VII) ipsilaterally and the corticospinal tract contralaterally are affected. What is the diagnosis? (Q847713)

A. Foville Syndrome

B. Wallenberg Syndrome

C. Millard-Gubler Syndrome

D. Weber Syndrome

Correct Answer: C. Millard-Gubler Syndrome

■ *Listen (English)*

■ *Listen (Hindi)*

Explanation: Millard-Gubler Syndrome (MGS) Caused by a lesion in the ventral part of the pons (basis pontis) The lesion involves the infranuclear fascicular fibers of cranial nerve VII (CN VII) ipsilaterally and the corticospinal tract contralaterally. Results in: Ipsilateral peripheral facial paralysis Contralateral hemiplegia Cranial nerve VI (CN VI) involvement sometimes Foville syndrome (Option A): Caused by a lesion in the pons Ipsilateral facial palsy Horizontal gaze palsy Contralateral hemiparesis Ipsilateral Horner syndrome Loss of hearing Facial pain or temperature sensation Contralateral loss of vibration, fine touch, and proprioception Wallenberg syndrome (Option B): Caused by a lesion in the brainstem Difficulty swallowing Dizziness or vertigo Problems with balance and walking Involuntary eye movements (nystagmus) Loss of pain or temperature sensation on one side of the body Hoarseness Loss of taste Facial pain Weber syndrome (Option D): Caused by a lesion in the midbrain Drooping eyelid Double vision Partial or complete weakness in the arm and leg on the contralateral side of the body Pupils may be dilated and unresponsive if both the upper and middle midbrain are affected Contralateral ataxia may be present There may be a Parkinsonian type of rigidity

References:

https://www.ncbi.nlm.nih.gov/books/NBK532907/

↑ *Back to this question in Part A*

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Q2: A 52-year-old woman presents to the clinic with complaints of progressive hearing loss in her right ear with a ringing sensation over the past 8 months. On examination, she has a unilateral sensorineural hearing loss on the right side. An MRI scan of the brain with gadolinium contrast reveals a well-circumscribed, enhancing mass about 4cm in size at the cerebellopontine angle. What is the treatment of choice? (Q847729)

A. Conventional radiotherapy

B. Surgery

C. X-knife surgery

D. CyberKnife

Correct Answer: B. Surgery

■ *Listen (English)*

■ *Listen (Hindi)*

Explanation: The scenario is of acoustic neuroma. Unilateral sensorineural hearing loss with tinnitus and MRI with gadolinium contrast findings points to the diagnosis. Treatment of choice of acoustic neuroma is surgery Treatment of acoustic neuroma Surgery Treatment of choice. The surgical approach depends on the tumor size. Radiotherapy Conventional radiotherapy by external beam is not suitable due to low CNS tolerance to radiation. X-knife or Gamma knife surgery: Form of stereotactic radiotherapy Focuses radiation on the tumor, minimizing the effect on surrounding normal tissue Arrests tumor growth and can reduce size Used for patients who refuse or are contraindicated for surgery, or with residual tumor after surgery. CyberKnife - An improved version

References:

Dhingra Diseases of Ear, Nose and Throat and Head and Neck Surgery 8th edition, pages-132, 134 Current diagnosis and treatment in otolaryngology-head and neck surgery 2nd edition, page 767

↑ *Back to this question in Part A*

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Q3: A 40-year-old male patient was diagnosed with Acoustic neuroma. Which among the following cranial nerve is the earliest to be involved in this condition? (Q847727)

A. V

B. VI

C. IX

D. VIII

Correct Answer: D. VIII

■ *Listen (English)*

■ *Listen (Hindi)*

Explanation: Acoustic neuroma (vestibular schwannoma) originates from the Schwann cells of the vestibular division of the 8th cranial nerve . Therefore, the first and earliest nerve to be affected is always CN VIII itself . As the tumor grows in the internal auditory canal or CPA, it first compresses the cochlear and vestibular components of CN VIII , producing: Progressive unilateral sensorineural hearing loss (cochlear involvement) Tinnitus Imbalance or vertigo (vestibular involvement) Acoustic Neuroma Clinical Features Age 40-60, both sexes equally affected Progressive unilateral sensorineural hearing loss, tinnitus Imbalance, facial numbness, dysphagia in later stages

References:

Diseases of ENT by Dhingra 8th edition, page- 132-134

↑ *Back to this question in Part A*

@Neet_pg_bot

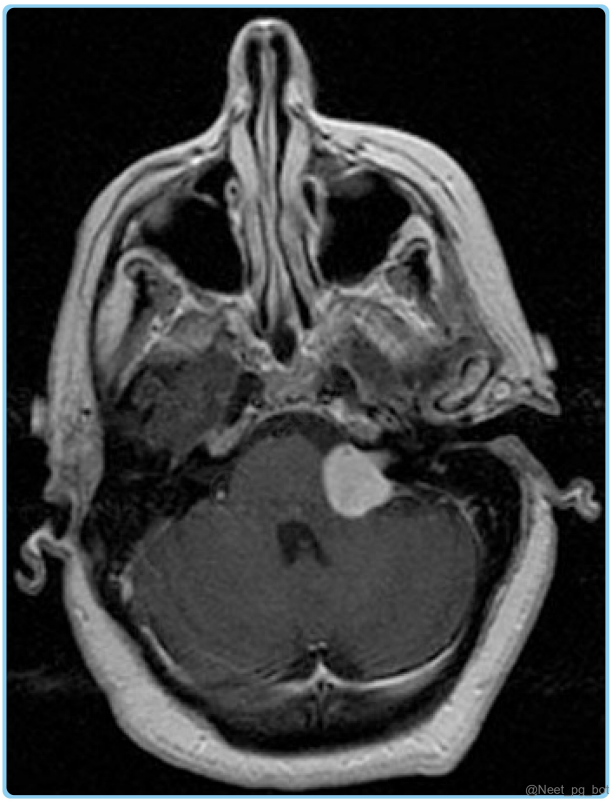
Q4: A 50-year-old female presented with hearing loss, tinnitus and vertigo. MRI showed the finding as shown. Choose the most likely origin nerve and the cell involved in this condition. (Q847726)

A. Superior vestibular nerve - Neurons

B. Superior vestibular nerve - Schwann cells

C. Inferior vestibular nerve - Neurons

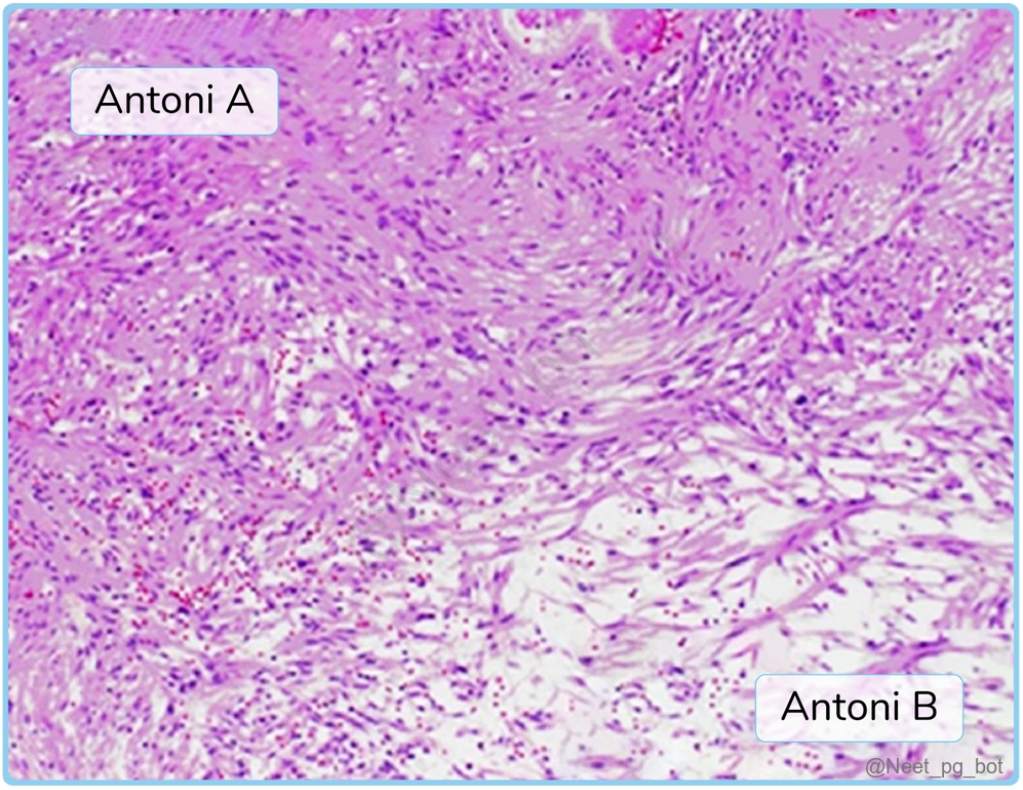
D. Inferior vestibular nerve - Schwann cells



Correct Answer: D. Inferior vestibular nerve - Schwann cells

- *Listen (English)*
- *Listen (Hindi)*

Explanation: Hearing loss accompanied by vestibular symptoms with MRI showing ice-cream cone appearance is suggestive of Acoustic neuroma, better called as Vestibular Schwanomma. Acoustic Neuroma Pathology Benign, slow-growing tumor of the VIIIth cranial nerve; consists of spindle cells with rod-shaped nuclei; bilateral in neurofibromatosis Characteristics: Antoni A- hypercellular area, Antoni B - hypocellular area, verocay bodies with nuclear palisading seen. Origin Arises from Schwann cells of the Inferior vestibular (Option D) > Superior vestibular >> Cochlear division of VIIIth nerve within internal auditory canal


Antoni A
Antoni B
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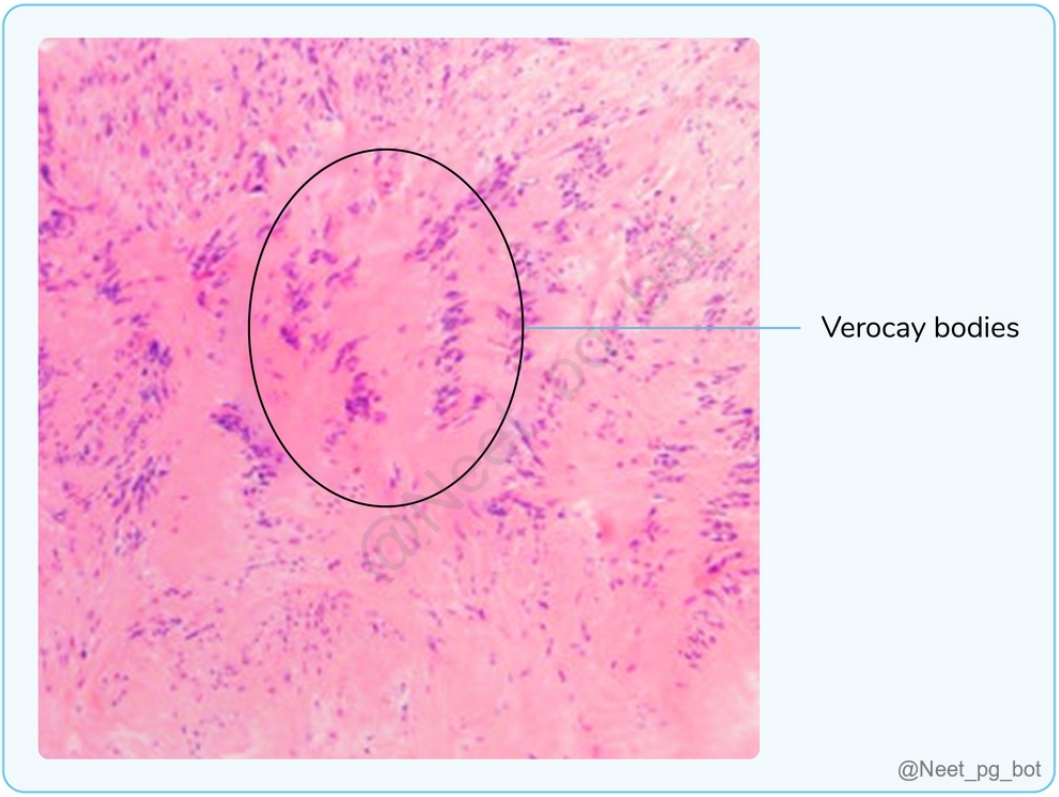
Verocay bodies
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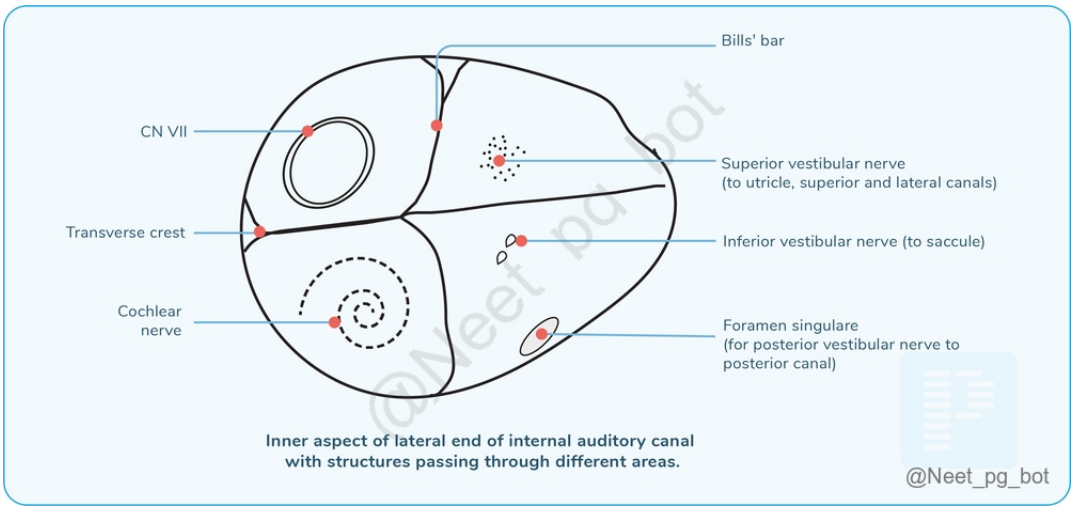

References:

Diseases of ENT by Dhingra 8th edition, page- 132-134

Scott Brown's Otorhinolaryngology Vol-2 8th edition, page- 1243

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@Neet_pg_bot

Q5: Post-parotidectomy, a patient presented with complaints of sweating over the cheek region upon chewing food as shown. Which statement is inappropriate? (Q847725)

A. Abnormal innervation of greater auricular nerve with damaged facial nerve

B. Tympanic neurectomy is done for treating this

C. Starch iodide test is helpful in establishing a diagnosis

D. Interpositional flaps during surgery reduced the risk of this

Correct Answer: A. Abnormal innervation of greater auricular nerve with damaged facial nerve

- *Listen (English)*
- *Listen (Hindi)*

Explanation: The given clinical scenario is suggestive of Frey's syndrome. Fig: Frey's syndrome Frey's syndrome: Cause: Faulty innervation of parasympathetic fibers of a uriculo-temporal nerve (Option A) supplying sweat fibers of face following Parotid surgery. Clinical features: gustatory sweating and flushing over angle of mandible Diagnosis: Starch Iodide test (Option C) Prevention: Use of Interpositional flaps like Sternocleidomastoid flap during surgery. (Option D) Treatment: Botox injection, Tympanic neurectomy. (Option B) Crocodile tears (gustatory lacrimation): Cause: Faulty innervation of parasympathetic fibers to the lacrimal gland. Symptoms: Unilateral lacrimation during eating Treatment: Tympanic neurectomy

References:

Scott Brown's Otorhinolaryngology Vol-3 8th edition, page- 122,123 Diseases of ENT by Dhingra 8th edition, page 117,546.

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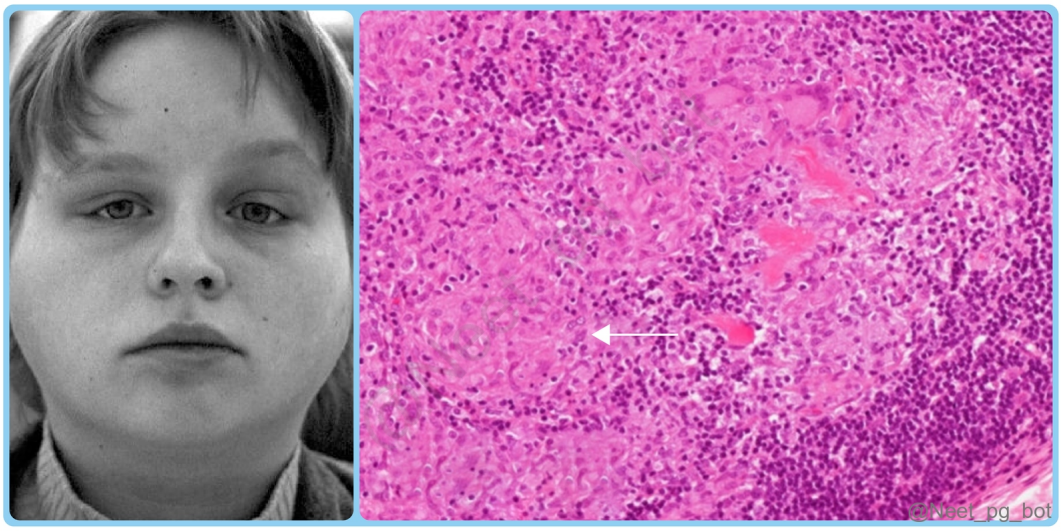
Q6: A 32-year-old woman presented with a 6-week history of swelling of both cheeks as shown, redness of eyes and cough. She reported having difficulty moving the right side of her face. On examination, Angiotensin-converting enzyme levels were elevated. Lymph node biopsy showed the following. What is the most likely diagnosis? (Q847724)

A. Melkersson–Rosenthal syndrome

B. Lyme disease

C. Wegener's granulomatosis

D. Heerfordt syndrome

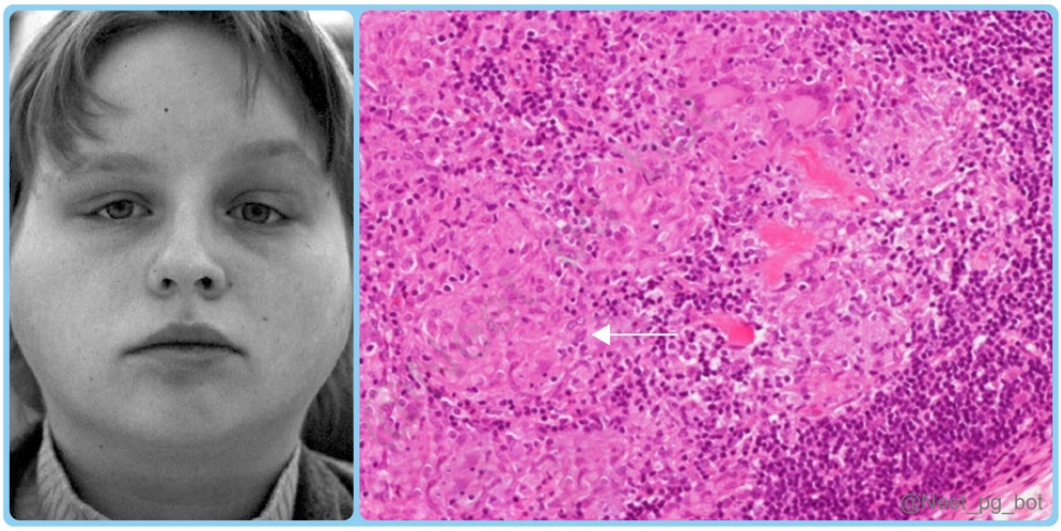


Correct Answer: D. Heerfordt syndrome

■ *Listen (English)*

■ *Listen (Hindi)*

Explanation: The given clinical scenario is suggestive of a subacute variant of Sarcoidosis characterized by Uveo-Parotid fever and facial nerve palsy , known as Heerfordt syndrome . Heerfordt Syndrome: Subacute variant of Sarcoidosis, characterized by anterior uveitis, Parotitis and Facial nerve palsy . ACE (Angiotensin-converting enzyme) levels elevated. Biopsy shows non-caseating granulomas. Treatment: Systemic corticosteroids. Syndromes associated with Facial nerve palsy: Granulomatosis with Polyangiitis (Wegener's Granulomatosis) (Option C) Autoimmune necrotizing vasculitis. Granulomas in respiratory tracts and kidneys. Facial nerve paralysis with Sensorineural hearing loss. Diagnosis: Elevated c-ANCA. Treatment: Cyclophosphamide + steroids. Lyme Disease (Option B) Cause: Borrelia burgdorferi , Vector: Hard tick . Flu-like symptoms, erythema migrans , bilateral facial palsy. Fig: Erythema migrans Diagnosis: Serologic testing. Treatment: Doxycycline or amoxicillin, if contra-indicated - Azithromycin. Ramsay Hunt Syndrome Peripheral facial nerve palsy with erythematous vesicular rash on ear or mouth. Melkersson–Rosenthal Syndrome (Option A) Recurrent alternating facial palsy, furrowed tongue , faciolabial edema. Moebius Syndrome Congenital agenesis of VI and VII cranial nerve nuclei. Seen with Misoprostol teratogenicity.



References:

Scott Brown's Otorhinolaryngology, Volume 2, 8th Edition, Page 1401,1402,1406,1407.

↑ *Back to this question in Part A*

@Neet_pg_bot

Q7: The Blink Reflex test primarily evaluates the function of which two cranial nerves? (Q847723)

A. Cranial nerves II and V

B. Cranial nerves III and VII

C. Cranial nerves V and VII

D. Cranial nerves IX and X

Correct Answer: C. Cranial nerves V and VII

■ *Listen (English)*

■ *Listen (Hindi)*

Explanation: Electrodiagnostic tests are useful to differentiate between neurapraxia and degeneration of the nerve and also help to predict the prognosis and indicate time for surgical decompression of the nerve. Blink Reflex Test: Purpose : This test evaluates the integrity of both the trigeminal nerve (afferent pathway) and the facial nerve (efferent pathway). It involves stimulating the supraorbital nerve and recording the reflexive blink response in both eyes. Clinical Significance: An absent or delayed response, particularly the R2 component, can indicate damage to the facial nerve or brainstem.

References:

Dhingra Diseases of Ear, Nose and Throat and Head and Neck Surgery 8th edition, page 111&112. Blink reflex

↑ *Back to this question in Part A*

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Q8: Which of the following statements is true regarding transverse fractures of the temporal bone? (Q847722)

A. They are more common than longitudinal fractures.

B. Bleeding from the ear is common due to injury to the tegmen and tympanic membrane.

C. They commonly result in sensorineural hearing loss.

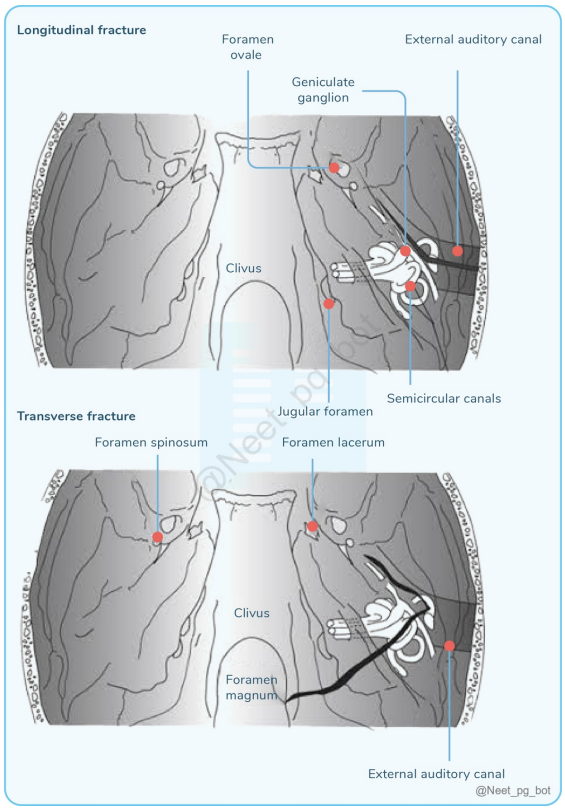
D. Facial paralysis occurs less frequently and usually has a delayed onset.

Correct Answer: C. They commonly result in sensorineural hearing loss.

■ *Listen (English)*

■ *Listen (Hindi)*

Explanation: Fractures of the temporal bone may be longitudinal, transverse or mixed. Facial palsy is seen more often in transverse fractures. Paralysis is due to intraneural haematoma, compression by bony spicule or transection of nerve. Differences in longitudinal and transverse fractures of the temporal bone Longitudinal Transverse Frequency More common (80%) Less common (20%) (Option A) Type of injury Parietal blow Occipital blow Fracture line Runs parallel to the long axis of the petrous pyramid which starts at the squamous part of the temporal bone. Runs across the petrous which starts at the foramen magnum. Bleeding from ear Common, due to injury to tegmen and TM Absent (Option B) CSF otorrhoea Present Absent Structures injured Tegmen, ossicles and TM Labyrinth, CN VIII Hearing loss Conductive Sensorineural (Option C) Vertigo Less often Severe Facial paralysis Less, delayed onset. Most common, immediate onset (Option D)



References:

Dhingra Diseases of Ear, Nose and Throat and Head and Neck Surgery 8th edition, page 114, 115.

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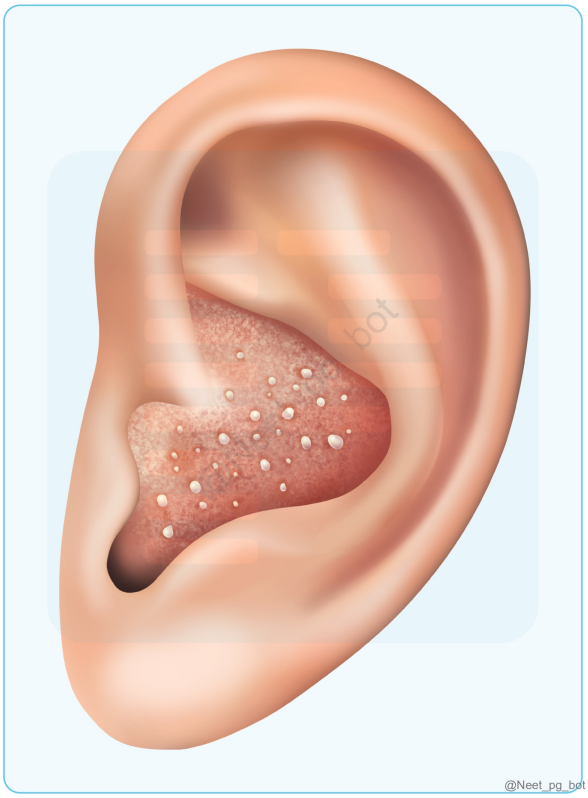
Q9: A 60-year-old man presents with a painful vesicular rash on his right ear, along with weakness on the same side of his face, making it difficult to close his eye. He also reports hearing loss and vertigo. What is the most likely diagnosis? (Q847721)

A. Bell's Palsy

B. Melkersson-Rosenthal Syndrome

C. Ramsay Hunt Syndrome

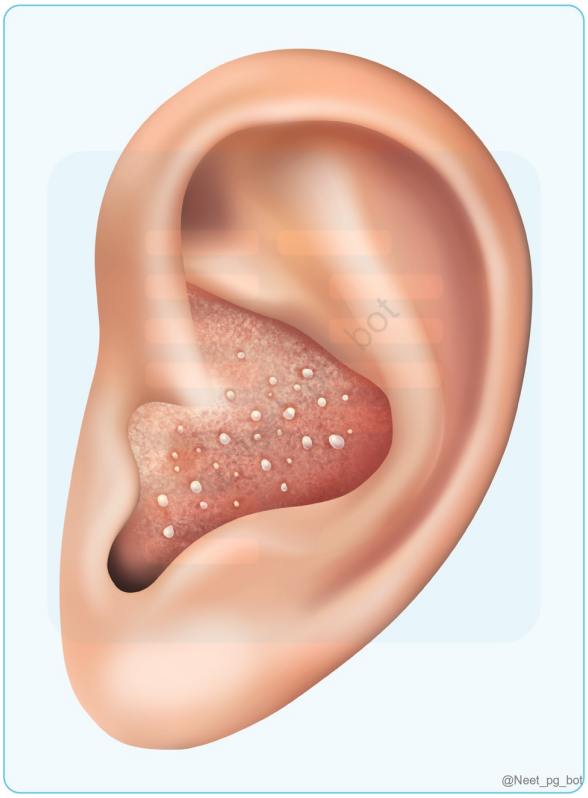
D. Acoustic Neuroma

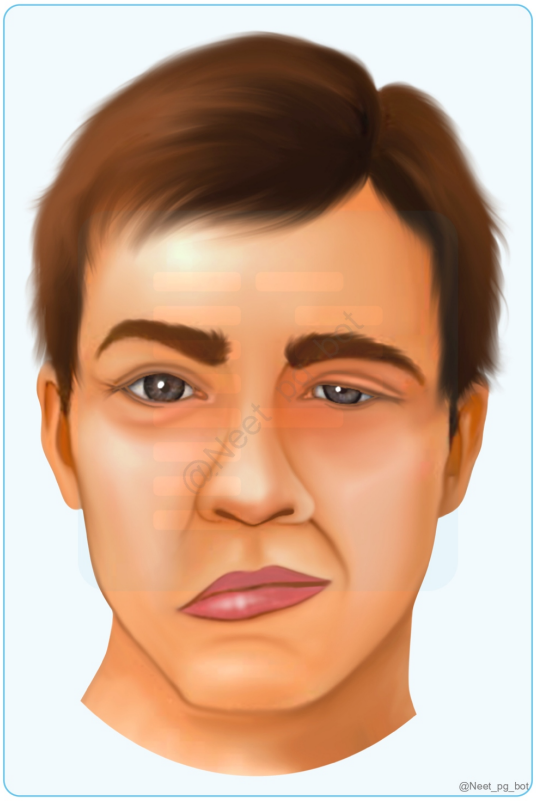


Correct Answer: C. Ramsay Hunt Syndrome

- *Listen (English)*
- *Listen (Hindi)*

Explanation: Ramsay Hunt Syndrome (Herpes Zoster Oticus): Caused by reactivation of the varicella-zoster virus, it presents with facial nerve palsy, a painful vesicular rash around the external auditory canal and pinna. Fig: Ramsay Hunt Syndrome Ear There may be anaesthesia of the face, giddiness and hearing impairment due to the involvement of 5th and 7th nerves. Fig: Ramsay Hunt Syndrome Face Treatment: Steroids: Prednisolone is the drug of choice (1 mg/kg/day). Steroids can be combined with Acyclovir for herpes zoster oticus. Dosage: If reported within 1 week, administer for 5 days and taper off by the 10th day. If paralysis persists, continue the same dose for 10 more days. Nerve Decompression: Relieves pressure on nerve fibers, improving microcirculation. Bell's Palsy (Option A): Involves sudden, unilateral facial nerve paralysis, often without pain or rash. It does not typically include a vesicular rash, hearing loss, or vertigo. Melkersson-Rosenthal Syndrome (Option B): Characterized by a triad of recurrent facial nerve palsy, facial swelling (especially of the lips), and a fissured tongue. It does not involve vesicular rashes, hearing loss, or vertigo. Acoustic Neuroma (Option D): Benign tumor on the vestibulocochlear nerve (cranial nerve VIII), leading to hearing loss, tinnitus, and balance issues. It doesn’t cause facial nerve palsy or a vesicular rash, distinguishing it from Ramsay Hunt Syndrome.





References:

Dhingra Diseases of Ear, Nose and Throat and Head and Neck Surgery, 8th Edition, Page 114

↑ *Back to this question in Part A*

@Neet_pg_bot

Q10: A 45-year-old diabetic male presents to your clinic as shown Choose the inappropriate statement regarding the likely diagnosis. (Q847719)

A. Males and females are equally affected

B. LMN type of paralysis

C. Most commonly vertical segment is affected

D. Majority of cases recover completely

Correct Answer: C. Most commonly vertical segment is affected

■ *Listen (English)*

■ *Listen (Hindi)*

Explanation: Given clinical scenario is suggestive of Bell’s palsy (idiopathic LMN Facial nerve palsy) Bell’s palsy: Description Most common cause of facial palsy Characterized by idiopathic, LMN facial paralysis of acute onset (Option B) Most commonly the Labyrinthine segment of facial nerve is involved. (Option C) Males and females are equally affected. (Option A) Aetiology Idiopathic: Most common cause Viral Infection: HSV >>

Herpes zoster Vascular Ischemia Hereditary: Positive family history in 6-8% Autoimmune Risk Factors More common in diabetics (due to angiopathy) and pregnant women (due to fluid retention). Clinical Features Sudden onset of facial paralysis with inability to close the eye (Bell's phenomenon), asymmetry of the face, epiphora, drooping mouth, and dribbling of saliva. Associated symptoms may include ear pain, noise intolerance (stapedial paralysis), or loss of taste (chorda tympani involvement). Diagnosis Diagnosis is made by excluding other causes of peripheral facial paralysis. Treatment General: Reassurance, pain relief, eye protection and physiotherapy Medical: Prednisolone 60 mg per day for 5 days then reduced by 10 mg per day (for a total treatment time of 10 days) and 50 mg per day (in two divided doses) for 10 days, Acyclovir Surgical: Nerve decompression Prognosis 85%-90% of patients fully recover (Option D) Incomplete resolution are mainly seen in recurrent/late recovery cases

References:

Diseases of ENT by Dhingra 8th edition, page- 108, 112-114. Scott Brown's Otorhinolaryngology Vol-2 8th edition, page- 1400.

↑ *Back to this question in Part A*

@Neet_pg_bot

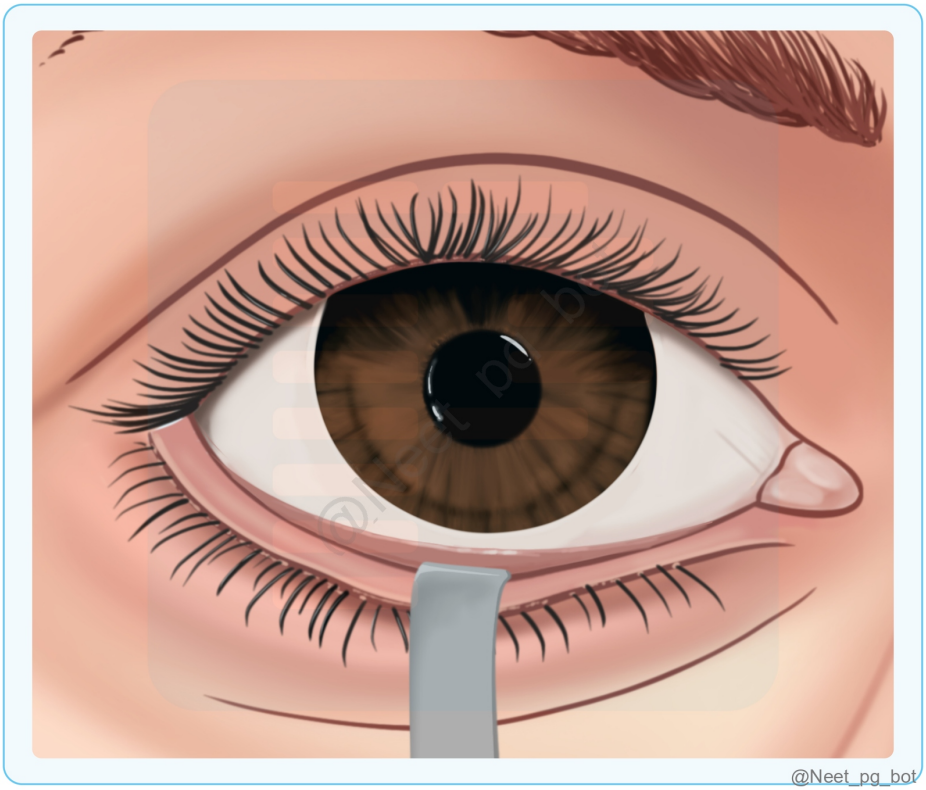
Q11: Choose the correct set of facial nerve branch involved and interpretation of a positive test with respect to the image shown below (Q847718)

A. Greater petrosal nerve: >25% unilateral decrease in lacrimation

B. Greater petrosal nerve: >75% unilateral decrease in lacrimation

C. Lesser petrosal nerve: >25% unilateral decrease in lacrimation

D. Lesser petrosal nerve: >75% unilateral decrease in lacrimation

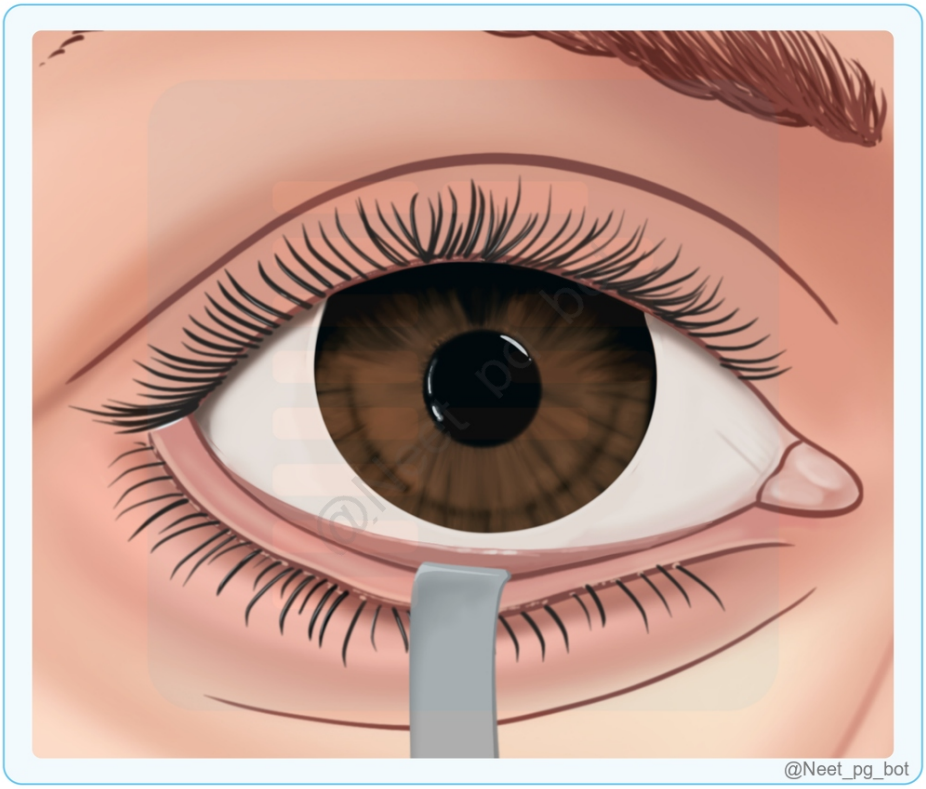


Correct Answer: B. Greater petrosal nerve: >75% unilateral decrease in lacrimation

■ *Listen (English)*

■ *Listen (Hindi)*

Explanation: Given image shows Schirmer test , a topodiagnostic test used for dry eye disease. Topodiagnostic evaluation of facial palsy involves testing the function of individual branches of the facial nerve to assess the site of lesion, but carries no prognostic value. Topodiagnosis of Facial nerve branches: Test Nerve Branch Assessment/Outcome Schirmer's Test Greater (superficial) petrosal nerve A unilateral decrease in tear production (>75%) (Option B) or Bilateral reduction (less than 10 mm in both eyes after 5 minutes). Stapedial Reflex Nerve to stapedius muscle Reflex is either present or absent Electro- gustometry Chorda tympani The taste threshold is compared between the two sides to detect abnormalities Salivary Flow Testing Chorda tympani A 25% reduction in salivary flow is considered abnormal



References:

Scott Brown's Otorhinolaryngology Vol-2 8th edition, page- 1387

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@Neet_pg_bot

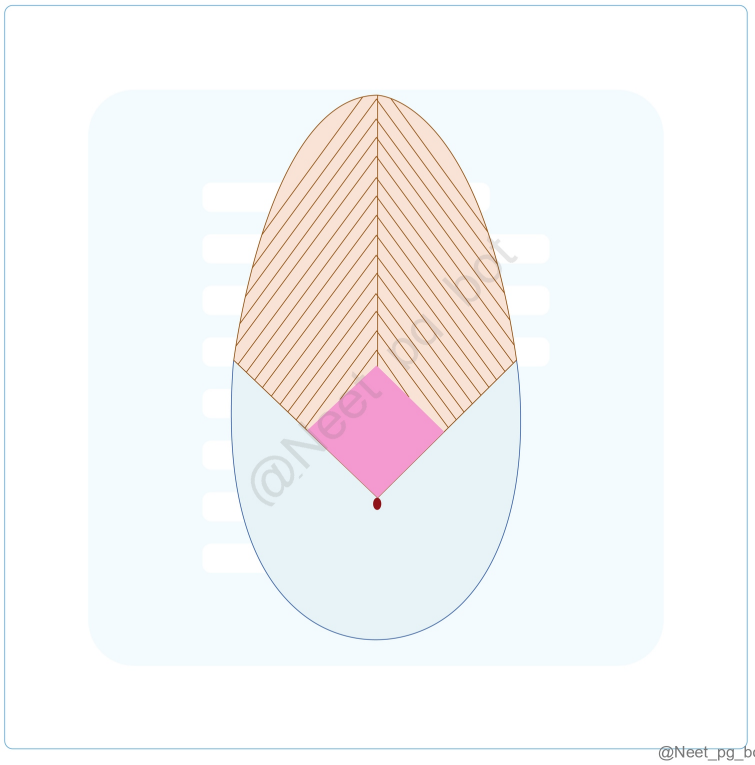
Q12: Nerve that carries taste sensation from the yellow-shaded region of the tongue in the image below arises from? (Q847717)

A. At the level of 1st genu

B. At the level of 2nd genu

C. Middle of the horizontal segment

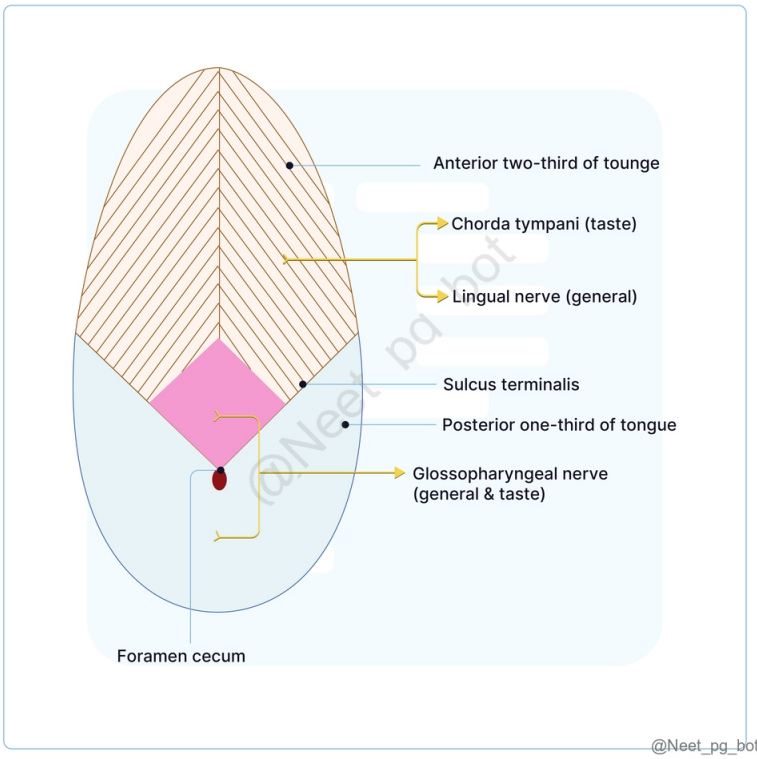
D. Middle of the vertical segment



Correct Answer: D. Middle of the vertical segment

- *Listen (English)*
- *Listen (Hindi)*

Explanation: Yellow shaded region represents the anterior two-thirds of the tongue; the taste sensation from that region is carried by the Chorda tympani (Branch of the facial nerve). General sensation of anterior two-third: Lingual nerve (Branch of CN-V) Both taste and general sensation of posterior one-third: Glossopharyngeal nerve At the level of 1st genu (Option A): Incorrect — this is where the greater petrosal nerve arises, not the chorda tympani. At the level of 2nd genu (Option B): Incorrect — this is a landmark for the nerve to stapedius , not chorda tympani. Middle of the horizontal segment (Option C): Incorrect — this part is near the tympanic cavity , but chorda tympani arises lower down .



References:

Diseases of ENT by Dhingra 8th edition, page 108.

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@Neet_pg_bot

Q13: Choose the correct set of statements regarding the course of the facial nerve 1) The extracranial part of facial nerve lies lateral to retromandibular vein 2) Facial nerve exits the skull via stylomastoid foramen 3) Greater petrosal nerve is a branch of facial nerve after the formation of geniculate ganglion 4) The facial nerve enters the internal acoustic meatus along with the vestibulocochlear nerve (Q847716)

A. Only 1

B. 2,3,4

C. 1,2,4

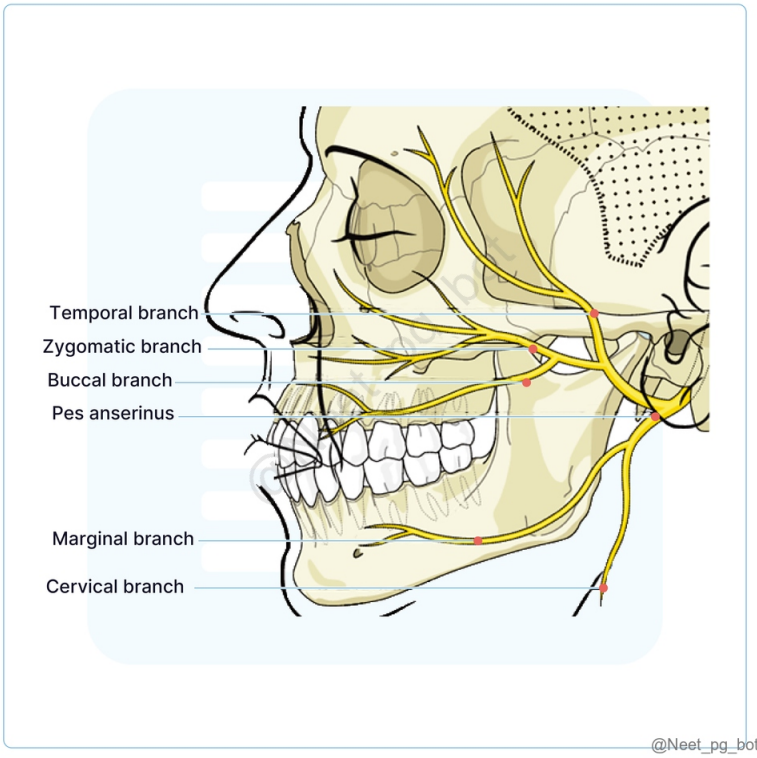
D. 1,2,3,4

Correct Answer: B. 2,3,4

■ *Listen (English)*

■ *Listen (Hindi)*

Explanation: Origin: The facial nerve arises from the pons, a part of the brainstem, at the pontomedullary junction. Pathway: After its origin, the facial nerve enters the internal acoustic meatus along with the vestibulocochlear nerve (CN VIII). (Statement 4) It then travels through the facial canal within the temporal bone. Key Structures Along Its Course Geniculate Ganglion: Located within the facial canal, this is a sensory ganglion where the nerve fibers for taste (from the anterior two-thirds of the tongue) and some general sensory fibers synapse. Branches within the Facial Canal: Greater Petrosal Nerve: Arises from the geniculate ganglion, carrying parasympathetic fibers to the lacrimal gland and nasal mucosa. (Statement 3) Chorda Tympani: This branch arises after the geniculate ganglion and carries taste fibers from the anterior two-thirds of the tongue and parasympathetic fibers to the submandibular and sublingual salivary glands. Exit from the Skull Stylomastoid Foramen: The facial nerve exits the skull here, located between the styloid and mastoid processes of the temporal bone. (Statement 2) Extracranial part of facial nerve: Entry into Parotid Gland Main trunk enters on the posteromedial surface of the parotid gland. Division of Nerve Divides within the gland, behind and superficial to the retromandibular vein (Statement 1) and external carotid artery (ECA). Temporofacial vs. Cervicofacial Trunks Temporofacial trunk: Contains more axons but fewer fascicles. Cervicofacial trunk: Contains more fascicles but fewer axons. Formation of Parotid Plexus The trunks branch further to form the parotid plexus (pes anserinus) from which the terminal branches arise. Terminal Branches Temporal, zygomatic, buccal, marginal mandibular, and cervical.



References:

Scott Brown's Otorhinolaryngology Vol-2 8th edition, page- 1387

↑ *Back to this question in Part A*

@Neet_pg_bot

Q14: A 50-year-old female known hypertensive presented with sudden onset weakness over the left half of her body. On examination, her face was deviated to one side associated with slurring of speech. The doctor asks the intern to perform a facial nerve examination. Which among the following statements is correct regarding the most likely intratemporal segment of the nerve involved? (Q847715)

A. Contains epineurial and perineurial sheaths

B. Segment with the poorest arterial supply

C. Bill's bar is related to this segment

D. Shortest and widest segment of facial nerve

Correct Answer: B. Segment with the poorest arterial supply

Explanation: Given clinical scenario is suggestive of acute ischaemic stroke. The labyrinthine segment of the facial nerve is most prone to ischaemia as it has poor collateral (anastomotic) arterial supply. Intratemporal Facial nerve: Extends from Internal acoustic meatus (IAM) to stylomastoid foramen. Further divided into, Meatal segment 8-10mm length, within IAM Bill's bar is a bony landmark related to the Meatal segment of facial nerve (Option C) Labyrinthine segment 4mm length, from fundus of meatus to geniculate ganglion Shortest and narrowest segment (Option D) Most prone segment to compression (narrowest) and ischaemia due to lack of anastomosing arterial cascades. (Option B) Ends at 1st genu. Tympanic (horizontal) segment 11mm length, from geniculate ganglion to just above the pyramidal eminence. Most common site of dehiscence of temporal bone (facial canal) Lies above oval window and below lateral semicircular canal Mastoid (vertical) segment 13mm length,from the pyramid to the stylomastoid foramen Arises from 2nd genu. Most common segment to be injured in mastoid surgery Contains epineurial and perineurial sheaths (Option A): Proximal segments i.e Meatal, Labyrinthine and Horizontal segments lack Epineurial and Perineurial sheaths.

References:

Diseases of ENT by Dhingra 8th edition, page- 108 Scott Brown's Otorhinolaryngology Vol-2 8th edition, page-1383-1386

↑ *Back to this question in Part A*

@Neet_pg_bot

Q15: Choose the correct course of the intracranial part of the facial nerve. (Q847714)

A. VIIth nerve nucleus→pontomedullary junction→posterior cranial fossa→internal acoustic meatus

B. Internal acoustic meatus→VIIth nerve nucleus→posterior cranial fossa→pontomedullary junction

C. Posterior cranial fossa→internal acoustic meatus→pontomedullary junction→VIIth nerve nucleus

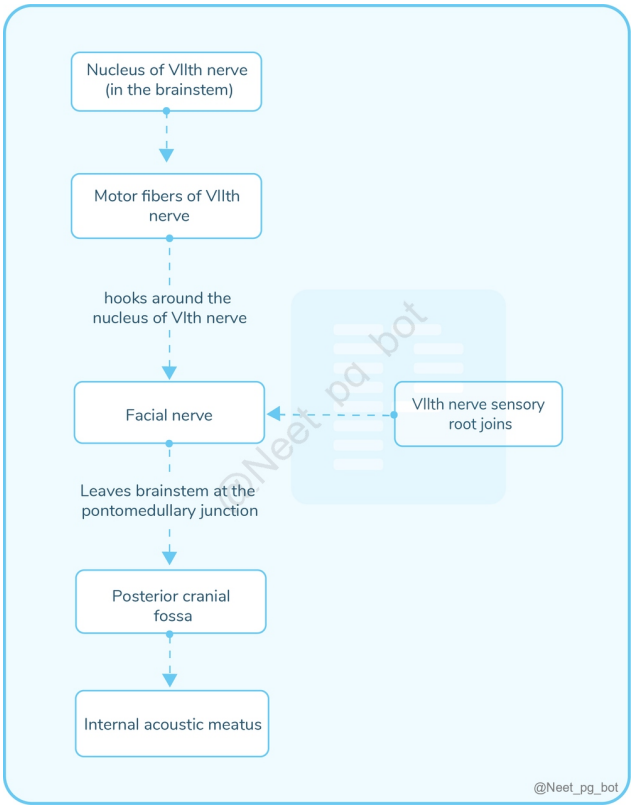
D. Pontomedullary junction→VIIth nerve nucleus→internal acoustic meatus→posterior cranial fossa

Correct Answer: A. VIIth nerve nucleus→pontomedullary junction→posterior cranial fossa→internal acoustic meatus

■ *Listen (English)*

■ *Listen (Hindi)*

Explanation: Intracranial part of facial nerve - part of the facial nerve till it reaches the internal acoustic meatus
The course of the intracranial part of the facial nerve:



References:

Dhingra Diseases of Ear, Nose and Throat and Head and Neck Surgery 8th edition, page 107

↑ *Back to this question in Part A*

@Neet_pg_bot

Q16: A 58-year-old woman presents with weakness in the lower right side of her face. She notes that she can still raise her eyebrows and wrinkle her forehead on both sides. Her emotional expressions seem normal. Which of the following is the most likely diagnosis? (Q847712)

A. Lower motor neuron facial nerve palsy

B. Supranuclear facial nerve palsy

C. Bell's palsy

D. Trigeminal nerve palsy

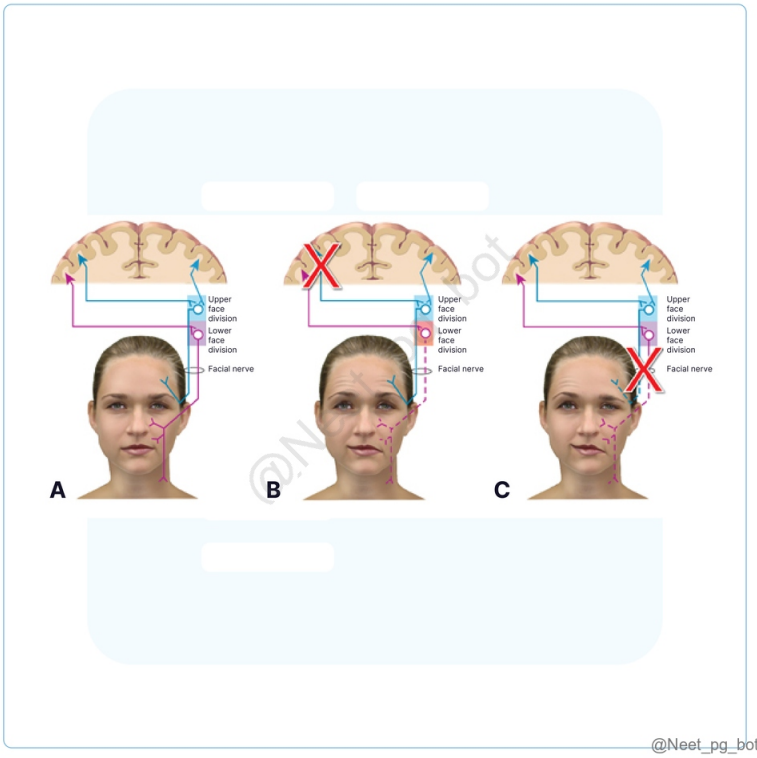
Correct Answer: B. Supranuclear facial nerve palsy

■ *Listen (English)*

■ *Listen (Hindi)*

Explanation: The scenario is of a kind of facial palsy in which the forehead and facial expressions are spared, which is supranuclear palsy of the facial nerve Supranuclear palsy of the facial nerve: Forehead sparing : The patient's ability to raise her eyebrows and wrinkle her forehead indicates that the upper facial muscles are spared , which is typical of a supranuclear (central) facial palsy . Bilateral cortical innervation : The upper facial nerve nucleus receives bilateral input , so even when one side of the cerebral cortex is affected (e.g., stroke), the forehead

muscles still function. Emotional expression preserved : Because emotional facial expressions are mediated through alternative pathways (via the limbic system), patients with supranuclear palsy often have normal involuntary emotional expressions despite weakness on voluntary movement.



References:

Dhingra Diseases of Ear, Nose and Throat and Head and Neck Surgery, 8th edition, page 107

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Q17: A 10-year-old presents with recurrent episodes of facial swelling, particularly around her lips, along with a history of facial palsy. On examination, she also has a fissured tongue (lingua plicata) as shown below. Based on these clinical features, what is the most likely diagnosis? (Q847720)

A. Bell's Palsy

B. Sjögren's Syndrome

C. Melkersson-Rosenthal Syndrome

D. Ramsay Hunt Syndrome

Correct Answer: C. Melkersson-Rosenthal Syndrome

- *Listen (English)*
- *Listen (Hindi)*

Explanation: Melkersson-Rosenthal Syndrome Idiopathic disorder marked by a triad of recurrent facial nerve palsy, facial/lip swelling, and a fissured tongue. Onset is in childhood or early adolescence. It can be symptomatic of crohn's disease or sarcoidosis. Treatment: Prednisolone is the drug of choice (1 mg/kg/day). Dosage: If reported within 1 week, administer for 5 days and taper off by the 10th day. If paralysis persists, continue the same dose for 10 more days. Nerve Decompression: Relieves pressure on nerve fibers, improving microcirculation. Bell's Palsy (Option A): This involves sudden, unilateral facial nerve paralysis but lacks the recurrent swelling and fissured tongue seen in Melkersson-Rosenthal Syndrome. Sjögren's Syndrome (Option B): Characterized by dry eyes and mouth due to autoimmune destruction of salivary and lacrimal glands, it doesn't typically present with facial swelling or facial nerve palsy. Ramsay Hunt Syndrome (Option D): Caused by varicella-zoster virus reactivation, it presents with facial nerve palsy, ear pain, and vesicular rash in the ear, but not with fissured tongue or lip swelling.

References:

Dhingra Diseases of Ear, Nose and Throat and Head and Neck Surgery 8th edition, page 113, 114. Rosenthal syndrome

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Q18: A patient presenting with a peripheral facial nerve palsy is found to have an ipsilateral xerophthalmia. Injury to which specific part of the facial nerve is most likely responsible for this autonomic deficit? (Q885211)

A. Geniculate ganglion

B. Tympanic segment

C. Mastoid segment

D. Stylomastoid foramen

Correct Answer: A. Geniculate ganglion

Explanation: The facial nerve provides parasympathetic secretomotor innervation to the lacrimal gland through the greater superficial petrosal nerve (GSPN) . This branch takes its origin from the Geniculate ganglion at the first genu of the facial nerve. Observation of a dry eye, which can be quantitatively assessed using the Schirmer test, indicates that the pathological process is located at or proximal to the geniculate ganglion. Lesions occurring distal to this site, such as in the tympanic or mastoid segments, spare the GSPN fibers and therefore do not result in impaired lacrimation. Tympanic segment (Option B) : Lesions in this horizontal segment occur distal to the origin of the greater superficial petrosal nerve, resulting in normal lacrimation despite facial muscle paralysis. Mastoid segment (Option C) : This vertical portion contains the nerve to the stapedius and the chorda tympani; injury here affects the acoustic reflex and taste. Stylomastoid foramen (Option D) is the exit point of the facial nerve from the skull; lesions at this level only involve the motor fibers to the muscles of facial expression, sparing all autonomic and sensory branches.

References:

PL Dhingra’s Diseases of Ear, Nose and Throat and Head and Neck Surgery, 8th Edition, Page 108.

↑ *Back to this question in Part A*

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Q19: Which of the following tests is not utilized to identify the specific anatomical site of the lesion along the nerve's course? (Q885209)

A. Schirmer test

B. Stapedial reflex

C. Electroneuronography

D. Electrogustometry

Correct Answer: C. Electroneuronography

Explanation: Topodiagnostic tests are utilized to determine the specific anatomical level of a facial nerve lesion by checking the function of its various branches. These include The Schirmer test for the greater petrosal nerve (lacrimation). (Option A ruled out) The stapedial reflex for the nerve to the stapedius. (Option B ruled out) Electrogustometry for the chorda tympani. (Option D ruled out) Electroneuronography (ENoG) (Option C) is a prognostic test rather than a topodiagnostic one. It involves electrical stimulation of the nerve to quantify the percentage of nerve fibers that have undergone Wallerian degeneration, thereby predicting the likelihood of spontaneous recovery rather than identifying the site of the lesion.

References:

PL Dhingra’s Diseases of Ear, Nose and Throat and Head and Neck Surgery, 8th Edition, Page 111, 113.

↑ *Back to this question in Part A*

@Neet_pg_bot

Q20: What is the ideal time window to perform electroneuronography to obtain the most accurate assessment of neural degeneration? (Q885208)

A. Within the first 48 hours of onset

B. 4 to 21 days following the onset

C. Exactly 48 hours after injury

D. 2 months after the onset of paralysis

Correct Answer: B. 4 to 21 days following the onset

Explanation: Electroneuronography (ENoG) measures the compound muscle action potential (CMAP) and is used to quantify the percentage of nerve fibers that have undergone Wallerian degeneration. For the results to be valid, the test must be performed after Wallerian degeneration has reached the motor endplates but before significant regeneration or muscle atrophy occurs. This window is typically 4 to 21 days after the onset of complete paralysis. Testing before day 3 or 4 may yield a false-normal result because the distal segment of the nerve can still conduct impulses even if the proximal part is severely injured. (Option A ruled out)

References:

PL Dhingra's Diseases of Ear, Nose and Throat and Head and Neck Surgery, 8th Edition, Page 111.

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@Neet_pg_bot

Q21: A patient presenting with a facial nerve palsy complains that ordinary daily sounds, such as the clattering of dishes, feel uncomfortably loud and painful in the affected ear. The paralysis of which muscle is responsible for this clinical finding? (Q885206)

A. Tensor tympani

B. Levator veli palatini

C. Tensor veli palatini

D. Stapedius

Correct Answer: D. Stapedius

Explanation: The symptom described is hyperacusis , which results from the loss of the acoustic (stapedial) reflex . The stapedius muscle is innervated by a branch of the facial nerve arising in the mastoid segment. Its physiological role is to contract in response to loud sounds, tilting the stapes footplate and dampening the vibrations transmitted to the inner ear. When the facial nerve is injured proximal to the nerve to the stapedius, the muscle is paralyzed, and this protective dampening mechanism is lost. Consequently, sound vibrations reach the cochlea with unfiltered intensity, causing the patient to perceive normal sounds as abnormally loud. Tensor tympani (Option A) is innervated by the mandibular branch of the trigeminal nerve (CN V3); while it also acts on the ossicular chain, its role in the human acoustic reflex is significantly less. Levator veli palatini (Option B) is supplied by the pharyngeal plexus (CN X) and is involved in elevating the soft palate during swallowing. Tensor veli palatini (Option C) is supplied by the trigeminal nerve (CN V3) and is responsible for opening the Eustachian tube.

References:

PL Dhingra’s Diseases of Ear, Nose and Throat and Head and Neck Surgery, 8th Edition, Page 113.

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@Neet_pg_bot

Q22: Which of the following clinical features are characteristic findings in a patient diagnosed with Bell’s palsy? Positive Bell's phenomenon Epiphora Ipsilateral ptosis Loss of taste in the anterior two-thirds of the tongue (Q885203)

A. 1, 2, and 3 only

B. 1, 2, and 4 only

C. 2, 3, and 4 only

D. All of the above

Correct Answer: B. 1, 2, and 4 only

Explanation: Bell's palsy is an idiopathic, acute-onset lower motor neuron (LMN) facial paralysis. The patient is unable to close his eye. On attempting to close the eye, the eyeball turns up and out (Bell phenomenon). (Statement 1) Saliva dribbles from the angle of the mouth. The face becomes asymmetrical. Tears flow down from the eye (epiphora). (Statement 2) Pain in the ear may precede or accompany the nerve paralysis. Some complain of noise intolerance or loss of taste (involvement of the chorda tympani). (Statement 4) Paralysis may be complete or incomplete. Ipsilateral ptosis (Statement 3): Ptosis is the drooping of the upper eyelid caused by a deficit in the oculomotor nerve (CN III) or sympathetic fibers. In Bell's palsy (CN VII), the patient cannot close the eye; the eye remains open, and the palpebral fissure appears widened rather than narrowed.

References:

PL Dhingra’s Diseases of Ear, Nose and Throat and Head and Neck Surgery, 8th Edition, Page 113.

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@Neet_pg_bot

Q23: A patient with a complete lower motor neuron facial nerve palsy is asked to close eyes; the eyelid on the affected side remains open, and the eyeball is observed to move in a specific direction. In which direction does the eyeball typically rotate in a positive Bell's phenomenon? (Q885199)

A. Upward and inward

B. Upward and outward

C. Downward and inward

D. Downward and outward

Correct Answer: B. Upward and outward

Explanation: Bell's phenomenon is a normal physiological defensive reflex where the eyeball rotates upward and outward during an attempt to close the eyelids or during sleep. In a healthy individual, this movement is hidden by the closure of the eyelids; however, in patients with lower motor neuron facial palsy, the failure of the orbicularis oculi muscle leads to lagophthalmos. This allows the clinician to clearly observe the eyeball's upward and outward excursion when the patient attempts to squeeze their eyes shut.

References:

PL Dhingra’s Diseases of Ear, Nose and Throat and Head and Neck Surgery, 8th Edition, Page 113.

↑ *Back to this question in Part A*

@Neet_pg_bot

Q24: Which of the following is the most common cause of lower motor neuron facial nerve palsy? (Q885197)

A. Bell's palsy

B. Ramsay Hunt syndrome

C. Cerebellopontine angle tumors

D. Postoperative trauma

Correct Answer: A. Bell's palsy

Explanation: Lower motor neuron (LMN) facial paralysis is a clinical condition resulting from a lesion at or distal to the facial motor nucleus in the pons. Bell's palsy is recognized as the most common cause, accounting for approximately 60-75% of all cases of isolated unilateral facial paralysis. It is an idiopathic, acute peripheral nerve palsy, likely triggered by viral reactivation (HSV-1), causing nerve edema within the fallopian canal. Causes of Lower Motor Neuron Facial Palsy: Idiopathic : Bell's palsy (most common), Melkersson-Rosenthal syndrome. (Option A) Infectious : Ramsay Hunt syndrome (Herpes Zoster Oticus), ASOM, CSOM, Malignant Otitis Externa, Lyme disease, HIV, Leprosy. (Option B ruled out) Traumatic : Temporal bone fractures, Iatrogenic (mastoid or parotid surgery), Birth trauma. (Option D ruled out) Neoplastic : Vestibular Schwannoma, Glomus tumors, Facial nerve neuroma, Parotid malignancies. (Option C ruled out) Metabolic/Systemic : Diabetes mellitus, Sarcoidosis (Heerfordt's syndrome), Hypertension, Leukemia. Congenital : Möbius syndrome.

References:

PL Dhingra’s Diseases of Ear, Nose and Throat and Head and Neck Surgery, 8th Edition, Page 112-113.

↑ *Back to this question in Part A*

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Q25: A patient with a UMN facial nerve palsy exhibits an inability to move the lower facial muscles voluntarily, yet involuntary emotional expressions like laughing or crying remain intact. Which of the following explains this sparing? (Q885192)

A. Incomplete paralysis of facial muscles

B. Aberrant regeneration of nerve fibers

C. Innervation by fibers from the thalamus

D. Innervation by fibers from the prefrontal cortex

Correct Answer: C. Innervation by fibers from the thalamus

Explanation: In Upper Motor Neuron (UMN) facial palsy , voluntary control of the lower facial muscles is lost due to damage to the corticobulbar tract. However, the preservation of emotional or mimetic expressions is a characteristic finding because these involuntary movements are mediated by deep brain structures, specifically the thalamus and hypothalamus, which provide an alternative innervation route to the facial motor nucleus in the pons. This phenomenon is known as emotional-voluntary dissociation and is a key feature in localizing a lesion to the central nervous system. Incomplete paralysis (Option A): Sparing of emotional expression in the lower face is due to distinct subcortical pathways rather than the severity of the paralysis. Aberrant regeneration (Option B) is a complication of the recovery phase of a peripheral (LMN) facial nerve injury where fibers grow into incorrect muscle groups, leading to synkinesis. Prefrontal cortex (Option D) is involved in higher cognitive functions and planning, it is not the primary site for the subcortical involuntary pathways that mediate spontaneous emotional responses.

References:

PL Dhingra’s Diseases of Ear, Nose and Throat and Head and Neck Surgery, 8th Edition, Page 107.

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Q26: Which of the following is the most common type of facial nerve injury? (Q885189)

A. Neuropraxia

B. Axonotemesis

C. Neurotemesis

D. Transection

Correct Answer: A. Neuropraxia

Explanation: Neuropraxia is the most common and least severe type, representing a physiological block in conduction without any anatomical disruption of the axon or its supporting structures. It is frequently caused by mild compression or ischemia, such as that seen in the early stages of Bell's palsy. Because the axon remains intact, Wallerian degeneration does not occur, and the patient typically experiences a complete and rapid recovery of facial function within a few weeks once the primary insult is removed. Axonotemesis (Option B) involves the anatomical disruption of axons while preserving the endoneurial sheath; this leads to Wallerian degeneration and a slower, though often complete, recovery compared to neuropraxia. Neurotemesis (Option C) represents the most severe degree of injury where both the axon and its supporting connective tissue sheaths are completely disrupted, resulting in poor or absent spontaneous recovery without surgical intervention. Transection (Option D) is a physical severing of the nerve, which is the most extreme form of neurotemesis, often seen in penetrating trauma or surgical accidents, necessitating immediate nerve repair or grafting.

References:

PLDhingra’s Diseases of Ear, Nose and Throat and Head and Neck Surgery, 8th Edition, Page 111.

https://www.ncbi.nlm.nih.gov/books/NBK553095/

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• [01_Ear] 010 Disorders Of External Ear And Eustachian Tube

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[01_Ear] 010 Disorders Of External Ear And Eustachian Tube — Quick Jump

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Q25 (p. 743)

Q1: A professional boxer presents with a swollen and bruised ear. The condition is most likely diagnosed as: (Q847756)

A. Hematoma of ear

B. Perichondritis

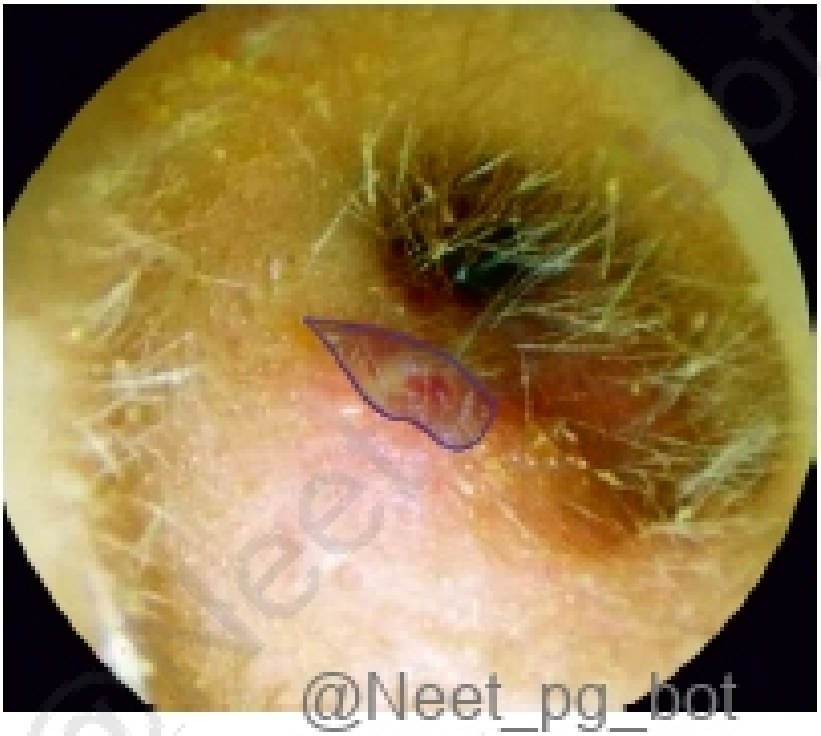
C. Otitis Externa

D. Otomycosis

Correct Answer: A. Hematoma of ear

- *Listen (English)*
- *Listen (Hindi)*

Explanation: The image depicts an ear with significant swelling and bruising. This condition is typically indicative of a Hematoma of the Pinna. Hematoma Auris Accumulation of blood between the cartilage and overlying perichondrium. This creates a barrier for diffusion between the cartilage and the perichondrial vascularity, leading to necrosis of the cartilage and predisposing it to infection and further injury. Extravasated blood may clot and then organize, resulting in a typical deformity called cauliflower ear (pugilistic or boxer's ear). Incorrect Options: Perichondritis is the inflammation of the perichondrium. Perichondritis typically presents as pain, redness, and swelling of the external ear. The swelling is more diffuse and not typically as localized as in a hematoma. (Option B) Otitis Externa is an infection of the external ear canal, often characterized by itching, discharge, and pain, but it does not usually present with a swollen, bruised appearance of the entire ear. (Option C) Otomycosis is a fungal infection of the ear canal. The most common causative organism is Aspergillus niger. (Option D)



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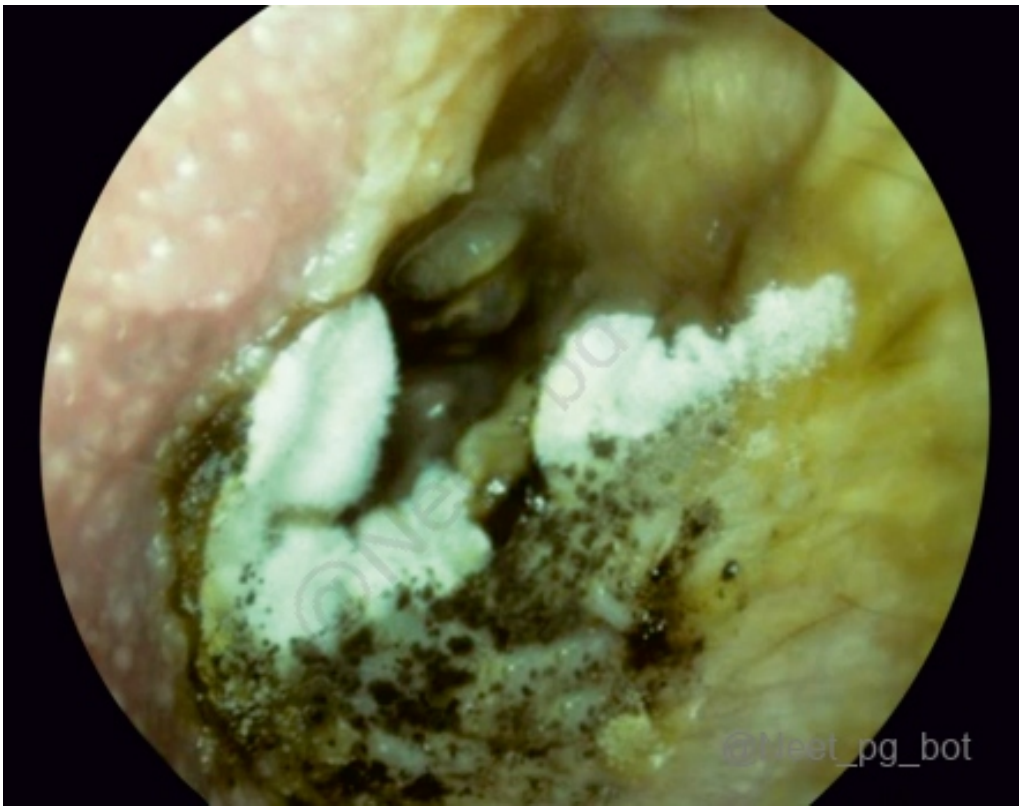

References:

Diseases of Ear, Nose and Throat Dhingra 8th Edition Page 58

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Q2: All the statements are true about eustachian tube function tests, except: (Q847779)

A. Catheterization is performed with the help of anesthesia

B. The principle of the Valsalva is to build negative pressure in the nasopharynx so that air enters the eustachian tube.

C. In radiological tests the time taken by the dye to reach the nasopharynx also indicates its clearance function

D. Tympanometry can be done both in patients with perforated or intact tympanic membranes

Correct Answer: B. The principle of the Valsalva is to build negative pressure in the nasopharynx so that air enters the eustachian tube.

■ *Listen (English)*

■ *Listen (Hindi)*

Explanation: The principle of the test is to build positive pressure in the nasopharynx so that air enters the eustachian tube. Valsalva Test: To do this test, the patient pinches his nose between the thumb and index finger, takes a deep breath, closes his mouth, and tries to blow air into the ears. If air enters the middle ear, the tympanic membrane will move outwards, which can be verified by an otoscope or the microscope. In the presence of a tympanic membrane perforation, a hissing sound is produced or if the discharge is also present in the middle ear, a cracking sound will be heard. In catheterization, the nose is first anesthetized by a topical spray of lignocaine and then a eustachian tube catheter, the tip of which is bent, is passed along the floor of nose till it reaches the nasopharynx (Option A) In tympanometry (Also Called Inflation-Deflation Test), positive and negative pressures are created in the external ear canal and the patient swallows repeatedly (Option D) In radiological tests, a radio-opaque dye, e.g. hypaque or lipoidal instilled into the middle ear through a preexisting perforation, and X-rays taken should delineate the tube and any obstruction. The time taken by the dye to reach the nasopharynx also indicates its clearance function (Option C)

References:

Diseases of Ear, Nose and Throat Dhingra 8th Edition Page 69, 70

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@Neet_pg_bot

Q3: When managing barotrauma during a dive, which of the following actions is most appropriate to alleviate the symptoms and prevent further injury? (Q847778)

A. Perform an immediate rapid ascent to the surface

B. Administer supplemental oxygen and maintain gradual ascent

C. Take over-the-counter pain medication

D. Use a hot compress on the affected area

Correct Answer: B. Administer supplemental oxygen and maintain gradual ascent

■ *Listen (English)*

■ *Listen (Hindi)*

Explanation: The aim is to restore middle ear aeration. Administering supplemental oxygen can help by increasing oxygen availability to tissues and aiding in the resolution of barotrauma. Gradual ascent allows the body to equilibrate pressure more safely and reduces the risk of worsening the condition. Treatment: The aim is to restore middle ear aeration. This is done by catheterization or politzerization. In mild cases, decongestant nasal drops or oral nasal decongestants with antihistaminics and the Valsalva maneuver are helpful. In the presence of fluid or failure of the above methods, myringotomy may be performed to “unlock” the tube and aspirate the fluid. Prevention: Aero-otitis can be prevented by the following measures: 1. Avoid air travel in the presence of upper respiratory infection or allergy. 2. Swallow repeatedly during descent. Sucking sweets or chewing gum is useful. 3. Do not permit sleep during descent as the number of swallows normally decreases during sleep. 4. Autoinflation of the tube by Valsalva should be performed intermittently during descent. 5. Use vasoconstrictor nasal spray and a tablet of antihistaminic and systemic decongestant, half an hour before descent in persons with previous history of this episode. 6. In recurrent barotrauma, attention should be paid to nasal polyps, septal deviation, nasal allergy, and chronic sinus infections. Perform an immediate rapid ascent to the surface (Option A) Rapid ascent can exacerbate barotrauma and lead to additional complications like decompression sickness. It’s generally advised to avoid rapid ascent to minimize further pressure changes. Take over-the-counter pain medication (Option C) While pain medication might provide temporary relief, it does not address the underlying issue of pressure imbalance and could mask symptoms, potentially delaying appropriate treatment . Use a hot compress on the affected area (Option D) A hot compress may be useful for some types of muscle or joint pain but is not effective for managing barotrauma, which is caused by pressure changes rather than localized heat issues.

References:

Diseases of Ear, Nose and Throat Dhingra 8th Edition Page 78

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@Neet_pg_bot

Q4: A 30-year-old patient presents with a sensation of ear fullness and hearing their own voice loudly in their ear, especially when speaking or swallowing. What is the

most likely diagnosis? (Q847777)

A. Patulous Eustachian tube

B. Otitis media with effusion

C. Meniere’s disease

D. Acoustic neuroma

Correct Answer: A. Patulous Eustachian tube

■ *Listen (English)*

■ *Listen (Hindi)*

Explanation: Patulous Eustachian tube occurs when the Eustachian tube, which usually remains closed except during swallowing or yawning, remains abnormally open. This can lead to a sensation of ear fullness and an increased perception of one's voice, a condition known as autophony. In this condition, the eustachian tube is abnormally patent. Most of the time it is idiopathic but rapid weight loss, pregnancy (especially the third trimester), or multiple sclerosis can also cause it. The patient's chief complaints are hearing his own voice (autophony), and even his breath sounds. Due to abnormal patency, pressure changes in the nasopharynx are easily transmitted to the middle ear so much so that the movements of the tympanic can be seen with inspiration and expiration; these movements are further exaggerated if the patient breathes after closing the opposite nostril. Treatment: The acute condition of the patulous tube is self-limiting and does not require treatment. In others, weight gain, oral administration of potassium iodide is helpful but some long-standing cases may require cauterization of the tubes or insertion of a grommet. Otitis media with effusion (Option B) involves fluid buildup in the middle ear but typically presents with ear fullness and hearing loss without the characteristic symptom of autophony. Meniere’s disease (Option C) is associated with vertigo, tinnitus, and fluctuating hearing loss but does not usually cause autophony . Acoustic neuroma (Option D) is a tumor on the auditory nerve that can cause hearing loss, tinnitus, and balance issues but is not typically associated with the sensation of one's own voice being unusually loud.

References:

Diseases of Ear, Nose and Throat Dhingra 8th Edition Page71

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@Neet_pg_bot

Q5: All the following are true statements about the Eustachian tube except- (Q847776)

A. It connects the nasopharynx to the middle ear by opening the anterior wall of the middle ear.

B. The total length is 36mm

C. Its function is to maintain the middle ear pressure

D. Tensor veli palatini and tensor tympanii are the 2 muscles that help in opening the tube

Correct Answer: D. Tensor veli palatini and tensor tympanii are the 2 muscles that help in opening the tube

■ *Listen (English)*

■ *Listen (Hindi)*

Explanation: Only the tensor veli palatini muscle actively opens the cartilaginous part of the Eustachian tube during swallowing, yawning, or sneezing . Levator veli palatini assists by elevating the soft palate and pushing the tube's medial wall upward, facilitating opening. Tensor tympani is not involved in opening the Eustachian tube — it acts on the malleus to dampen loud sounds (acoustic reflex). Anatomy of Eustachian tube: It connects the nasopharynx to the middle ear by opening the anterior wall of the middle ear (Option A) The total length of the ET is 36mm (Option B) Later ■ rd is the Bony part (12mm) and the medial 2/3rd is the cartilaginous part(24mm) Functions of the Eustachian tube: Maintaining pressure in the middle ear (Option C) Clearance of secretion in the middle ear Protection of secretion from nasopharyngeal secretions

References:

Diseases of Ear, Nose and Throat Dhingra 8th Edition Page67, 68, 69

↑ *Back to this question in Part A*

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Q6: A 28-year-old patient presents with severe ear pain, hearing loss, and a sudden onset of blisters on the eardrum. The patient reports symptoms of a recent upper respiratory infection. What is the most likely diagnosis? (Q847775)

A. Myringitis Bullosa Hemorrhagic

B. Acute otitis media

C. Ramsay Hunt syndrome

D. Cholesteatoma

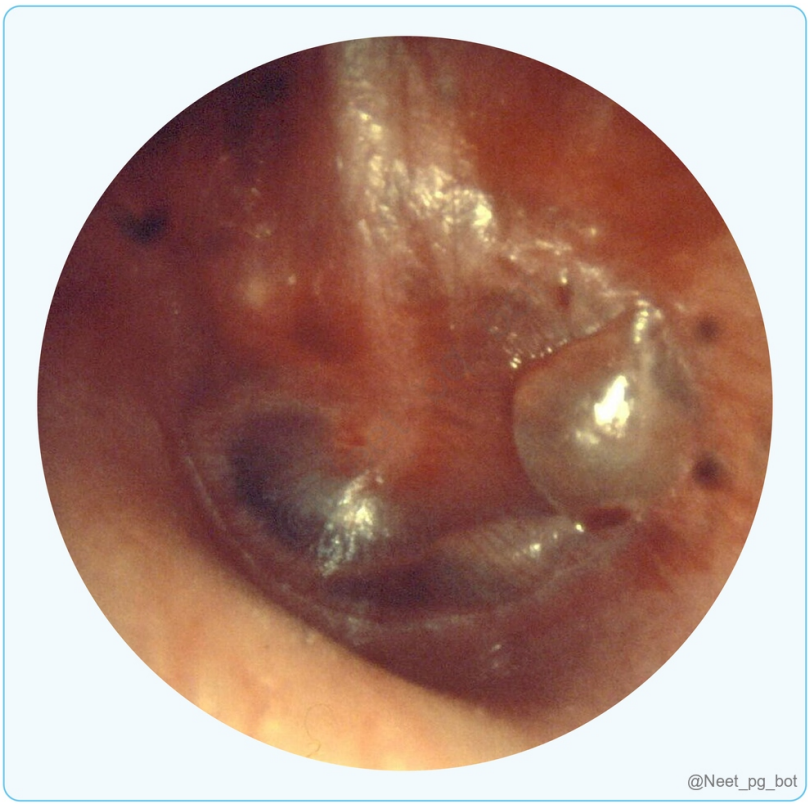
Correct Answer: A. Myringitis Bullosa Hemorrhagic

■ *Listen (English)*

■ *Listen (Hindi)*

Explanation: It is characterized by the presence of painful blisters (bullae) on the eardrum (tympanic membrane). It is often associated with viral infections, such as those causing upper respiratory symptoms, and can present with severe ear pain and hearing loss. Myringitis Bullosa Hemorrhagic Hemorrhagic bullae on the tympanic membrane

is called Myringitis bullosa hemorrhagic Etiology: Streptococcus pneumoniae, mycoplasma, and influenza virus Clinical features: Severe pain in the ear canal Treatment: Systemic antibiotics should be given. Close follow-up is needed Fig: Myringitis Bullosa Haemorrhagica showing bullae on the outer surface of the tympanic membrane Acute otitis media (Option B) involves infection and inflammation of the middle ear but does not typically present with blisters on the eardrum. It usually causes ear pain, fever, and hearing loss . Ramsay Hunt syndrome (Option C) is associated with facial paralysis, a vesicular rash around the ear, and often tinnitus, but not specifically with blisters on the eardrum . Cholesteatoma (Option D) is a destructive and expanding growth of skin cells in the middle ear and can cause hearing loss and ear discharge, but it does not present with blisters on the eardrum .



References:

Diseases of Ear, Nose and Throat Dhingra 8th Edition Page 65

↑ *Back to this question in Part A*

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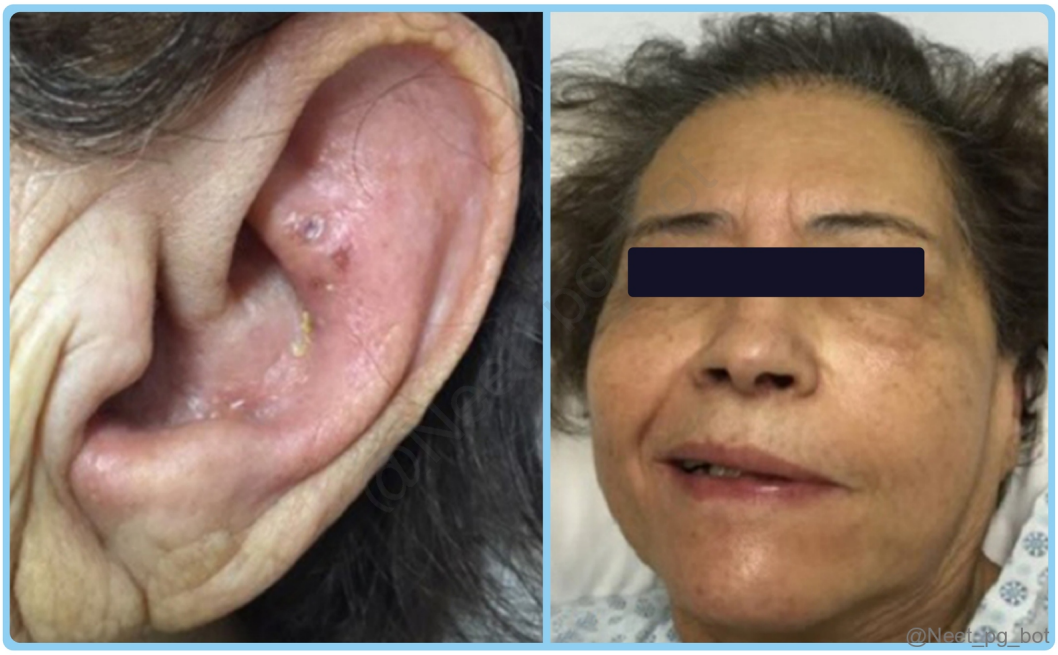
Q7: A 45-year-old woman presented with right-sided facial weakness. O/E, she has vesicles in the EAC as shown in the image. Identify the wrong statement about this condition. (Q847774)

A. Herpes simplex virus is the causative organism

B. Shows a poor prognosis

C. Antivirals along with steroids are the mainstay treatment

D. Involvement of the Vth and VIIIth nerves



Correct Answer: A. Herpes simplex virus is the causative organism

■ *Listen (English)*

■ *Listen (Hindi)*

Explanation: The image shows right-sided LMN facial palsy along with vesicular rash in the EAC and pinna, which is a classical presentation of Ramsay Hunt syndrome caused by herpes zoster virus, NOT herpes simplex. Ramsay Hunt syndrome Herpes zoster virus becomes latent in the geniculate ganglion. Whenever there is reactivation of the virus, vesicles form along the facial nerve distribution, which is associated with features of facial nerve palsy, pain, and sensorineural hearing loss. There may also be anesthesia of the face, giddiness, and hearing impairment due to the involvement of the Vth and VIIIth nerves (Option D) Treatment: Antiviral acyclovir is given along with steroids (Option C) Prognosis: Poor prognosis (Option B)

References:

Diseases of Ear, Nose and Throat Dhingra 8th Edition Page 114

https://www.ncbi.nlm.nih.gov/books/NBK557409/

↑ *Back to this question in Part A*

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Q8: A 45-year-old patient presents with complaints of a feeling of fullness in the ear, occasional itching, and decreased hearing. Otoscopic examination reveals a large, hard, and waxy plug, Pearly white in color and onion peel like layered pattern, in the ear canal. What is the most likely diagnosis? (Q847773)

A. Otitis externa

B. Impacted wax

C. Keratosis obturans

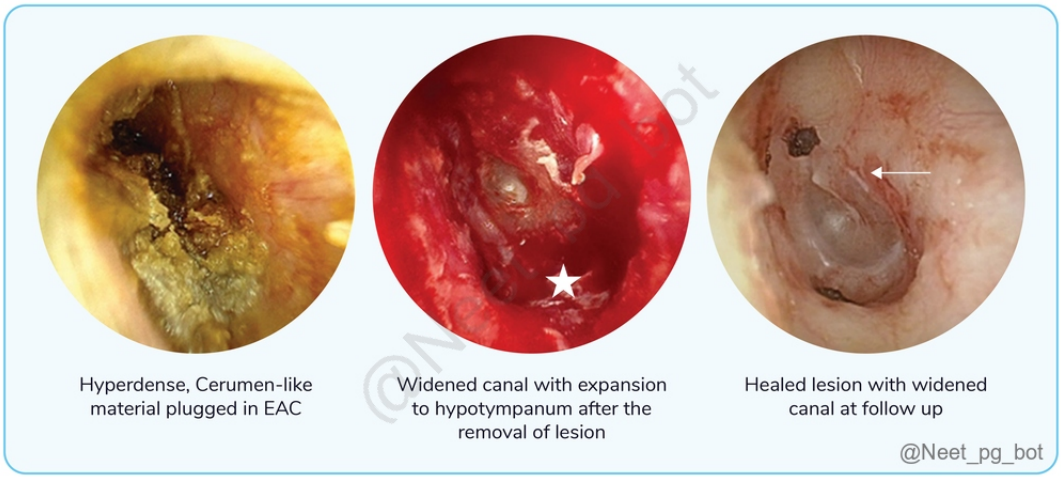
D. Foreign body

Correct Answer: C. Keratosis obturans

■ *Listen (English)*

■ *Listen (Hindi)*

Explanation: Keratosis obturans is characterized by the accumulation of excess keratin in the ear canal, which forms a hard, waxy plug. This condition can lead to symptoms such as a feeling of fullness in the ear, itching, and decreased hearing. Keratosis Obturans: The collection of a pearly white mass of desquamated epithelial cells in the deep meatus is called keratosis obturans. This, by its pressure effect, causes absorption of bone leading to the widening of the meatus so much so that the facial nerve may be exposed and paralyzed. Presenting symptoms may be pain in the ear, hearing loss, tinnitus, and sometimes ear discharge. On examination, the ear canal may be full of a pearly white mass of keratin material disposed of in several layers(given in the image below) Removal of this mass may show a widening of bony meatus with ulceration and even granuloma formation. Otitis externa (Option A) presents with complaints of Burning sensation, severe pain (worsened by jaw movement), serous discharge progressing to purulent, meatal swelling, conductive hearing loss, and tender lymph nodes Impacted wax (Option B) typically does not include the hardened, keratinized material as seen in keratosis obturans The foreign body (Option D) presents with clinical features of ear pain or discomfort, hearing loss, tinnitus, vertigo (rare), bleeding or discharge (if trauma occurs)



References:

Diseases of Ear, Nose and Throat Dhingra 8th Edition Page64

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Q9: A 32-year-old man visits the clinic with complaints of severe itching, discomfort, and a foul-smelling watery discharge from his ear. On otoscopic examination, the ear canal shows a fungal mass that appears black and filamentous. He has recently used topical antibiotics for a different ear condition. What is the most appropriate initial management for this patient? (Q847771)

A. Topical antibiotic ear drops for another 3 weeks

B. Topical antifungal treatment with ear canal cleaning

C. Intravenous antifungal therapy

D. Ear canal irrigation with saline

Correct Answer: B. Topical antifungal treatment with ear canal cleaning

■ *Listen (English)*

■ *Listen (Hindi)*

Explanation: The patient's symptoms, along with the appearance of a black and filamentous fungal mass in the ear canal, are consistent with otomycosis , a fungal infection of the ear canal. The recent use of topical antibiotics suggests that secondary fungal growth may have occurred due to the disruption of normal ear flora. The appropriate initial management for otomycosis involves cleaning the ear canal to remove debris and fungal material, followed by the application of topical antifungal agents. This approach directly targets the fungal infection and provides symptomatic relief. Treatment of Otomycosis: Ear Toilet: Remove discharge and epithelial debris using syringing, suction, or mopping. Antifungal Agents: Nystatin (100,000 units/mL in propylene glycol) for Candida Clotrimazole and povidone iodine (broad-spectrum antifungals) 2% salicylic acid in alcohol (keratolytic agent to remove superficial epidermal layers and fungal mycelia) Duration: Continue antifungal treatment for a week even after apparent cure to prevent recurrence. Additional Measures: Keep the ear dry Treat associated bacterial infections with antibiotic/steroid preparations to reduce inflammation and edema, enhancing antifungal agent penetration. Topical antibiotic ear drops for another 3 weeks (Option A): The presence of a black, filamentous fungal mass indicates a fungal infection, not a bacterial one. Topical antibiotics are not effective against fungi and would not address the underlying fungal problem. Intravenous antifungal therapy (Option C) is typically reserved for severe or systemic fungal infections. Otomycosis is generally localized and can be managed effectively with topical antifungal agents and ear canal cleaning. Ear canal irrigation with saline (Option D): While cleaning the ear canal is important, saline irrigation alone does not address the fungal infection. Topical antifungal treatment is necessary to treat the fungal growth effectively.

References:

Diseases of Ear, Nose and Throat Dhingra 8th Edition Page61

↑ *Back to this question in Part A*

@Neet_pg_bot

Q10: A 68-year-old diabetic male has severe ear pain, purulent discharge, facial weakness, granulation tissue in the ear canal, and bony destruction shown on CT. Culture grows Pseudomonas aeruginosa. What is the most appropriate initial treatment? (Q847762)

A. Topical antibiotics with ear canal cleaning only

B. Strict Diabetes control with surgical debridement

C. IV gentamicin with ticarcillin for 6 weeks with strict glucose control

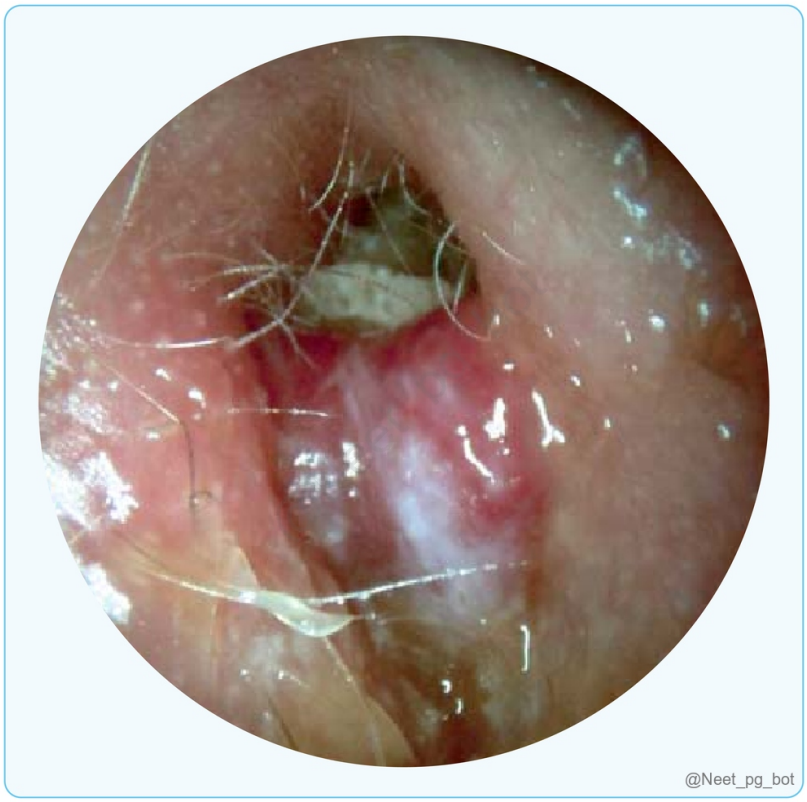
D. Surgical debridement followed by short-term antibiotic therapy

Correct Answer: C. IV gentamicin with ticarcillin for 6 weeks with strict glucose control

■ *Listen (English)*

■ *Listen (Hindi)*

Explanation: Malignant otitis externa is a severe infection of the external ear canal that can progress to involve the surrounding tissues, including bone. It is particularly serious in diabetic and immunocompromised patients and is often caused by Pseudomonas aeruginosa . IV gentamicin combined with ticarcillin is effective against Pseudomonas aeruginosa , the causative organism in malignant otitis externa. The treatment duration is typically 6-8 weeks, and strict glucose control is essential for optimal infection management in diabetic patients. Treatment of Malignant otitis externa : Control of diabetes : Essential for management. Ear canal toilet : Clean the ear, remove discharge, debris, and granulations. Antibiotics : IV Gentamicin with Ticarcillin (both ototoxic/nephrotoxic). Third-generation cephalosporins (e.g., Ceftriaxone or Ceftazidime), combined with an aminoglycoside. Quinolones (e.g., Ciprofloxacin 750 mg orally) can be combined with Rifampin . Antibiotic therapy typically lasts 6-8 weeks or longer. Culture and sensitivity of ear discharge to adjust antibiotics if non-responsive to treatment. Prolonged antibiotic treatment has largely replaced the need for radical surgery. Topical antibiotics with ear canal cleaning only (Option A): This is insufficient for treating MOE, a deep infection involving the skull base. Systemic antibiotics are essential to eradicate the infection, and topical treatment alone cannot penetrate deep tissues. Strict diabetes control with surgical debridement (Option B): While controlling diabetes is important in managing MOE, surgical debridement is no longer a primary treatment unless there is extensive necrosis. Prolonged systemic antibiotic therapy is more effective in controlling the infection. Surgical debridement followed by short-term antibiotic therapy (Option D): Surgery is rarely the first-line approach due to advances in antibiotic therapy. Short-term antibiotics would be inadequate for this severe infection, which requires prolonged treatment over several weeks.



References:

Diseases of Ear, Nose and Throat Dhingra 8th Edition Page 61

↑ *Back to this question in Part A*

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Q11: Which of the following statements about otitis externa is FALSE? (Q847761)

A. Bacterial furuncle is commonly caused by Staphylococcus aureus and affects the cartilaginous part of the ear canal.

B. Swimmers are at higher risk of developing chronic otitis externa.

C. Surgical excision is the definitive treatment for acute diffuse otitis externa.

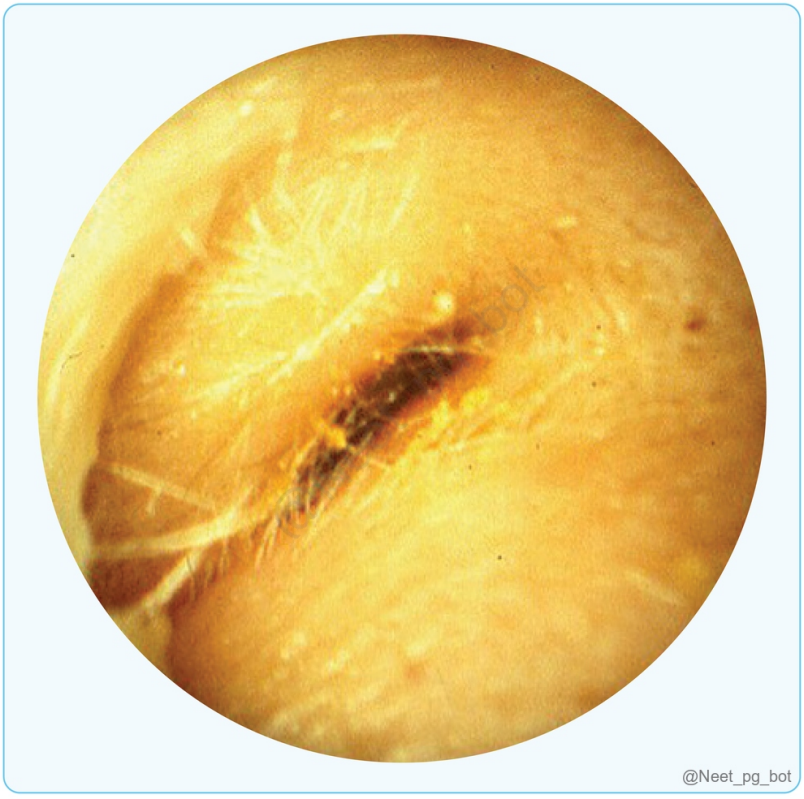
D. In acute diffuse otitis externa, ear toilet and topical antibiotics are essential for initial management.

Correct Answer: C. Surgical excision is the definitive treatment for acute diffuse otitis externa.

■ *Listen (English)*

■ *Listen (Hindi)*

Explanation: Acute diffuse otitis externa is typically treated with ear toilet, topical antibiotics, and anti-inflammatory agents. Surgery is reserved for chronic stenosis cases. Otitis Externa Aspect Localized Acute Otitis Externa (Bacterial Furuncle) Diffuse Otitis Externa Cause Staphylococcal infection of the hair follicle in the cartilaginous part of the external auditory canal. (Option A) Seen in hot, humid climates, often in swimmers. (Option B) Predisposing factors: Trauma (e.g., from scratching or cleaning the ear) and invasion by pathogens (Staphylococcus aureus, Pseudomonas , etc.). Can also be secondary to middle ear infections or allergic reactions to topical ear drops. Clinical Features Severe pain and tenderness, often disproportionate to the furuncle size. Pain aggravated by pinna and jaw movements. Enlarged and tender periauricular lymph nodes. Acute phase : Burning sensation, severe pain (worsened by jaw movement), serous discharge progressing to purulent, meatal swelling, conductive hearing loss, and tender lymph nodes. Chronic phase : Persistent irritation, itching, scanty discharge forming crusts, thick and swollen meatal skin with potential for stenosis. Treatment Early cases: Systemic antibiotics, analgesics, and local heat application. Ichthammol glycerine ear pack to reduce pain and edema. If abscess forms, incision and drainage are necessary. Recurrent cases: Rule out diabetes and investigate nasal vestibules or skin staphylococcal infections. Acute phase: (Option D) Ear toilet : Removal of exudate and debris using dry mopping, suction, or irrigation. Medicated wicks : Antibiotic-steroid soaked gauze wick for 2-3 days, followed by ear drops. Antibiotics : Broad-spectrum systemic antibiotics for cellulitis and lymphadenitis. Analgesics : For pain relief. Chronic phase: Ichthammol glycerine-soaked wick to reduce swelling followed by ear toilet. Topical antibiotic-steroid cream for itching. Surgical excision and split-skin graft for chronic stenotic otitis externa resistant to medical treatment. Image



References:

Diseases of Ear, Nose and Throat Dhingra 8th Edition Page 60, 61

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Q12: A 3-year-old child is diagnosed with congenital atresia of the external auditory canal. The child also has microtia. Which of the following statements is true about the condition? (Q847760)

A. Due to the failure of the tympanic membrane development.

B. Typically involves abnormalities in the middle ear, inner ear, and possibly other structures.

C. Hearing aids or bone conduction devices are generally ineffective for this condition.

D. Surgical reconstruction is commonly performed before age 5.

Correct Answer: B. Typically involves abnormalities in the middle ear, inner ear, and possibly other structures.

■ *Listen (English)*

■ *Listen (Hindi)*

Explanation: Atresia associated with microtia often includes additional abnormalities in the middle ear, inner ear, and other structures, and is often part of various syndromes like Treacher-Collins, Goldenhar, and Crouzon syndromes. Atresia of the External Ear Canal: Congenital atresia of the external auditory canal can occur by itself or alongside microtia. When it occurs alone, it results from the failure of the ectodermal core to canalize. causing the outer meatus to be blocked by fibrous tissue or bone, while the deep meatus and tympanic membrane remain unaffected. Atresia associated with microtia is more frequent and may also involve abnormalities in the middle ear, inner ear, and other structures, Often a part of various syndromes like Treacher-Collins, Goldenhar, and Crouzon syndromes. Hearing aids or bone conduction devices can help improve hearing in most cases. Surgical reconstruction like atresioplasty (canaloplasty) anterior and posterior approaches is possible in some patients, typically performed around age 6 or older. Fig: Atresia of the EAC Due to the failure of the tympanic membrane development (Option A): Congenital atresia is caused by the failure of canalization of the ectodermal core, not by issues with the tympanic membrane. The tympanic membrane typically remains unaffected in isolated atresia cases. Hearing aids or bone conduction devices are generally ineffective for this condition (Option C): Hearing aids or bone conduction devices can help improve hearing in cases of atresia by bypassing the blocked ear canal and directly stimulating the auditory system. Surgical reconstruction is commonly performed before age 5 (Option D): Surgical reconstruction for atresia is typically performed around age 6 or older, allowing for better surgical outcomes and optimal hearing restoration.

References:

Dhingra's Diseases of Ear, Nose and Throat, 8th Edition, Page 59.

https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7575916/

↑ *Back to this question in Part A*

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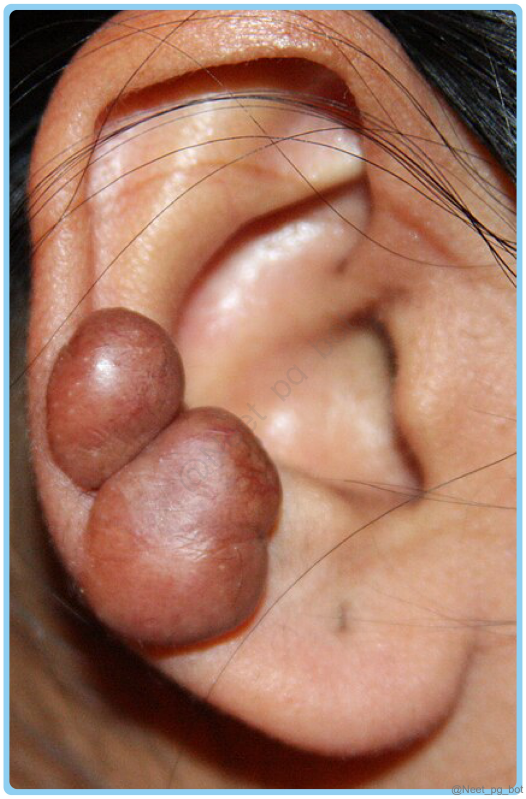
Q13: A middle-aged lady presents with the lesion given below. Which of the following statements is false about the given condition? (Q847759)

A. It is caused by an overproduction of collagen during the healing process.

B. They are typically painful and tender to the touch.

C. There are high chances of recurrence.

D. It can appear in areas where the skin has been subjected to trauma or surgery.



Correct Answer: B. They are typically painful and tender to the touch.

■ *Listen (English)*

■ *Listen (Hindi)*

Explanation: The image represents the keloid of the ear. Keloids are usually not painful or tender; they are typically asymptomatic, though they can be itchy. Keloid Common cause: Trauma like ear piercing (Option D) Trauma will result in excessive collagen production during healing and will lead to irregular scarring which is a keloid (Option A) Disfiguring appearance (cosmetic deformity) It is not a malignancy There are high chances of recurrence (Option C) Treatment: Intralesional Steroids, Excision, Radiotherapy, Radiofrequency current

References:

Diseases of Ear, Nose and Throat Dhingra 8th Edition Page58

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@Neet_pg_bot

Q14: A 65-year-old male presents with a painful, swollen right ear few days after an injury. The ear has a warm, red appearance, and the patient reports that the pain began shortly after the trauma. Based on the clinical image provided. Which of the following conditions is most consistent with this presentation? (Q847758)

A. Perichondritis

B. Cellulitis

C. Otitis externa

D. Furunculosis

Correct Answer: A. Perichondritis

■ *Listen (English)*

■ *Listen (Hindi)*

Explanation: The clinical presentation described in the question is characteristic of perichondritis . Perichondritis typically presents as pain, redness, and swelling of the external ear, particularly following trauma or surgery. Anti-pseudomonal antibiotics (DOC) and topical antibiotics are given to treat Cellulitis (Option B) is a diffuse infection of the skin and subcutaneous tissues and not cartilage. Most commonly caused by streptococcus and staphylococcus. The affected earlobe will be tender and hot to the touch. Fig: Cellulitis of earlobe Otitis externa (Option C) is the infection of the ear canal and is often related to water exposure or infection, but it generally does not involve the cartilage. The patient presents with complaints of discharge, pain, and hearing loss. Fig: Otitis externa Furunculosis (Option D) is a staphylococcal infection of hair follicles. Fig: Furunculosis

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References:

Diseases of Ear, Nose and Throat Dhingra, 8th Edition, Page 59

↑ *Back to this question in Part A*

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Q15: This image shows a patient with complaints of a small, asymptomatic, pit-like opening located just anterior to the ear canal with a history of pus discharge from the same area. The deformity is due to incomplete fusion of which arch? (Q847754)

A. 1st brachial arch

B. 2nd brachial arch

C. 4th and 6th brachial arches.

D. 3rd brachial arch

Correct Answer: A. 1st brachial arch

- *Listen (English)*
- *Listen (Hindi)*

Explanation: The image depicts a pit-like opening near the ear, which is characteristic of a preauricular sinus due to the incomplete fusion of the Hillocks of His that develop to form a pinna. Preauricular sinus: It is the most common congenital anomaly of the 1st branchial arch. Location: seen between the tragus and crus of the helix It can get repeatedly infected and form an abscess, which would require excision Stapes bones are derived from 2nd brachial arch (Option B) Thyroid cartilage is derived from the 4th and 6th brachial arch (Option C) The greater horn of the hyoid bone is derived from 3rd brachial arch (Option D)

References:

Diseases of Ear, Nose and Throat Dhingra 8th Edition Pg. 57

↑ *Back to this question in Part A*

@Neet_pg_bot

Q16: A 5-year-old child is brought to the emergency department after inserting a small button battery into their ear canal. The battery is visible on otoscopic examination, and the tympanic membrane appears intact. Which of the following is NOT a recommended method for removing the foreign body from the ear canal? (Q847772)

A. Crocodile forceps removal

B. Syringing

C. Suction tipped catheters

D. Cyanoacrylate glue tipped applicator

Correct Answer: B. Syringing

■ *Listen (English)*

■ *Listen (Hindi)*

Explanation: Syringing is not recommended for button battery removal because it can cause the battery to move deeper into the canal and potentially cause more damage. Additionally, the moisture from syringing can activate the battery , and cause subsequent tissue injury. Foreign Body in Ear- Removal Techniques Irrigation/Syringing- Contraindicated in organic items and button batteries Suction (Option C) Forceps or hook (Crocodile forceps) (Option A) Cyanoacrylate glue tipped applicator (Option D) Mineral oil/Lidocaine for arthropod removal Surgical removal (rare cases)

References:

Dhingra's Diseases of Ear, Nose and Throat, 8th Edition, Pages 63, 64

https://www.ncbi.nlm.nih.gov/books/NBK459136/

↑ *Back to this question in Part A*

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Q17: Which of the following statements regarding the physiology of human cerumen are true? It is produced exclusively in the cartilaginous part of the external auditory canal. It maintains an alkaline pH that inhibits bacterial growth. It is naturally extruded by epithelial migration and jaw movements. It is formed by dried-up middle ear discharge. (Q891936)

A. 1 and 3 only

B. 1 and 2 only

C. 2 and 4 only

D. All of the above

Correct Answer: A. 1 and 3 only

Explanation: Cerumen is a normal physiological substance made of a mixture of glandular secretions, desquamated epithelial cells, and dust. (statement 4) It is produced exclusively in the cartilaginous part of the external auditory canal , where modified apocrine (ceruminous) and sebaceous glands are present. (statement 1) The external auditory canal possesses a unique self-cleaning mechanism where cerumen is naturally extruded outward by epithelial migration from the tympanic membrane to the outside, a process further aided by the movements of the temporomandibular joint during chewing and talking. (statement 2) Cerumen has an acidic pH , which creates an acid mantle that inhibits the growth of pathogenic bacteria and fungi. (statement 2)

References:

PL Dhingra’s Diseases of Ear, Nose and Throat and Head and Neck Surgery, 8th Edition, Page 62-63.

↑ *Back to this question in Part A*

@Neet_pg_bot

Q18: A patient treated for chronic otitis externa presents with worsening symptoms, including intense itching, edema, and vesicular eruptions extending to the concha. Which of the following topical antibiotics are known sensitizers implicated in causing this secondary eczematous reaction? Neomycin Chloromycetin Ciprofloxacin Ofloxacin (Q891935)

A. 1 and 2 only

B. 1 and 3 only

C. 2 and 4 only

D. All of the above

Correct Answer: A. 1 and 2 only

Explanation: The clinical presentation of worsening pruritus, vesiculation, and spread of inflammation during topical therapy is characteristic of Secondary Eczematous Otitis Externa (Contact Dermatitis), a Type IV hypersensitivity reaction. Neomycin (statement 1) is a broad-spectrum aminoglycoside and is the most common cause of hypersensitivity in otological preparations. Chloromycetin (statement 2) is also a known sensitizer capable of precipitating allergic dermatitis. Ciprofloxacin (statement 3) and Ofloxacin (statement 4) are fluoroquinolones. They are generally considered hypoallergenic and are the preferred alternatives when neomycin sensitivity is suspected or when there is a tympanic membrane perforation, as they rarely cause contact dermatitis.

References:

PL Dhingra’s Diseases of Ear, Nose and Throat and Head and Neck Surgery, 8th Edition, Page 61-62.

↑ *Back to this question in Part A*

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Q19: Consider the following statements regarding the diagnosis and management of Malignant Otitis Externa: It is an invasive osteomyelitis of the skull base primarily caused by Pseudomonas aeruginosa . Technetium-99m bone scan is the preferred modality for monitoring the resolution of infection. The Facial nerve is the most

commonly involved cranial nerve. Gallium-67 scan is the preferred modality for monitoring the resolution of infection. Which of the above statements are true? (Q891934)

A. 1 and 2 only

B. 1, 3, and 4 only

C. 2, 3, and 4 only

D. All of the above

Correct Answer: B. 1, 3, and 4 only

Explanation: Malignant Otitis Externa is a skull base osteomyelitis affecting immunocompromised patients (e.g., elderly diabetics), caused predominantly by Pseudomonas aeruginosa . (Statement 1) The infection typically originates at the bony-cartilaginous junction, presenting with granulation tissue . The Facial nerve (CN VII) is the most common cranial nerve involved due to its proximity to the stylomastoid foramen (Statement 3). (Statement 3) Gallium-67 scans are preferred for monitoring resolution as they normalize with the subsidence of inflammation. (Statement 4) Technetium-99m scans are sensitive for diagnosis ; they remain positive for months due to ongoing bone remodeling. (Statement 3)

References:

Scott-Brown’s Otorhinolaryngology, Head and Neck Surgery, 8th Edition, Volume 2, Page 1189-1190.

PLDhingra’s Diseases of Ear, Nose and Throat and Head and Neck Surgery, 8th Edition, Page 61.

↑ *Back to this question in Part A*

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Q20: A patient presents with itching and pain in the ear canal. On otoscopic examination, the clinician identifies fungal growth. Which of the following fungal species is shown in the image? (Q891932)

A. Candida albicans

B. Aspergillus niger

C. Aspergillus fumigatus

D. Trichophyton

Correct Answer: B. Aspergillus niger

Explanation: The otoscopic finding of a black , filamentous fungal mass often described as resembling wet blotting paper or wet newspaper is the classic and pathognomonic appearance of Otomycosis caused by Aspergillus niger . The black color is due to the distinct pigmentation of the conidiophores of this species. Aspergillus niger is the most common causative agent of otomycosis worldwide, and its visual identification is often diagnostic even before culture results. Candida albicans (Option A) presents as a soft, creamy white, or cheesy discharge, often associated with a distinct yeasty odor. Aspergillus fumigatus (Option C) characteristically produces a blue-green or pale gray mold growth. Trichophyton (Option D) is a dermatophyte that causes cutaneous fungal infections (tinea); it is a rare cause of otomycosis compared to Aspergillus or Candida.

References:

Scott-Brown’s Otorhinolaryngology, Head and Neck Surgery, 8th Edition, Volume 2, Page 956-957.

↑ *Back to this question in Part A*

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Q21: Which of the following fungal organisms is the most common causative agent of otomycosis? (Q891926)

A. Mucor velutinosus

B. Candida albicans

C. Aspergillus fumigatus

D. Aspergillus niger

Correct Answer: D. Aspergillus niger

Explanation: Otomycosis is a superficial fungal infection of the external auditory canal. The etiological profile typically follows this prevalence: Aspergillus niger is the single most common causative organism worldwide, characterized by black, filamentous fungal debris (wet blotting paper appearance). (Option D) Candida albicans is the second most common cause, typically presenting with a creamy white, cheesy discharge. (Option B ruled out) Aspergillus fumigatus : A less common Aspergillus species in otomycosis, appearing as blue-green mold. (Option C ruled out) Mucor velutinosus (Option A) is an extremely rare cause of superficial otomycosis and is more associated with Mucormycosis in immunocompromised hosts.

References:

Scott-Brown’s Otorhinolaryngology, Head and Neck Surgery, 8th Edition, Volume 2, Page 956-957.

↑ *Back to this question in Part A*

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Q22: A 55-year-old male presents with a persistent, 4 mm, exquisitely tender nodule on the superior border of the helix of his ear, as shown in the image. He reports that the lesion is so painful that he has been unable to sleep on his right side for several months. Physical examination reveals a small, crusting nodule with a central core. What is the most likely diagnosis? (Q891924)

A. Gouty Tophi

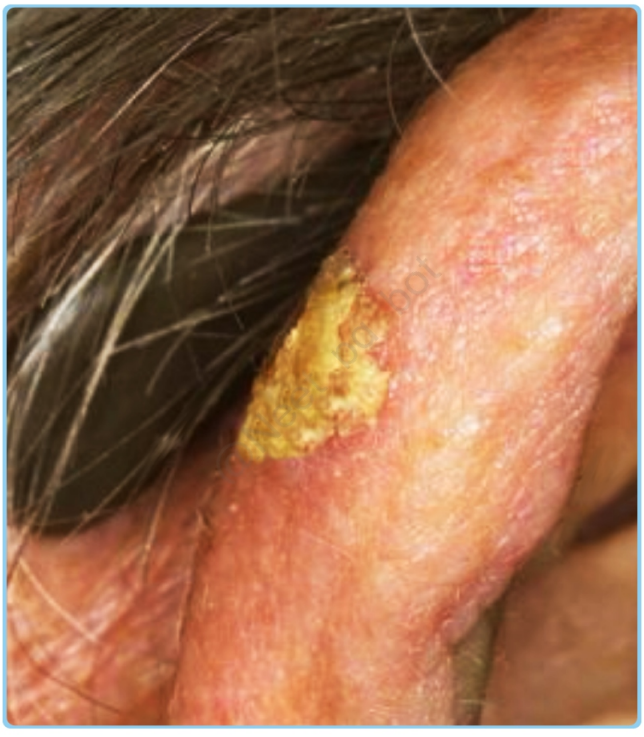
B. Basal Cell Carcinoma

C. Chondrodermatitis Nodularis Chronica Helicis

D. Actinic Keratosis

Correct Answer: C. Chondrodermatitis Nodularis Chronica Helicis

Explanation: The clinical presentation is highly characteristic of Chondrodermatitis Nodularis Chronica Helicis (CNH), also known as Winkler's Disease, characterised by: Small, painful nodules near the free border of the helix in men about the age of 50. Nodules are tender, and the patient is unable to sleep on the affected side. Treatment is an excision of the nodule with its skin and Gouty Tophi (Option A) present as small, hard, yellowish-white nodules on the helix or antihelix, painless, and are associated with a history of systemic hyperuricemia or gouty arthritis. Basal Cell Carcinoma (Option B) is a common skin malignancy on the helix in older men, often appearing as a pearly nodule with telangiectasia. It may ulcerate, but it is usually painless and slow-growing Actinic Keratosis (Option D) is a pre-malignant lesion that is usually a dry, rough, scaly patch on sun-exposed skin.



References:

PL Dhingra’s Diseases of Ear, Nose and Throat and Head and Neck Surgery, 8th Edition, Page 59.

↑ *Back to this question in Part A*

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Q23: A 25-year-old male is brought to the trauma center after an assault, resulting in a complete avulsion of the pinna. Due to other life-threatening injuries, immediate replantation is not possible. What is the standard procedure for preserving the auricular cartilage for a delayed reconstruction? (Q891922)

A. Wrap in saline-soaked gauze, place in a plastic bag, and store on ice

B. Attempt immediate primary reattachment without microvascular anastomosis

C. De-epithelialize the cartilage and bury it in a postauricular subcutaneous pocket

D. Discard the avulsed part, and plan for prosthetic reconstruction.

Correct Answer: C. De-epithelialize the cartilage and bury it in a postauricular subcutaneous pocket

Explanation: When an avulsed pinna cannot be immediately replanted, the primary objective is to preserve the cartilage framework for a delayed, staged reconstruction. The standard and most effective method is to de-epithelialize the cartilage and then bank it by inserting it into a well-vascularized subcutaneous pocket. The postauricular region is the ideal site for this, as it keeps the cartilage viable and readily available for the subsequent reconstructive stage. Wrap in saline-soaked gauze, place in a plastic bag, and store on ice (Option A) is the standard method for preserving an amputated part to reduce its metabolic rate, but it is intended for short-term preservation (less than 24 hours) prior to an immediate microvascular replantation. Attempt immediate primary reattachment without microvascular anastomosis (Option B) : A simple reattachment of an avulsed pinna is destined to fail due to ischemia, leading to necrosis of the skin and cartilage. Discard the avulsed part, and plan for prosthetic reconstruction (Option D) is an alternative to reconstruction and is not a method for preserving the native cartilage.

References:

PL Dhingra’s Diseases of Ear, Nose and Throat and Head and Neck Surgery, 8th Edition, Page 58.

↑ *Back to this question in Part A*

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Q24: A 6-year-old child presents with a history of intermittent discharge from a small opening located just below the angle of the mandible. Otoscopy reveals a similar secondary opening in the floor of the external auditory canal. Which of the following anatomical structures are related to the track of this fistula and must be carefully

managed during surgical excision? (Q891921)

A. Parotid gland and Facial nerve

B. Submandibular gland and Lingual nerve

C. Thyroid gland and Recurrent laryngeal nerve

D. Carotid sheath and Glossopharyngeal nerve

Correct Answer: A. Parotid gland and Facial nerve

Explanation: The clinical presentation, characterised by an external opening in the neck below the angle of the mandible and a secondary opening in the floor of the external auditory canal, is the classic presentation of a First Branchial Cleft Fistula, aka Collaural Fistula. Two types of First Branchial Cleft Fistula are: Type I lesions are purely ectodermal and simple Type II lesions are both ectodermal and mesodermal, containing hair follicles and cartilage. The Type II tract runs near the Parotid gland and is related to the Facial Nerve (CN VII) trunk, which often passes through the nerve's bifurcation, thus making the facial nerve the primary structure at risk during surgical excision.

References:

Scott-Brown’s Otorhinolaryngology, Head and Neck Surgery, 8th Edition, Volume 2, Page 466-467.

↑ *Back to this question in Part A*

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Q25: A child presents with facial asymmetry, asymmetric mandibular hypoplasia, and epibulbar dermoids. On examination, the ear is as shown in the image and is found to have conductive hearing loss. What is this specific anomaly? (Q891920)

A. Preauricular sinus

B. Preauricular tag

C. Neurofibroma

D. Keloid

Correct Answer: B. Preauricular tag

Explanation: The clinical triad of facial asymmetry, mandibular hypoplasia, epibulbar dermoids (ocular), and ear anomalies (microtia) establishes the diagnosis of Goldenhar Syndrome (Oculo-Auriculo-Vertebral Spectrum). This is an anomaly of the first and second branchial arches. The specific finding in the image is a small, skin-covered, nodular projection often referred to as a preauricular appendage (Preauricular Tag) . This congenital finding, arising from the hillocks of His, is associated with this syndrome. Preauricular sinus (Option A) is a small, blind-ending epithelial tract opening into the skin. Neurofibroma (Option C) is a soft, fleshy tumor arising from nerve sheaths, often multiple and associated with Neurofibromatosis Type 1. Keloid (Option D) is an acquired, excessive scar formation that extends beyond the boundaries of the original injury, not a congenital malformation.

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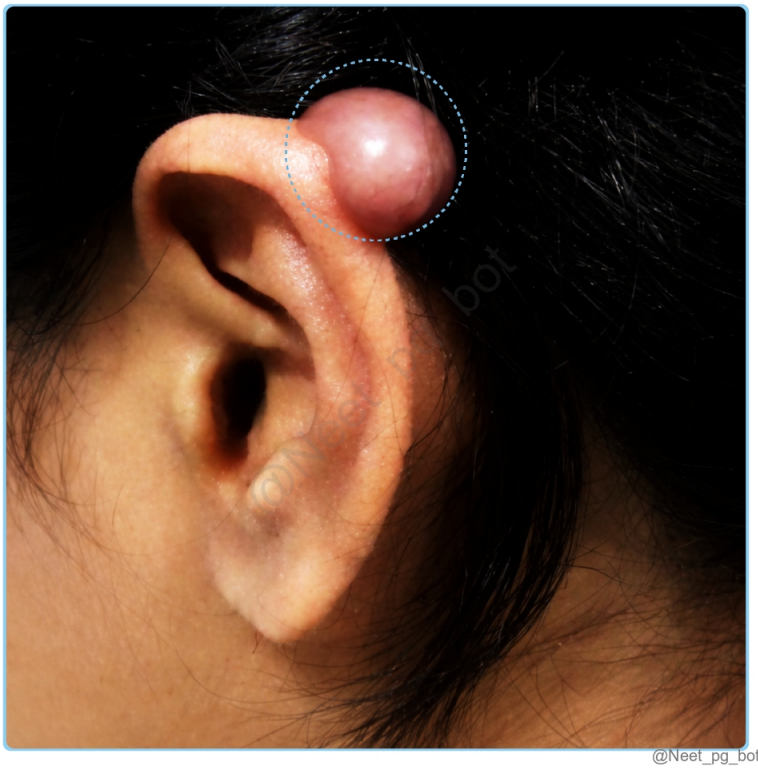
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References:

Scott-Brown’s Otorhinolaryngology, Head and Neck Surgery, 8th Edition, Volume 2, Page 172.

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• [01_Ear] 011 Hearing Rehabilitation Otalgia And Tinnitus

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[01_Ear] 011 Hearing Rehabilitation Otalgia And Tinnitus — Quick Jump

Q1 (p. 747) *Q2 (p. 748)* *Q3 (p. 750)* *Q4 (p. 750)* *Q5 (p. 752)* *Q6 (p. 753)*
Q7 (p. 755) *Q8 (p. 756)*

Q1: A 9 month old baby was brought by the parents as she doesn't respond to their calls and was evaluated and found to have hearing loss. Which of the following would be a contraindication for cochlear implant in this case? (Q847800)

A. Bilateral profound sensorineural hearing loss

B. Cochlear aplasia

C. Prelingual deafness

D. Age older than 6 months

Correct Answer: B. Cochlear aplasia

■ *Listen (English)*

■ *Listen (Hindi)*

Explanation: Cochlear aplasia is a contraindication of cochlear implantation. Indications: B/L severe (70-90 dB) to profound (>90 dB) SNHL (Option A) Prelingual deafness : A child who is born deaf and has not yet developed speech. (Option C) Post lingual deafness : Child/adult who has become deaf but has already developed speech. Contraindications: Cochlear aplasia (Option B) 8th nerve abnormality (like aplasia or retrocochlear pathology, conduction via the auditory nerve is dysfunctional) Central auditory lesions Michel aplasia: Complete absence of the bony and membranous labyrinth, including the petrous apex, while the external and middle ears remain unaffected. Prerequisites: Age in prelingual deafness: Minimum age as early as possible, maximum age 7 years (Option D) There is no age limit for post-lingual deafness Failed trial of hearing aid Intact acoustic nerve and central hearing tract

References:

Dhingra 8th edition page no.135, 146.

https://www.ncbi.nlm.nih.gov/books/NBK544280/

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Q2: In a cochlear implant, what is the primary role of the external speech processor? (Q847801)

A. To amplify sound before it reaches the brain

B. To convert captured sound into digital signals

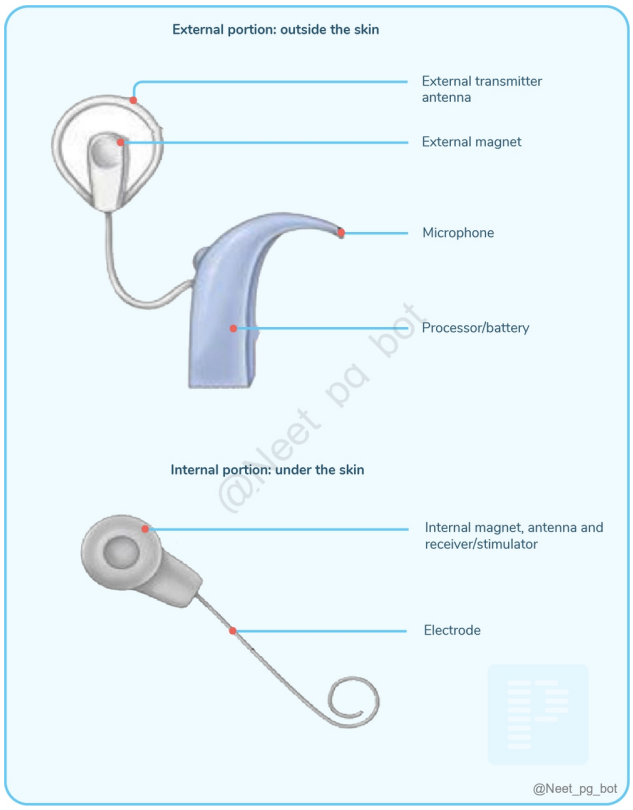
C. To stimulate the auditory nerve directly

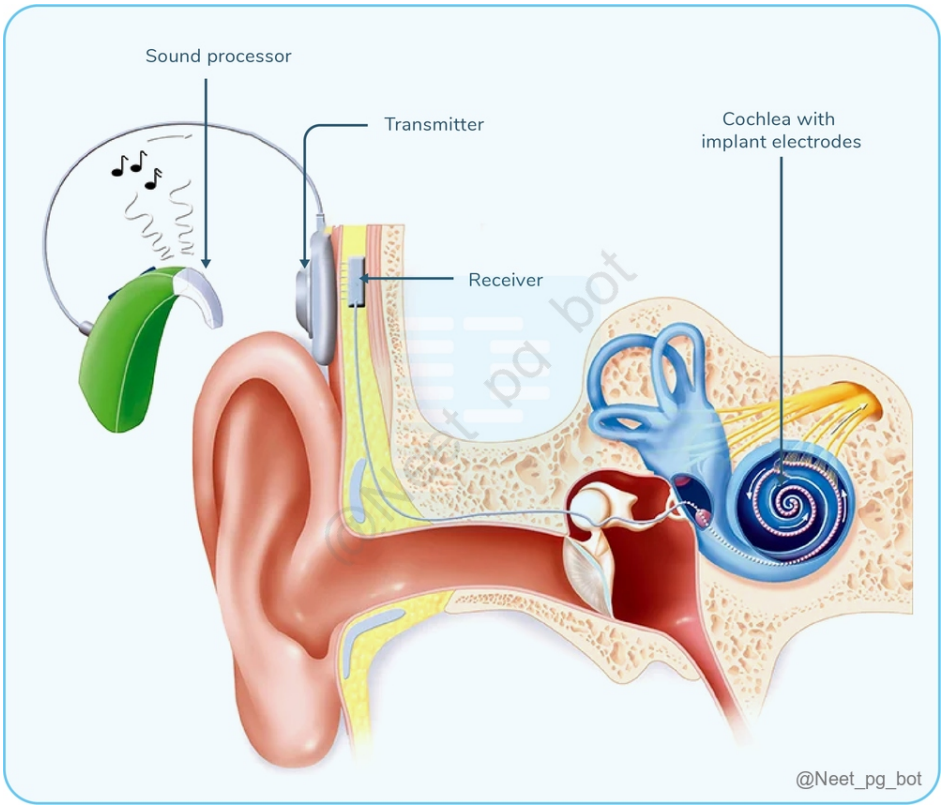
D. To provide power to the internal components

Correct Answer: B. To convert captured sound into digital signals

- *Listen (English)*
- *Listen (Hindi)*

Explanation: A cochlear implant consists of external and internal components. External Component: Contains microphone, speech processor and a transmitter . Microphone captures sound and the speech processor converts it into digital signals (Option B) Transmitter sends digital signals to the internal implant across the skin. Fig: Components of Cochlear implant Internal Component: Contains receiver/stimulator and an electrode array . Receiver/ Stimulator converts the digital signals into electrical impulses and transmits them to the electrode array situated inside the cochlea. The electrode array stimulates the auditory nerve (Option C) Amplification is the role of hearing aids . Cochlear implants focus on processing and transmitting sound information rather than amplifying it. (Option A) The internal receiver/stimulator is powered by a battery housed in the external component but not supplied directly by the speech processor. (Option D) Fig: Internal Receiver





References:

Dhingra 8th edition page no.145, 146

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Q3: Where is the electrode array placed during cochlear implant surgery to ensure effective stimulation of the auditory nerves? (Q847802)

A. Round window membrane

B. Scala tympani

C. Eustachian tube

D. Outer ear canal

Correct Answer: B. Scala tympani

■ *Listen (English)*

■ *Listen (Hindi)*

Explanation: The electrode array is placed in the scala tympani to ensure proximity to spiral ganglion cells for effective stimulation of auditory nerve fibers, facilitating sound perception. Surgical Procedure: A two-layered flap approach is typically used: the first layer consists of skin and subcutaneous tissue, followed by a musculoperiosteal flap. A pocket is created beneath the second flap, and a recess is drilled into the bone for the receiver/stimulator. Postoperative care involves activating the implant 3-4 weeks after surgery and regular programming for optimization. Rehabilitation emphasizes auditory-verbal therapy to develop listening and speaking skills, necessitating collaboration among the patient, family, and professionals. Round Window Membrane : Acts as a barrier, not a placement area . (Option A) Eustachian Tube : Connects the middle ear to the nasopharynx, unrelated to cochlear implantation. (Option C) Outer Ear Canal : Part of the external ear, not involved in implantation. (Option D)

References:

Dhingra 8th edition page no.147

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Q4: A 10-year-old child with microtia and chronic ear discharge is being evaluated for hearing rehabilitation. Which of the following is the most appropriate hearing device for this child? (Q847803)

A. Traditional behind-the-ear hearing aid

B. Air-conduction hearing aid

C. Bone-Anchored Hearing Aid (BAHA)

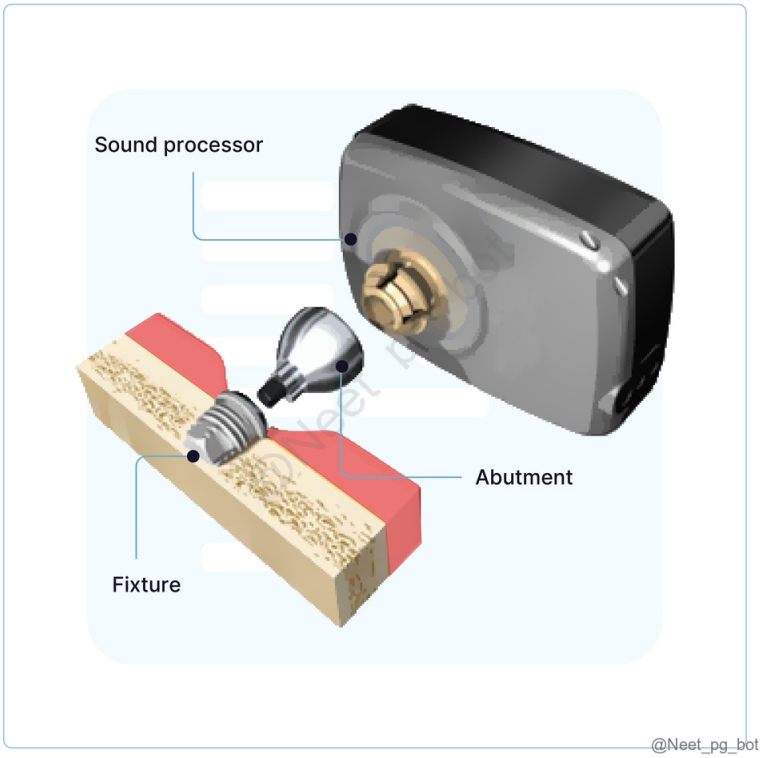
D. CROS hearing aid

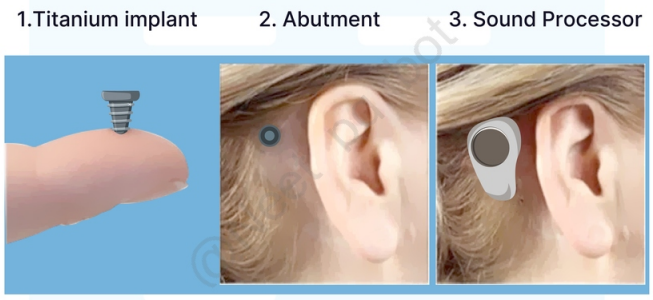
Correct Answer: C. Bone-Anchored Hearing Aid (BAHA)

■ *Listen (English)*

■ *Listen (Hindi)*

Explanation: Bone-anchored hearing aid (BAHA) captures the sound and transmits vibrations to the skull, stimulating the cochlea directly and bypassing the external auditory canal and middle ear. It is used when the air conduction method of rehabilitation cannot be used. Indication: Chronic ear discharge . Single-sided hearing loss. Children with microtia , anotia, canal atresia. Conductive or mixed hearing loss (e.g., otosclerosis, tympanosclerosis) with contraindications for surgery. Following MRM (large mastoid cavity). Excessive feedback or discomfort from AC hearing aids. Age of implantation: >5yrs Traditional behind-the-ear hearing aid (Option A): Ineffective due to the absence of a functional ear canal in microtia. Air-conduction hearing aid (Option B): Unsuitable as it depends on sound travelling through a compromised ear canal. CROS hearing aid (Option D): CROS (Contralateral Routing of Signals) hearing aids are designed for patients with unilateral hearing loss who have an intact ear on the opposite side. In this case, the child's microtia indicates a structural issue on one side, and chronic discharge may also compromise the use of a CROS system effectively.





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References:

Dhingra 8th edition page no.142,143

https://www.sciencedirect.com/science/article/pii/S1879729611000834#:~:text=The%20main%20indications%20for%20bone,result%20of%20recent%20technical%20developments

↑ *Back to this question in Part A*

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Q5: A 45-year-old patient with neurofibromatosis type 2 has undergone bilateral vestibular schwannoma resection and now experiences profound hearing loss. Which implant would be most suitable for this patient to restore some auditory function? (Q847804)

A. Cochlear Implant

B. Auditory Brainstem Implant (ABI)

C. Bone-Anchored Hearing Aid

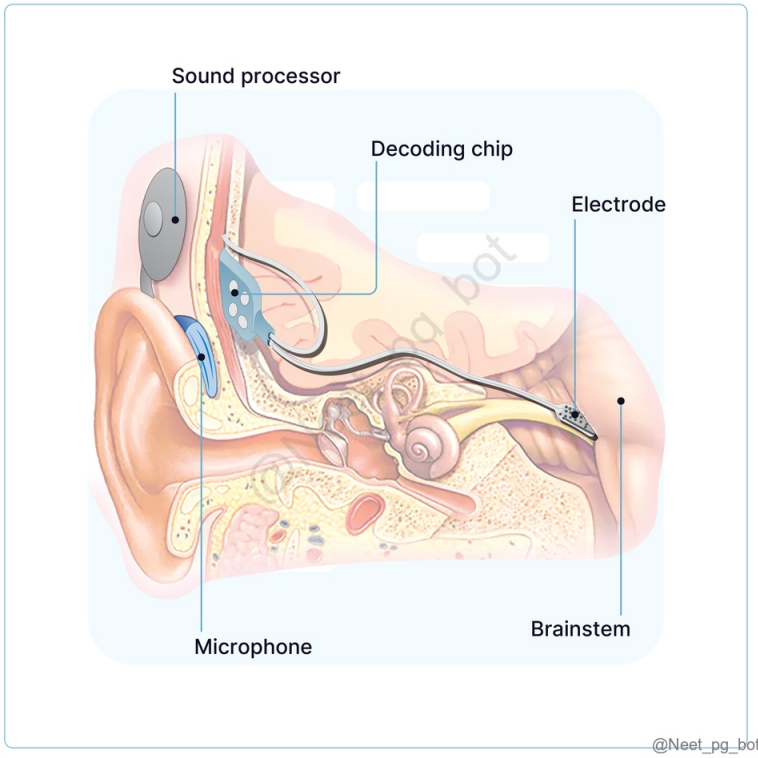
D. Middle Ear Implant

Correct Answer: B. Auditory Brainstem Implant (ABI)

■ *Listen (English)*

■ *Listen (Hindi)*

Explanation: Neurofibromatosis type 2 (NF2) often involves B/L vestibular schwannomas, which can damage the auditory nerve during resection. Auditory Brainstem Implant bypasses the need for an intact auditory nerve by directly stimulating the brainstem. ABI is appropriate for this patient, as it directly stimulates the brainstem despite the severed cochlear nerve. Auditory brainstem implant Used when the 8th nerve has a lesion. Electrode bypasses the cochlea and 8th nerve; it directly stimulates the brain stem. The implant stimulates the cochlear nucleus directly, and then impulses are carried to the auditory cortex. Position of the implant- lateral recess of the 4th ventricle. Indications: B/L acoustic neuromas CP angle tumor B/L Cochlear aplasia B/L Cochlear nerve aplasia Cochlear Implant (Option A) requires an intact cochlear nerve, which is severed in this patient. BAHA (Option C) is designed for conductive hearing loss and relies on a functional cochlear nerve . Middle Ear Implant (Option D) amplifies sound for conductive loss but also needs a functioning cochlear nerve.



References:

Dhingra 8th edition page no.144,147

↑ *Back to this question in Part A*

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Q6: A 45-year-old patient with high-frequency sensorineural hearing loss is recommended for an In-the-Canal (ITC) hearing aid. What is a key characteristic of this type of hearing aid? (Q847805)

A. It is worn entirely behind the ear.

B. It is visible and large.

C. It fits partially in the ear canal, making it less noticeable.

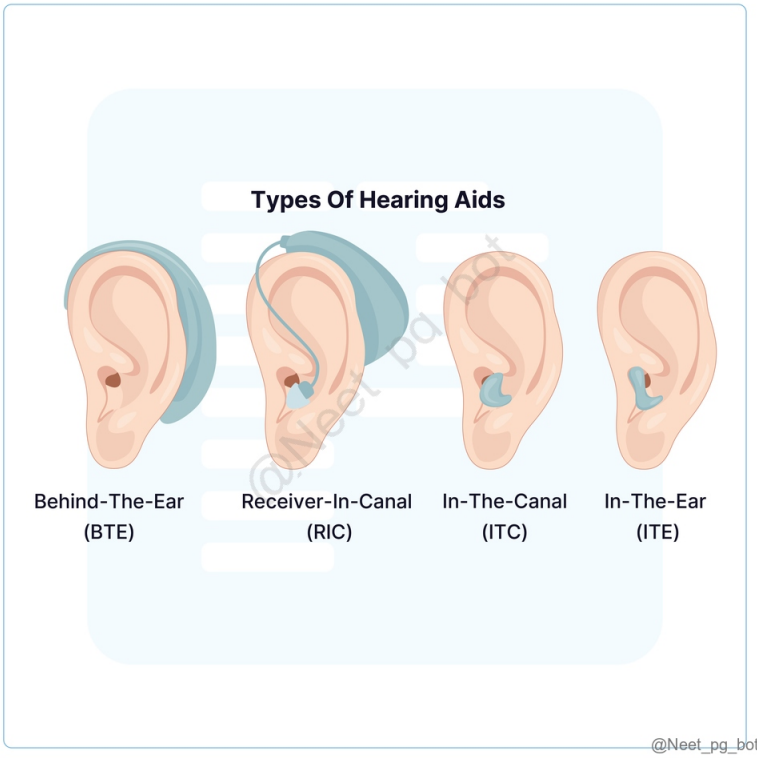
D. It provides amplification for all frequency ranges equally

Correct Answer: C. It fits partially in the ear canal, making it less noticeable.

■ *Listen (English)*

■ *Listen (Hindi)*

Explanation: Common Air-Conduction Aids: Body-Worn Aids : Components worn at chest level, suitable for severe hearing loss with minimal feedback. Behind-the-Ear (BTE) Aids : All components in a unit are worn behind the ear, which is effective for mild to moderate high-frequency loss. (Option A) Spectacle Aids : Integrated into eyeglass frames; less common now. In-the-Ear (ITE) Aids : Housed in an earmold, good for mild to moderate loss, favored for aesthetics. Canal Aids (ITC and CIC) : Small aids fitting into the ear canal; ITC aids are partially visible (Option C) , while CIC aids are discreet and almost invisible. ITC amplify specific frequencies, which is especially beneficial for high-frequency hearing loss (Option D)



References:

Dhingra 8th edition page no.141,142

↑ *Back to this question in Part A*

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Q7: A 35-year-old male presents with a dental cavity that has been causing significant discomfort for the past few days. He now reports a new onset of ear pain on the same side as the toothache. Which of the following nerves is most likely involved in transmitting the pain from the dental cavity to the ear? (Q847806)

A. Auriculotemporal nerve

B. Glossopharyngeal nerve

C. Arnold's nerve

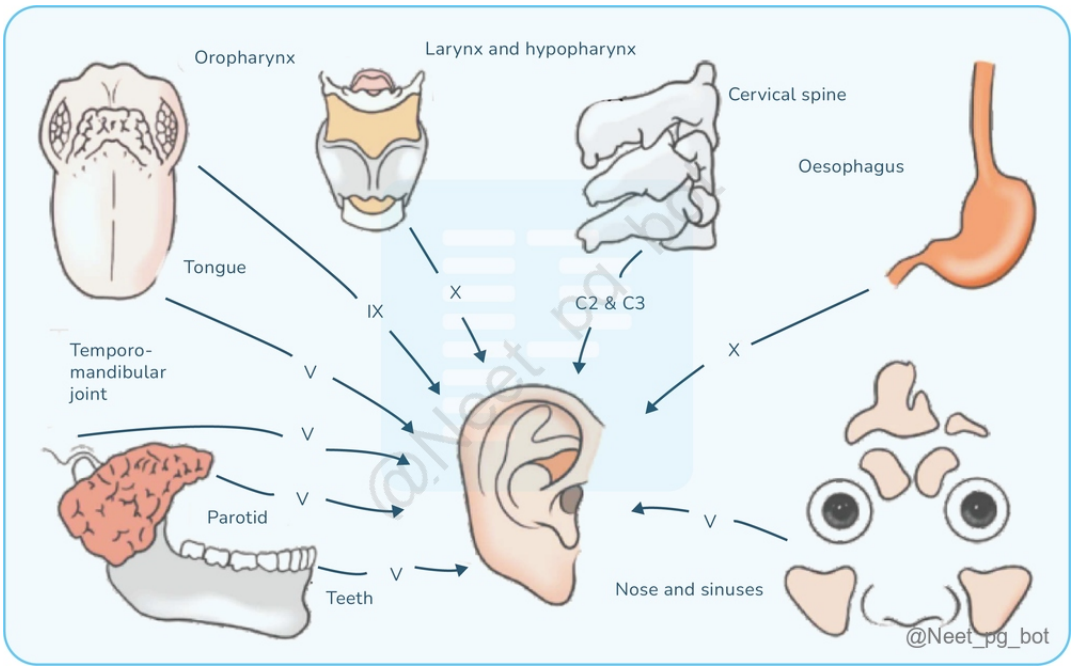
D. Maxillary nerve (V2)

Correct Answer: A. Auriculotemporal nerve

■ *Listen (English)*

■ *Listen (Hindi)*

Explanation: The auriculotemporal nerve , a branch of the mandibular nerve (V3) from the trigeminal nerve (cranial nerve V), supplies sensation to the skin of the temple and parts of the external ear. It also transmits sensory information from the lower teeth and gums. When a patient experiences dental pain along with ear pain on the same side, it is often due to referred pain. Mechanisms and Causes of Referred Otalgia: Referred otalgia occurs when a lesion or pathology in another part of the body irritates a nerve that also innervates the ear. Below are examples of referred otalgia, associated nerves, and areas of involvement: Lesion Location Associated Nerve Pathway for Referred Otalgia Oropharynx, Posterior 1/3 of tongue, Tonsils, Posterior Pharyngeal Wall Glossopharyngeal nerve (IX) Jacobson's nerve mediates pain from pharyngeal structures to the ear. Larynx, Hypopharynx, Cervical Esophagus Vagus nerve (X) Arnold's nerve transmits pain from the larynx and esophagus to the ear. Cervical Spine (Cervical Spondylosis, C2-C3) Lesser occipital nerve, Greater auricular nerve (C2, C3) These nerves can cause ear pain in cervical spine conditions. Temporo-mandibular Joint (TMJ) Trigeminal nerve (V3), Auriculotemporal nerve Pain from the TMJ can be referred to the ear via the auriculotemporal nerve. Teeth, Parotid, Anterior 2/3 of tongue Trigeminal nerve (V3) Dental pain, parotid pathologies, and tongue lesions may cause ear pain via the trigeminal nerve. Nose and Sinuses Trigeminal nerve (V2, V3) Sinus infections and nasal issues may refer pain to the ear. Oesophagus, Hypopharynx, Larynx Vagus nerve (X) Conditions like GERD or laryngeal cancer can cause referred ear pain.



References:

PL Dhingra Diseases of Ear, Nose, Throat, 8th Edition, Page 5,149,150

Scott-Brown's Otorhinolaryngology, 8th Edition, Page 1142-1145.

https://www.ncbi.nlm.nih.gov/books/NBK549830/

↑ *Back to this question in Part A*

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Q8: A 50-year-old male presents to the ENT clinic with complaints of a persistent ringing sound in his left ear for the past few months, more noticeable at night when he is in quiet environments. He denies any hearing loss or ear discharge. Otoscopic examination is normal, and audiometry shows normal hearing. Which of the following is the most appropriate initial management? (Q847807)

A. Prescribe an antidepressant

B. Perform an MRI to rule out acoustic neuroma

C. Reassure the patient and consider tinnitus retraining therapy

D. Advise complete avoidance of noise exposure

Correct Answer: C. Reassure the patient and consider tinnitus retraining therapy

■ *Listen (English)*

■ *Listen (Hindi)*

Explanation: Tinnitus is often a symptom and not a disease. Since the patient’s examination and audiometry are normal , the best initial approach is reassurance and educating the patient that this is a benign condition. Tinnitus retraining therapy (TRT) , which includes counseling and sound therapy, is an effective treatment that helps patients habituate to the sound of tinnitus and diminishes the emotional response to it. This therapy aims to uncouple the brain's emotional and physiological reactions to tinnitus, eventually leading to less awareness of the symptom. Treatment of Tinnitus 1. Unknown Cause Retraining Therapy: In cases where the cause is unknown, supportive care and monitoring are essential. This may include lifestyle modifications and hearing protection. 2. Subjective Tinnitus Patient Counseling: Education and Support: Providing information about tinnitus and its management. Cognitive Behavioral Therapy (CBT): Helps patients manage the psychological impact of tinnitus. Sound Therapy: Involves using background noise to help mask tinnitus, reducing the perception of the ringing sound. Tinnitus maskers are specialized devices that generate white noise or soothing sounds to cover up the tinnitus, offering relief. Tinnitus Retraining Therapy (TRT) combines sound therapy with counseling to help the brain habituate to the tinnitus sound, aiming to make it less noticeable over time. 3. Objective Tinnitus Treatment of Underlying Cause: Vascular Issues: Surgical or interventional procedures to address vascular abnormalities. Patulous Eustachian Tube: Management strategies may include nasal saline sprays or other treatments to stabilize the Eustachian tube. Prescribe an antidepressant (Option A): Antidepressants or medications may be considered in the management of tinnitus if the patient has accompanying depression or anxiety. Perform an MRI to rule out acoustic neuroma (Option B): While MRI may be necessary in cases where tinnitus is unilateral or associated with hearing loss to rule out an acoustic neuroma (a benign tumor of the vestibulocochlear nerve), this patient lacks these findings. Advise complete avoidance of noise exposure (Option D): Although noise-induced hearing loss is a known cause of tinnitus, complete avoidance of noise is not recommended. Instead, controlled sound therapy, like using tinnitus maskers or background noise generators, is helpful in patients with tinnitus, especially at night.

References:

Diseases of Ear, Nose, Throat - PL Dhingra, 8th edition, Pg 151,152.

https://www.nidcd.nih.gov/health/tinnitus

↑ *Back to this question in Part A*

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• [01_Ear] 012 Previous Year Questions

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[01_Ear] 012 Previous Year Questions — Quick Jump

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Q103 (p. 889)	*Q104 (p. 890)*	*Q105 (p. 891)*			

Q1: A patient presents with lung injury and tympanic membrane rupture following a blast exposure. These injuries are characteristic of which level of blast wave effect? (Q866704)

A. Level I

B. Level II

C. Level III

D. Level IV

Correct Answer: A. Level I

Explanation: Primary (Level I) blast injuries are caused directly by the impact of the overpressure wave from the blast. Air-filled organs are particularly vulnerable because of the difference in tissue density. The lungs (blast lung injury) and tympanic membranes (perforation) are the most commonly affected due to their air-containing structure. Pathophysiology involves rapid compression and decompression, causing tissue disruption, hemorrhage, and edema. Clinical manifestations may include hemoptysis, dyspnea, hypoxia (from pulmonary barotrauma), and hearing loss. These injuries occur without physical contact with flying debris - the pressure wave alone is responsible. High-yield point: Tympanic membrane rupture is considered a sensitive marker of exposure to a significant blast overpressure, but absence of rupture does not rule out lung injury. Classification of Blast Injuries: Type Mechanism Features Primary Injury It results from blast waves and is often internal with no external signs. Ears: Tympanic membrane rupture or inner ear disruption. Lungs: Alveolar-capillary membrane haemorrhage (blast lung), most common cause cause of death in survivors. GIT: Injuries to gas-filled organs are more common in underwater blasts. Secondary Injury It is resulting from shrapnel, debris & flying objects (propelled by explosion). Penetrating trauma. The characteristic Marshall triad, which includes bruises, abrasions, and punctate lacerations, is evident. Commonly cause severe thoracic injuries, including lacerations of the heart and great vessels. Tertiary Injury Victims are thrown against solid objects by blast winds. Blunt/ Penetrating trauma. Includes bone fractures and coup-contrecoup injuries. Quaternary Injury Encompass all other injuries not classified above Flash burns from extreme heat. Crush injuries and falls due to explosions. Respiratory injuries from toxic dust, gases, or radiation exposure. Psychiatric issues, such as post-traumatic stress disorder (PTSD), may affect individuals even if they are physically unharmed. Incorrect Options: Level II (Option B): Caused by flying debris from the blast, leading to penetrating or blunt trauma, not by direct pressure wave effects. Level III (Option C): Result from the victim being thrown by the blast wind, causing blunt injuries or fractures from impact, not barotrauma. Level IV (Option D): Due to burns, inhalational injuries, or exposure to chemicals from the blast, not lung or ear barotrauma.

↑ *Back to this question in Part A*

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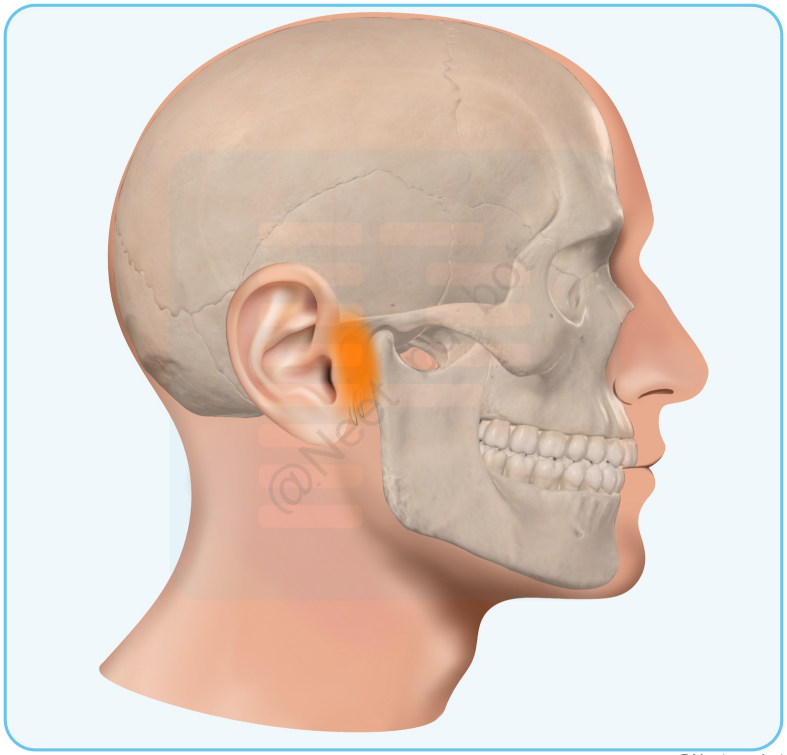
Q2: The image below shows a lateral view of the face with a highlighted region in front of the ear. Which type of abscess is most likely indicated in this area? (Q866709)

A. Citelli’s abscess

B. Luc's abscess

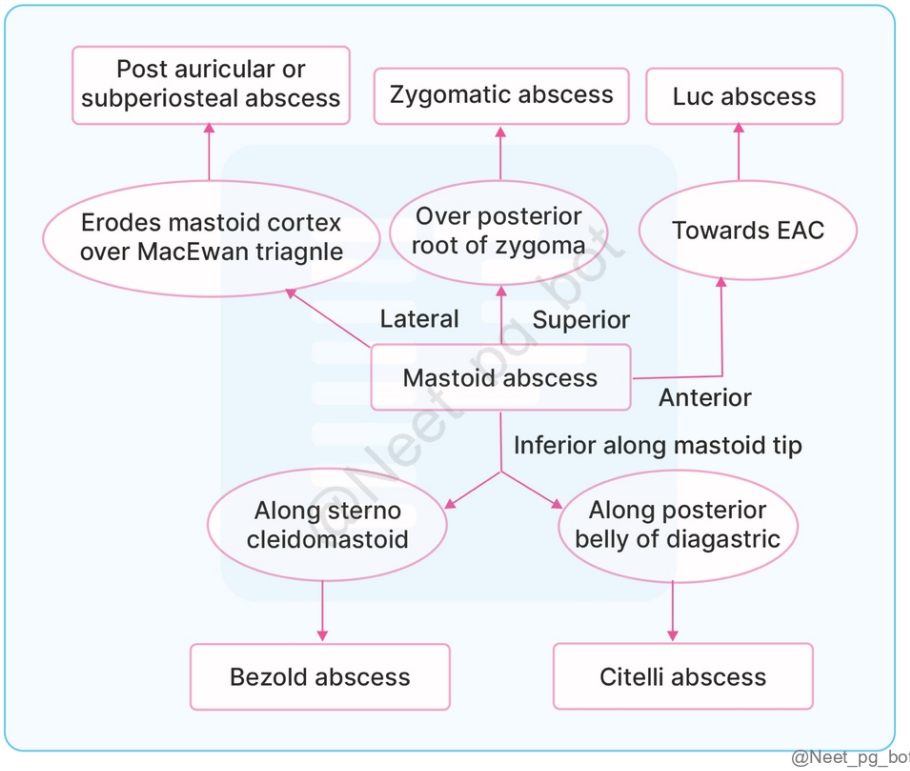
C. Bezold's abscess

D. Zygomatic abscess



Correct Answer: B. Luc's abscess

Explanation: Luc’s abscess is a subperiosteal abscess in the external auditory canal region due to spread of pus from the mastoid antrum through erosion of the outer cortex without mastoid tip involvement. It presents as swelling in the preauricular region or posterior wall of the external auditory canal (as shown in the image). More common in children because their mastoid bone is softer and thinner. Key point: It is one of the less common mastoid-related abscesses, distinct from the more frequent post-auricular abscess. Incorrect Options: Citelli’s abscess (Option A): Occurs when pus tracks into the posterior belly of the digastric muscle, presenting as a swelling in the upper neck behind the angle of the mandible. Bezold’s abscess (Option C): Caused by pus from mastoiditis eroding the mastoid tip and tracking deep to the sternocleidomastoid muscle, producing swelling in the upper neck. Zygomatic abscess (Option D): Results from infection spreading to zygomatic root cells, presenting as swelling over the temporal region above and in front of the ear.



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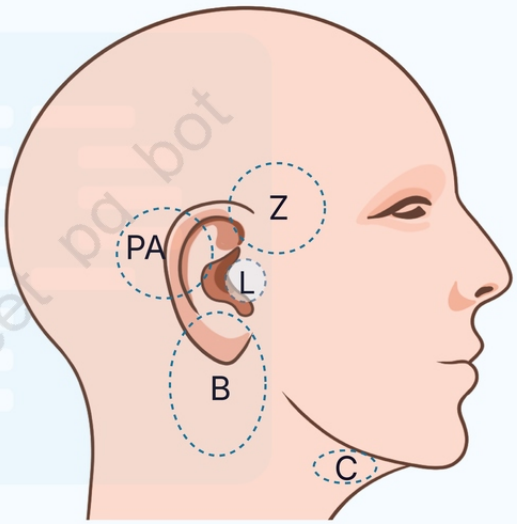
Types:

- Post auricular abscess
- Von Bezold's abscess
- Citelli's abscess
- Luc's abscess
- Zygomatic abscess
- Pharyngeal abscess



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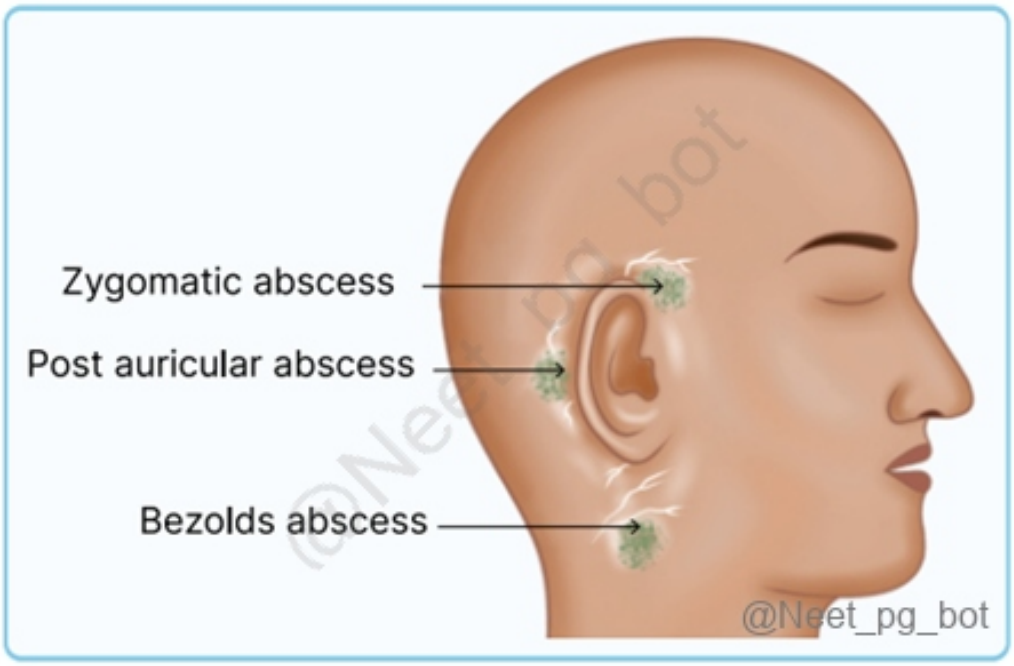

References:

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↑ *Back to this question in Part A*

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Q3: A patient presents with a history of fall and is found to have bleeding from the ear on examination. What is the investigation of choice ? (Q866711)

A. CBC

B. MRI Brain

C. CT Temporal bone

D. X-ray Skull

Correct Answer: C. CT Temporal bone

Explanation: Post-traumatic ear bleeding is highly suggestive of a temporal bone fracture, often with involvement of the middle or inner ear. High-resolution CT of the temporal bone is the gold standard for detecting fracture lines, ossicular injury, and associated complications. Temporal bone fractures may be longitudinal, transverse, or mixed, each with distinct clinical features and risks to hearing and balance. Associated findings can include CSF otorrhea, facial nerve palsy, hearing loss, and vertigo. High-resolution CT (HRCT) provides detailed imaging of

the petrous bone, ossicles, mastoid air cells, and otic capsule. Early diagnosis helps guide surgical intervention, prevent infectious complications, and preserve hearing and nerve function. MRI is reserved for suspected soft-tissue or brain injuries, not for acute bony detail. Incorrect Options: CBC (Option A): Useful for general trauma evaluation but does not help in diagnosing bone fractures. MRI Brain (Option B): Ideal for soft tissue and intracranial injuries but lacks the bony resolution required for temporal bone assessment. X-ray Skull (Option D): Poor sensitivity for temporal bone fractures and unable to adequately visualize complex bony anatomy.

↑ *Back to this question in Part A*

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Q4: A 60-year-old man complains of gradual hearing loss over several years. He reports difficulty hearing conversations, especially in noisy environments, and has trouble perceiving high-pitched sounds. There are no episodes of vertigo, tinnitus, or ear fullness. What is the most likely diagnosis? (Q866712)

A. Meniere’s disease

B. Otosclerosis

C. Presbycusis

D. Acoustic neuroma

Correct Answer: C. Presbycusis

Explanation: This patient’s progressive high-frequency hearing loss with difficulty understanding speech in noisy settings is classic for presbycusis. It is a symmetric, bilateral sensorineural hearing loss due to age-related degeneration of cochlear hair cells, particularly in the basal turn of the cochlea. Definition: Gradual, bilateral, symmetric, sensorineural hearing loss of aging. Mechanism: Degeneration of hair cells & supporting structures starting at cochlear base → affects high frequencies first. Key Features: High-frequency loss precedes low-frequency loss. Speech discrimination difficulty, especially in noisy environments. No vertigo or tinnitus as primary complaint. Audiogram Finding: Down-sloping pattern toward high frequencies. Management: Hearing aids, auditory rehabilitation; prevention focuses on avoiding noise exposure. Complications if untreated: Social withdrawal, depression, cognitive decline. Incorrect Options: Meniere’s disease (Option A): Characterized by episodic vertigo, fluctuating low-frequency hearing loss, tinnitus, and aural fullness - not isolated high-frequency loss. Otosclerosis (Option B): Conductive hearing loss due to stapes footplate fixation; often starts in young adulthood and improves in noisy environments (Paracusis Willisii). Acoustic neuroma (Option D): Unilateral progressive sensorineural hearing loss with tinnitus ± imbalance; MRI is diagnostic, not typically symmetric high-frequency loss.

↑ *Back to this question in Part A*

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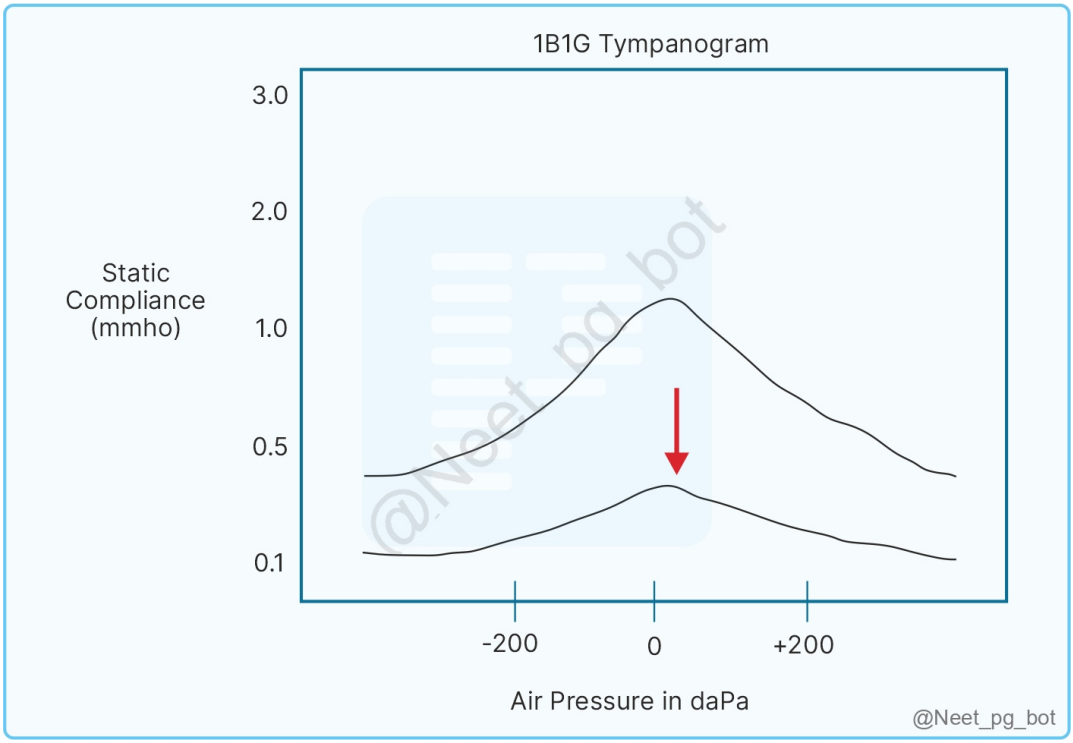
Q5: A tympanometry graph is shown below. An arrow indicates a shallow peak at pressure = 0 daPa. What is the most likely diagnosis based on the tympanometry result shown? (Q866714)

A. Type A

B. Type B

C. Type As

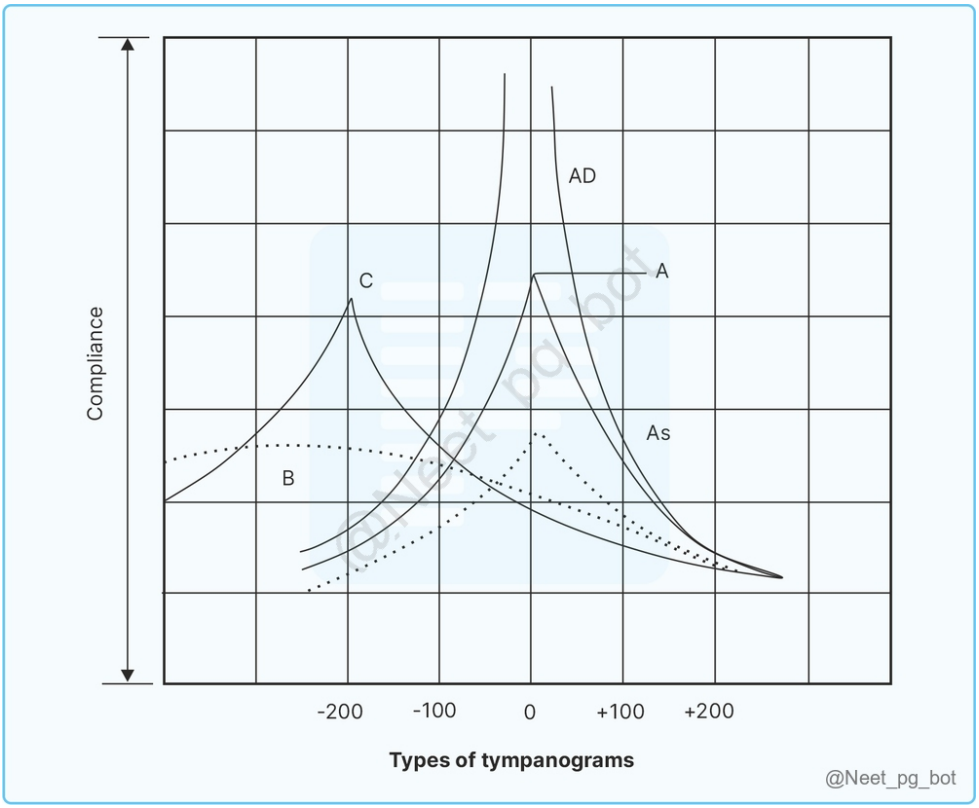
D. Type Ad



Correct Answer: C. Type As

Explanation: The tympanogram shows a normal middle ear pressure (peak at 0 daPa) but reduced compliance (shallow peak). This pattern is diagnostic of Type As tympanogram, which indicates stiffening of the middle ear system. Common causes: Otosclerosis (stapes fixation) Tympanosclerosis (post-infection scarring) Thickened tympanic membrane Impedance audiometry: Impedance audiometry comprises of acoustic reflex and tympanometry. A. Tympanometry : Measures the compliance (stiffness) of the tympano-ossicular system by detecting the reflected sound energy. Can also test Eustachian tube function by pressure changes and swallowing. Different tympanogram types indicate middle ear pathologies: Tympanogram Type Characteristics Indication Type A Normal peak Normal middle ear function Type As Shallow peak Ossicular fixation (e.g., otosclerosis) Type Ad Deep peak Ossicular discontinuity or thin tympanic membrane Type B Flat, no peak Middle ear fluid or thick tympanic membrane Type C Peak at negative pressure Eustachian tube dysfunction, middle ear negative pressure B. Acoustic Reflex (Stapedial Reflex): Measures the stapedial muscle contraction in response to loud

sounds (70-100 dB above threshold). Useful for: Assessing hearing in infants and young children. Detecting malingering. Diagnosing cochlear and CN VIII pathologies. Assessing facial nerve function and brainstem lesions. Incorrect Options: Type A (Option A): Normal peak height and position; indicates normal middle ear function - does not match the shallow peak here. Type B (Option B): Flat tracing with no peak; suggests middle ear effusion or perforation - not seen in this case. Type Ad (Option D): Peak at 0 daPa but with hypercompliance (very tall peak), seen in ossicular discontinuity or thin TM - opposite finding here.



References:

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Q6: Which of the following is not seen in Meniere's Disease? (Q866715)

A. Tinnitus

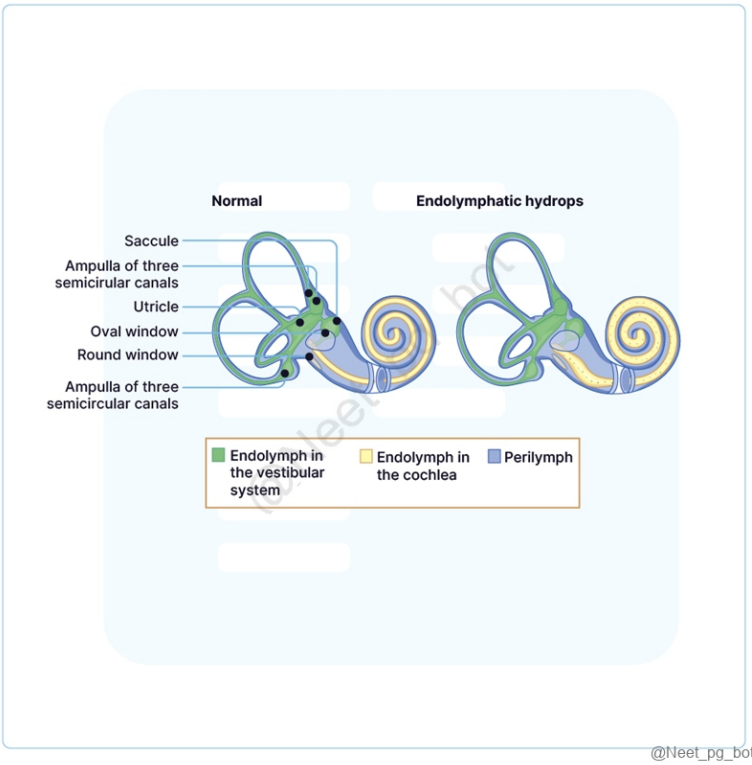
B. Vertigo

C. Fullness of ear

D. Ear Pain

Correct Answer: D. Ear Pain

Explanation: Meniere’s disease is an inner ear disorder characterized by episodes of vertigo, tinnitus, fluctuating sensorineural hearing loss, and aural fullness due to endolymphatic hydrops . However, ear pain is not a typical feature of Meniere’s disease unless secondary infections or complications occur. Meniere’s Disease Feature Description Cause Excess endolymph accumulation (endolymphatic hydrops) Triad of Symptoms 1. Vertigo (episodic, lasts minutes to hours) 2. Tinnitus (low-frequency, roaring type) 3. Hearing loss (sensorineural, fluctuating, progressive) Other Symptoms Aural fullness (blocked ear sensation) Not Typically Seen Ear pain , except in secondary infections Diagnosis Clinical + Audiometry (low-frequency SNHL) Treatment Dietary modifications (low sodium), diuretics, vestibular suppressants, intratympanic steroids, and surgery in refractory cases Incorrect Options: Tinnitus (Option A): is incorrect because tinnitus (low-pitched, roaring) is a hallmark of Meniere’s disease. Vertigo (Option B): is incorrect because Meniere’s disease presents with episodic vertigo , lasting minutes to hours. Fullness of ear (Option C): is incorrect because aural fullness or pressure sensation in the affected ear is a classic symptom.



↑ *Back to this question in Part A*

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Q7: A 5-year-old child is brought to the outpatient department by his mother with irritability, poor school performance, and a history of recurrent ear infections. Otoscopic examination shows a dull, retracted tympanic membrane with fluid behind

it. There is no blood clot present in the ear. What is the most likely diagnosis? (Q866737)

A. Acute otitis media

B. Otitis externa

C. Otitis media with effusion

D. Cholesteatoma

Correct Answer: C. Otitis media with effusion

Explanation: Otitis media with effusion Key clues: Recurrent ear infections → suggests chronic middle ear issues. Irritability, poor school performance → likely due to hearing loss . Dull, retracted tympanic membrane with fluid behind it → classic finding of otitis media with effusion (OME) . No acute inflammation, pain, or fever → rules out acute otitis media . Summary: Condition Key findings Acute otitis media Red, bulging TM; pain, fever, acute symptoms (Option A ruled out) Otitis media with effusion Dull, retracted TM, air-fluid level, hearing loss, no pain or fever Otitis externa Pain on pulling pinna, ear canal inflammation (Option B ruled out) Cholesteatoma Foul-smelling discharge, retraction pocket with keratin debris (Option D ruled out)

↑ *Back to this question in Part A*

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Q8: Stapedial reflex is dependent on the integrity of which cranial nerve for its motor response? (Q866739)

A. Trigeminal nerve (CN V)

B. Facial nerve (CN VII)

C. Glossopharyngeal nerve (CN IX)

D. Vagus nerve (CN X)

Correct Answer: B. Facial nerve (CN VII)

Explanation: The stapedial reflex (acoustic reflex) is a protective middle ear reflex in which loud sounds cause contraction of the stapedius muscle to dampen ossicular movement and protect the inner ear from acoustic injury. Pathway: Afferent limb: Cochlea → Cochlear nerve (CN VIII) → Cochlear nucleus → Superior olivary complex. Efferent limb (motor): Facial nerve (CN VII) → Stapedius muscle. Clinical correlation: Lesions of the facial nerve proximal to the stapedius branch cause absent stapedial reflex and may lead to hyperacusis (increased sensitivity to sound). Topodiagnostic tests of Facial nerve: Test Nerve Branch Assessment/Outcome Schirmer’s Test Greater (superficial) petrosal nerve A unilateral decrease in tear production (>75%) or Bilateral reduction (less than 10

mm in both eyes after 5 minutes). Stapedial Reflex Nerve to stapedius muscle Reflex is either present or absent Electro- gustometry Chorda tympani The taste threshold is compared between the two sides to detect abnormalities Salivary Flow Testing Chorda tympani A 25% reduction in salivary flow is considered abnormal Incorrect Options: Trigeminal nerve (CN V) (Option A): Motor supply to muscles of mastication; involved in the tensor tympani reflex, not the stapedius reflex. Glossopharyngeal nerve (CN IX) (Option C): Provides sensory input to the pharynx and posterior tongue, and motor to stylopharyngeus; not involved in stapedius contraction. Vagus nerve (CN X) (Option D): Motor supply to laryngeal and pharyngeal muscles; no role in stapedius reflex.

↑ *Back to this question in Part A*

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Q9: A 4 year old boy was suffering ear infection and tonic spasms of limbs, with fever and neck rigidity. Which of the following is the likely diagnosis? (Q865379)

A. Meningitis

B. Bezold

C. Sigmoid sinus thrombophlebitis

D. Tetanus

Correct Answer: A. Meningitis

Explanation: The child has ear infection (otitis media) → a known source of infection that can spread to the meninges. Fever and neck rigidity → classic signs of meningeal irritation . Tonic spasms of limbs may represent meningeal irritation or convulsions secondary to meningitis. Bezold abscess (Option B) and S igmoid sinus thrombophlebitis (Option C) are complications of otitis media but usually present with neck swelling (Bezold) or papilledema, headache, and septicemia (sigmoid sinus) - not neck rigidity and tonic spasms. Tetanus (Option D) causes generalized muscle rigidity and spasms, but it is not associated with ear infection or fever with neck rigidity .

References:

Diseases of Ear, Nose and Throat and Head and Neck Surgery, PL Dhingra, 8th Edition, Page 73-76

Logan Turner's Diseases of the Nose, Throat and Ear: Head and Neck Surgery, 11th Edition, Page 424, 427, 429,

↑ *Back to this question in Part A*

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Q10: Which of the following conditions may require a cochlear implant? A. Congenital deafness B. Ototoxicity C. Otosclerosis D. Congenital Stapes fixation (Q865382)

A. A, D

B. A, B

C. A, B, C

D. A, B, C, D

Correct Answer: B. A, B

Explanation: Congenital deafness (Option A): This often refers to sensorineural hearing loss present at birth. If the deafness is severe to profound and cannot be adequately managed with hearing aids, cochlear implants are a primary and highly effective treatment for congenital sensorineural deafness, especially when implanted early in life. Ototoxicity (Option B): This is hearing loss caused by damage to the inner ear or auditory nerve due to certain drugs. If the damage results in severe to profound sensorineural hearing loss , a cochlear implant may be necessary if hearing aids provide insufficient benefit. Otosclerosis (Option C ruled out): This is a bone growth disorder that typically causes conductive hearing loss by fixing the stapes bone in the middle ear. While otosclerosis primarily causes conductive hearing loss, it can sometimes have a sensorineural component if the disease extends to the cochlea ("cochlear otosclerosis"). In cases of severe mixed hearing loss (with a significant sensorineural component) that is not adequately treated by surgery (stapedectomy) or hearing aids, a cochlear implant might be considered. However, it's not the primary indication for otosclerosis unless the sensorineural component is profound. Congenital malleus fixation (Option D ruled out): This is a condition where the malleus bone in the middle ear is fixed, leading to conductive hearing loss . This type of hearing loss is usually treated surgically (e.g., ossiculoplasty) or with conventional hearing aids, as the inner ear function (cochlea and auditory nerve) is typically normal. A cochlear implant is generally not indicated for purely conductive hearing loss like isolated malleus fixation, as it bypasses the middle ear.

References:

Dhingra, 8th edition, Page 135, 146.

https://www.ncbi.nlm.nih.gov/books/NBK544280/

↑ *Back to this question in Part A*

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Q11: A 45-year-old man complains of early morning vomiting that occurs after turning in bed. What is the most likely diagnosis? (Q865387)

A. Benign Paroxysmal Positional Vertigo (BPPV)

B. Meniere’s disease

C. Vestibular neuritis

D. Labyrinthitis

Correct Answer: A. Benign Paroxysmal Positional Vertigo (BPPV)

Explanation: BPPV is a common inner ear problem causing brief, intense episodes of vertigo (a spinning sensation). These episodes are specifically triggered by changes in head position, like: Rolling over in bed Getting out of bed Looking up or down The symptoms often include significant nausea and vomiting , especially with severe episodes. The patient's complaint perfectly matches the classic presentation of BPPV, where dislodged crystals in the inner ear shift with movement after settling overnight. Meniere's disease (Option B): While it causes vertigo, episodes are typically longer (hours) and also involve fluctuating hearing loss and ringing in the ears (tinnitus). It's not primarily triggered by specific head movements. Vestibular neuritis (Option C): This causes a sudden, severe, and sustained episode of vertigo lasting days, without hearing loss. It's a single, prolonged event, not position-triggered episodes. Labyrinthitis (Option D): Similar to vestibular neuritis, but also includes hearing loss. The vertigo is typically sustained, not triggered by specific positions.

References:

Diseases of Ear, Nose, Throat - PL Dhingra, 8th edition, page no: 52,53

Scott-Brown’s Otorhinolaryngology Head and Neck Surgery, 8th edition, page no: 834,836,838

https://www.ncbi.nlm.nih.gov/pmc/articles/PMC9226421/

↑ *Back to this question in Part A*

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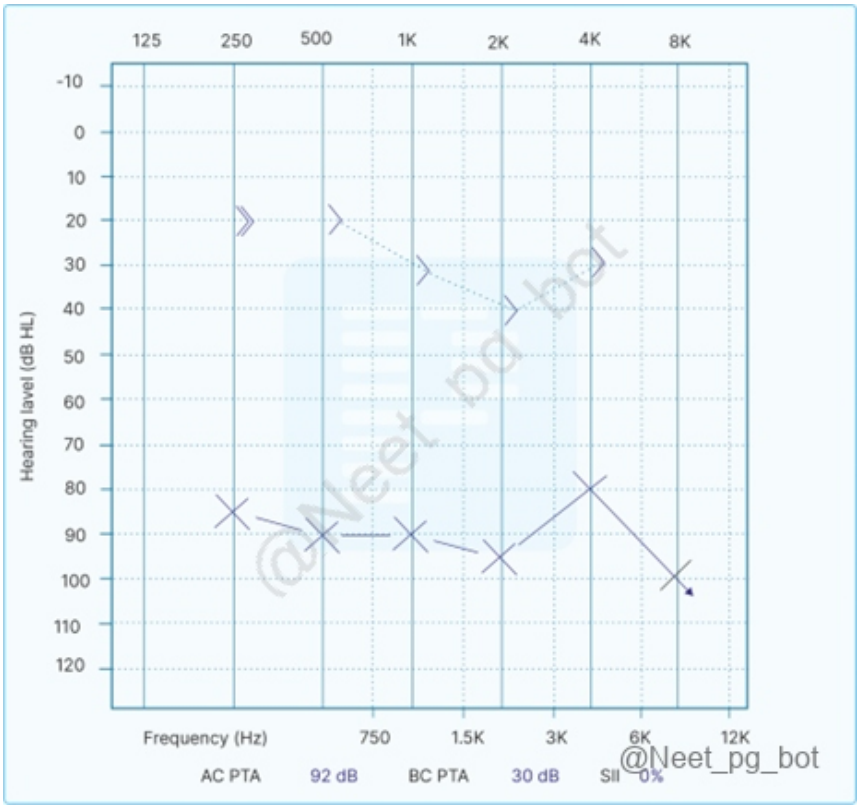
Q12: A 30-year-old male presents to the clinic with a history of recurrent ear infections and a recent "popping" sensation in his left ear. Otoscopic examination of the left ear reveals a central perforation of the tympanic membrane. The pure tone audiometry (PTA) results show the following: Right Ear: Air conduction and bone conduction thresholds are within normal limits. Left Ear: A significant air-bone gap is present, with bone conduction thresholds within the normal range. [1] These sentences were not there; PTA images were given in the exam (I have added the closest images). Based on these findings, what is the type of hearing loss is seen in this patient? (Q866519)

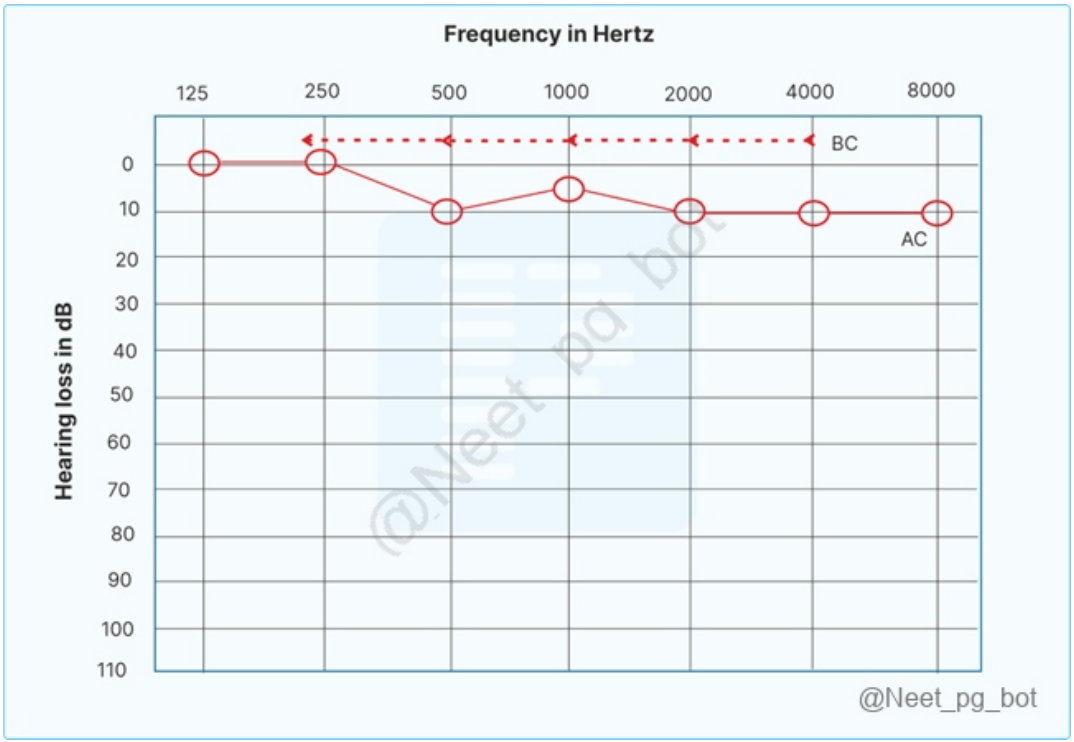
A. Left conductive hearing loss

B. Left sensorineural hearing loss

C. Right conductive hearing loss

D. Right sensorineural hearing loss





Correct Answer: A. Left conductive hearing loss

Explanation: Otoscopic image shows a central tympanic membrane perforation and PTA findings: Left Ear: Normal bone conduction but air-bone gap → Indicates conductive hearing loss Right Ear: Normal AC and BC → Normal hearing A central perforation of the tympanic membrane typically leads to conductive hearing loss, as it disrupts the conduction of sound waves through the external and middle ear. Since bone conduction remains normal, the sensorineural apparatus (inner ear and beyond) is intact. The air-bone gap seen in PTA clearly confirms conductive hearing loss on the left side. Incorrect Options: Left sensorineural hearing loss (Option B) would show elevated bone conduction thresholds, No AB gap which are not present here. The inner ear is functioning normally based on the PTA. Right conductive hearing loss (Option C): The right ear is normal on PTA (both AC and BC), with no air-bone gap. Hence, this is incorrect. Right sensorineural hearing loss (Option D) : The right ear is completely normal in audiometric testing.

↑ *Back to this question in Part A*

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Q13: A patient presents to the clinic with a history of chronic ear drainage and hearing loss for several months. Otoscopic examination reveals a central perforation of the tympanic membrane. Pure tone audiometry confirms a conductive hearing loss. Based on these findings, what is the most appropriate next step in the definitive management of this patient's condition? (Q866540)

A. Myringoplasty

B. Modified radical mastoidectomy

C. Exploratory tympanostomy

D. Immediate commencement of broad-spectrum oral antibiotics

Correct Answer: A. Myringoplasty

Explanation: Based on the clinical scenario, the most appropriate next step in definitive management is Myringoplasty. Myringoplasty is the definitive surgical procedure aimed at closing the tympanic membrane perforation to restore the integrity of the middle ear and improve hearing. This is performed once the ear is dry and infection-free for at least 6–8 weeks. The main techniques are underlay (graft placed under TM remnant, most common) and overlay (graft placed over TM remnant, used for anterior perforations). Common graft materials include temporalis fascia, tragal perichondrium, or cartilage. It restores hearing, prevents recurrent infections, and is considered Type I tympanoplasty. Incorrect Options: Option B - Modified radical mastoidectomy is indicated in unsafe CSOM (atticoantral disease) or when there is cholesteatoma, granulations, or extensive disease involving the mastoid air cells. Option C - Exploratory tympanostomy is performed primarily to assess and treat middle ear effusion, often in cases of otitis media with effusion (OME) or suspected hidden pathology. Option D - Immediate commencement of broad-spectrum oral antibiotics may be needed for active discharge due to acute infection, but this is not definitive management.

↑ *Back to this question in Part A*

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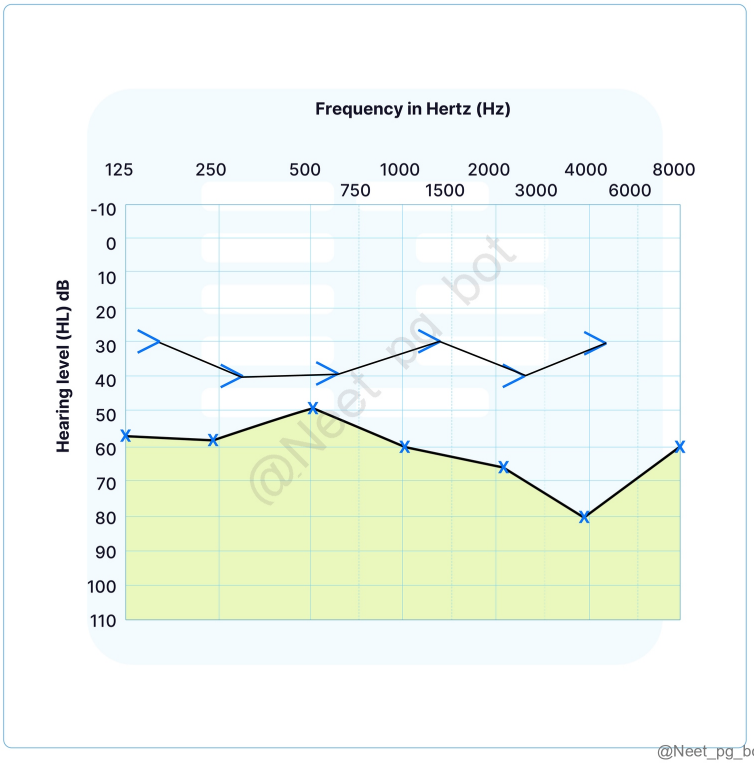
Q14: What is the interpretation of the following PTA conducted on a patient? (Q853098)

A. Mixed hearing loss

B. Sensorineural hearing loss

C. Conductive hearing loss

D. Normal



Correct Answer: A. Mixed hearing loss

Explanation: Both air conduction (AC) and bone conduction (BC) are defective. However, AC and BC are not equally defective, as there is a significant air-bone gap (>15 dB). This confirms the presence of mixed hearing loss. Pure Tone Audiometry: AC & BC are tested with the help of pure tones produced by Audiometer Charted in a graph called Audiogram It is a subjective test that relies on patient feedback to determine hearing thresholds across various frequencies. AC vs. BC (A-B Gap): Indicates the degree of conductive deafness. Aspect Air Conduction (AC) Bone Conduction (BC) Frequency Range 125 - 8000 Hz 250 - 4000 Hz Indicates Overall hearing sensitivity Cochlear function Normal Ear Both AC and BC thresholds are within the normal range (Within 20db in all frequencies) No significant A-B gap Conductive Hearing Loss AC Thresholds: Elevated (poorer hearing) compared to normal. BC Thresholds: Within normal limits. A-B Gap (>20db): Significant Sensorineural Hearing Loss (SNHL) AC Thresholds: Elevated BC Thresholds: Elevated to the same degree as AC. A-B Gap: Minimal or absent Presbycusis AC Thresholds: Elevated, particularly in high frequencies. BC Thresholds: Elevated with greater loss in higher frequencies. A-B Gap: Minimal Downsloping Meniere’s Disease Upsloping A-B Gap: Typically minimal

Symbols used in audiogram

Modality	Ear	
	Right	Left
AC unmasked	○	×
AC masked	△	□
BC unmasked	<	>
BC masked	⊏	⊐
No response	○↙	×↘

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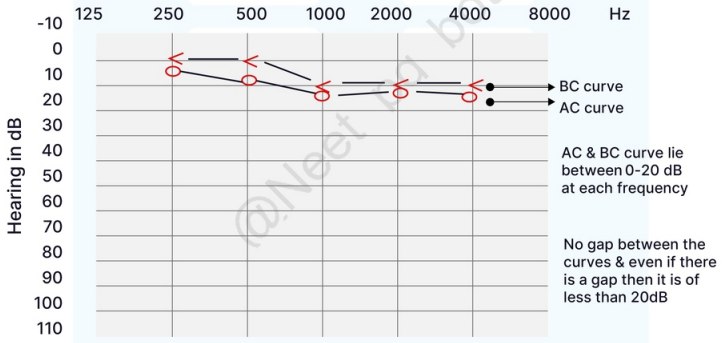
NORMAL GRAPH OF RIGHT EAR



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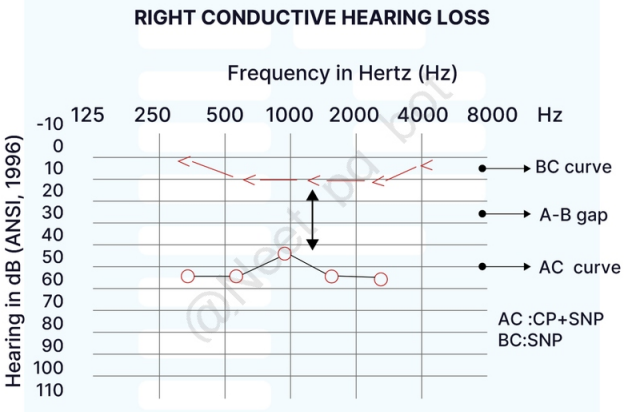

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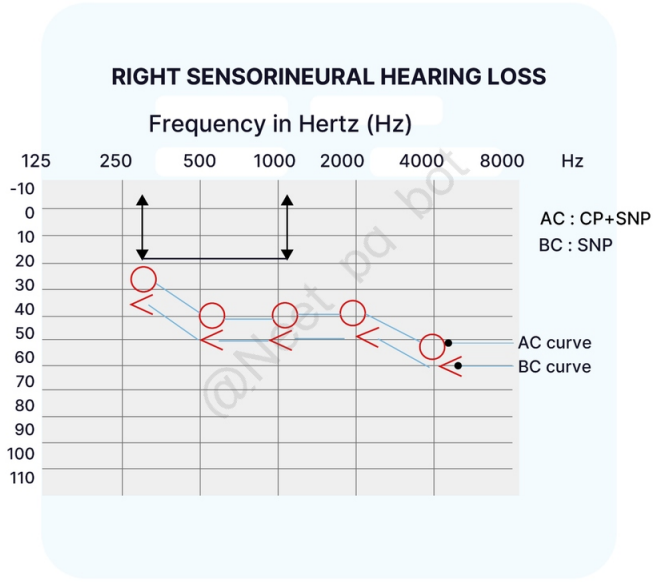

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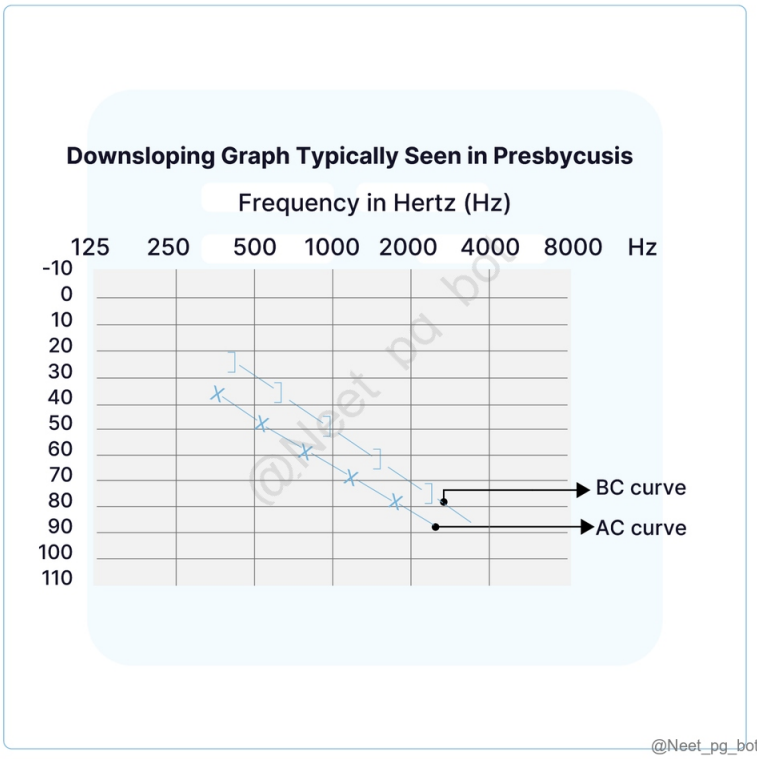

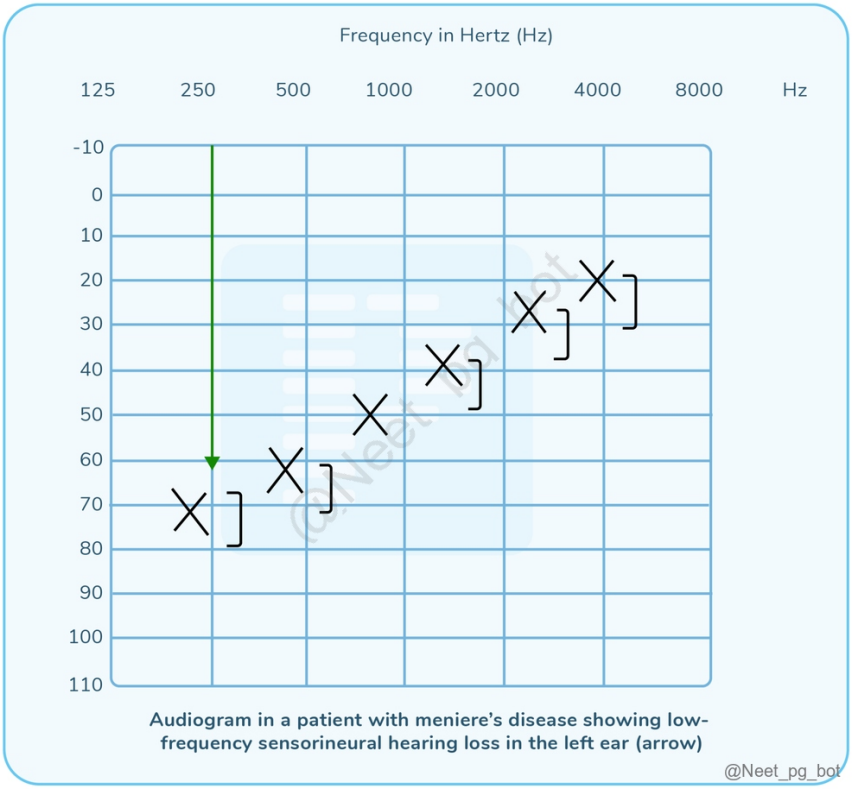

References:

Diseases of Ear, Nose, Throat - PL Dhingra, 8th edition, Pg - 27

↑ *Back to this question in Part A*

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Q15: Carhart's notch is seen in which of the following conditions: (Q853101)

A. Otosclerosis

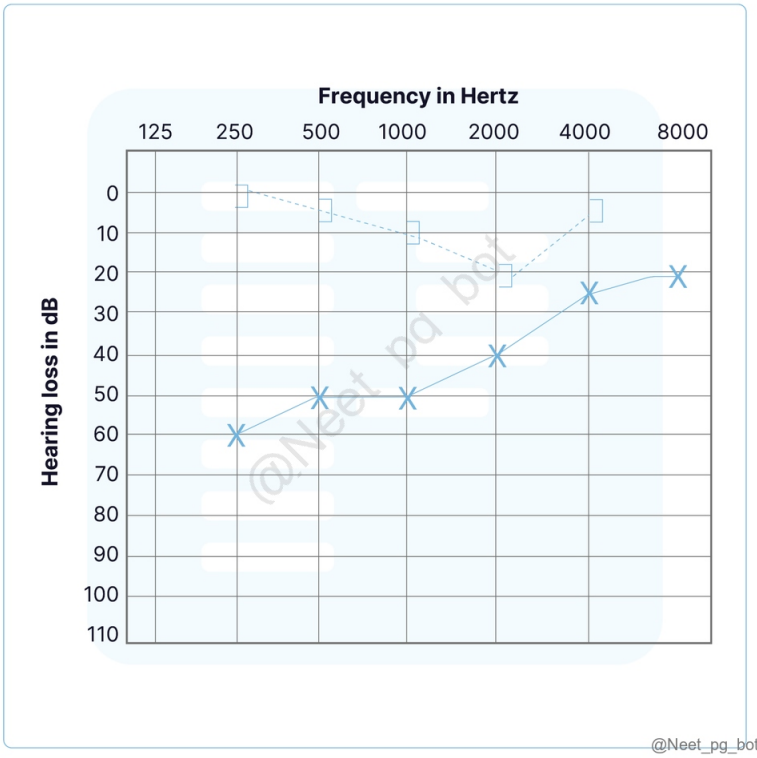
B. Ossicular Discontinuity

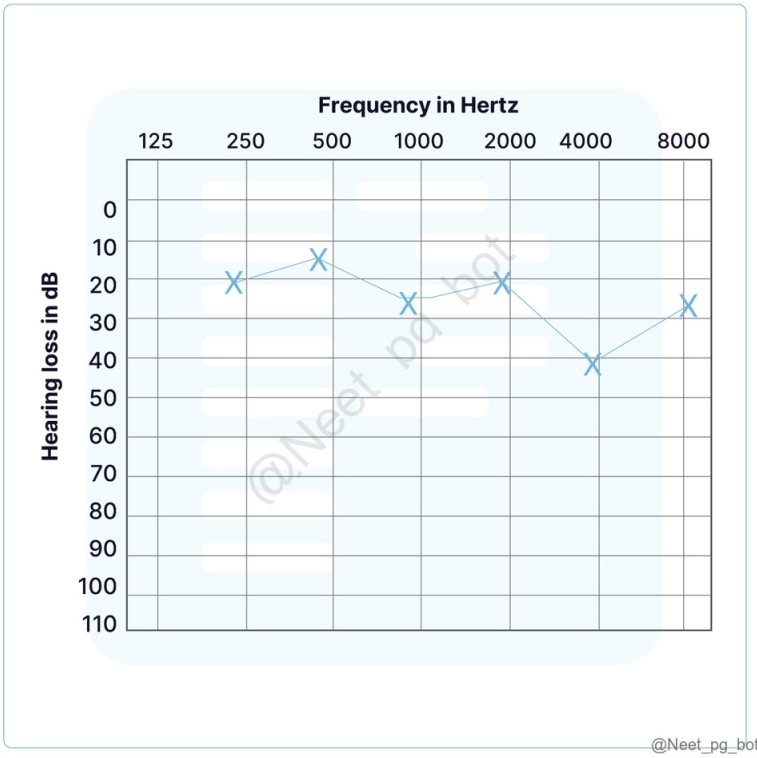
C. Oto syphilis

D. Serous otitis media

Correct Answer: A. Otosclerosis

Explanation: Carhart’s notch is a characteristic dip in bone conduction at 2000 Hz seen in otosclerosis. It is an audiometric finding caused by stapes fixation, which affects the transmission of sound through the ossicular chain. Feature Otosclerosis Noise-Induced Hearing Loss (NIHL) Air Conduction Loss, more pronounced at lower frequencies - Bone Conduction and Characteristic pattern Normal, may show "Carhart's notch" at 2000 Hz (5-15 dB loss) Typical notch at 4000 Hz in both air and bone conduction (Boiler's notch) Hearing Loss Mixed Sensorineural Ossicular Discontinuity (Option B): This typically presents with conductive hearing loss but does not show Carhart’s notch. Oto Syphilis (Option C): This can cause sensorineural hearing loss due to cochlear involvement but does not present with Carhart’s notch. Serous Otitis Media (Option D): This results in conductive hearing loss due to fluid in the middle ear, but it does not cause the characteristic Carhart’s notch.





References:

Diseases of Ear, Nose, Throat - PL Dhingra, 8th edition, Pg 105, 40, 41

↑ *Back to this question in Part A*

@Neet_pg_bot

Q16: Which one of the following causes maximum hearing loss: (Q853103)

A. Serous otitis media

B. Disrupted ossicular chain with intact tympanic membrane

C. Disrupted ossicular chain and disrupted tympanic membrane

D. Partial footplate fixation

Correct Answer: B. Disrupted ossicular chain with intact tympanic membrane

Explanation: The maximum purely conductive hearing loss possible (~55 dB) occurs when the ossicular chain is completely interrupted but the tympanic membrane remains intact . The intact membrane still vibrates and transmits sound energy efficiently to the malleus, but the mechanical linkage to the inner ear (stapes) is broken. This isolates the cochlea from the vibrating membrane, producing maximum sound transmission block through the air-conduction pathway. When both the ossicular chain and tympanic membrane are disrupted, the hearing loss is less because (Option C) : The perforated membrane reduces the acoustic impedance mismatch between air and fluid. Some sound directly reaches the round and oval windows through the perforation. Hence, paradoxically, the loss is smaller than with an intact TM. Hearing Loss Degrees in Different Conditions: Tympanic Membrane (TM) perforation → 10–40 dB hearing loss Complete obstruction of External Auditory Canal (EAC) → 30–40 dB hearing loss TM perforation with ossicular discontinuity → 40 dB hearing loss Ossicular discontinuity with intact TM → 55 dB hearing loss Complete fixation of the footplate of the stapes (seen in otosclerosis) → 60 dB hearing loss

References:

https://pmc.ncbi.nlm.nih.gov/articles/PMC5023437/ https://pmc.ncbi.nlm.nih.gov/articles/PMC5023437/

↑ *Back to this question in Part A*

@Neet_pg_bot

Q17: Most common hearing test done in neonates for screening: (Q853105)

A. Clap & smile

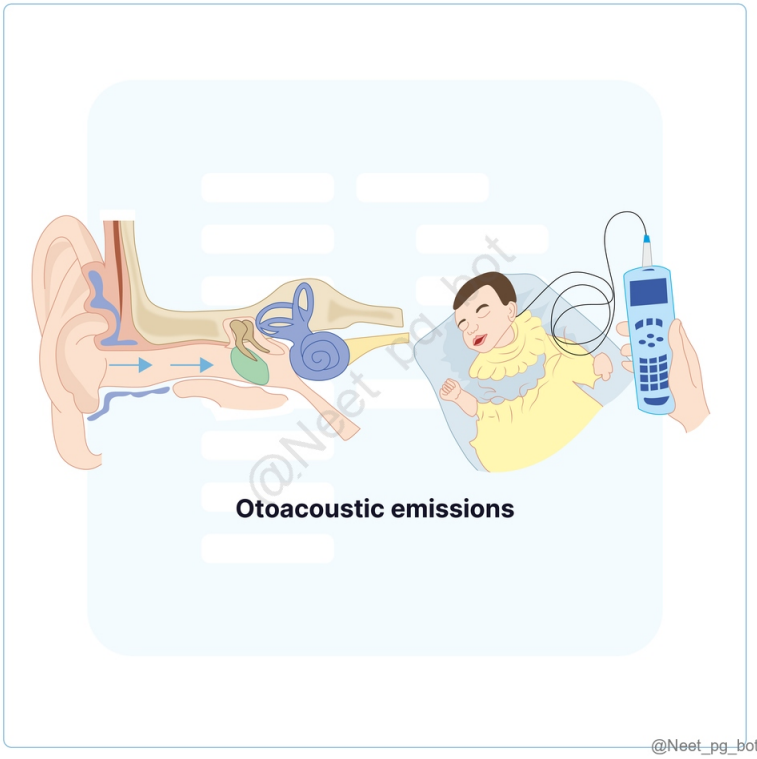
B. BERA

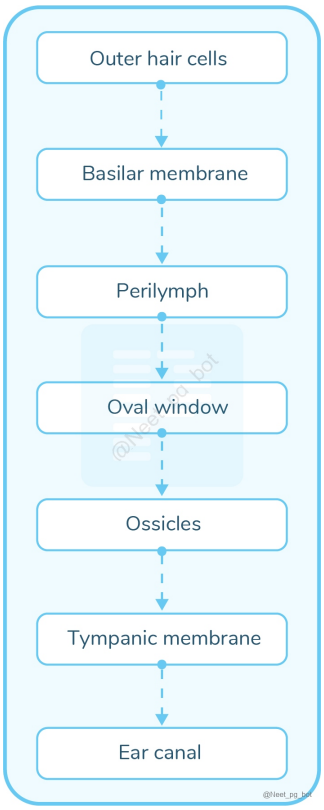
C. OAE

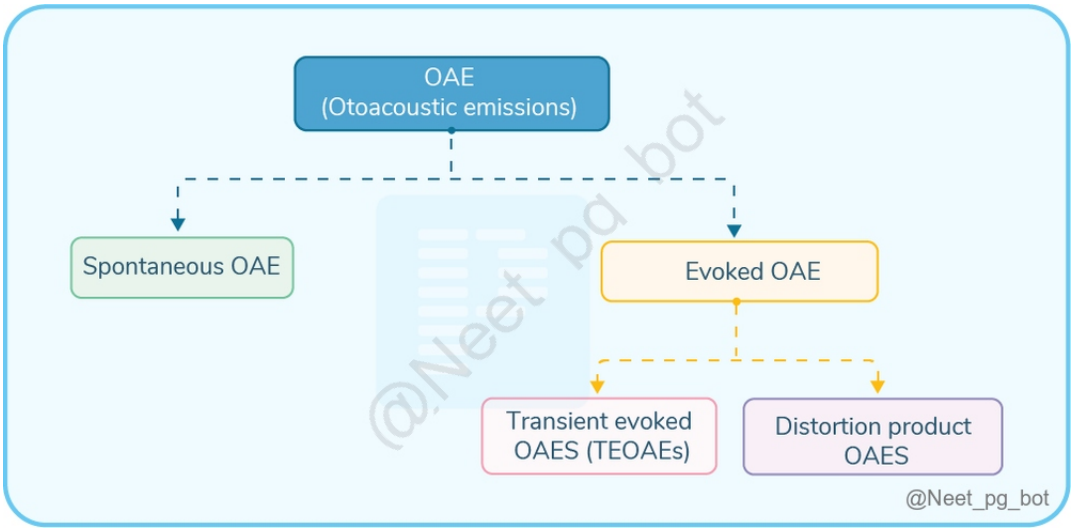
D. PTA

Correct Answer: C. OAE

Explanation: OAE is the preferred screening test in neonates due to its ease of use, reliability, and non-invasiveness. Otoacoustic Emissions (OAE) : is a test in which emissions are generated by outer hair cells and are used to evaluate hearing in individuals with cognitive impairments. OAEs are low-intensity sounds produced by the outer hair cells of a normal cochlea and can be elicited by a sensitive microphone placed in the external ear canal. Pathway: The absence of OAE indicates damage in the outer hair cell (conditions like lesions of the cochlea, middle ear disorders, etc.). Types: Spontaneous OAEs involve emissions without any external stimulation (sound). They may be absent in 50% of the individuals. Evoked OAEs require an external stimulus. Transient evoked OAEs (TEOAEs) : Evoked by clicks (mixture of various frequencies). Distortion product OAEs: Two tones (specific frequencies) are simultaneously presented to the cochlea to produce distortion products. Uses of OAE: They are used as a screening test for neonates, uncooperative or mentally challenged individuals. Differentiate between cochlear and retrocochlear hearing loss. Helpful in early detection of noise-induced hearing loss. Clap & Smile (Option A): This is an informal behavioral response test that is subjective and unreliable for neonatal hearing screening. BERA (Brainstem Evoked Response Audiometry) (Option B): This is used for diagnostic confirmation in high-risk infants (ICU) but is not the first-line screening test due to its higher cost and complexity. PTA (Pure Tone Audiometry) (Option D): This requires active patient participation, which is not possible in neonates.







References:

Diseases of Ear, Nose, Throat - PL Dhingra, 8th edition, Pg 32

↑ *Back to this question in Part A*

@Neet_pg_bot

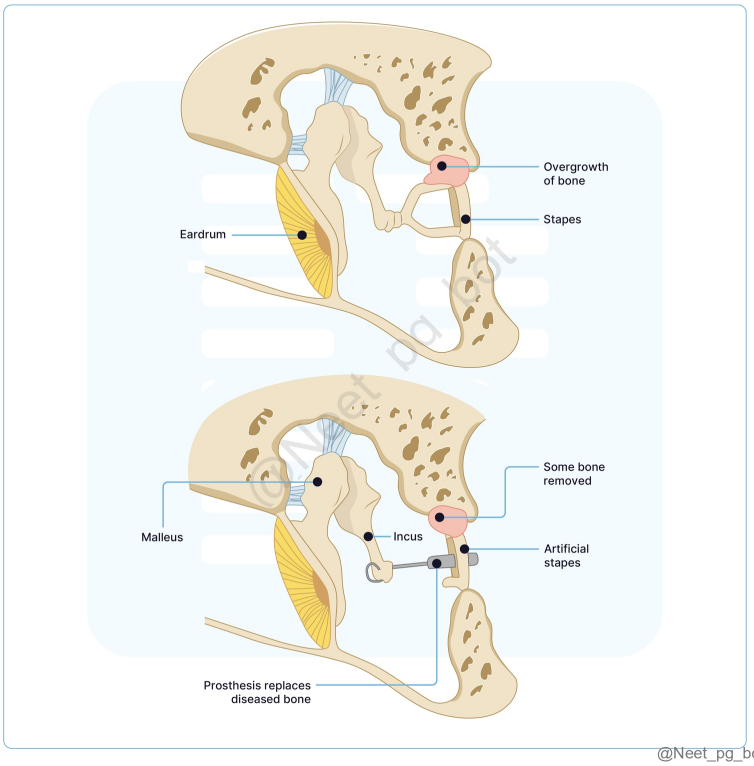
Q18: Which procedure is shown in the following diagram? (Q853117)

A. Stapedotomy

B. Myringotomy

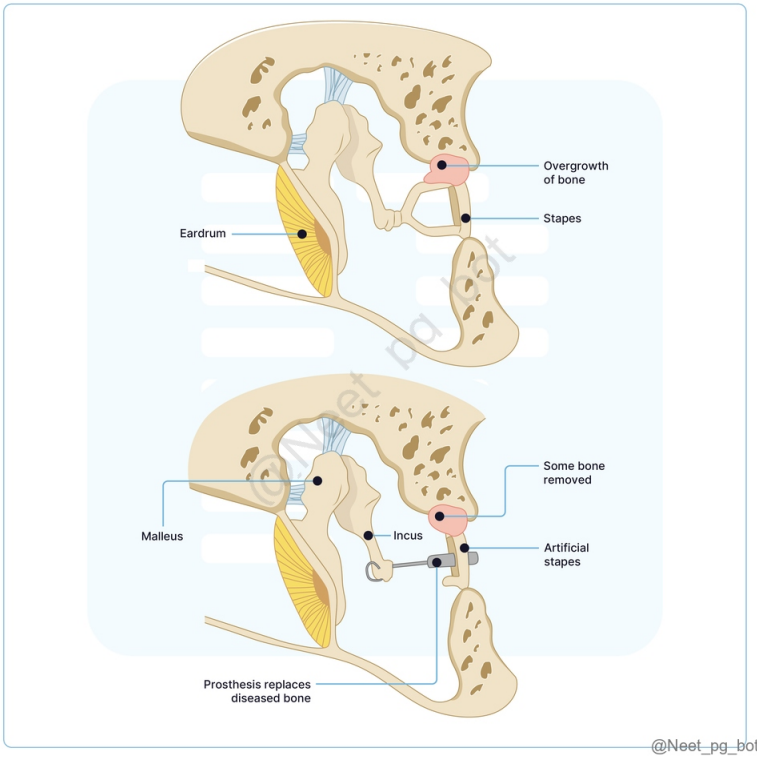
C. Myringoplasty

D. Tympanoplasty



Correct Answer: A. Stapedotomy

Explanation: The image depicts stapedotomy, a surgical procedure used to treat otosclerosis. Procedure: A small hole is created in the stapes footplate, and a prosthesis is placed to restore the transmission of sound vibrations to the inner ear. This procedure helps improve conductive hearing loss caused by stapes fixation. Stapedotomy vs. Stapedectomy Procedure Description Complications Stapedotomy A small opening made in the stapes footplate; a prosthesis is inserted. Lower complication rates; preferred by many otologists. Stapedectomy Complete removal of the stapes bone; replaced with a prosthetic device. Higher risk of complications. Myringotomy (Option B): This involves creating a small incision in the tympanic membrane to drain middle ear fluid, commonly used in otitis media with effusion. Myringoplasty (Option C): This is a surgical repair of a small tympanic membrane perforation, without involving the ossicles. Tympanoplasty (Option D): This is a more extensive procedure that repairs the tympanic membrane along with ossicular reconstruction if needed.



References:

https://pmc.ncbi.nlm.nih.gov/articles/PMC8075829/

↑ *Back to this question in Part A*

@Neet_pg_bot

Q19: A 9-month-old baby was admitted in the ICU with history of recurrent sinusitis and otitis media by staph aureus. Laboratory examination showed decreased serum IgA, IgG, IgM, IgE, and plasma B cells. Which of the following is the condition is described here? (Q852623)

A. Ataxia telangiectasia

B. Chronic granulomatosis disease

C. Bruton syndrome

D. Di George syndrome

Correct Answer: C. Bruton syndrome

Explanation: The correct answer is Bruton Syndrome (X-linked agammaglobulinemia). The clinical presentation of a 9-month-old with recurrent bacterial infections (sinusitis, otitis media) due to Staph aureus , low serum immunoglobulin levels, and absence of plasma B cells is characteristic of Bruton Syndrome (X-linked agammaglobulinemia). Bruton Syndrome is a primary immunodeficiency disorder caused by mutations in the BTK (Bruton tyrosine kinase) gene . This results in a failure of B-cell maturation , leading to a deficiency of mature B cells and, consequently, low levels of all immunoglobulins (IgA, IgG, IgM, and IgE) in the serum. Features: Recurrent bacterial infections – especially with encapsulated organisms like Staphylococcus aureus , Streptococcus pneumoniae , and Haemophilus influenzae . Sinopulmonary infections – recurrent sinusitis and otitis media are common. Absence of mature B cells in peripheral blood – leading to a lack of plasma cells, which are responsible for antibody production. Onset after maternal antibody wanes – Symptoms usually appear around 6 months of age , when the maternal IgG (passed through the placenta) is depleted. Low levels of IgA, IgG, IgM, and IgE – due to defective B-cell development. Incorrect options: Ataxia Telangiectasia (Option A): Presents with ataxia, telangiectasias, and immunodeficiency (especially IgA deficiency), but it does not cause a complete absence of B cells and all immunoglobulins. Chronic Granulomatous Disease (CGD) (Option B): Causes recurrent infections, but it is due to a defect in neutrophil function (NADPH oxidase deficiency) rather than low immunoglobulin levels. DiGeorge Syndrome (Option D): Caused by 22q11.2 deletion , leading to thymic hypoplasia and T-cell deficiency rather than B-cell deficiency. It is more associated with viral and fungal infections rather than recurrent bacterial infections like in Bruton Syndrome.

References:

https://www.ncbi.nlm.nih.gov/books/NBK448170/

↑ *Back to this question in Part A*

@Neet_pg_bot

Q20: A patient with CSOM was presented to the OPD with seizures. On examination and evaluation, homonymous hemianopia and epilepsy were present. Identify the condition with the CT scan given below? (Q852636)

A. Temporal abscess

B. Cerebellar abscess

C. Extradural abscess

D. Meningitis

Correct Answer: A. Temporal abscess

Explanation: The patient has Chronic Suppurative Otitis Media (CSOM) and presents with seizures, homonymous hemianopia, and epilepsy , and the CT finding (ring-enhancing lesion), is suggestive of a temporal lobe abscess is a known complication of CSOM due to the direct spread of infection via: Tegmen tympani dehiscence (erosion of the thin bony plate between the middle ear and the brain). Hematogenous spread . Seizures and epilepsy occur due to cortical irritation from the abscess. Homonymous hemianopia suggests involvement of the optic radiations , which pass through the temporal lobe (Meyer's loop) . Other Options: Cerebellar abscess (Option B): More commonly presents with ataxia, nystagmus, and vertigo , not homonymous hemianopia. Extradural abscess (Option C): Causes localized pain, fever, and sinus tenderness , but does not typically lead to seizures or hemianopia. Meningitis (Option D) : Presents with fever, neck stiffness, altered mental status , but does not usually cause focal neurological deficits like homonymous hemianopia .

↑ *Back to this question in Part A*

@Neet_pg_bot

Q21: Identify the sign given in the image below: (Q852638)

A. Beta 2 transferrin sign

B. Double target sign

C. Handkerchief test

D. Tear drop sign

Correct Answer: B. Double target sign

Explanation: The Double Ring Sign , also called the Halo Sign , is a bedside test used to detect CSF leakage in cases of CSF rhinorrhea or otorrhea (leakage of cerebrospinal fluid from the nose or ear). When a fluid sample (suspected to be mixed with CSF) is placed on a filter paper or gauze , it forms: An inner dark red ring (blood) An outer clear ring (CSF) This occurs because CSF is less dense and spreads outward , forming a halo or double ring pattern around the blood. Investigations for CSF Rhinorrhea Beta-2 transferrin (Option A): Gold standard biochemical test; highly specific for CSF. High-Resolution CT (HRCT): Identifies bony defects in skull base. CT Cisternography: Contrast-enhanced; precise localization of active CSF leaks. MRI Cisternography: Non-invasive; useful for identifying meningoceles/encephaloceles. Fluorescein Test: Intrathecal dye injection; helps in intraoperative leak localization. Other Options: Handkerchief test (Option C): CSF does not stiffen a handkerchief after drying (unlike nasal mucus). The Teardrop Sign (Option D): on imaging refers to a triangular-shaped soft tissue mass often seen in orbital trauma or orbital floor fractures , indicating herniation of orbital contents.

References:

Diseases of Ear, Nose, Throat - PL Dhingra, 8th edition, Pg 567

↑ *Back to this question in Part A*

@Neet_pg_bot

Q22: A 49-year-old female from Nagaland presented with right-sided hearing loss and tinnitus. On examination, dull tympanic membrane with lymph nodes in the posterior triangle of the neck was seen. Which of the following is the management for the condition? (Q852620)

A. Grommet insertion + Steroids

B. Grommet insertion

C. Steroids

D. Radiotherapy

Correct Answer: D. Radiotherapy

Explanation: The patient's symptoms— unilateral hearing loss, tinnitus, dull tympanic membrane, and posterior triangle lymphadenopathy —raise suspicion of nasopharyngeal carcinoma (NPC) , especially considering the geographic location (Nagaland, Northeast India, where NPC is more prevalent due to genetic and environmental factors, including Epstein-Barr virus association). Radiotherapy is the primary treatment for NPC , as it is highly radiosensitive. Other Options: Grommet insertion + Steroids (Option A) : Used for chronic OME but does not treat the underlying malignancy. Grommet insertion (Option B) : Temporary relief but inappropriate for NPC. Steroids alone (Option C) : May reduce inflammation but will not address the tumor.

References:

Diseases of Ear, Nose, Throat - PL Dhingra, 8th edition, Pg 766

↑ *Back to this question in Part A*

@Neet_pg_bot

Q23: A patient presents to the OPD with hearing loss. On examination: Rinne test- Positive in the left ear and negative in the right ear Weber's test - lateralization towards the left Bone conduction test - Reduced in the right ear and similar in the left ear. Interpret the findings. (Q852633)

A. Sensorineural hearing loss in left ear

B. Sensorineural hearing loss in right ear

C. Conductive hearing loss in left ear

D. Conductive hearing loss in right ear.

Correct Answer: D. Conductive hearing loss in right ear.

Explanation: Conductive hearing loss in the right ear A negative Rinne in the right ear indicates conductive hearing loss. Weber lateralizing to the left confirms the right ear is the poorer ear due to conductive loss. Rinne Test: Right ear: Negative (BC > AC) → Conductive hearing loss Left ear: Positive → Normal or SNHL Weber Test: Lateralizes to left → left is the better ear → right is worse → supports CHL in right ear Absolute Bone Conduction: “Reduced” BC on the right does not override Rinne; bedside ABC can be misleading. The combination of right negative Rinne + Weber to the left clearly indicates Conductive hearing loss in the right ear .

References:

Diseases of Ear, Nose, Throat - PL Dhingra, 8th edition, Pg 234

↑ *Back to this question in Part A*

@Neet_pg_bot

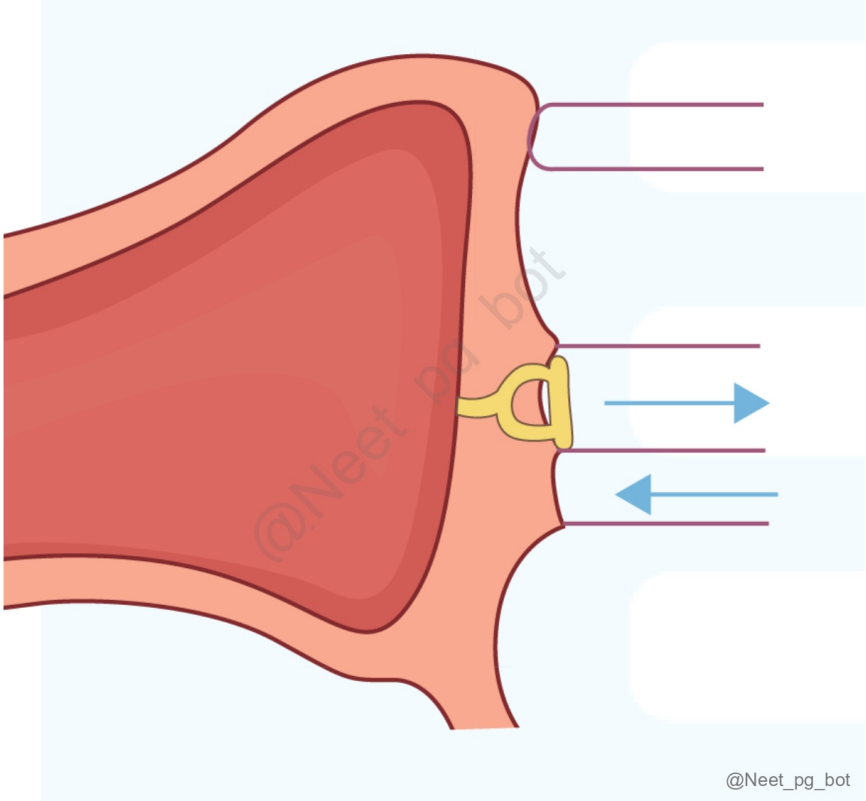
Q24: Identify the treatment option with the image given below: (Q852647)

A. Type 1 Tympanoplasty

B. Type 2 tympanoplasty

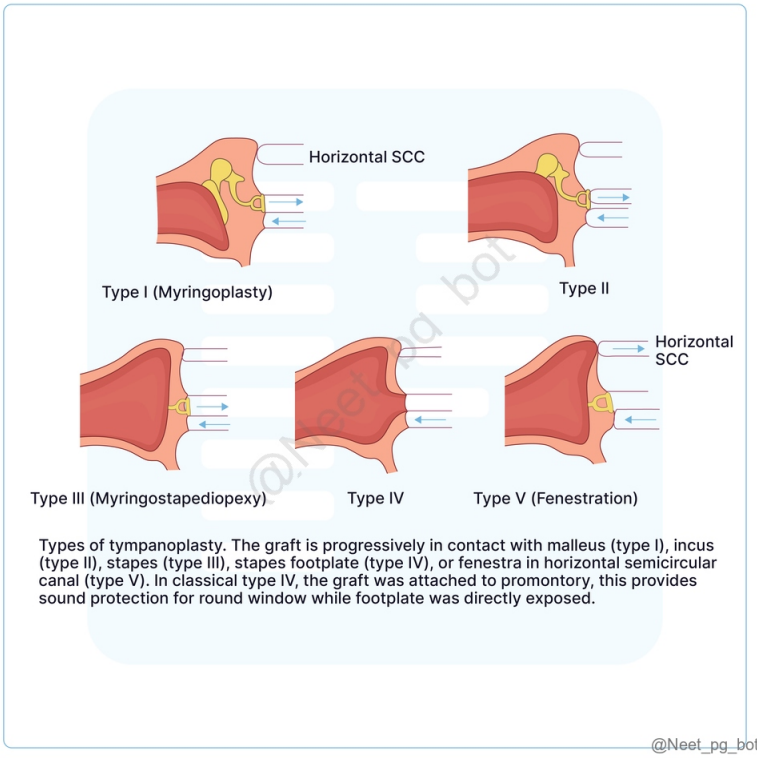
C. Type 3 tympanoplasty

D. Type 4 tympanoplasty



Correct Answer: C. Type 3 tympanoplasty

Explanation: Type 3 Tympanoplasty is performed when the malleus and incus are absent , but the stapes footplate is intact and mobile . The tympanic membrane or graft is placed directly over the stapes head to allow sound conduction. This technique helps improve hearing in cases of ossicular erosion due to chronic suppurative otitis media (CSOM), cholesteatoma, or trauma . Types of Tympanoplasty (Wullstein's Classification): Type Description Type I Defect: perforated tympanic membrane. Repaired using a graft. (myringoplasty) (Option A ruled out) Type II Defect: Eroded malleus and perforated tympanic membrane. Graft placed on incus or remaining malleus. (Option B ruled out) Type III Defect: Absence of malleus and incus. Graft placed directly on stapes head (myringostapediopexy or columella tympanoplasty). Type IV Defect: Only the footplate of the stapes is present. It is exposed to the external ear. A graft is placed between oval and round windows, allowing sound to act directly on the footplate and the round window is shielded. (Option D ruled out) Type V Fenestration operation: Creation of a new window on the horizontal semicircular canal, covering it with a graft when the stapes footplate is fixed but the round window is functional.



References:

Diseases of Ear, Nose, Throat - PL Dhingra, 8th edition, Pg 655

↑ *Back to this question in Part A*

@Neet_pg_bot

Q25: A 45-year-old woman is diagnosed with right vestibular neuronitis. What findings are expected during the head impulse test in this patient? (Q843956)

A. When the head is turned to the left, the eyeballs move to the left with nystagmus.

B. When the head is turned to the left, the eyeballs move to the right with nystagmus.

C. When the head is turned to the right, the eyeballs move to the left with nystagmus.

D. When the head is turned to the right, the eyeballs move to the right with nystagmus.

Correct Answer: C. When the head is turned to the right, the eyeballs move to the left with nystagmus.

Explanation: Test Purpose: Assesses the Vestibulo-Ocular Reflex (VOR) — keeps eyes focused during head movement. Normal Response: Eyes remain fixed on target despite rapid head turns. Right Vestibular Neuronitis: Right vestibular nerve is inflamed or damaged → reduced vestibular input on the right side When the head is turned to the right (affected side): Right vestibular system fails to signal. Eyes move with the head instead of staying fixed. A corrective saccade (fast eye movement) to the left occurs to re-fix gaze on target. When the head is turned to the left (healthy side): VOR remains intact. Eyes stay fixed on target without corrective movement. Incorrect Options: Options A, B and D are incorrect, as explained above.

References:

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↑ *Back to this question in Part A*

@Neet_pg_bot

Q26: A patient presents with a history of ear discharge. On examination, a small perforation is observed in the antero-inferior segment of the tympanic membrane. What is the most likely result of Rinne's test? (Q843983)

A. Rinne's positive

B. Rinne's negative

C. Rinne's equivocal

D. Cannot be determined

Correct Answer: B. Rinne's negative

Explanation: Correct Option B - Rinne's negative: In this patient, the small perforation in the tympanic membrane suggests a conductive hearing loss. In conductive hearing loss, bone conduction (BC) is better than air conduction

(AC), which impedes sound waves from reaching the inner ear through air conduction. Thus, the Rinne test will be negative (BC > AC). Incorrect Options: Options A, C, and D are incorrect, as explained above.

↑ *Back to this question in Part A*

@Neet_pg_bot

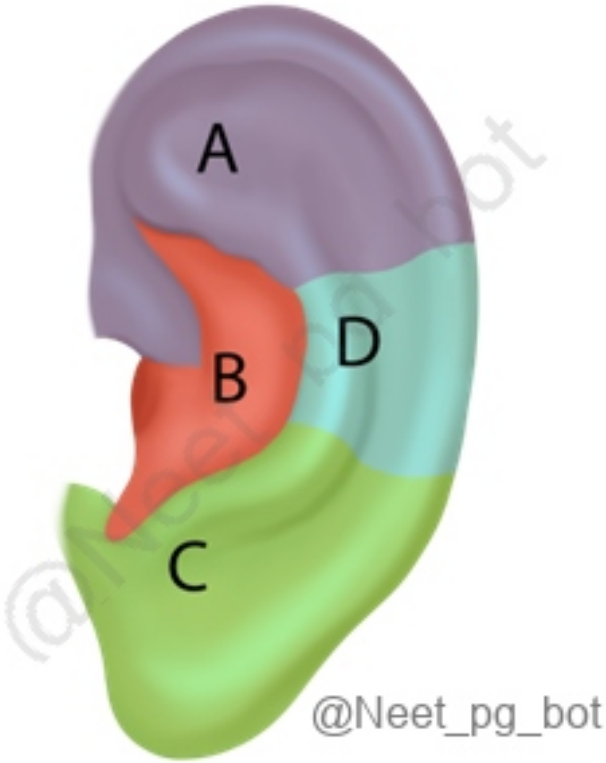
Q27: Match the following: 1 Greater auricular nerve 2 Auriculotemporal nerve 3 Auricular branch of the vagus nerve 4 Lesser occipital nerve (Q844326)

A. 1-D, 2-C, 3-A, 4-B

B. 1-C, 2-A, 3-B, 4-D

C. 1-C, 2-B, 3-A, 4-D

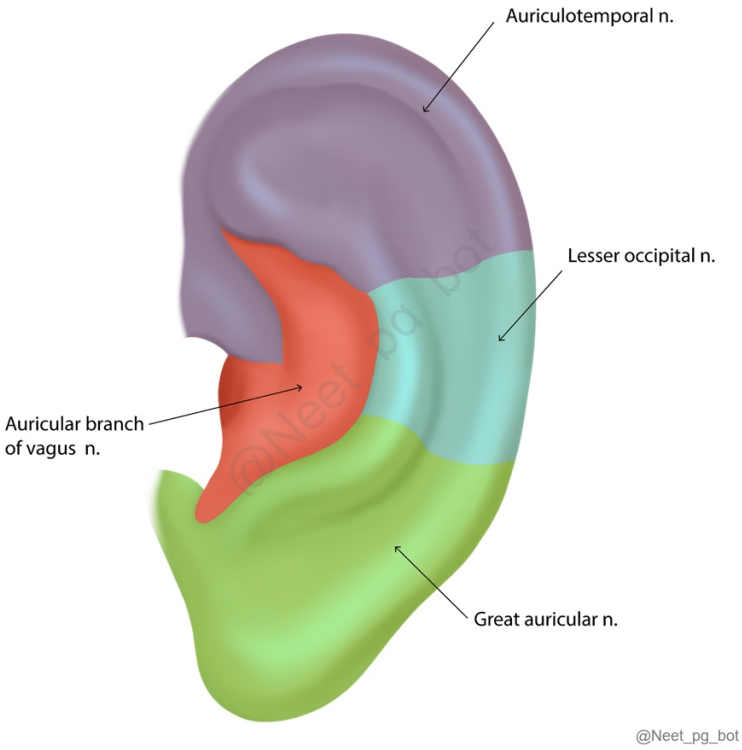
D. 1-D, 2-A, 3-B, 4-C



Correct Answer: B. 1-C, 2-A, 3-B, 4-D

Explanation: 1. Greater auricular nerve (C2–C3) → supplies area C – skin over parotid region, angle of mandible, and lower part of the auricle. 2. Auriculotemporal nerve (branch of mandibular nerve, CN V3) → supplies area A – anterior auricle, tragus, and temporal region. 3. Auricular branch of vagus nerve (Arnold's nerve) → supplies area B – posterior-inferior external auditory canal and concha. 4. Lesser occipital nerve (C2) → supplies area D – upper

posterior auricle and scalp behind the ear.



References:

https://www.ncbi.nlm.nih.gov/books/NBK470359/

↑ *Back to this question in Part A*

@Neet_pg_bot

Q28: A female patient’s Pure Tone Audiometry (PTA) findings reveal a Carhart's notch. Which of the following is most likely associated with this finding? (Q843969)

A. Schwartz sign

B. Hitzelberger sign

C. Henebert sign

D. Aquinos Sign

Correct Answer: A. Schwartz sign

Explanation: Correct Option A - Schwartz sign: Carhart's notch is a specific audiometric finding seen in otosclerosis, characterized by a dip in bone conduction at 2000 Hz. Schwartz's sign is associated with otosclerosis, particularly in the active phase. This sign refers to a flamingo pink hue seen through the tympanic membrane due to increased vascularity of the mucoperiosteum overlying the otosclerotic focus. Incorrect Options: Options B, C and D are not seen in otosclerosis.

References:

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↑ *Back to this question in Part A*

@Neet_pg_bot

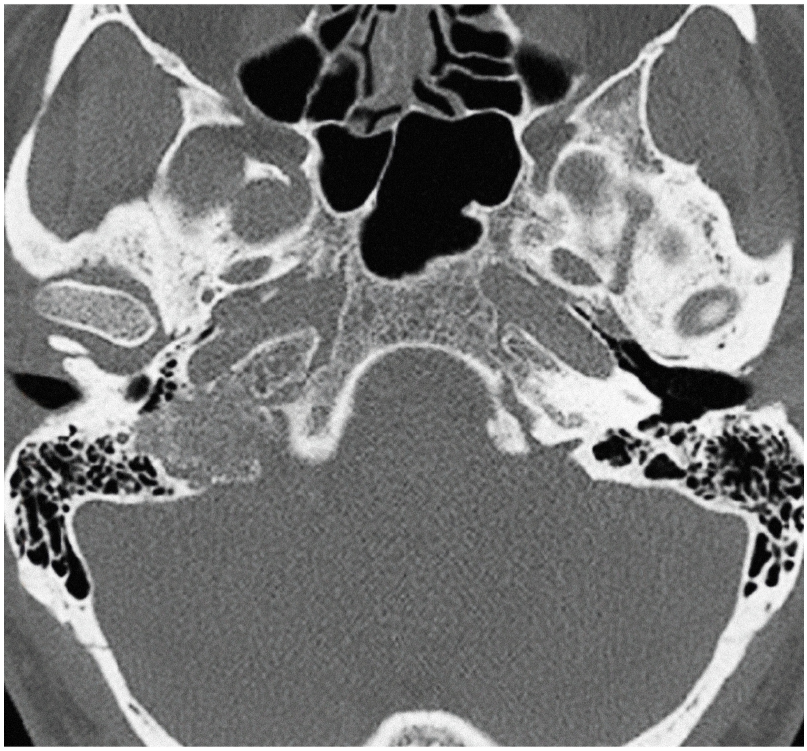
Q29: A 55-year-old woman presents with a gradually progressive hearing loss in her right ear, accompanied by pulsatile tinnitus. On otoscopic examination, a red vascular mass is seen behind the tympanic membrane. Which of the following is the most likely diagnosis? (Q844022)

A. Cholesteatoma

B. Glomus Tympanicum

C. Acoustic Neuroma

D. Otosclerosis



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Correct Answer: B. Glomus Tympanicum

Explanation: Correct Option B - Glomus Tympanicum: Glomus Tympanicum is characterized by a red vascular mass seen on otoscopy. It originates from the paraganglionic cells and is known for causing pulsatile tinnitus, as well as conductive hearing loss. The given image shows Phelp sign, which further confirms the diagnosis. Incorrect Options: Options A, C, and D do not exhibit Phelp sign.

References:

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↑ *Back to this question in Part A*

@Neet_pg_bot

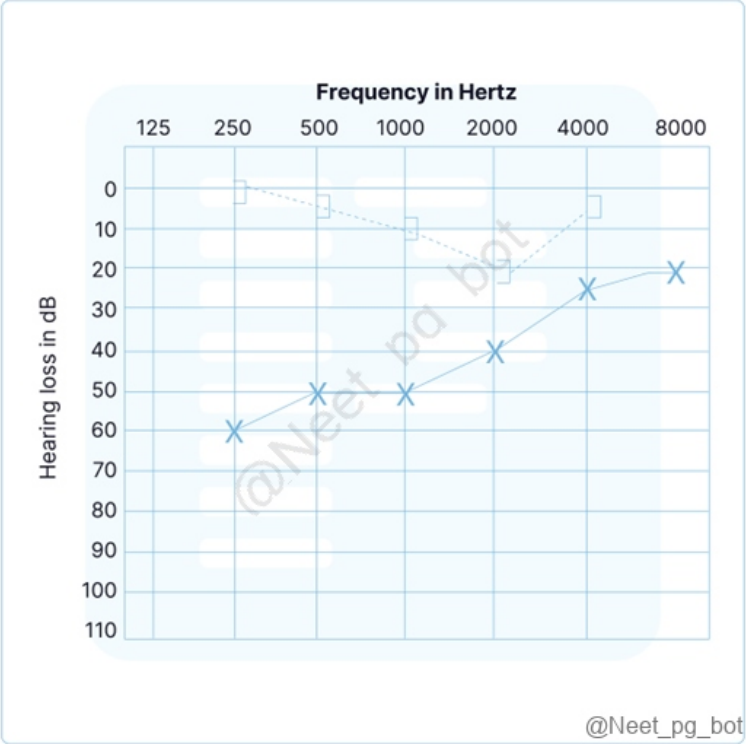
Q30: An audiogram of a 30-year-old female is given. What is the diagnosis? (Q860426)

A. Otosclerosis

B. Meniers disease

C. Noise-induced hearing loss

D. Presbycusis



Correct Answer: A. Otosclerosis

Explanation: Correct Option: A) Otosclerosis There is a dip in the bone conduction curve at 2000Hz in the graph of a 30-year-old female shown above which is called as Carhatz notch. Carhatz notch is seen in otosclerosis. The air conduction seen in the graph is also affected Incorrect Options : Meniers disease (Option B): Upsloping graph seen in Meniere's disease Both AC and BC are affected because of SNHL but the loss is seen at lower frequencies and at higher frequency the hearing sensitivity is almost normal. Low frequency type of hearing loss is a Characteristic of Meniere's disease. Noise-induced hearing loss (Option C): The BC and AC curve of the ears is in the abnormal range, which means there is sensorineural hearing loss. At 4000 Hz there is a dip in both AC and BC, this is called the boiler's notch which is specific in noise-induced hearing loss . Presbycusis (Option D): Presbyacusis is an age related SNHL. AC and BC are abnormal, with no A-B gap. This is a typical scene in sensorineural hearing loss A down-sloping graph is very specific in presbycusis

References:

Diseases of Ear, Nose and Throat, PL Dhingra, 8th Edition, Page no: 79

↑ *Back to this question in Part A*

@Neet_pg_bot

Q31: A 50-year-old male presented with vertigo, tinnitus and hearing loss. The audiogram is given below. What is the most likely diagnosis based on the given image?

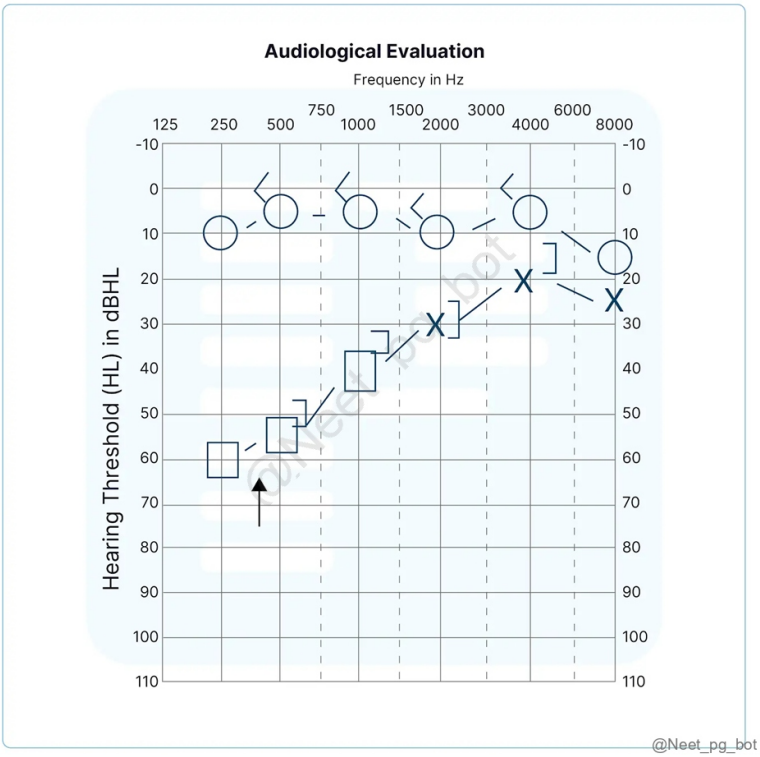
(Q860427)

A. BPPV

B. Meniers disease

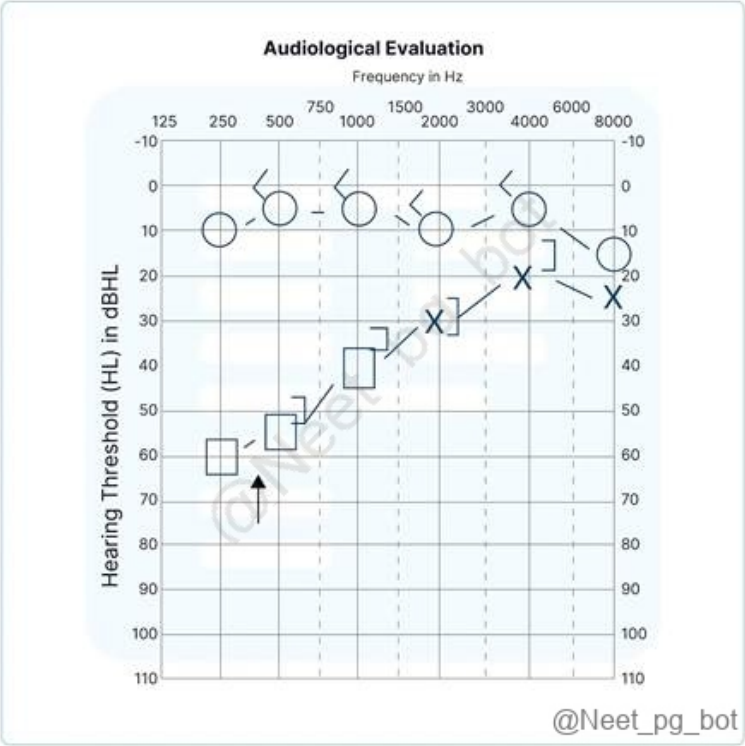
C. Vestibular neuronitis

D. Presbycusis



Correct Answer: B. Meniers disease

Explanation: Symptoms of vertigo, tinnitus and hearing loss along with the given audiogram findings point to Meniere’s disease. In Meniere’s disease , low-frequency hearing is typically affected first. This is due to the involvement of the apical turn of the cochlea , which is responsible for detecting lower frequencies. Early stages of the disease often present with a rising audiogram pattern , with hearing loss predominantly affecting lower frequencies . As the disease progresses, higher frequencies may also become involved, leading to a more complex audiometric profile. Audiometry Findings: Sensorineural hearing loss (No AB Gap) initially affecting lower frequencies and can also involve higher frequencies in later stages. Upsloping Type The curve becomes flat/falling type in later stages once higher frequencies get affected. Incorrect Options: BPPV (Option A): In BPPV, there is no hearing loss and that is helpful in eliminating the question Vestibular neuronitis (Option C): Hearing loss is not a feature of vestibular neuronitis Presbycusis (Option D): Presbycusis is an age related SNHL. AC and BC are abnormal, with no A-B gap. This is a typical scene in sensorineural hearing loss A down-sloping graph is very specific in presbycusis



References:

Diseases of Ear, Nose and Throat, PL Dhingra, 8th Edition, Page no: 87

↑ *Back to this question in Part A*

@Neet_pg_bot

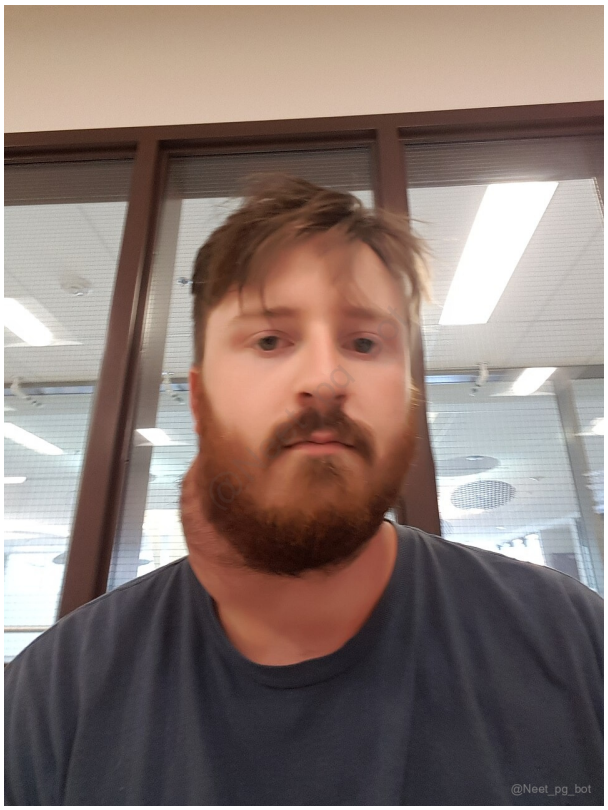
Q32: A patient with a lesion in the neck repeatedly develops infections. The correct statement regarding the embryological origin of the lesion is: (Q860447)

A. Derived from ectoderm of the 1st and 2nd branchial arches

B. Derived from the pouch of the 1st and 2nd branchial arches

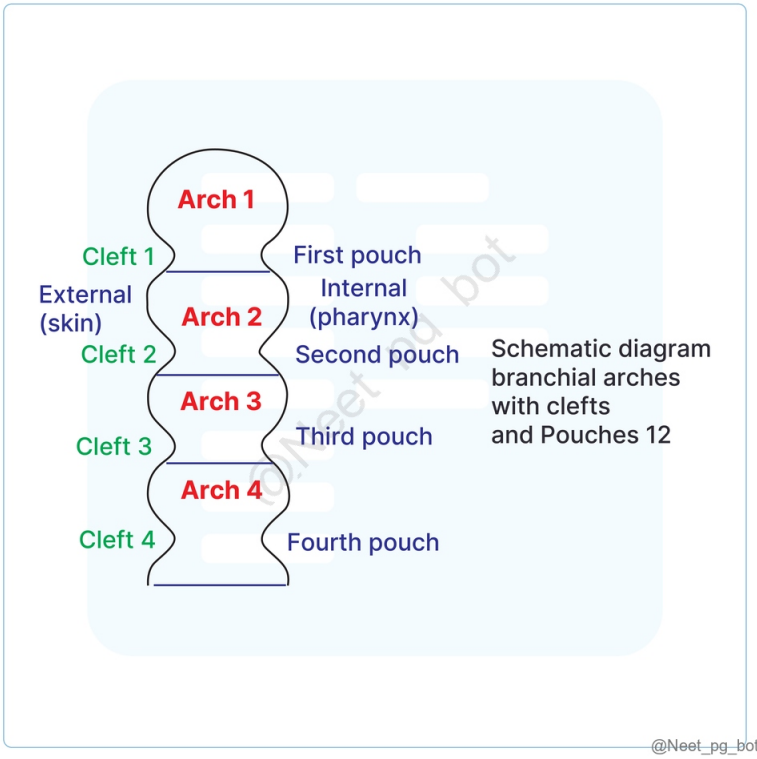
C. Derived from mesoderm of the 1st and 2nd branchial arches

D. Derived from ectoderm of the 3rd and 4th branchial arches



Correct Answer: A. Derived from ectoderm of the 1st and 2nd branchial arches

Explanation: The patient likely has a branchial cleft cyst , a congenital lateral neck lesion prone to recurrent infection. These cysts arise from incomplete obliteration of the branchial clefts , which are ectodermal in origin , most commonly the 2nd cleft along the anterior border of the sternocleidomastoid. They typically present as painless, fluctuant swellings on the lateral neck and represent remnants of ectoderm from the 1st and 2nd branchial arches. Derived from the pouch of the 1st and 2nd branchial arches (Option B): Pouches are endodermal (internal), not the ectodermal origin of branchial cleft cysts. Derived from mesoderm of the 1st and 2nd branchial arches (Option C): Mesoderm forms muscles and bones, not cysts. Derived from ectoderm of the 3rd and 4th branchial arches (Option D): Branchial cleft cysts usually arise from the 1st or 2nd clefts, not the 3rd or 4th.



References:

Diseases of Ear, Nose and Throat, PL Dhingra, 8th Edition, Page no: 34

↑ *Back to this question in Part A*

@Neet_pg_bot

Q33: A diabetic patient with ear pain and an HBA1c of 10 presents with excruciating ear pain and blood-stained ear discharge. What is the most likely diagnosis in this patient? (Q860478)

A. Otitis externa

B. Necrotizing otitis externa

C. Serous otitis media

D. Otomycosis

Correct Answer: B. Necrotizing otitis externa

Explanation: It is a pseudomonas infection It is reddish polypoidal lesion at the junction of cartilage and bone which bleeds on touch, seen especially in diabetics and patients with uncontrolled HBA1c Malignant (Necrotizing) Otitis Externa (MOE) Inflammatory condition caused by Pseudomonas infection. Commonly affects elderly diabetic patients or those on immunosuppressive therapy. Severe ear pain, granulations in the ear canal, and facial paralysis are common symptoms. Infection can spread to the skull base, jugular foramen, and cause multiple cranial nerve palsies. Etiopathogenesis: Early presentation mimics diffuse otitis externa but with intense pain. Granulations in the ear canal indicate disease progression. Infection can extend: Anteriorly to the temporomandibular fossa. Posteriorly to the mastoid. Medially into the middle ear and petrous bone. Investigations: Clinical suspicion based on severe otalgia and granulation tissue in elderly diabetics. Imaging: CT scan/MRI : Shows bone destruction and soft tissue involvement. Gallium-67 scan : Indicates soft tissue infection; useful for diagnosis and follow-up. Technetium-99 bone scan : Detects bone infection but not useful for disease monitoring due to prolonged positivity. Treatment: Control of diabetes : Essential for management. Ear canal toilet : Clean the ear, remove discharge, debris, and granulations. Antibiotics : IV Gentamicin with Ticarcillin (both ototoxic/nephrotoxic). Third-generation cephalosporins (e.g., Ceftriaxone or Ceftazidime), combined with an aminoglycoside. Quinolones (e.g., Ciprofloxacin 750 mg orally) can be combined with Rifampin . Antibiotic therapy typically lasts 6-8 weeks or longer. Culture and sensitivity of ear discharge to adjust antibiotics if non-responsive to treatment. Prolonged antibiotic treatment has largely replaced the need for radical surgery. Incorrect Options: Otitis externa (Option A): It is characterized by pain during jaw movement and can be seen in diabetics but not associated with any blood stained- ear discharge Serous otitis media (Option C): Excrutuiation pain and blood stained ear discharge are not features of serous otitis media Otomycosis (Option D): It is caused by Aspergillus niger/ Candida species in both immunocompetent and immunosuppressant persons and most often in immunocompromised people. It is characterized by white-ish discharge with black spores (Wet newspaper-like appearance) and the main symptom as itching in the external auditory canal.

References:

Diseases of Ear, Nose and Throat, PL Dhingra, 8th Edition, Page no: 279

↑ *Back to this question in Part A*

@Neet_pg_bot

Q34: A middle-aged man came to the OPD with complaints of pain and hearing loss after trauma to the right ear. Examination revealed the presence of blood clots along with irregular perforations in the tympanic membrane. The next step in management is? (Q860484)

A. Aspirate the clot and perform audiometric tests

B. Syringing

C. Maintain dry ear with systemic analgesics

D. Gentamycin and levofloxacin ear drops

Correct Answer: C. Maintain dry ear with systemic analgesics

Explanation: It indicates a probable traumatic perforation of tympanic membrane Maintaining the ear dry without the use of any liquids or procedure will help the clot to fall off in any conditions of hearing loss, clots, or trauma to the tympanic membrane Traumatic perforation of tympanic membrane: Aspect Details Definition Tear or rupture of the tympanic membrane (eardrum) due to trauma Etiology Direct trauma (e.g., cotton bud, foreign body) Barotrauma (e.g., diving, blast injury, airplane pressure changes) Slap/blow to the ear Sudden loud noise (acoustic trauma) Symptoms Sudden ear pain Hearing loss (usually conductive) Tinnitus Bleeding or clear discharge from ear Vertigo (if inner ear involved) Signs Visible perforation on otoscopy Blood/debris in the ear canal Possible absent light reflex Investigations Otoscopy (main diagnostic tool) Tuning fork tests (Rinne/Weber for hearing loss type) Audiometry (after healing or in unclear cases) Treatment Keep ear dry (avoid water entry) Most heal spontaneously within weeks Avoid ear drops unless infection suspected Antibiotics if contaminated or signs of infection Surgical repair (myringoplasty) if not healed in 6–8 weeks Incorrect Options: Aspirate the clot and perform audiometric tests (Option A): One should not aspirate the clot because it might lead to rebleeding Syringing (Option B): Syringing should never be performed in tympanic perforation or laceration Gentamycin and levofloxacin ear drops (Option D): Antibiotic ear drops should no be given because ear dryness has to be maintained for the clot to fall off later

References:

Diseases of Ear, Nose and Throat, PL Dhingra, 8th Edition, Page no: 76

↑ *Back to this question in Part A*

@Neet_pg_bot

Q35: The following image shows which X-ray view? (Q860492)

A. Waters view

B. Caldwell's view

C. Towne view

D. Hirtz view

Correct Answer: C. Towne view

Explanation: Correct Option: C) Towne view Towne view is for mastoid and middle ear views An X-ray view perpendicular to the orbito-meatal line is called submento vertical view or a Towne view. Incorrect Options: Waters view (Option A): This is done in AP view which is also called as occipitomental view It helps in evaluating the maxillary sinuses Caldwell's view (Option B): This is also an AP view and helps in looking at frontal and ethmoidal sinus evaluation Hirtz view (Option D): This is a submentovertical view It helps in evaluating ethmoidal and sphenoid sinusitis

References:

Diseases of Ear, Nose and Throat, PL Dhingra, 8th Edition, Page no: 68

↑ *Back to this question in Part A*

@Neet_pg_bot

Q36: Which of the following interventions should not be done in an 8-year-old boy with bilateral sensorineural hearing loss? (Q839969)

A. Preferential sitting in the classroom

B. Adenoidectomy with grommet insertion

C. Hearing aid

D. Cochlear implant

Correct Answer: B. Adenoidectomy with grommet insertion

Explanation: Correct Option B - Adenoidectomy with grommet insertion: Adenoidectomy with grommet (tympanostomy tube) insertion is typically used for managing conductive hearing loss due to middle ear effusion or recurrent otitis media. It is not indicated for sensorineural hearing loss, which involves the inner ear or auditory nerve. Incorrect Options: Option A - Preferential sitting in the classroom: This intervention is beneficial for children with hearing loss. It helps them hear better by reducing background noise and enabling them to see the teacher's face for lip reading and visual cues. Option C - Hearing aid: Hearing aids are preferred in case of bilateral moderate or moderate to severe SNHL. Option D - Cochlear implant: Cochlear implants a re preferred in bilateral severe to profound SNHL (70-90 dB hearing loss).

References:

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↑ *Back to this question in Part A*

@Neet_pg_bot

Q37: Which of the following signs is not associated with otitis media with effusion? (Q839973)

A. Mostly bilateral

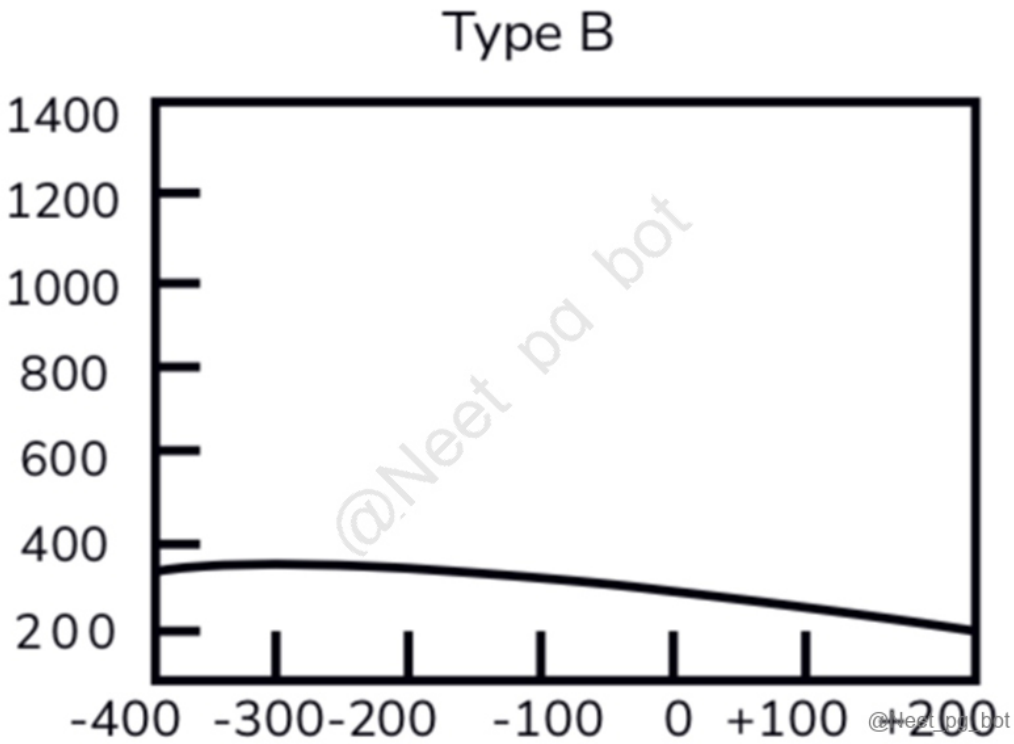
B. AD curve on tympanometry with conductive hearing loss

C. Adenoid hypertrophy is cause of SOM

D. Mostly resolves on its own

Correct Answer: B. AD curve on tympanometry with conductive hearing loss

Explanation: Correct Option B - AD curve on tympanometry with conductive hearing loss: AD curve on tympanometry with conductive hearing loss is the wrong statement. Type B or Flat audiogram is specific in SOM. Incorrect Options: Option A - Mostly bilateral: SOM is usually bilateral and the most common cause in adenoid hypertrophy. Option C - Adenoid hypertrophy is cause of SOM: Adenoid hypertrophy is the most common cause of bilateral SOM. Option D - Mostly resolves on its own: Wait and watch for 3 months is recommended as it is known to resolve spontaneously.



↑ *Back to this question in Part A*

@Neet_pg_bot

Q38: What is the most commonly used test for newborn hearing screening? (Q860065)

A. Otoacoustic Emissions (OAE)

B. Brainstem Evoked Response Audiometry (BERA)

C. Pure Tone Audiometry (PTA)

D. Tympanometry

Correct Answer: A. Otoacoustic Emissions (OAE)

Explanation: OAE is the best and most commonly used test for newborn hearing screening. Brainstem Evoked Response Audiometry (BERA) is used to confirm hearing loss in infants and only in neonates who have failed OAE. Uses of OAE: They are used as a screening test for neonates, uncooperative or mentally challenged individuals. Differentiate between cochlear and retrocochlear hearing loss. Helpful in early detection of noise-induced hearing loss. Incorrect Options: Options B, C & D: Brainstem Evoked Response Audiometry (BERA), Pure Tone Audiometry (PTA), and Tympanometry are not the most commonly used tests for newborn hearing screening.

References:

Diseases of Ear, Nose and Throat, PL Dhingra, 8th Edition, Page no: 3

↑ *Back to this question in Part A*

@Neet_pg_bot

Q39: A patient with a history of trauma presents with hearing loss. A High-Resolution Computed Tomography (HRCT) scan was performed. Which of the following structures is not typically visualized on HRCT? (Q860075)

A. Cochlea

B. Vestibule

C. Semicircular canal

D. Organ of Corti

Correct Answer: D. Organ of Corti

Explanation: HRCT of temporal bone is a specialized imaging technique used to obtain detailed images of the bones and air-filled spaces within the ear . The organ of Corti is a neurosensory epithelium responsible for hearing present on the basilar membrane in scala media and it is difficult to identify it on HRCT. Incorrect Options: Options A, B & C: The cochlea, Vestibule, and Semicircular canals are bony structures and can be visualized on HRCT.

References:

Diseases of Ear, Nose and Throat, PL Dhingra, 8th Edition, Page no: 107

↑ *Back to this question in Part A*

@Neet_pg_bot

Q40: Which of the following are symptoms of Gradenigo syndrome? (Q860098)

A. Ear discharge, retro-orbital pain, and diplopia

B. Nasal discharge, retro-orbital pain, and diplopia

C. Ear discharge, retro-orbital pain, and headache

D. Retro-orbital pain, Diplopia, and hearing loss

Correct Answer: A. Ear discharge, retro-orbital pain, and diplopia

Explanation: Gradenigo Syndrome: Classic triad: External rectus palsy (VIth nerve palsy). Deep-seated ear or retro-orbital pain (Vth nerve involvement). Persistent ear discharge. Gradenigo syndrome is a rare but serious complication of middle ear infections (specifically otitis media). It happens when the infection spreads to the petrous part of the temporal bone . Incorrect Options: Options B, C & D: These are not the correct triad of Gradenigo syndrome.

References:

Diseases of Ear, Nose and Throat, PL Dhingra, 8th Edition, Page no: 67

↑ *Back to this question in Part A*

@Neet_pg_bot

Q41: Which of the following structures in the inner ear is responsible for balance? (Q860115)

A. Semicircular canal

B. Cochlea

C. Ampulla

D. Organ of Corti

Correct Answer: A. Semicircular canal

Explanation: Semicircular canals detect rotational/angular movements of the head. They are part of the vestibular apparatus, which maintains balance and spatial orientation. Contain endolymph and ampullary hair cells that sense motion. Work in coordination with other vestibular structures for dynamic equilibrium. Damage can lead to vertigo, dizziness, or imbalance. Semicircular canals do not detect sound, so they are not involved in hearing. They are essential for coordination of head and eye movements during motion. Incorrect Options: Option B) Cochlea: Responsible for hearing; converts sound waves into nerve impulses; not balance. Option C) Ampulla: Part of semicircular canals that contains hair cells; it’s a component, not a separate structure responsible for balance. Option D) Organ of Corti: Located in cochlea; responsible for hearing, not balance.

References:

Diseases of Ear, Nose and Throat, PL Dhingra, 8th Edition, Page no: 345

↑ *Back to this question in Part A*

@Neet_pg_bot

Q42: A 45-year-old woman presents with progressive hearing loss that has been worsening over the past few years. Audiometry confirms conductive hearing loss, and a diagnosis of otosclerosis is made. What is the surgical treatment of choice for her condition? (Q860129)

A. Stapedectomy with the placement of a prosthesis

B. Stapedotomy

C. Stapes mobilization

D. Lemperts Fenestration operation

Correct Answer: B. Stapedotomy

Explanation: Stapedotomy is now the preferred surgical treatment for otosclerosis , replacing the older stapedectomy procedure. In stapedotomy, a small hole is made in the stapes footplate, and a prosthesis is inserted to bypass the fixed stapes, improving sound conduction Stapedotomy vs. Stapedectomy Procedure Description Complications Stapedotomy Small opening made in the stapes footplate; a prosthesis is inserted. Lower complication rates; preferred by many otologists. Stapedectomy Complete removal of the stapes bone; replaced with a prosthetic device. Higher risk of complications. Incorrect Options: Options A, C & D: Stapedectomy, Stapes mobilization, and Lemperts Fenestration operation are the surgical management of Otosclerosis, but the treatment of choice is Stapedotomy .

References:

Diseases of Ear, Nose and Throat, PL Dhingra, 8th Edition, Page no: 73

↑ *Back to this question in Part A*

@Neet_pg_bot

Q43: Which of the following structures contain Ostmann fat pad? (Q860131)

A. Ear lobule

B. Tip of nose

C. Eustachian tube

D. Buccal mucosa

Correct Answer: C. Eustachian tube

Explanation: The nasopharyngeal end of the eustachian tube contains the Ostmann pad of fat. Purpose: closure of the Eustachian tube and protection from nasopharyngeal secretions Incorrect Options: Options A, B, and D do not contain the Ostmann pad of fat.

References:

Diseases of Ear, Nose and Throat, PL Dhingra, 8th Edition, Page no: 104

↑ *Back to this question in Part A*

@Neet_pg_bot

Q44: A pregnant woman with deafness presents for evaluation and is diagnosed with 50dB hearing loss. Which of the following structures is most likely responsible for this hearing loss? (Q860149)

A. Ossicular fixation with an intact tympanic membrane

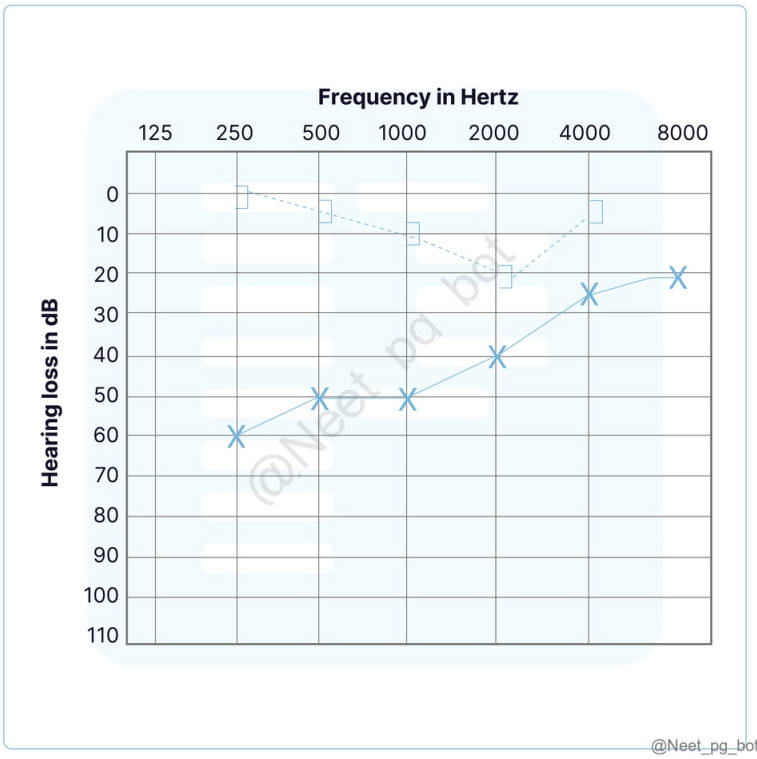
B. Ossicular fixation with a damaged tympanic membrane

C. Erosion with tympanic membrane injury

D. Erosion without tympanic membrane injury

Correct Answer: A. Ossicular fixation with an intact tympanic membrane

Explanation: The patient’s symptoms are suggestive of otosclerosis. It occurs as ossicular fixation with an intact tympanic membrane. Pure-tone Audiometry in otosclerosis Diagnoses and characterizes hearing loss. Initial low-frequency conductive loss progresses to flat maximal loss as stapes become fixed. Carhart effect may reduce bone conduction thresholds, noticeable at 2 kHz. Incorrect Options: Ossicular fixation with damaged TM (Option B) → Suggests trauma or chronic otitis media, not pregnancy-related Erosion with TM injury (Option C) → Seen in unsafe CSOM (cholesteatoma) Erosion without TM injury (Option D) → Uncommon; erosion usually accompanies chronic disease with TM changes



References:

Diseases of Ear, Nose and Throat, PL Dhingra, 8th Edition, Page no: 35

↑ *Back to this question in Part A*

@Neet_pg_bot

Q45: Identify the accurate sequence of the auditory pathway. (Q857378)

A. Eight nerve → cochlear nuclei → superior olivary nucleus → lateral lemniscus → inferior colliculus → medial geniculate body → auditory cortex

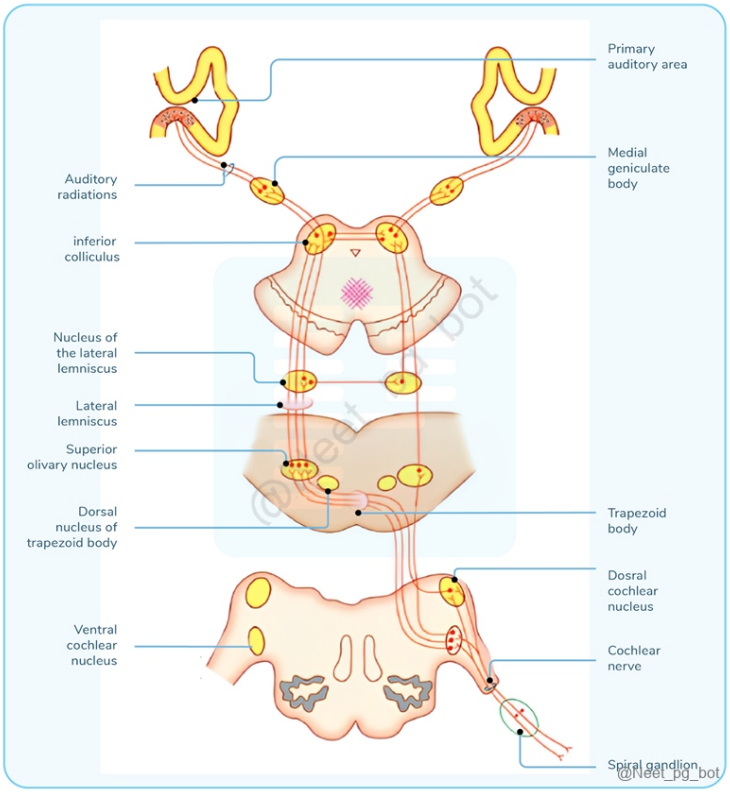
B. Eight nerve →Cochlear nuclei → lateral lemniscus → superior olivary nucleus → inferior colliculus → medial geniculate body → auditory cortex

C. Eight nerve →Superior olivary nucleus → lateral lemniscus → inferior colliculus → medial geniculate body → auditory cortex → Cochlear nuclei

D. Eight nerve →Superior olivary nucleus → inferior colliculus → medial geniculate body → auditory cortex → Cochlear nuclei → lateral lemniscus

Correct Answer: A. Eight nerve → cochlear nuclei → superior olivary nucleus → lateral lemniscus → inferior colliculus → medial geniculate body → auditory cortex

Explanation: The correct auditory pathway sequence is: Eight nerve → cochlear nuclei → superior olivary nucleus → lateral lemniscus → inferior colliculus → medial geniculate body → auditory cortex



References:

Diseases of the Ear, Nose, and Throat, PL Dhingra, 8th Edition, Page no: 132

↑ *Back to this question in Part A*

@Neet_pg_bot

Q46: A 64-year-old female patient is brought to the ENT OPD with difficulties in comprehension. On examination, her fluency is found to be intact with poor comprehension and repetition. Her Pure tone audiometry and ABR is normal. What is the likely diagnosis in this patient? (Q857380)

A. Malingering

B. Auditory cortex lesion

C. Broca's aphasia

D. Wernicke’s aphasia

Correct Answer: D. Wernicke’s aphasia

Explanation: The likely diagnosis in this patient is Wernicke’s aphasia. Wernicke's aphasia is a condition where language comprehension is impaired, but speech may still have a normal rate, rhythm, and grammar. The most common cause of this type of aphasia is an ischemic stroke that affects the posterior temporal lobe of the dominant hemisphere. Pure tone audiometry and auditory brainstem response (ABR) tests are normal in this patient, indicating that there is no hearing loss or problem with the transmission of sound signals from the ear to the brain. Incorrect Options: Malingering (Option A): Malingering refers to the deliberate feigning or exaggeration of symptoms for secondary gain, which is unlikely to be in this case. Auditory cortex lesion (Option B): Auditory cortex lesions could potentially cause speech difficulties, but they would likely present with additional auditory deficits,and therefore show abnormal ABR. . Broca's aphasia (Option C): Broca's aphasia is a type of non-fluent aphasia that causes a significant reduction in the ability to produce speech spontaneously. This type of aphasia also results in a loss of normal grammatical structure, specifically in the use of small linking words like conjunctions (such as "and," "or," and "but") and prepositions.

References:

Diseases of the Ear, Nose, and Throat, PL Dhingra, 8th Edition, Page no: 90

↑ *Back to this question in Part A*

@Neet_pg_bot

Q47: In a 2-year-old child with a sudden onset of noisy breathing, which type of stridor is most likely to be represented by the image below? (Q820338)

A. Inspiratory

B. Expiratory

C. Biphasic

D. None of these

Correct Answer: A. Inspiratory

Explanation: In the context of a 2-year-old child with sudden onset noisy breathing and an omega-shaped epiglottis (which is a common presentation of laryngomalacia), inspiratory stridor is the most likely option. Laryngomalacia is a congenital condition characterized by the softening of the tissues of the larynx above the vocal cords. It is the most common cause of stridor in infants. The epiglottis in laryngomalacia often has an elongated, curled appearance, resembling the Greek letter omega (Ω), which can be observed during laryngoscopy. This condition typically presents with inspiratory stridor that worsens with feeding, crying, or lying supine, and usually improves by the age of 18 to 24 months as the cartilage stiffens and the airway grows. (Option B) Expiratory: Expiratory stridor occurs when there is narrowing or obstruction of the airway during exhalation. This is less likely to be the case in a child with an omega-shaped epiglottis, as the obstruction is primarily during inspiration due to the swollen epiglottis. (Option C) Biphasic: Biphasic stridor involves noisy breathing during both inspiration and expiration. This is less likely in the given scenario, as the omega-shaped epiglottis suggests a specific structural issue related to inspiration, rather than both phases of breathing. (Option D) None of these: Given the information provided about the sudden onset of noisy breathing and the specific appearance of the epiglottis, inspiratory stridor is the most suitable choice among the options.

References:

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↑ *Back to this question in Part A*

@Neet_pg_bot

Q48: A 30-year-old patient with chronic sinusitis and nasal congestion, which anatomical structure is the most likely drainage pathway for the bulla ethmoidalis? (Q820342)

A. Middle meatus

B. Superior meatus

C. Inferior meatus

D. Middle concha

Correct Answer: A. Middle meatus

Explanation: Correct Option A - Middle meatus: The middle meatus is the most likely drainage pathway for the bulla ethmoidalis. The bulla ethmoidalis is a rounded bony prominence in the ethmoidal labyrinth (a part of the ethmoid bone) located in the lateral wall of the nasal cavity. It is associated with the middle nasal concha. The middle meatus is a space located between the middle and inferior nasal conchae (turbinates), which are bony structures in the nasal cavity that help to create turbulence in the inspired air. The bulla ethmoidalis drains into the middle meatus through the ethmoid infundibulum, which is a narrow passage connecting the bulla to the middle meatus. This drainage pathway is important for proper ventilation and drainage of the frontal and anterior ethmoid sinuses. Incorrect Options: Option B - Superior meatus: The superior meatus is not the correct drainage pathway for the bulla ethmoidalis. The superior meatus is located above the middle nasal concha and is primarily associated with the posterior ethmoid air cells. Option C - Inferior meatus: The inferior meatus is not the correct drainage pathway for the bulla ethmoidalis. The inferior meatus is located below the middle nasal concha and is primarily associated with the nasolacrimal duct and the opening of the maxillary sinus. Option D - Middle concha: The term "middle concha" is not commonly used. Instead, there are the "superior nasal concha" and the "middle nasal concha." The middle nasal concha is located between the superior and inferior nasal conchae and contributes to the formation of the middle meatus. However, the drainage pathway for the bulla ethmoidalis is not directly associated with the middle concha but rather with the middle meatus.

References:

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↑ *Back to this question in Part A*

@Neet_pg_bot

Q49: A 45-year-old patient presents with autophony and a sensation of ear fullness. Otoscopic examination shows a normal tympanic membrane that moves synchronously with respiration. The patient also reports recent unexplained weight loss and mild bilateral limb weakness. What is the most likely cause of these symptoms? (Q820393)

A. Meningioma

B. Multiple sclerosis

C. Weight loss

D. Wegener’s granulomatosis

Correct Answer: C. Weight loss

Explanation: Weight Loss Explaantion: The key clinical feature in this question is autophony with tympanic membrane movement during respiration , which is pathognomonic of a patulous Eustachian tube . Significant weight loss leads to loss of peritubal fat (Ostmann’s fat pad) surrounding the Eustachian tube. This causes the Eustachian tube to remain abnormally open (patulous) . A patulous Eustachian tube results in: Autophony (patient hears own voice and breathing loudly) Visible movement of the tympanic membrane with respiration Associated systemic features like generalized weakness can be secondary to weight loss. Meningioma (Option A) : Causes symptoms due to mass effect (headache, seizures, focal deficits); does not cause autophony or tympanic membrane movement with respiration. Multiple sclerosis (Option B) : Causes central demyelination leading to limb weakness and sensory symptoms; does not affect Eustachian tube function . Wegener’s granulomatosis (GPA) (Option D): Typically causes Eustachian tube obstruction , otitis media, and conductive hearing loss; does not cause patulous Eustachian tube or autophony .

References:

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↑ *Back to this question in Part A*

@Neet_pg_bot

Q50: A patient presents to the OPD with the complaints of vertigo which is sudden in onset, sensorineural hearing loss (SNHL), and tinnitus which lasts minutes to hours with accompanied nausea, vomiting and vagal symptoms. Investigations show there is endolymphatic hypertension present. What is the diagnosis of the patient? (Q854632)

A. Meniere's Disease

B. Presbycusis

C. Benign Paroxysmal Positional Vertigo (BPPV)

D. Acoustic neuroma

Correct Answer: A. Meniere's Disease

Explanation: The correct answer is Meniere’s Disease because the patient presents with the classic triad: episodic vertigo , sensorineural hearing loss (SNHL) and tinnitus (ringing or roaring sound in the ear) Meniere’s disease/Endolymphatic hydrops : An inner ear disorder is characterised by the excessive buildup of endolymph fluid. Age/Sex: Typically affects individuals aged 35-60, with a higher prevalence in males. Cardinal Symptoms : Vertigo Episodic with sudden onset Attacks occur in clusters, interspersed with periods of remission accompanied by nausea, vomiting, ataxia & nystagmus. Loud noises might trigger vertigo due to the Tullio phenomenon. Hearing Loss Fluctuating hearing loss may improve between attacks but may progressively worsen over time, with some degree of permanent hearing loss. Sensorineural hearing loss initially affecting lower frequencies . Patients might experience distorted hearing or Diplacusis Tinnitus Low-pitched & Roaring type It can be aggravated during acute attacks and might persist during periods of remission Aural Fullness Fluctuates & may vary in intensity Emotional Impact The recurrent nature of symptoms can lead to emotional stress and apprehension about future attacks, contributing to overall distress. Incorrect Options: Presbycusis (Option B): Age-related bilateral SNHL, mainly affecting high frequencies, with no vertigo or episodic nature. Benign Paroxysmal Positional Vertigo (Option C): Characterized by brief vertigo episodes triggered by head movements, without hearing loss or tinnitus. Acoustic Neuroma (Option D): Acoustic neuromas are noncancerous, usually slow-growing tumors that form along the branches of the eighth cranial nerve (also called the vestibulocochlear nerve)

References:

Diseases of the Ear, Nose, and Throat, PL Dhingra, 8th Edition, Page no: 119

↑ *Back to this question in Part A*

@Neet_pg_bot

Q51: A patient presents to the OPD with complaints of bilateral hearing loss with worsened right ear hearing loss. He is diagnosed with otosclerosis and recommended stapedectomy as a final resort to the problem. What would be the findings of tuning fork tests on this patient? (Q854633)

A. Rinne’s Test - positive; Weber’s Test - lateralized to left ear

B. Rinne’s Test - positive; Weber’s Test - lateralized to right ear

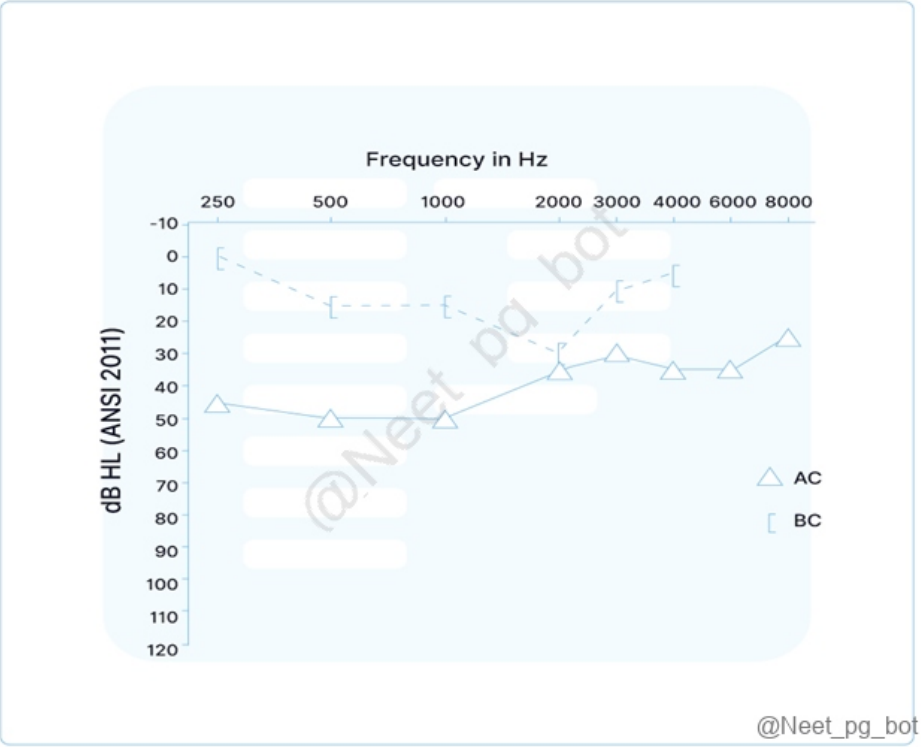
C. Rinne’s Test - negative; Weber’s Test - lateralized to left ear

D. Rinne’s Test - negative; Weber’s Test - lateralized to right ear

Correct Answer: D. Rinne’s Test - negative; Weber’s Test - lateralized to right ear

Explanation: The patient is experiencing bilateral hearing loss, worse in the right ear due to bilateral otosclerosis. In patients with otosclerosis, there is a conductive type of hearing loss hence Rinne will be negative. Weber will be lateralized to the diseased side, meaning towards the right ear. Tests for Diagnosing Stapedial Otosclerosis Otoscopy Examines external and middle ear. Identifies abnormalities; typically, the tympanic membrane appears normal in otosclerosis. Fistula Test Evaluates inner ear response to pressure changes. Helps diagnose conditions like superior semicircular canal dehiscence, especially with vertigo. Tuning Fork Tests Weber and Rinne's tests

differentiate conductive from sensorineural hearing loss. Less sensitive than audiometry but useful when other findings are inconclusive. Audiometry Pure-tone Audiometry Diagnoses and characterizes hearing loss. Initial low-frequency conductive loss progresses to flat maximal loss as stapes become fixed. Carhart effect may reduce bone conduction thresholds, noticeable at 2 kHz. Speech Audiometry Assesses speech understanding High speech recognition with appropriate hearing aids. Stapedial Reflex Testing Assesses stapedius muscle response to sound. Reflex is often absent or abnormal in otosclerosis. Tympanometry Measures tympanic membrane and middle ear system mobility. Mobility is usually normal, but compliance may be low. Helps exclude other middle ear conditions. Imaging High-Resolution CT Scan Sensitive and specific for active otosclerosis. Reveals hypodense lesions in active disease. Less effective for inactive disease due to dense otic capsule. {{caption_text}} Incorrect Options: Rinne’s Test - positive; Weber’s Test - lateralized to left ear (Option A): In otosclerosis there is a conductive type of hearing loss hence Rinne will be negative. Rinne’s Test - positive; Weber’s Test - lateralized to right ear (Option B): In otosclerosis there is a conductive type of hearing loss hence Rinne will be negative. Rinne’s Test - negative; Weber’s Test - lateralized to left ear (Option C): Weber will be lateralized to the diseased side meaning towards the right ear.



References:

Diseases of the Ear, Nose, and Throat, PL Dhingra, 8th Edition, Page no: 25

↑ *Back to this question in Part A*

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Q52: A patient presents to the OPD with the complaint of hearing loss and can understand only shouting or amplified speech. What will be the degree of impairment according to the WHO classification of ability to understand speech? (Q854636)

A. Mild hearing loss

B. Moderate hearing loss

C. Severe hearing loss

D. Profound hearing loss

Correct Answer: C. Severe hearing loss

Explanation: Correct Option: C) Severe hearing loss As the patient understands only shouted or amplified speech, the degree of impairment according to the WHO classification of ability to understand speech would be severe. Normal conversation is up to 60dB Shouting would indicate that the patient can hear only >70dB, this falls under severe impairment. Clark's classification Degree of hearing loss Hearing threshold in better ear (average of 500, 1000 and 2000 Hz) Not significant 0-25 dB Mild 26-30 dB Moderate 41-55 dB Moderately severe 56-70 dB Severe 71-91 dB Profound Above 91 dB Incorrect Options: Mild hearing loss (Option A): This option is incorrect as mild hearing loss is at 26 to 40dB only. Moderate hearing loss (Option B): This option is incorrect as Moderate hearing loss is at 41 to 60 dB. Profound hearing loss (Option D): This option is incorrect as Profound hearing loss is above 90 dB.

References:

Diseases of the Ear, Nose, and Throat, PL Dhingra, 8th Edition, Page no: 25

↑ *Back to this question in Part A*

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Q53: Mark the correct statement/ statements regarding Inner and Outer hair cells? I. Inner hair cells are in a single row and transmit auditory impulses. II. Outer hair cells are in 3-4 rows and modulate function of inner hair cells. III. Outer hair cells are more responsible for movement of Tectorial membrane. IV. · Outer and inner hair cells present in the ratio of 3:1. (Q854639)

A. I, II and IV are correct

B. I, II and III are correct

C. All are correct

D. II, IV are correct

Correct Answer: A. I, II and IV are correct

Explanation: Correct Option: A) I, II and IV Inner hair cells are in a single row and transmit auditory impulses - is correct as type 1 hair cells(inner hair cells) are single and are afferent and transmit excitatory impulses. Outer hair cells are in 3-4 rows and modulate the function of inner hair cells. It is a correct statement as Type 2 also known as outer hair cells are multiple and efferent. Outer hair cells are more responsible for the movement of the Tectorial membrane.- It is incorrect as there is no such rule about the movement of tectorial plates. Outer and inner hair cells present in the ratio of 3:1. - It is correct as outer hair cells are around 12000 and inner hair cells are about 3500. Incorrect Options: I, II, and III (Option B): This is incorrect as the 3rd statement is false. All are correct (Option B): It is incorrect as the 3rd statement is false. II, IV (Option D): It is incorrect as the 1st statement is also correct.

References:

Diseases of the Ear, Nose, and Throat, PL Dhingra, 8th Edition, Page no: 3

↑ *Back to this question in Part A*

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Q54: During the examination of a female patient with hearing loss, it was observed that she had a negative Rinne test result at frequencies of 256 Hz and 512 Hz, but a positive Rinne test result at 1024 Hz. What would be the anticipated gap between air conduction and bone conduction in this case? (Q855213)

A. 30-45 dB

B. 15-30 dB

C. 45-60 dB

D. >60 dB

Correct Answer: A. 30-45 dB

Explanation: The anticipated gap between air conduction and bone conduction in this case is typically 30-45 dB . This means the air conduction threshold is worse than the bone conduction threshold by 30-45 decibels. A negative Rinne at lower frequencies (256 Hz and 512 Hz) indicates conductive hearing loss , where bone conduction is better than air conduction . The Rinne test generally detects conductive hearing loss with an air-bone gap ≥ 30 dB . At higher frequencies (e.g., 1024 Hz), air conduction improves due to less conductive impairment or testing limitations, giving a positive Rinne . In cases where Rinne is negative at low frequencies but positive at higher frequencies, the typical air-bone gap falls within 30–45 dB , which is the range detectable by Rinne's test.

References:

Diseases of the Ear, Nose, Throat, 8th Edition, Page no: 76

↑ *Back to this question in Part A*

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Q55: A 35-year-old woman came with complaints of hearing loss and pulsatile tinnitus. On examination, it is found that the patient has conductive hearing loss and the Rinne test results are negative. Additionally, a reddish mass is observed located behind the tympanic membrane. What is the likely diagnosis? (Q858042)

A. Acute otitis media

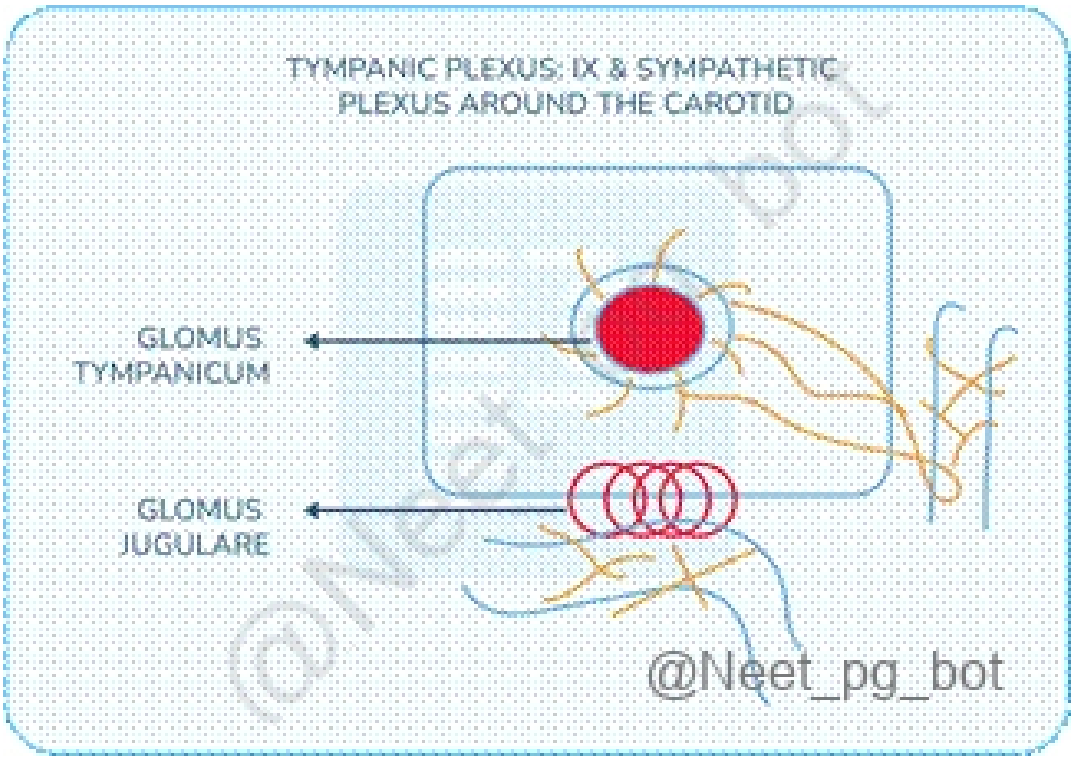
B. Chronic otitis media

C. Glomus tumour

D. Serous otitis media

Correct Answer: C. Glomus tumour

Explanation: The symptoms of hearing loss and pulsatile tinnitus with a reddish mass behind the tympanic membrane are consistent with glomus tumor. The negative Rinne test indicates conductive hearing loss is also common in patients with glomus tumours. Glomus tumor (Paraganglioma) Definition Tumors originating from the paraganglia are known as paragangliomas, with glomus tumors being a specific type of paraganglioma. Tumour type Benign (most common benign tumor of middle ear) Origin Paraganglionic cells or glomus bodies . Prevalence Commonly seen in middle-aged individuals (40-50 years), with a higher prevalence in females Types Glomus tympanicum: Arise from the promontory of the middle ear (tympanic plexus). Glomus jugulare: Arises from the dome of the jugular bulb (sympathetic plexus covering the jugular vein). Spread Inferiorly: To the jugular foramen Anteriorly: Invading into the nasopharynx (blockage of eustachian tube) Posteriorly: Invading the mastoid Superiorly: To the posterior and middle cranial fossa (IX-XII cranial nerve palsy) Laterally: To the tympanic membrane (present as a bleeding polyp of the external auditory canal). Medially: Invading the labyrinth and petrous pyramid (dizziness and facial palsy). Clinical manifestations Hearing loss (gradually progressive conductive hearing loss) Pulsatile tinnitus (heartbeat like sounds): It is synchronous with pulse and can be temporarily stopped by carotid pressure. Bleeding from ear (profuse bleeding in case of polyp) Dizziness or vertigo and facial paralysis may appear. Symptoms like headache, sweating, palpitation, hypertension, anxiety due to sympathetic excess (catecholamine release) Histopathology No capsule (locally invasive) HPE reveals Zell Ballen pattern, where epithelioid chief cells and sustentacular supporting cells form clusters (Zell Ballen) encircled by extensive vascular sinusoids. Preoperative biopsy of the tumour is not performed due to the risk of profuse bleeding from its highly vascular thin-walled blood sinusoids and potential injury to the high jugular bulb or aberrant internal carotid artery. {{caption_text}} Otoscopy Red reflex through intact tympanic membrane and bulging tympanic membrane (glomus tympanicum). “Rising sun" appearance due to the tumor originating from the floor of middle ear (glomus jugulare). {{caption_text}} Diagnosis CECT (IOC) shows erosion of the carotico-jugular spine on the diseased side, known as Phelp’s sign. {{caption_text}} MRI scan revealed microhemorrhages within the tumor which appear as white and gray dots on MRI, creating a "salt and pepper " appearance. {{caption_text}} Angiography is used to identify the arteries supplying the tumor. Acute otitis media (Option A): is less likely as it typically presents with ear pain, fever, and fluid or pus in the middle ear. Chronic otitis media (Option B): may present with conductive hearing loss but is less likely to have a reddish mass behind the tympanic membrane. Serous otitis media (Option D): may cause conductive hearing loss, but it is typically not associated with pulsatile tinnitus and a reddish mass behind the tympanic membrane.


TYMPANIC PLEXUS: IX & SYMPATHETIC
PLEXUS AROUND THE CAROTID
GLOMUS
TYMPANICUM
GLOMUS
JUGULARE
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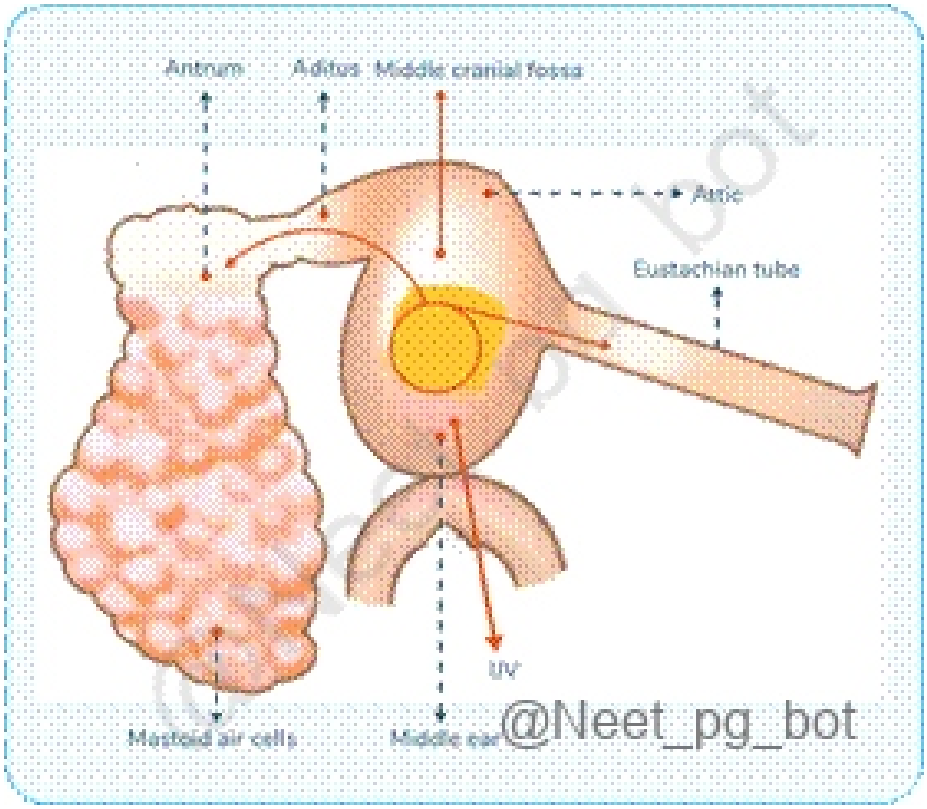
Antrum
Aditus
Middle cranial fossa
Auric
Eustachian tube
UV
Mastoid air cells
Middle ear
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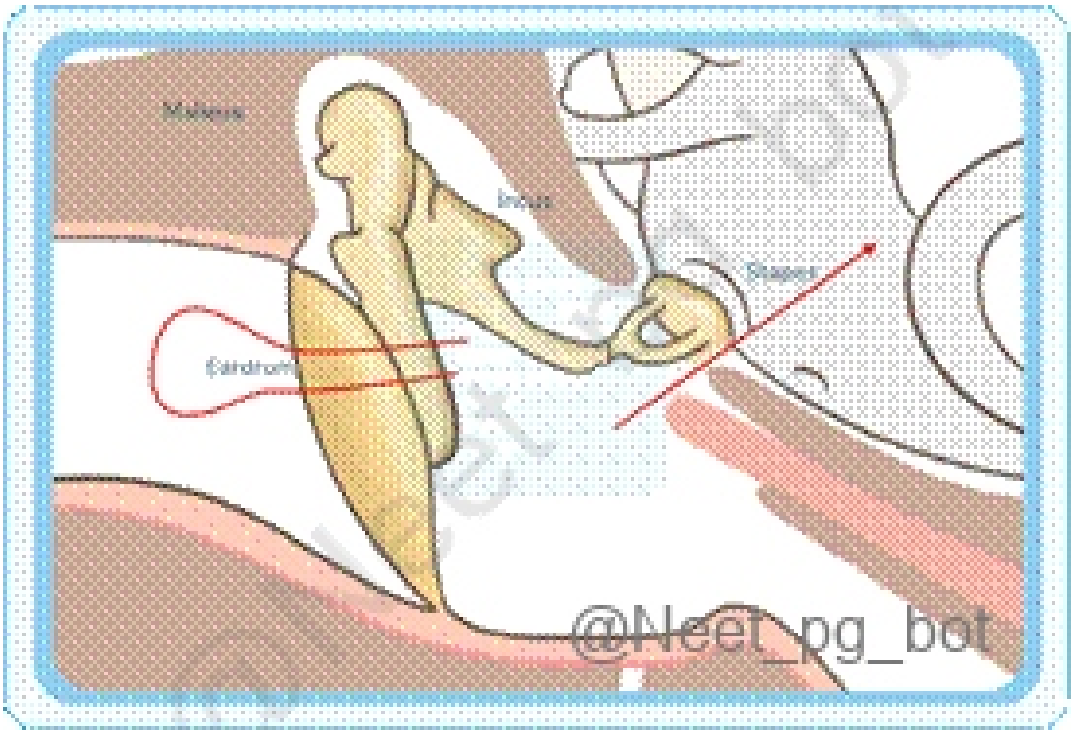
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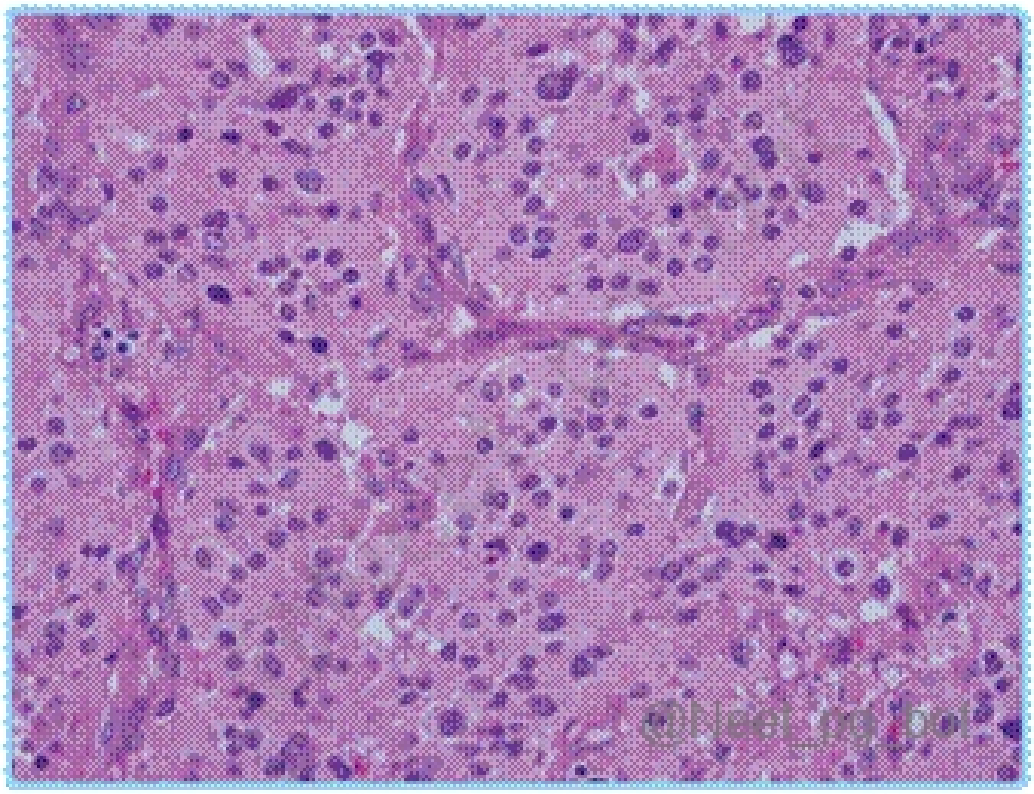
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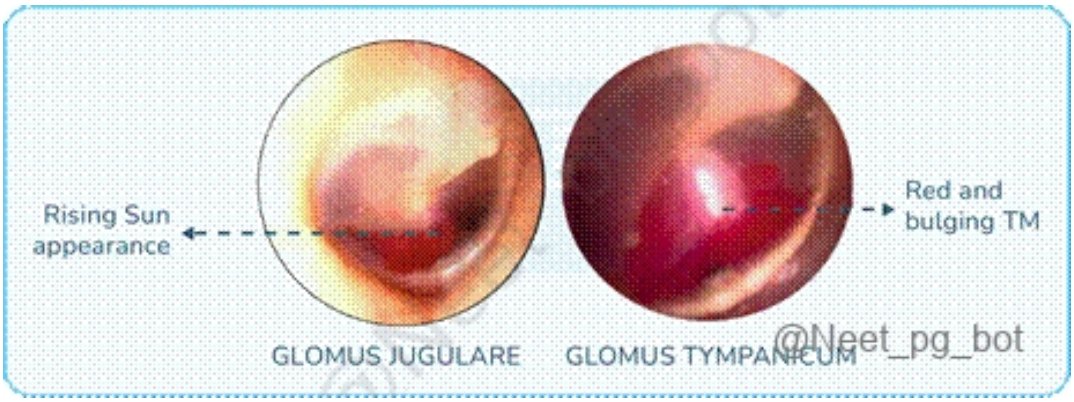
Rising Sun appearance
Red and bulging TM
GLOMUS JUGULARE
GLOMUS TYMPANICUM
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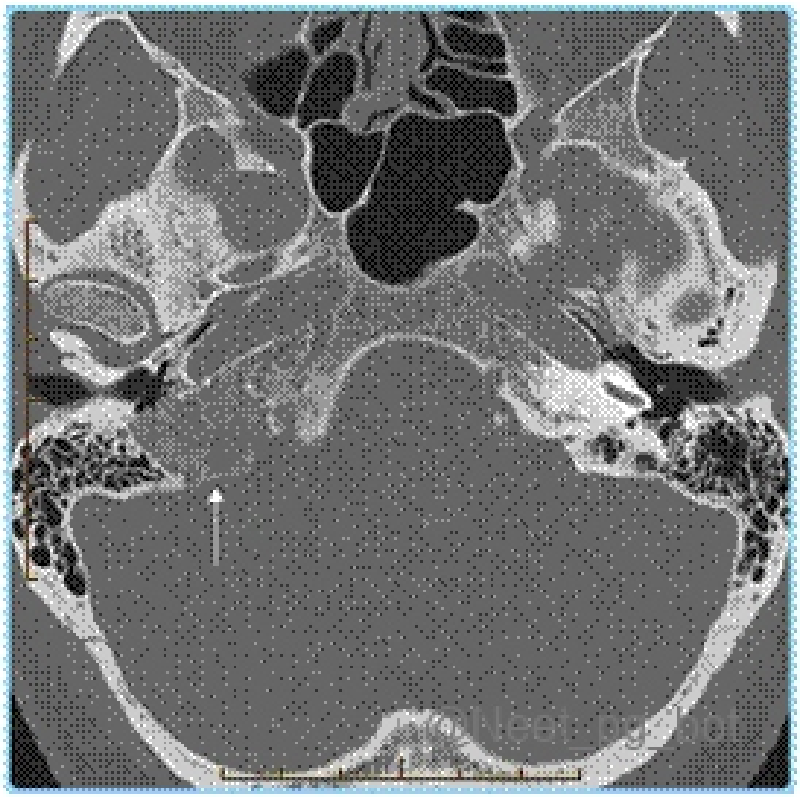

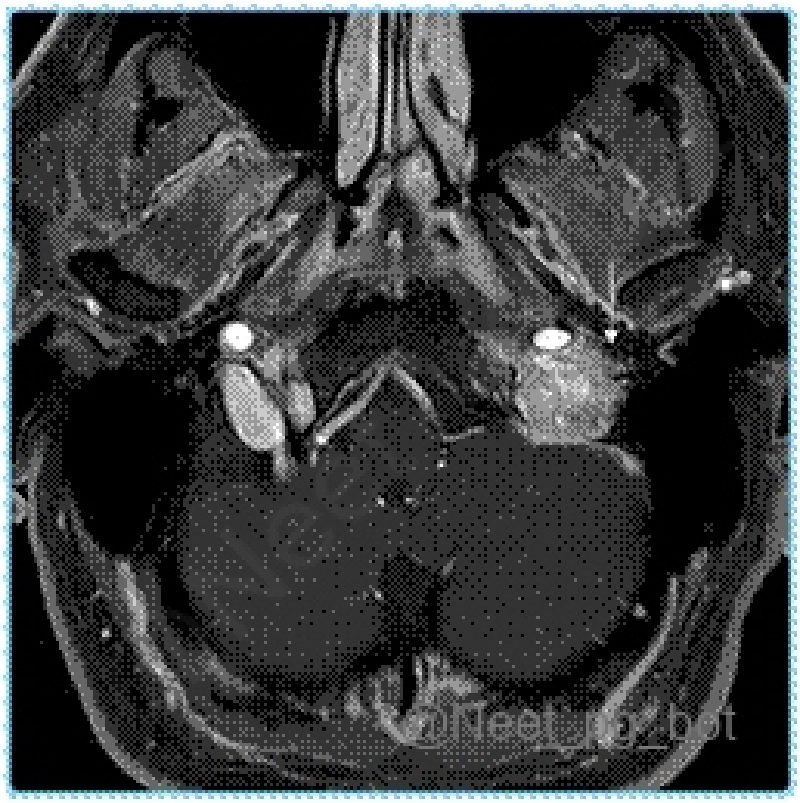

References:

Diseases of Ear, Nose, Throat - PL Dhingra, 8th edition, Pg 128, 129, 130

↑ *Back to this question in Part A*

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Q56: Which of the following is associated with CSF otorrhea? (Q858076)

A. Battle sign

B. Traumatic rupture of the tympanic membrane

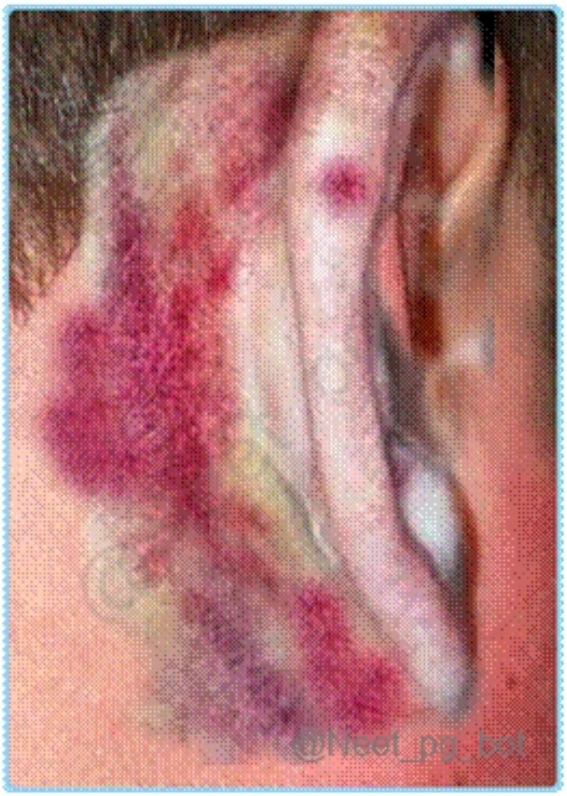
C. Penetrating injury to the eye

D. Fracture of the roof of the nose

Correct Answer: A. Battle sign

Explanation: CSF otorrhea is a condition where cerebrospinal fluid (CSF) leaks out of the skull through the ear. Battle sign is a physical finding that occurs with CSF leakage into the mastoid air cells from a fracture of the temporal bone. Battle sign is bruising over the mastoid process, which is generally brought on by head trauma. {{caption_text}} CSF Rhinorrhea Leakage of cerebrospinal fluid (CSF) into the nose. Can present as clear fluid or

mixed with blood , especially in acute head injuries. Common Sites of CSF Rhinorrhea Anterior cranial fossa Middle cranial fossa Temporal bone fracture Cribriform plate(most common) Roof of ethmoid air cells Frontal sinus Sphenoid sinus(following trauma) CSF reaches the middle ear, escaping through the eustachian tube into the nose(CSF otorhinorrhea) Aetiology Trauma(Most common): Accidental or surgical (e.g., sinus surgery, nasal polypectomy, skull base surgery). Inflammations: Mucocoeles, fungal infections, osteomyelitis, sinus polyposis. Neoplasms: Benign and malignant tumours invading the skull base. Congenital: Meningocele, meningoencephaloceles, gliomas with skull base defects. Idiopathic: Spontaneous leaks with no known cause. Investigations for CSF Rhinorrhea Handkerchief test (Halo sign): Simple bedside test; CSF forms clear halo around blood spot. Beta-2 transferrin: Gold standard biochemical test; highly specific for CSF. High-Resolution CT (HRCT): Identifies bony defects in skull base. CT Cisternography: Contrast-enhanced; precise localization of active CSF leaks. MRI Cisternography: Non-invasive; useful for identifying meningoceles/encephaloceles. Fluorescein Test: Intrathecal dye injection; helps in intraoperative leak localization. Traumatic rupture of the tympanic membrane, Penetrating injury to the eye, and Fracture of the roof of the nose (Options B, C, and D): are not typically associated with CSF otorrhea.



References:

Dhingra ENT 8th edition. Pg. 191,192

Logan Turner’s Diseases of Nose, Throat and Ear, 11th Edition, Pg.88

Cribriform plate

↑ *Back to this question in Part A*

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Q57: A 5-year-old child was brought to the clinic by her mother with reduced hearing for the past 2-3 months. The otoscopy finding is given below. What is the most likely diagnosis? (Q858084)

A. Hemorrhagic Myringitis bullosa

B. Serous otitis media

C. Acute otitis media

D. Myringitis granulosa

Correct Answer: A. Hemorrhagic Myringitis bullosa

Explanation: Hemorrhagic bullae (fluid-filled blisters with blood) on the tympanic membrane (as seen in the otoscopy image) are characteristic of Myringitis bullosa . The cause is a viral or bacterial infection. Symptoms commonly include sudden otalgia (ear pain), reduced hearing , and sometimes bloody otorrhea if the blisters rupture. {{caption_text}} Otitis Externa Haemorrhagica/Bullous Myringitis/Myringitis Bullosa Cause: Most common: Streptococcus pneumoniae Others: Influenza virus, Mycoplasma pneumoniae Clinical Features: Severe otalgia (ear pain) Ear discharge Hemorrhagic bullae on the tympanic membrane (TM) and deep external auditory meatus Management: Systemic antibiotics Antibiotic ear drops Serous otitis media (Option B): is a condition where fluid accumulates in the middle ear without signs of acute infection. It can cause mild to moderate hearing loss and a feeling of fullness in the ear. Acute otitis media (Option C): is an infection of the middle ear that causes

ear pain, fever, and sometimes discharge from the ear. Myringitis granulosa (Option D): is a condition where there are multiple small nodules or granulations on the tympanic membrane, causing hearing loss and pain. It is a rare condition and is often associated with other ear disorders, such as chronic otitis media.

References:

https://www.ncbi.nlm.nih.gov/books/NBK553029/

↑ *Back to this question in Part A*

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Q58: Which diagnosis is most likely for a patient experiencing painful vesicles in the external auditory meatus and over the tympanic membrane, along with facial nerve palsy? Furthermore, which specific site is affected in this case? (Q858092)

A. Ramsay Hunt syndrome and basal ganglion

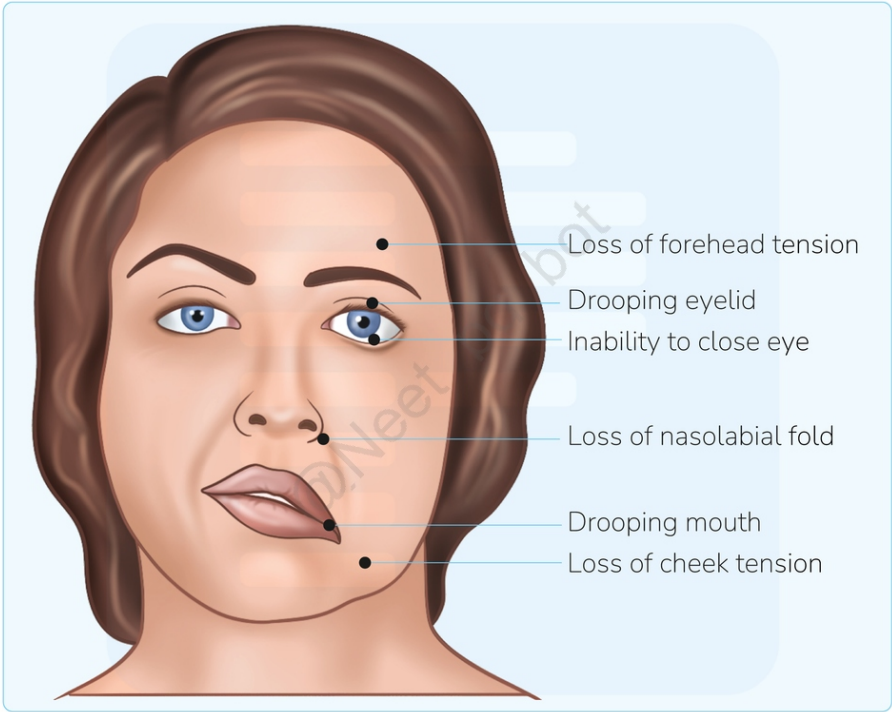
B. Ramsay Hunt syndrome and geniculate ganglion

C. Melkersson syndrome and trigeminal ganglion

D. Melkersson syndrome and otic ganglion

Correct Answer: B. Ramsay Hunt syndrome and geniculate ganglion

Explanation: Ramsay Hunt syndrome (RHS) is caused by the reactivation of varicella-zoster virus (VZV) in the geniculate ganglion, a sensory ganglion of the facial nerve located in the temporal bone. It commonly presents with painful vesicles in the external auditory meatus and over the tympanic membrane, as well as ipsilateral facial nerve palsy. Ramsay Hunt Syndrome (Herpes Zoster Oticus): Caused by reactivation of the varicella-zoster virus, it presents with facial nerve palsy, a painful vesicular rash around the external auditory canal and pinna. {{caption_text}} There may be anaesthesia of face, giddiness and hearing impairment due to involvement of V th and VIII th nerve. Treatment: Medical management Steroids: Prednisolone is the drug of choice (1 mg/kg/day). Steroids can be combined with Acyclovir for herpes zoster oticus. Dosage: If reported within 1 week, administer for 5 days and taper off by the 10th day. If paralysis persists, continue the same dose for 10 more days. Surgical Treatment Nerve Decompression: Relieves pressure on nerve fibers, improving microcirculation. Ramsay Hunt syndrome and basal ganglion (Option A): Incorrect because the basal ganglia are part of the central nervous system and unrelated to the facial nerve or VZV reactivation. Melkersson syndrome and trigeminal ganglion (Option C): Melkersson-Rosenthal syndrome involves recurrent facial swelling, facial palsy, and fissured tongue. It is not associated with vesicles or VZV infection. Melkersson syndrome and otic ganglion (Option D): Melkersson-Rosenthal syndrome does not involve the otic ganglion, and otic ganglion lesions do not cause these symptoms.



References:

Dhingra Diseases of Ear, Nose and Throat and Head and Neck Surgery 8th edition, page 114.

↑ *Back to this question in Part A*

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Q59: What is the function of utricle and saccule? (Q858112)

A. Hearing high-frequency sounds

B. Linear acceleration and deceleration

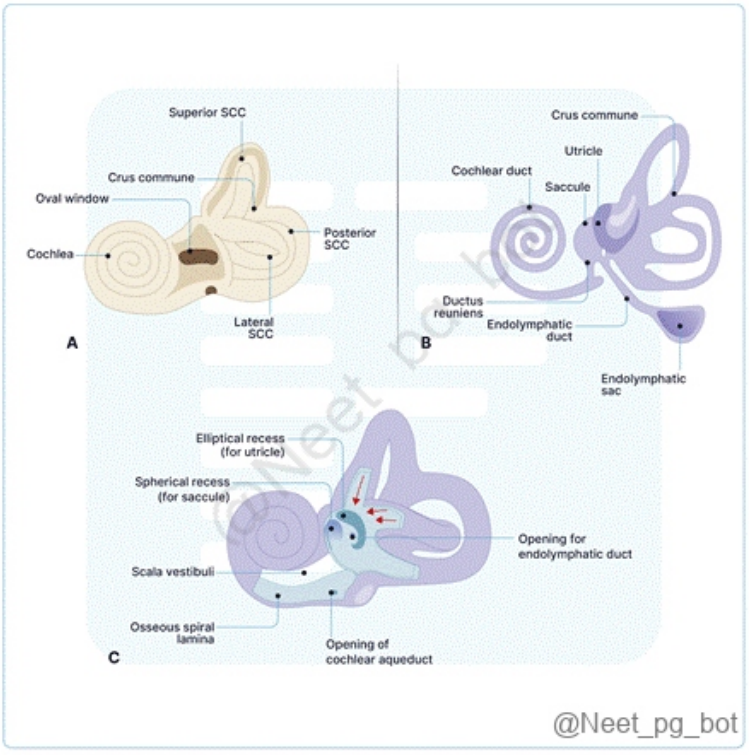
C. Angular acceleration

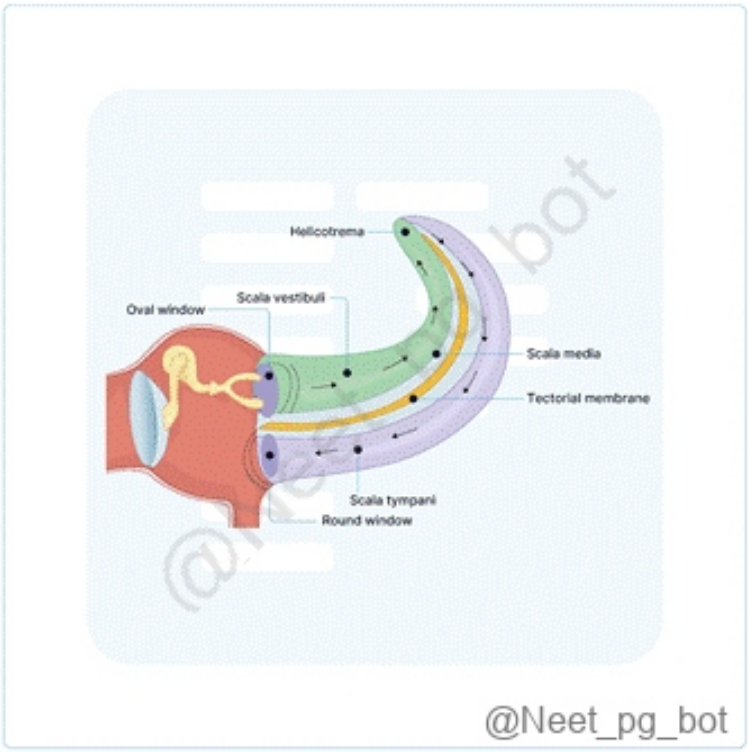
D. Hearing low-frequency sounds

Correct Answer: B. Linear acceleration and deceleration

Explanation: The utricle and saccule are parts of the vestibular system in the inner ear. The sensory epithelium of the utricle and sacula is called the macula which is concerned with linear acceleration and deceleration They contain specialized sensory hair cells that respond to movement and acceleration of the head in different directions, sending signals to the brain to help maintain balance and spatial orientation. Parts of the Inner Ear The

inner ear, or labyrinth, is essential for hearing and balance and is located within the temporal bone. It consists of the bony labyrinth and the membranous labyrinth. Bony Labyrinth A rigid structure filled with perilymph (a sodium-rich fluid), it has three main parts: Vestibule: Central part connecting to the cochlea and semicircular canals. Bony Recesses in the vestibule contains the utricle and saccule (part of the membranous labyrinth). Spherical Recess: Contains the saccule, a membranous sac involved in detecting linear acceleration and deceleration. Elliptical Recess: Contains the utricle, which works with the saccule to aid in balance and spatial orientation. Oval Window: Located on the vestibule's lateral wall, it connects to the middle ear. Openings of the Semicircular Canals: The three semicircular canals (lateral, posterior, and superior) have five openings into the vestibule, enabling detection of head rotations. Opening of the Vestibular Aqueduct: Positioned below the elliptical recess, it allows the passage of the endolymphatic duct, which carries endolymph within the membranous labyrinth. Semicircular Canals: Three canals (lateral, posterior, and superior) positioned at right angles to detect rotational head movement. Each has an ampulla containing the crista ampullaris for sensory function. Cochlea: A spiral structure essential for hearing, divided into three chambers (scala vestibuli, scala tympani, and scala media). The scala vestibuli and tympani contain perilymph and communicate via the helicotrema, while the scala media houses the organ of Corti, which converts sound vibrations into electrical signals. Membranous Labyrinth A delicate system within the bony labyrinth, filled with potassium-rich endolymph, it includes: Cochlear Duct (Scala Media): Inside the cochlea, it separates the scala vestibuli and scala tympani and contains the organ of Corti for hearing. Utricle and Saccule: Membranous sacs in the vestibule responsible for detecting linear acceleration and balance. They are connected via the utriculosaccular duct. Semicircular Ducts: Membranous ducts within the bony semicircular canals, contributing to balance. Endolymphatic Duct and Sac: Extending from the utricle and saccule, the duct ends in the endolymphatic sac, important in surgical treatments for conditions like Ménière's disease. Hearing high-frequency sounds (Option A): This is the function of the cochlea, which is another part of the inner ear responsible for hearing. Angular acceleration (Option C): This is detected by the semicircular canals, which are also part of the vestibular system but are responsible for detecting rotational movements of the head. Hearing low-frequency sounds (Option D): This is the function of the cochlea.





References:

PL Dhingra diseases of Ear, Nose & throat and Head and neck surgery Edition 8, pg: 10-13

↑ *Back to this question in Part A*

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Q60: A 50-year-old patient presents with hearing loss. On examination, the Rinne test yields negative results in both ears, while the Weber test shows lateralization to the right side. Otoscopy reveals normal tympanic membranes, and audiometry indicates a dip in bone conduction at 2000 Hz.What is the preferred treatment for this condition? (Q793548)

A. Sodium fluoride

B. Tympanoplasty

C. Stapedectomy

D. Stapedotomy

Correct Answer: D. Stapedotomy

Explanation: Findings suggest otosclerosis causing conductive hearing loss , often worsened in pregnancy. Rinne negative → conductive loss; Weber to right → right ear affected. Carhart's notch at 2000 Hz confirms otosclerosis. Stapedotomy is the preferred surgical treatment , as it creates a small hole in the stapes footplate for prosthesis insertion— fewer complications and better outcomes than stapedectomy Sodium fluoride (Option A) : May slow progression, not definitive treatment. Tympanoplasty(Option B) : For eardrum/middle ear repair, not indicated. Stapedectomy(Option C) : Older, more invasive; replaced by stapedotomy

↑ *Back to this question in Part A*

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Q61: Match the following Wullstein's Classification Procedure/other name A. Type II B. Type III C. Type IV D. Type V 1. Fenestration tympanoplasty 2. Graft placed over the incus 3. Cavum minor 4. Columella tympanoplasty (Q855577)

A. A-1, B-2, C-3, D-4

B. A-2, B-3, C-4, D-1

C. A-2, B-4, C-3, D-1

D. A-1, B-3, C-4, D-2

Correct Answer: C. A-2, B-4, C-3, D-1

Explanation: Types of Tympanoplasty (Wullstein's Classification): Type Description Type I Myringoplasty: Repair of a perforated tympanic membrane using a graft. Type II Graft placed on incus or remaining malleus with an eroded malleus and perforated tympanic membrane. Type III Graft placed directly on stapes head in absence of malleus and incus (myringostapediopexy or columella tympanoplasty). Type IV Graft placed between oval and round windows, exposing stapes footplate (cavum minor), allowing sound to act directly on footplate. Type V Fenestration operation: Creation of a new window on the horizontal semicircular canal, covering it with a graft when the stapes footplate is fixed but the round window is functional.

References:

Dhingra's Diseases Of Ear, Nose And Throat, & Head and Neck Surgery, 8th Edition, Page 34, 35

↑ *Back to this question in Part A*

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Q62: Which of the following tests can be used if the otoacoustic emission test is absent during screening? (Q855581)

A. Pure tone audiometry.

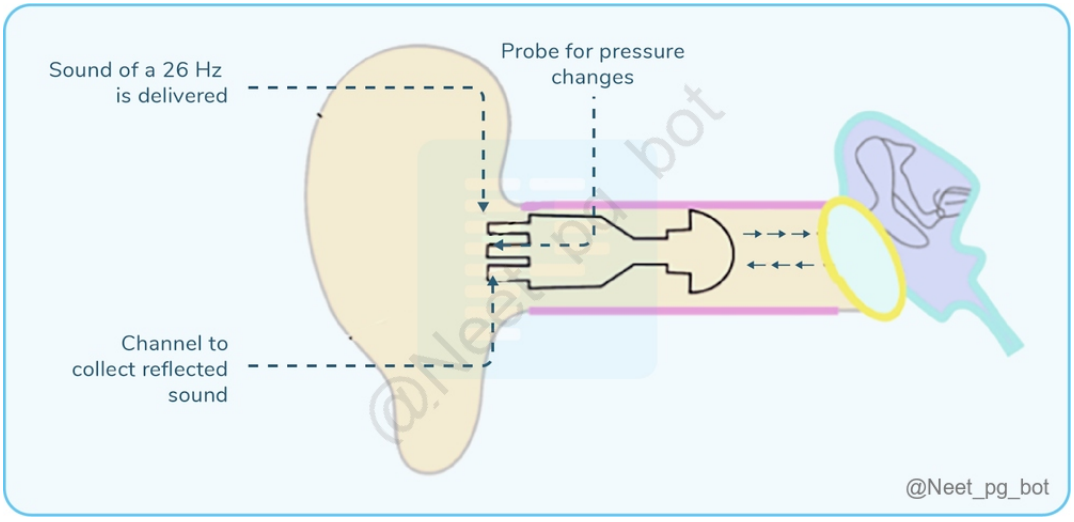
B. Tympanometry

C. Free field audiometry

D. Speech audiometry

Correct Answer: B. Tympanometry

Explanation: Tympanometry/Inflation-deflation test: Principle: When a sound strikes the tympanic membrane, some of the sound energy is absorbed while the rest is reflected. Normal: The ability of the tube to equilibrate positive and negative pressures to the ambient pressure. The most reliable test for eustachian tube dysfunction is tympanometry. Tests to differentiate between cochlear and retro cochlear pathology: Normal Cochlear pathology Retrocochlear pathology Speech discrimination Score (Statement d) 90-100% Below 90% Very poor Recruitment Absent Present Absent SISI score 0-15% >70% 0-20% Threshold tone decay Test 0-15 dB <25 dB >25 dB Stapedial reflex Present Present Absent Stapedial reflex decay Normal Normal Abnormal BERA Normal interval between wave I and V Normal interval between wave I and V Wave V delayed or absent Rollover phenomenon Absent primarily but seen in old age Absent Present



References:

Diseases of Ear, Nose, Throat - PL Dhingra, 8th edition, Page 69, 70, 30, 31, 32

↑ *Back to this question in Part A*

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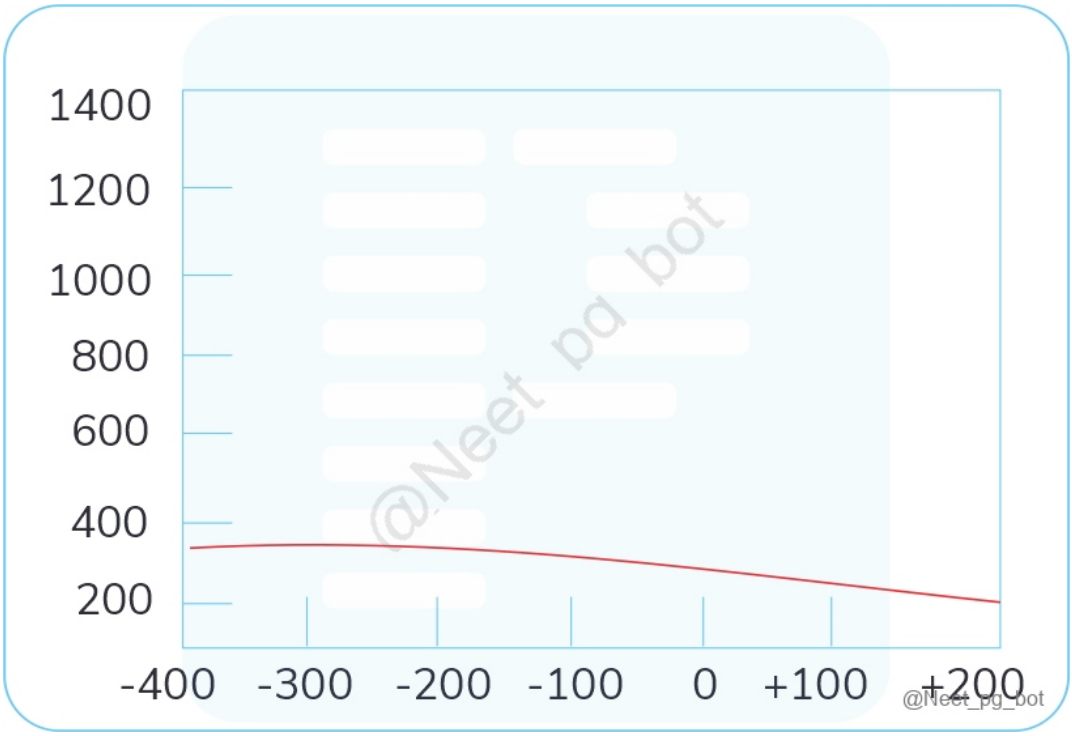
Q63: A 6 year old boy presented with recurrent URTI, poor growth, high arched palate, and impaired hearing. His tympanogram is given below. What would be the most appropriate management for him? (Q855592)

A. Myringotomy

B. Grommet

C. Myringotomy and grommet

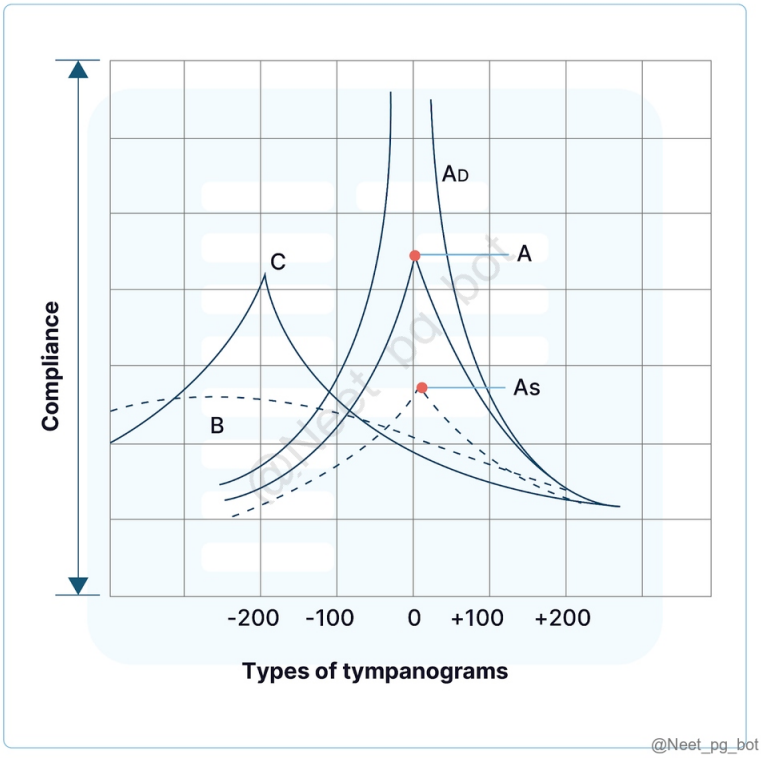
D. Adenoidectomy and grommet



Correct Answer: D. Adenoidectomy and grommet

Explanation: The type B tympanogram shows a flat tracing, indicating reduced or absent movement of the tympanic membrane. This is a classic finding in middle ear effusion, where fluid fills the middle ear space and restricts the membrane's movement. The most likely underlying problem is adenoid hypertrophy obstructing the Eustachian tube leading to recurrent infections, effusion, and hearing impairment. Adenoidectomy and grommet insertion are the most appropriate management. Tympanometry : Measures the compliance (stiffness) of the tympano-ossicular system by detecting the reflected sound energy. Can also test Eustachian tube function by pressure changes and swallowing. Different tympanogram types indicate middle ear pathologies: Tympanogram Type Characteristics Indication Type A Normal peak Normal middle ear function Type As Shallow peak Ossicular fixation (e.g., otosclerosis) Type Ad Deep peak Ossicular discontinuity or thin tympanic membrane Type B Flat, no peak Middle ear fluid or thick tympanic membrane Type C Peak at negative pressure Eustachian tube dysfunction, middle ear negative pressure Serous Otitis Media (Glue Ear) Serous Otitis Media (SOM) is a condition characterized by the accumulation of non-purulent, often thick effusion in the middle ear, commonly

affecting school-aged children. Pathogenesis: The Eustachian tube fails to aerate and drain fluid from the middle ear. Increased Secretory Activity of Middle Ear Mucosa. Aetiology: Malfunctioning of Eustachian tube Allergy Unresolved otitis media Viral infections Adenoid hyperplasia . Chronic rhinitis and sinusitis . Chronic tonsillitis : Enlarged tonsils obstruct the soft palate and affect Eustachian tube function. Nasopharyngeal tumours : Benign or malignant, especially in adults with unilateral serous otitis media. Palatal defects : e.g., cleft palate, palatal paralysis. Down's syndrome . Seasonal or perennial allergies obstruct the Eustachian tube and increase middle ear mucosal secretions. Inadequate antibiotic therapy can lead to persistent, low-grade infection, stimulating more mucous production and increasing goblet cells. Adenoviruses and rhinoviruses can invade the middle ear mucosa, leading to increased secretory activity. Serous Otitis Media (SOM) Surgical Treatment: Procedure Details Myringotomy and Aspiration of Fluid An incision in the tympanic membrane to aspirate fluid; thick mucus may require saline or mucolytic agents like chymotrypsin solution. Grommet Insertion If fluid recurs after myringotomy and aspiration, a grommet is inserted for continued middle ear aeration; remains in place for weeks or months. Tympanotomy or Cortical Mastoidectomy Required for removing loculated thick fluid or other pathologies like cholesterol granuloma. Surgical Treatment of Causative Factor Procedures like adenoidectomy, tonsillectomy, and/or maxillary antra washout may be needed, typically performed during myringotomy.



References:

Diseases of Ear, Nose, Throat - PL Dhingra, 8th edition, Page 28,29,30, 75, 76, 77

Logan Turner’s Diseases of Nose, Throat and Ear, 11th Edition, Page 411,412, 613

↑ *Back to this question in Part A*

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Q64: Arrange the following in the sequence of auditory pathway: 1. Cochlear nucleus 2. Spiral ganglion 3. Superior olivary nucleus 4. Inferior colliculus 5. Medial geniculate body (Q855765)

A. 1-2-3-4-5

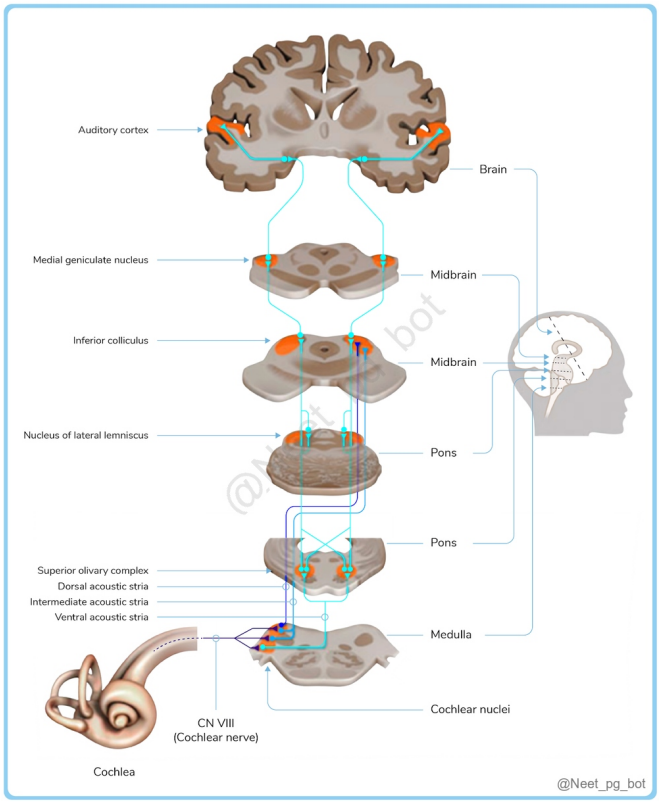
B. 5-4-3-2-1

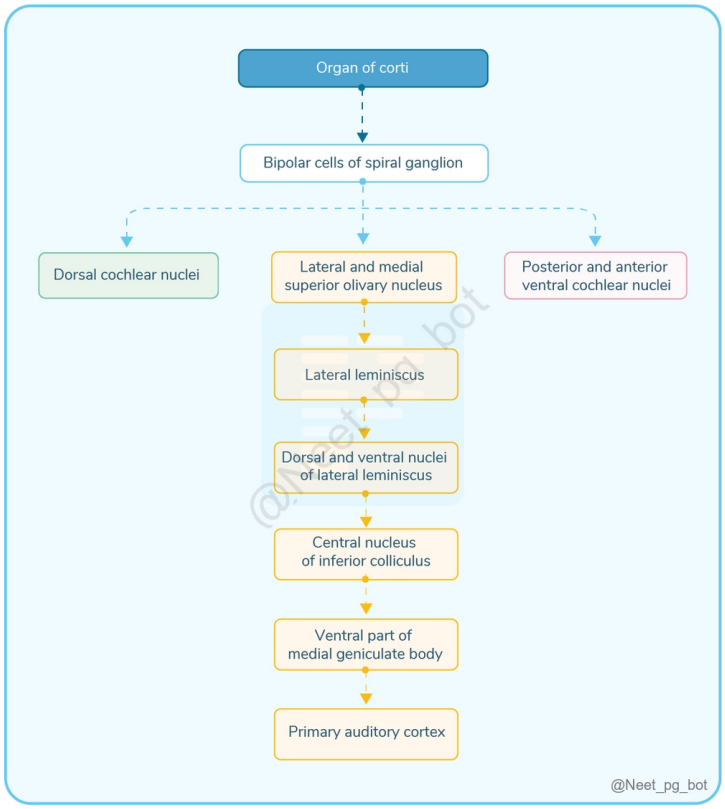
C. 2-1-3-4-5

D. 3-4-5-1-2

Correct Answer: C. 2-1-3-4-5

Explanation: 2-Spiral ganglion: The auditory pathway starts with the spiral ganglion (which contains cell bodies of auditory nerve fibers). In response to sound, the cochlear hair cells generate impulses that are transmitted along these auditory fibers. 1-Cochlear nucleus: These fibers enter the brainstem and synapse with the cochlear nucleus. 3-Superior olivary nucleus: Some fibers cross to the opposite side and enter the superior olivary complex. 4-Inferior colliculus: The fibers ascend and enter the inferior colliculus (midbrain). 5- Medial geniculate body: Signals are relayed to the medial geniculate body (thalamus). Fibers then relay to the auditory cortex (Brodmann's area 41) (superior temporal gyrus). Auditory pathway: Cochlea Cochlear Nerve Cochlear Nucleus (in the brainstem) Superior Olivary Complex Lateral Lemniscus Inferior Colliculus (in the midbrain) Medial Geniculate Nucleus (in the thalamus) Primary Auditory Cortex: Finally, the signals are sent to the primary auditory cortex in the temporal lobe (Heschl’s gyrus) , where sound perception, including the identification of pitch, rhythm and speech occurs. {{caption_text}}





References:

GK Pal textbook of medical physiology pg-1208,1208

↑ *Back to this question in Part A*

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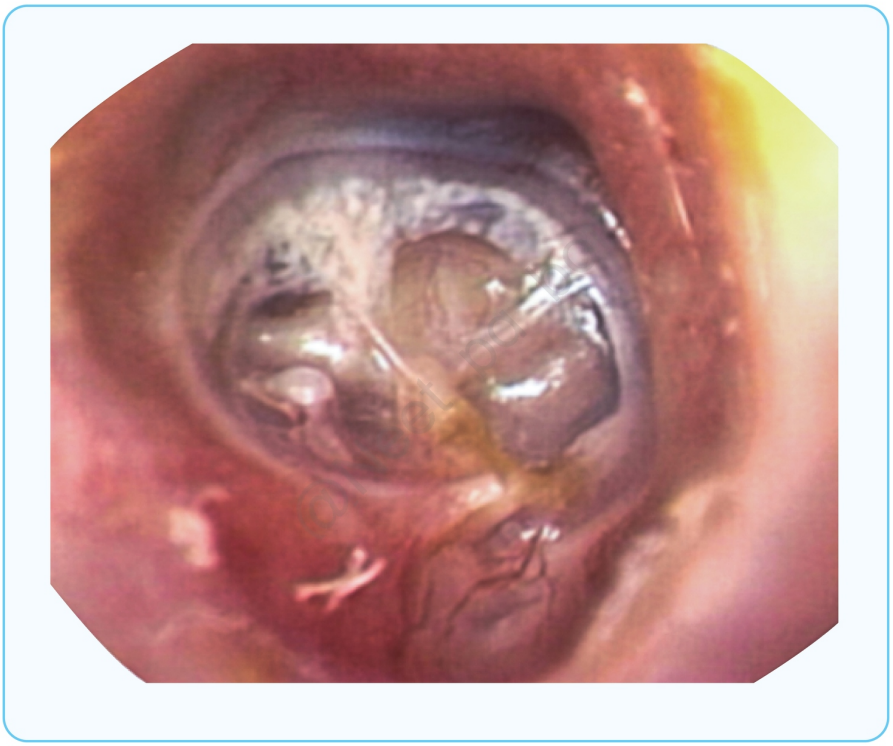
Q65: What is the grade of tympanic membrane retraction shown in the image according to the Sade classification? (Q855796)

A. Grade 1

B. Grade 2

C. Grade 3

D. Grade 4



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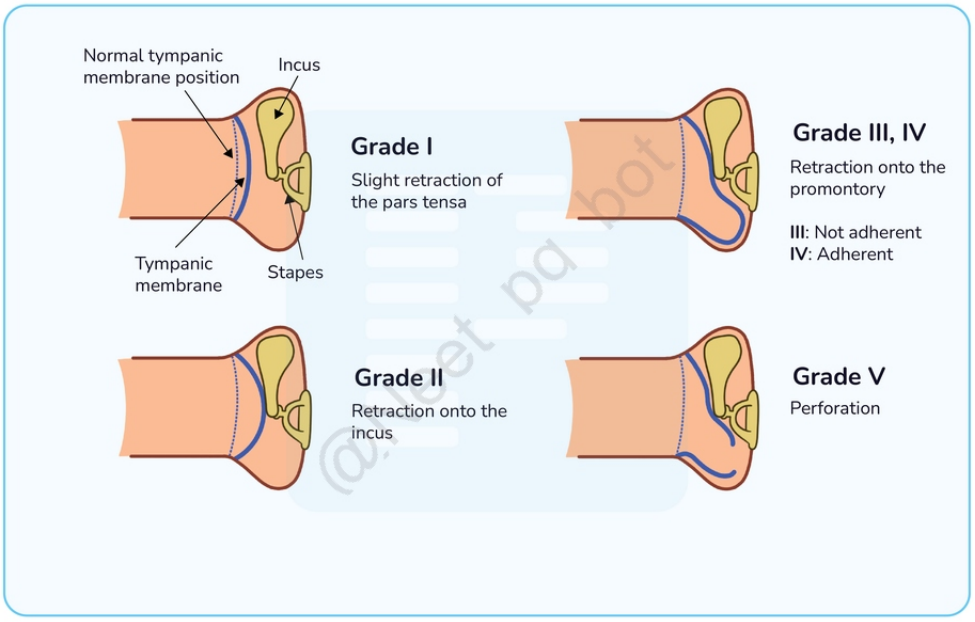
Correct Answer: C. Grade 3

Explanation: The image shows marked retraction of the tympanic membrane , with the drum deeply retracted and in contact with the incus or stapes . This corresponds to Grade 3 in Sade's classification of tympanic membrane retraction. Grade 1 : Slight retraction of the pars tensa. Grade 2 : Retraction onto the incus. (Option B) Grade 3 : Retraction onto the promontory, but not adherent. Grade 4 : Adhesion onto the promontory.



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References:

https://radiopaedia.org/articles/tympanic-membrane-retraction

↑ *Back to this question in Part A*

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Q66: A 35-year-old woman presents with complaints of slowly progressive difficulty hearing in the right ear. She also has pulsatile tinnitus. On examination, a reddish mass was seen behind the tympanic membrane, and an audible bruit was heard over the mastoid when auscultation with a stethoscope was performed. Her Rinne test was negative. Which of the following is the most likely diagnosis? (Q856960)

A. CSOM

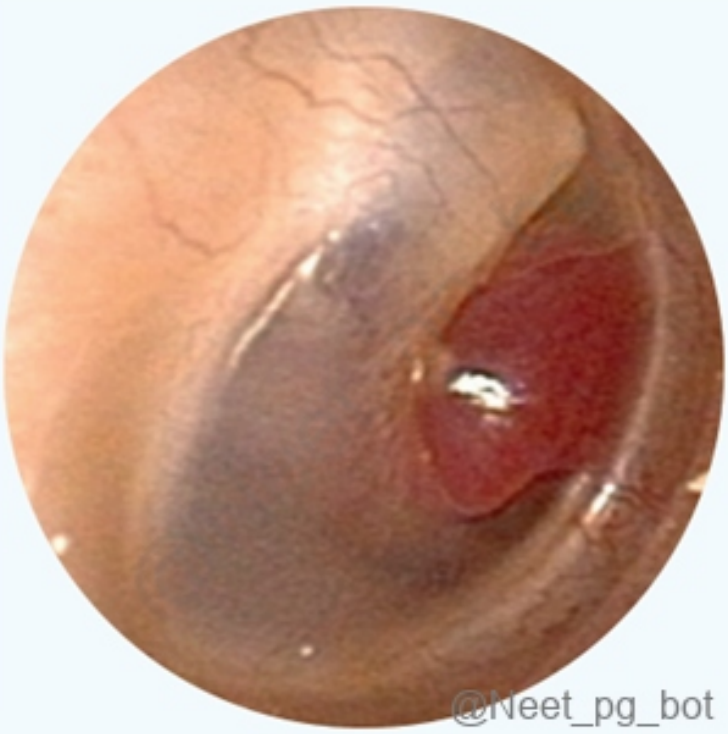
B. ASOM

C. Mastoiditis

D. Glomus tumor

Correct Answer: D. Glomus tumor

Explanation: A glomus tumor is the most likely diagnosis in this patient. Glomus tumors, also known as glomus jugulare tumors, are vascular lesions that occur in the middle ear, often behind the tympanic membrane. The patient's presentation of pulsatile tinnitus, a reddish mass behind the tympanic membrane, and an audible bruit over the mastoid are all characteristic signs of a glomus tumor. These tumors are rich in blood vessels and can cause conductive hearing loss due to their location in the middle ear, which may explain the negative Rinne test (indicative of conductive hearing loss). Type Glomus Tympanicum Glomus Jugulare Location Tumours arise from the promontory of the middle ear. Tumours originate from the dome of the jugular bulb and can extend into the middle ear and surrounding structures. Manifestations Pulsatile tinnitus, hearing loss, and a reddish mass behind the tympanic membrane. Pulsatile tinnitus, hearing loss, and may involve multiple cranial nerves (IX, X, XI) Otoscopy findings Reddish, pulsatile mass behind the tympanic membrane. This may lead to conductive hearing loss and a feeling of fullness in the ear. {{caption_text}} Reddish mass behind the tympanic membrane, often pulsatile. It is associated with neurological symptoms due to cranial nerve involvement, including glossopharyngeal nerve involvement. {{caption_text}} Investigations of Glomus Tumour CT scan CECT (contrast-enhanced computed tomography) is the investigation of choice to distinguish between glomus tympanicum and glomus jugulare tumours and to differentiate them from an aberrant carotid artery, a high jugular bulb, or a dehiscent jugular bulb. Phelps sign: On the normal side, the carotico-jugular spine (a dense bone structure between the jugular and mastoid) is intact. On the affected side, erosion of the carotico-jugular spine is observed. {{caption_text}} MRI scan It demonstrates the extent of the tumour within the soft tissue. Salt and pepper sign: Microhemorrhages within the tumour are visualized as white and gray dots on MRI, resulting in a "salt-and-pepper" appearance. {{caption_text}} Angiography It is essential when CT indicates involvement of the jugular bulb, carotid artery, or intradural extension. It also aids in identifying additional glomus tumors, locating feeding vessels, and guiding embolization. Brain Perfusion and Flow Studies These are essential if the tumor compresses the internal carotid artery. They assess brain perfusion, contralateral carotid artery function, and may involve xenon blood flow and isotope studies to gauge stroke risk and the need for artery replacement. Biopsy Histopathological studies show the Zell Ballen pattern, where epithelioid chief cells and sustentacular supporting cells form clusters (Zell Ballen) encircled by extensive vascular sinusoids. {{caption_text}} Preoperative biopsy of the tumour is not performed due to the risk of profuse bleeding from its highly vascular thin-walled blood sinusoids and potential injury to the high jugular bulb or aberrant internal carotid artery. Incorrect Options: CSOM (Chronic Suppurative Otitis Media) (Option A) : CSOM is a chronic ear infection, often associated with purulent drainage and ear discomfort. While it can cause hearing loss, the presence of a reddish mass behind the tympanic membrane and pulsatile tinnitus would not be typical for CSOM, which typically presents with a history of recurrent ear infections and persistent drainage. ASOM (Acute Suppurative Otitis Media) (Option B) : ASOM is an acute ear infection, typically presenting with severe pain, fever, and sometimes a perforated tympanic membrane. It does not commonly cause pulsatile tinnitus or the specific signs seen in this case, such as the reddish mass and bruit. Mastoiditis (Option C) : Mastoiditis is an infection of the mastoid air cells, often resulting from a prolonged middle ear infection. It presents with fever, pain behind the ear, and swelling over the mastoid. The pulsatile tinnitus and reddish mass behind the tympanic membrane are more consistent with a vascular tumor like a glomus tumor, rather than mastoiditis.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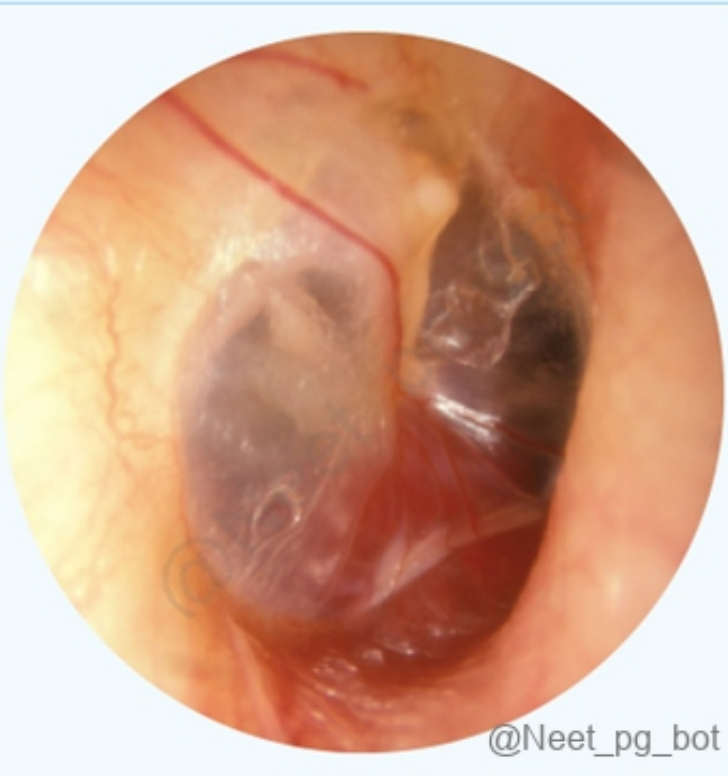
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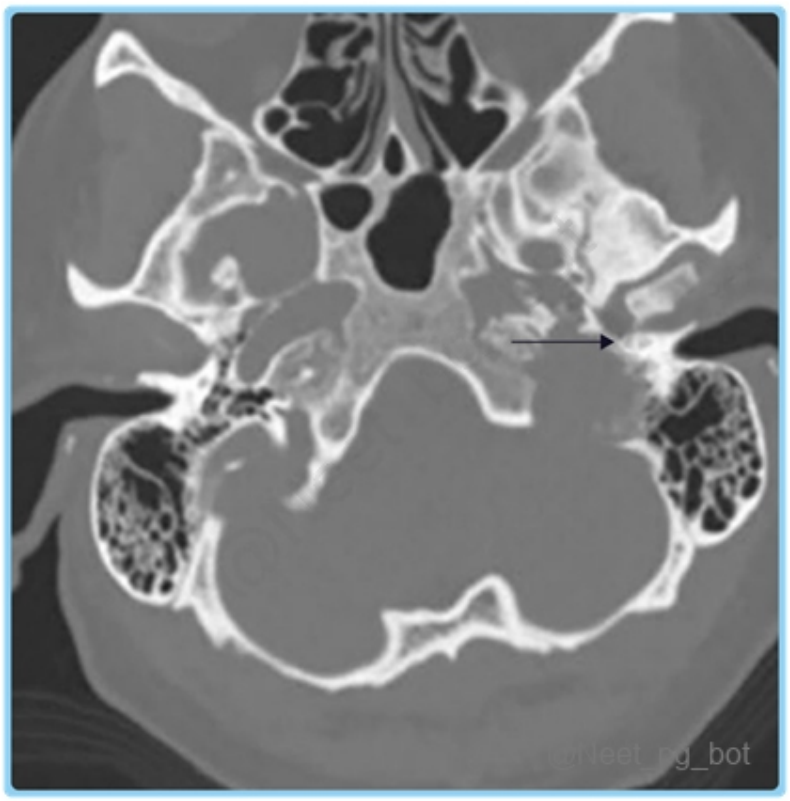
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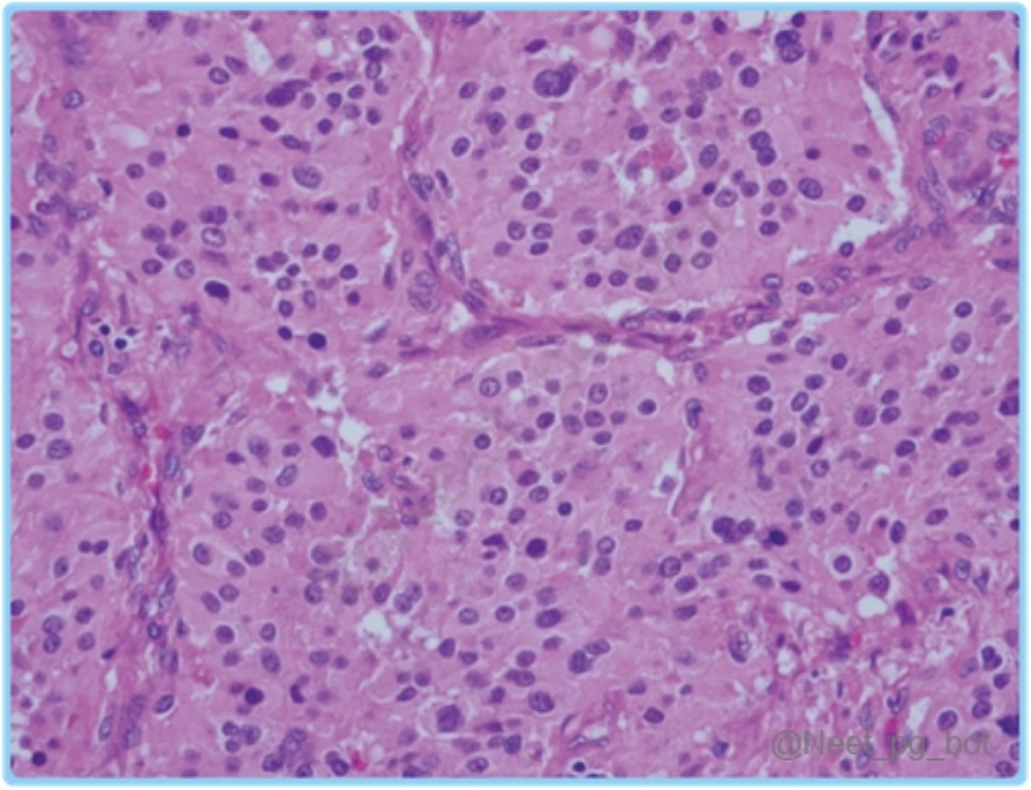

References:

Diseases of Ear, Nose, Throat - PL Dhingra, 8th edition, Page 128, 129, 130

↑ *Back to this question in Part A*

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Q67: What are the objective tests used to assess hearing ability? A. BERA (Brainstem evoked response audiometry) B. OAE (Otoacoustic emission) C. PTA (Pure tone audiometry) D. Tympanometry (Q856968)

A. A, B and D

B. A, B and C

C. B, C and D

D. A, B, C and D

Correct Answer: A. A, B and D

Explanation: Pure Tone Audiometry (PTA) is not classified as an objective test because it depends on the patient's behavioral responses to sounds, making it a subjective hearing test. In contrast, Brainstem Evoked Response Audiometry (BERA), Otoacoustic Emission (OAE), and Tympanometry are objective tests as they measure hearing function without requiring active participation from the patient. Thus, the objective hearing tests include: BERA (Brainstem Evoked Response Audiometry): Records electrical activity from the auditory nerve and brainstem in response to sound. OAE (Otoacoustic Emissions): Detects sound waves generated by the cochlea (outer hair cells) in response to stimuli. Tympanometry: Measures middle ear compliance and pressure, assessing the function of the tympanic membrane and ossicles.

References:

Diseases of Ear, Nose, Throat - PL Dhingra, 8th edition, Page 27, 31, 32, 69, 70

↑ *Back to this question in Part A*

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Q68: Which nerve is responsible for the syncopal episode that occurred during the syringing procedure for ear wax removal in a patient? (Q856982)

A. Auriculotemporal nerve

B. Arnold’s nerve

C. Glossopharyngeal nerve

D. Jacobson’s nerve

Correct Answer: B. Arnold’s nerve

Explanation: The Arnold’s nerve , also known as the auricular branch of the vagus nerve, is responsible for the syncopal episode during ear syringing. This nerve provides sensory innervation to the external auditory canal. Stimulation of Arnold’s nerve during ear wax removal can lead to a reflex vagal response, causing bradycardia, hypotension, and, in some cases, a syncopal episode (vasovagal syncope). Incorrect Options: Auriculotemporal nerve (Option A) : The auriculotemporal nerve, a branch of the mandibular division of the trigeminal nerve, supplies sensory innervation to parts of the ear and temporal region. However, it does not have a vagal connection and is not involved in reflex syncopal episodes. Glossopharyngeal nerve (Option C) : The glossopharyngeal nerve provides sensory innervation to the oropharynx and posterior one-third of the tongue. While it can be involved in reflexes like gagging, it is not responsible for vagal responses during ear syringing. Jacobson’s nerve (Option D) : Jacobson’s nerve, a branch of the glossopharyngeal nerve, supplies the tympanic plexus in the middle ear. It is not involved in the vagal reflex responsible for syncope during ear wax removal.

References:

Dhingra Diseases of Ear, Nose and Throat and Head and Neck Surgery 8th edition, Page 5

↑ *Back to this question in Part A*

Q69: The probable diagnosis for a 60-year-old diabetic patient who is experiencing intense ear pain and otorrhea that has not improved with antibiotics, along with the presence of granulation tissue in the ear canal and facial nerve paralysis, is: (Q856986)

A. Otomycosis

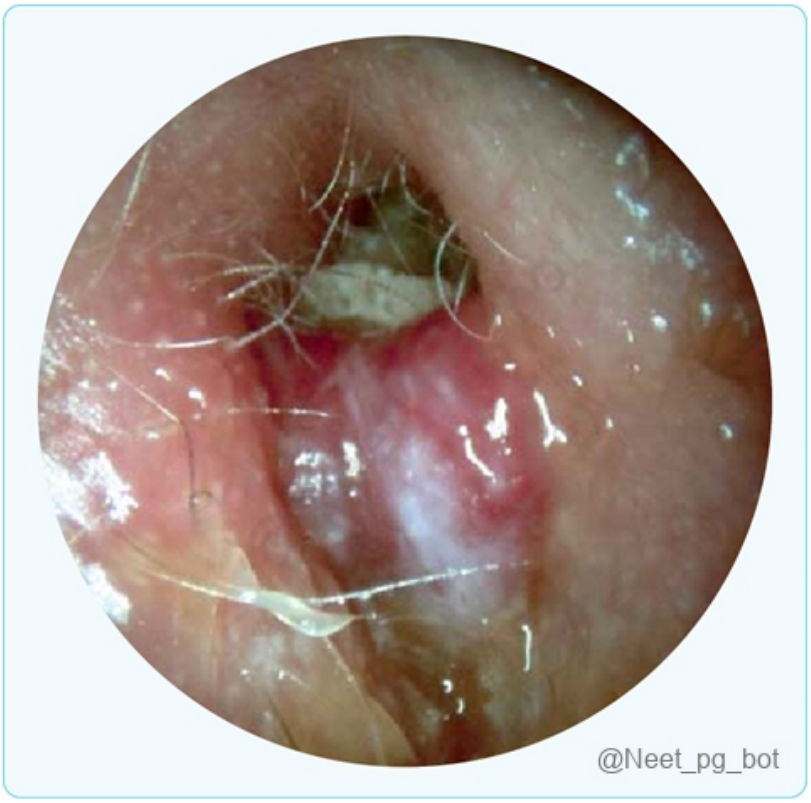
B. Serous otitis media

C. Malignant otitis externa

D. Eczematous otitis externa

Correct Answer: C. Malignant otitis externa

Explanation: The clinical presentation of intense ear pain, otorrhea unresponsive to antibiotics, granulation tissue in the ear canal, and facial nerve paralysis strongly suggests malignant otitis externa (MOE). MOE is a severe, life-threatening infection of the external ear and skull base, primarily caused by Pseudomonas aeruginosa . It is most commonly seen in elderly patients, diabetics, or immunocompromised individuals. Facial nerve paralysis indicates advanced disease with cranial nerve involvement. Malignant (Necrotizing) Otitis Externa (MOE) Inflammatory condition caused by Pseudomonas infection. Commonly affects elderly diabetic patients or those on immunosuppressive therapy. Severe ear pain, granulations in the ear canal, and facial paralysis are common symptoms. Infection can spread to the skull base, jugular foramen, and cause multiple cranial nerve palsies. {{caption_text}} Etiopathogenesis: Early presentation mimics diffuse otitis externa but with intense pain. Granulations in the ear canal indicate disease progression. Infection can extend: Anteriorly to the temporomandibular fossa. Posteriorly to the mastoid. Medially into the middle ear and petrous bone. Investigations: Clinical suspicion based on severe otalgia and granulation tissue in elderly diabetics. Imaging: CT scan/MRI : Shows bone destruction and soft tissue involvement. Gallium-67 scan : Indicates soft tissue infection; useful for diagnosis and follow-up. Technetium-99 bone scan : Detects bone infection but not useful for disease monitoring due to prolonged positivity. Treatment: Control of diabetes : Essential for management. Ear canal toilet : Clean the ear, remove discharge, debris, and granulations. Antibiotics : IV Gentamicin with Ticarcillin (both ototoxic/nephrotoxic). Third-generation cephalosporins (e.g., Ceftriaxone or Ceftazidime), combined with an aminoglycoside. Quinolones (e.g., Ciprofloxacin 750 mg orally) can be combined with Rifampin . Antibiotic therapy typically lasts 6-8 weeks or longer. Culture and sensitivity of ear discharge to adjust antibiotics if non-responsive to treatment. Prolonged antibiotic treatment has largely replaced the need for radical surgery. Incorrect Options: Otomycosis (Option A) : Otomycosis is a fungal infection of the external ear, typically presenting with itching, mild discomfort, and discharge. It does not cause severe pain, granulation tissue, or cranial nerve involvement, as seen in this case. Serous otitis media (Option B) : Serous otitis media involves non-infectious fluid accumulation in the middle ear, often following an upper respiratory infection or eustachian tube dysfunction. It does not present with otorrhea, granulation tissue, or facial nerve paralysis. Eczematous otitis externa (Option D) : Eczematous otitis externa is an inflammatory condition of the external ear, associated with itching, scaling, and mild discomfort. It does not cause granulation tissue, severe pain, or cranial nerve paralysis.



References:

Dhingra Diseases of Ear, Nose and Throat and Head and Neck Surgery 8th edition, Page 61

↑ *Back to this question in Part A*

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Q70: What would be the subsequent course of treatment for a child with bilateral sensorineural hearing loss who did not experience any improvement after using hearing aids? (Q856995)

A. Bone anchored hearing aid

B. Tympanoplasty

C. Normal hearing aid

D. Cochlear implant

Correct Answer: D. Cochlear implant

Explanation: For a child with bilateral sensorineural hearing loss (SNHL) who has not experienced improvement with hearing aids, a cochlear implant is the next appropriate step. A cochlear implant bypasses the damaged parts of the cochlea and directly stimulates the auditory nerve, enabling hearing in individuals with severe-to-profound SNHL who derive limited or no benefit from conventional hearing aids. Cochlear implantation is recommended in cases where: Hearing aids provide insufficient benefit. The patient has severe-to-profound SNHL as confirmed by audiological assessments. Speech and language development is at risk due to hearing impairment (especially in children). Indications: B/L severe (70-90 dB) to profound (>90 dB) SNHL Prelingual deafness : A child who is born deaf and has not yet developed speech. Post lingual deafness : Child/adult who has become deaf but has already developed speech. Contraindications: Cochlear aplasia 8th nerve abnormality (like aplasia or retrocochlear pathology, conduction via the auditory nerve is dysfunctional) Central auditory lesions Michel aplasia: Complete absence of the bony and membranous labyrinth, including the petrous apex, while the external and middle ears remain unaffected. Prerequisites: Age in prelingual deafness: Minimum age as early as possible, maximum age 7 years There is no age limit for post-lingual deafness Failed trial of hearing aid Intact acoustic nerve and central hearing tract Incorrect Options: Bone-anchored hearing aid (Option A) : This is suitable for patients with conductive or mixed hearing loss, or those with anatomical issues preventing the use of regular hearing aids (e.g., chronic otitis media, atresia). It is not appropriate for severe-to-profound SNHL. Tympanoplasty (Option B) : Tympanoplasty is a surgical procedure to repair the tympanic membrane or middle ear structures and is used in conductive hearing loss, not in sensorineural hearing loss. Normal hearing aid (Option C) : The child has already tried hearing aids without improvement. Recommending a different hearing aid would not be beneficial in cases of severe-to-profound SNHL.

References:

Cochlear Implants - StatPearls - NCBI Bookshelf

Dhingra Diseases of Ear, Nose and Throat and Head and Neck Surgery 8th edition, Page 135, 146

↑ *Back to this question in Part A*

@Neet_pg_bot

Q71: Which of the following conditions is associated with the presence of a B tympanogram? (Q857005)

A. Ossicular dislocation

B. Otosclerosis

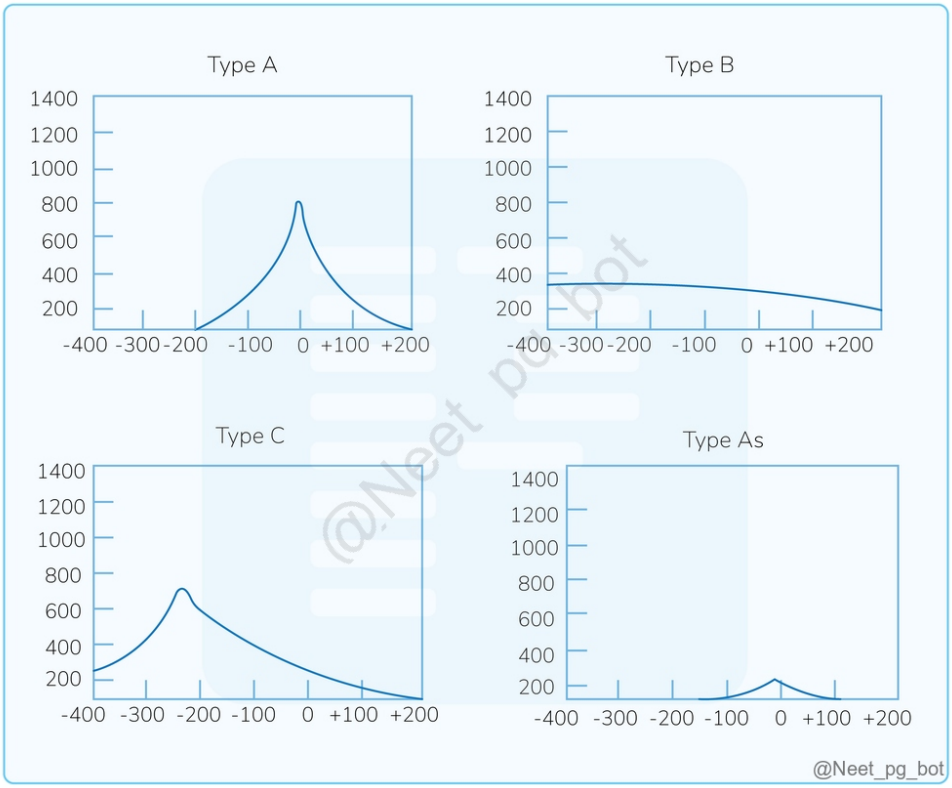
C. Serous otitis media

D. Normal ear

Correct Answer: C. Serous otitis media

Explanation: A B tympanogram indicates poor middle ear compliance, which is typically associated with fluid in the middle ear as seen in serous otitis media . This flat-shaped tympanogram suggests that the middle ear is filled

with fluid, preventing the eardrum from moving normally in response to changes in air pressure. It is one of the most common findings in middle ear effusion. Incorrect Options: Ossicular dislocation (Option A) : This condition typically results in a hypercompliant tympanogram, showing an Ad curve (type Ad), rather than a flat B curve. Otosclerosis (Option B) : Otosclerosis is associated with stapes fixation and reduced middle ear compliance. It results in an As tympanogram (shallow curve) due to reduced mobility of the ossicular chain, not a flat B curve. Normal ear (Option D) : A normal ear produces a type A tympanogram, indicating normal compliance and middle ear pressure.



References:

Diseases of Ear, Nose and Throat, PL Dhingra, 8th Edition, Page 29,76

Logan Turner’s Diseases of Nose, Throat and Ear, 11th Edition, Page380

Otitis media with effusion

Jerger classification system for tympanogram

↑ *Back to this question in Part A*

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Q72: A young lady presented to the ENT OPD with a history of sudden onset unilateral hearing loss, tinnitus, and dizziness following an episode of acute otitis

media two weeks back. Rinne’s test and fistula test were positive. She had refused treatment then and currently came with complaints of worsened hearing loss in the affected ear. On examination, the fistula test was negative. What would be the most likely finding on the Rinne test in this scenario? (Q857677)

A. True positive

B. True negative

C. False positive

D. False negative

Correct Answer: D. False negative

Explanation: The most likely

References:

Diseases of Ear, Nose, Throat - PL Dhingra, 8th edition, Page 26

↑ *Back to this question in Part A*

@Neet_pg_bot

Q73: What is the Battle sign? (Q857682)

A. Mastoid ecchymosis

B. Periorbital hematoma

C. Bezold abscess

D. Perichondritis

Correct Answer: A. Mastoid ecchymosis

Explanation: Mastoid ecchymosis is correct because Battle's sign refers to the presence of ecchymosis (bruising) over the mastoid process, which is typically a sign of a basilar skull fracture. This bruising appears behind the ear and is a late sign of head trauma. Periorbital hematoma (Option B) is incorrect because periorbital hematoma, also known as "raccoon eyes," refers to bruising around the eyes, which is a sign of trauma to the face or base of the skull, but it is not Battle's sign. Bezold abscess (Option C) is incorrect because a Bezold abscess is a collection of pus in the neck, often caused by a middle ear infection, and does not relate to the bruising over the mastoid. Perichondritis (Option D) is incorrect because perichondritis refers to inflammation of the cartilage of the ear, typically caused by infection, but it does not involve bruising behind the ear.

References:

Battle Sign - PubMed

William Henry Battle and Battle's sign: mastoid ecchymosis as an indicator of basilar skull fracture - PubMed

↑ *Back to this question in Part A*

@Neet_pg_bot

Q74: What would be your diagnosis for a patient who has presented with symptoms of vertigo, tinnitus, and fullness of ears. The symptoms improve on keeping the right ear up. He had previously been operated on for a safe type of right side chronic suppurative otitis media (CSOM) six months ago? (Q856056)

A. Perilymphatic fistula

B. Labyrinthitis

C. Paget disease

D. Vestibular schwannoma

Correct Answer: A. Perilymphatic fistula

Explanation: Perilymphatic fistula A perilymphatic fistula (PLF) refers to an abnormal communication between the middle ear and the fluid-filled spaces of the inner ear, known as the cochlea and vestibular system. It can occur as a result of trauma, such as barotrauma or previous ear surgery. The main symptoms associated with a PLF include vertigo (dizziness), tinnitus (ringing in the ears), and sensorineural hearing loss. Features of Perilymph Fistula: Feature Description Etiology Can occur after head trauma, barotrauma (e.g., diving), temporal bone anomalies, or ear surgery (e.g., stapedectomy). Symptoms Fluctuating sensorineural hearing loss, vertigo, tinnitus, and sometimes a sense of fullness in the ear. Complications Recurrent meningitis (especially in children with temporal bone defects), cerebrospinal fluid (CSF) leak. Diagnosis Often clinical, based on history and symptoms; confirmed through surgical exploration if suspected. Temporal bone CT : Shows pneumolabyrinth, accumulation of fluid in the middle ear, and/or ossicular chain disruption, but also can often be normal. Treatment Surgical closure of the fistula to prevent further complications, such as meningitis; limited improvement in hearing. Prognosis Hearing improvement post-surgery is usually limited; however, vertigo symptoms often improve or resolve. Labyrinthitis (Option B): Labyrinthitis is an inflammation of the labyrinth. It is often caused by a viral or bacterial. infection. The main symptoms of labyrinthitis include vertigo, tinnitus, hearing loss, and ear fullness. However, in this case, the patient's history of surgery and the absence of infection-related symptoms make labyrinthitis less likely. Paget disease (Option C): Paget's disease, also known as osteitis deformans, i s a chronic bone disorder characterized by abnormal bone remodeling. It typically affects older individuals and can involve various bones, including the skull. While Paget's disease can cause hearing loss and other symptoms, the presence of vertigo, tinnitus, and head tilt, in this case, make it an unlikely diagnosis. Vestibular schwannoma (Option D): Vestibular schwannoma, also known as acoustic neuroma , is a benign tumor that arises from the Schwann cells of the vestibular nerve in the inner ear. It typically presents with symptoms such as unilateral sensorineural hearing

loss, tinnitus, and imbalance. However, the absence of significant hearing loss and the recent surgery suggest that vestibular schwannoma is less likely in this case.

References:

Dhingra Diseases Of Ear, Nose And Throat & Head And Neck Surgery, Edition 8, Pg 54, 96, 97, 104, 132, 133

Scott-Brown’s Otorhinolaryngology Head and Neck Surgery 8th Edition, Chapter 20: Balance Disorders In Children, Pg 225

https://www.sciencedirect.com/topics/medicine-and-dentistry/perilymph-fistula#

↑ *Back to this question in Part A*

@Neet_pg_bot

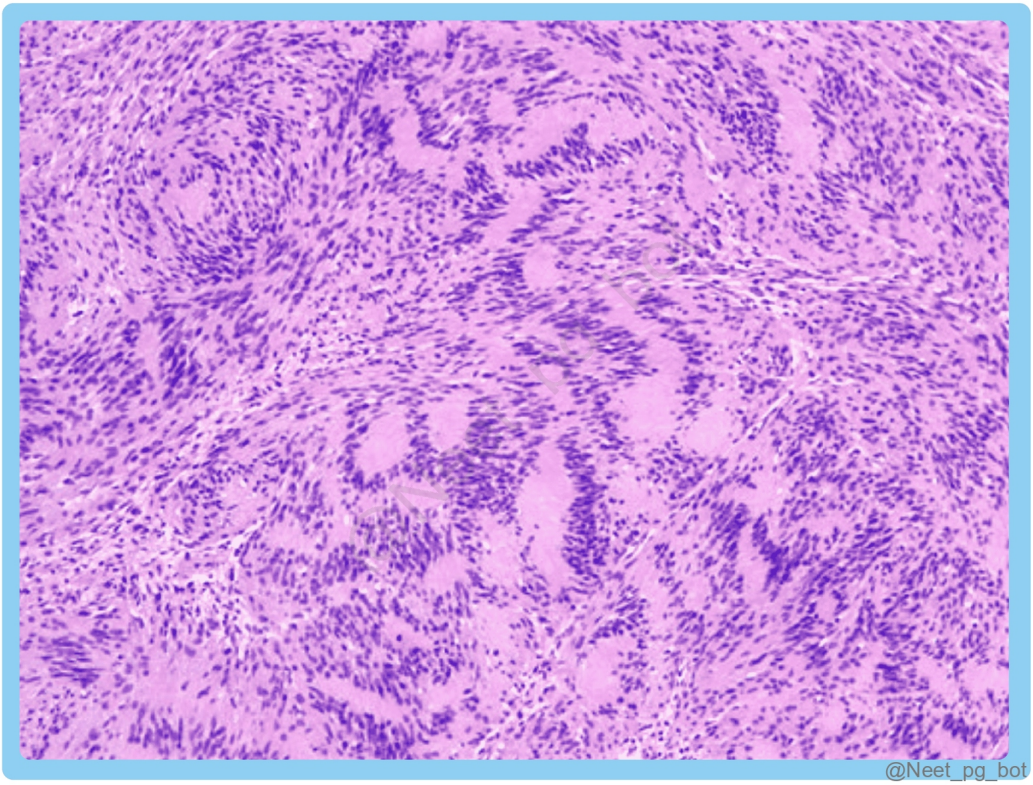
Q75: A young man presented with hearing loss and tinnitus. Histology image is shown below. What is the diagnosis? (Q856636)

A. Neurofibroma

B. Schwannoma

C. Leiomyoma

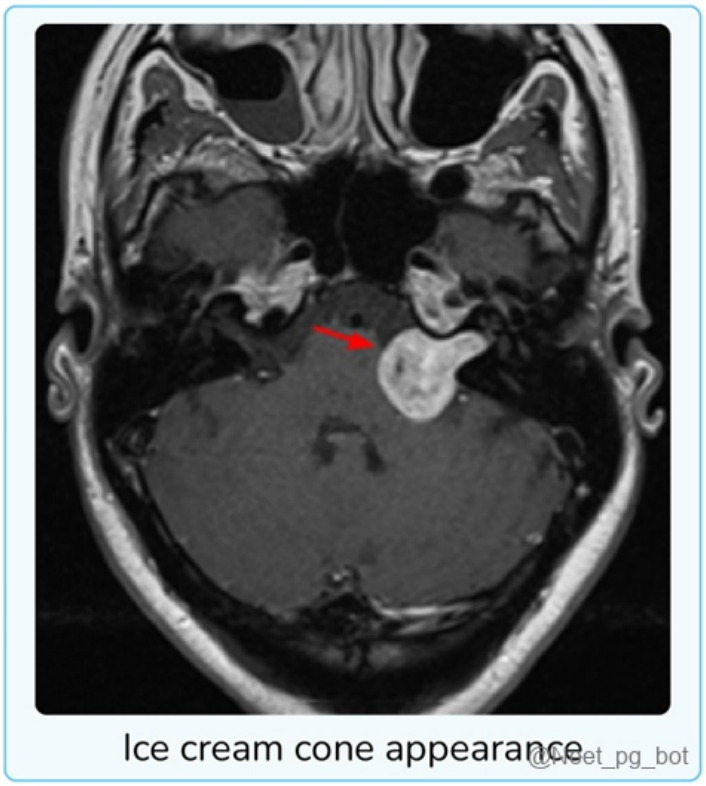
D. Rhabdomyoma

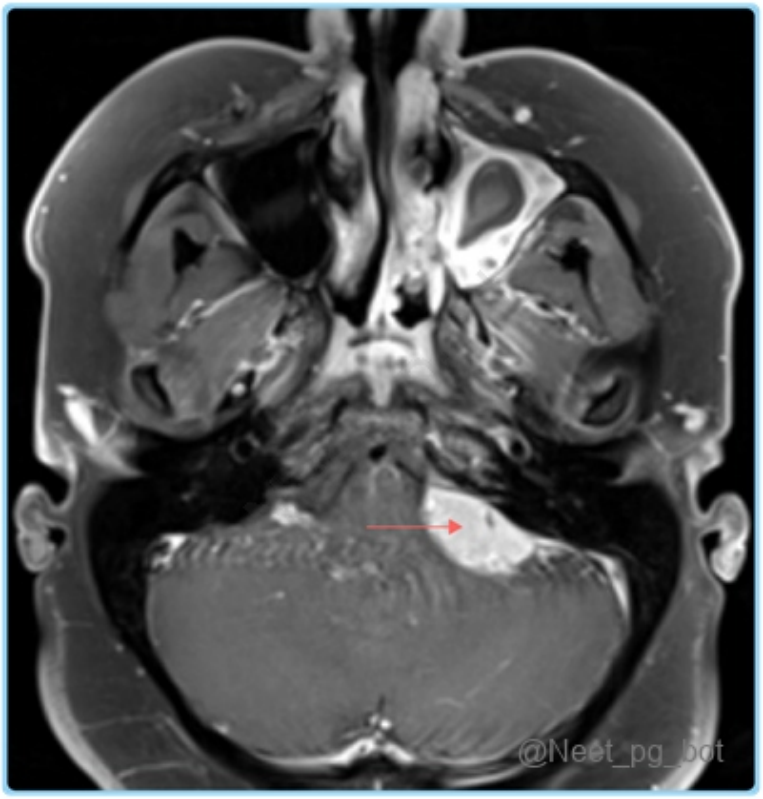


Correct Answer: B. Schwannoma

Explanation: Schwannoma, also known as neurilemmomas, are benign nerve sheath tumors that arise from Schwann cells, which are the cells responsible for producing the myelin sheath that covers peripheral nerves. Histologically, the following findings are characteristic of Schwannoma. Vestibular Schwannoma: Description Origin: Schwann cells; Site: CP angle Pathology Antoni A areas: These areas are composed of tightly packed spindle-shaped cells with elongated nuclei. The cells are arranged in palisades or whorls, forming Verocay bodies. The cells in Antoni A areas exhibit nuclear hyperchromasia (increased staining intensity) and cellular cohesion. Antoni B areas: These areas are less cellular and show a looser arrangement of cells with a myxoid or microcystic appearance. The cells in Antoni B areas may have more irregular nuclei and a less distinct cytoplasmic organization compared to Antoni A areas. Clinical presentation 40-60 years, Males = Females Unilateral sensorineural hearing loss associated with tinnitus Radiology Investigation of choice/Gold standard: MRI with Gadolinium contrast - ice cream cone appearance seen on CP angle . {{caption_text}} Other investigations: CT (with/without contrast): done when MRI is not feasible Vertebral Angiography: though helps in localizing the tumor, it is not the investigation of choice. Association Neurofibromatosis type-2 (NF-2): Presents with bilateral Schwannomas and other tumors like Meningioma, ependymoma may also be associated. Differential diagnoses CP angle meningioma: MRI: Dural tail sign seen {{caption_text}} Glomus tumor: (Glomus jugulare) Arises from the dome of Jugular bulb within the jugular fossa. CT: Phelp sign (Bony erosion seen between carotid canal and jugular fossa) {{caption_text}} Incorrect Options: Neurofibromas (Option A): These are benign peripheral nerve sheath tumors that arise from Schwann cells, fibroblasts, and other supporting cells. Histologically, neurofibromas typically show a mixture of cellular and myxoid areas. They are composed of a combination of Schwann cells, fibroblasts, and perineurial-like cells. Leiomyoma (Option C): Leiomyomas are benign tumors that arise from smooth muscle cells. Histologically, leiomyomas exhibit bundles of spindle-shaped smooth muscle cells with elongated nuclei arranged in a swirling pattern. Immunohistochemical staining for smooth muscle actin and desmin is positive in leiomyomas. Rhabdomyoma (Option D): Rhabdomyomas are rare benign tumors that arise

from skeletal muscle cells. They are most commonly seen in the heart (cardiac rhabdomyomas) and are often associated with tuberous sclerosis. Histologically, rhabdomyomas show sheets or clusters of polygonal cells with abundant eosinophilic cytoplasm. The cells may have cross-striations, which are characteristic of skeletal muscle differentiation. Immunohistochemical staining for desmin and myogenin is positive in rhabdomyomas.





References:

Grainger & Allison’s Diagnostic Radiology 7th edition pages- 1607-1609.

Diseases of ENT and Head & Neck surgery by PL Dhingra pages- 128,132-134

↑ *Back to this question in Part A*

@Neet_pg_bot

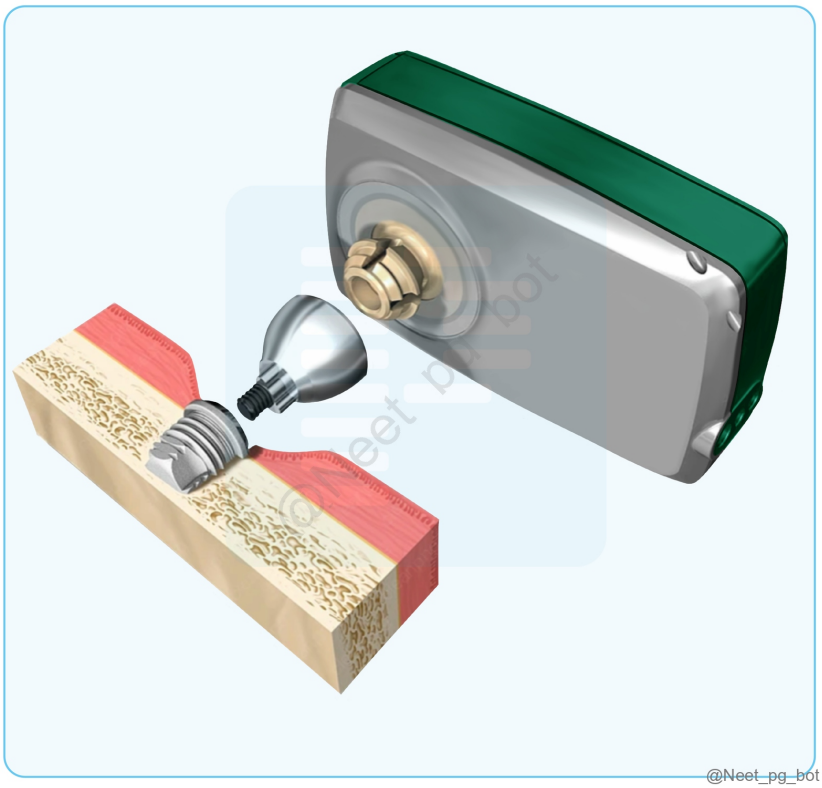
Q76: Which of the following devices can be used in a patient with bilateral external auditory atresia? (Q856646)

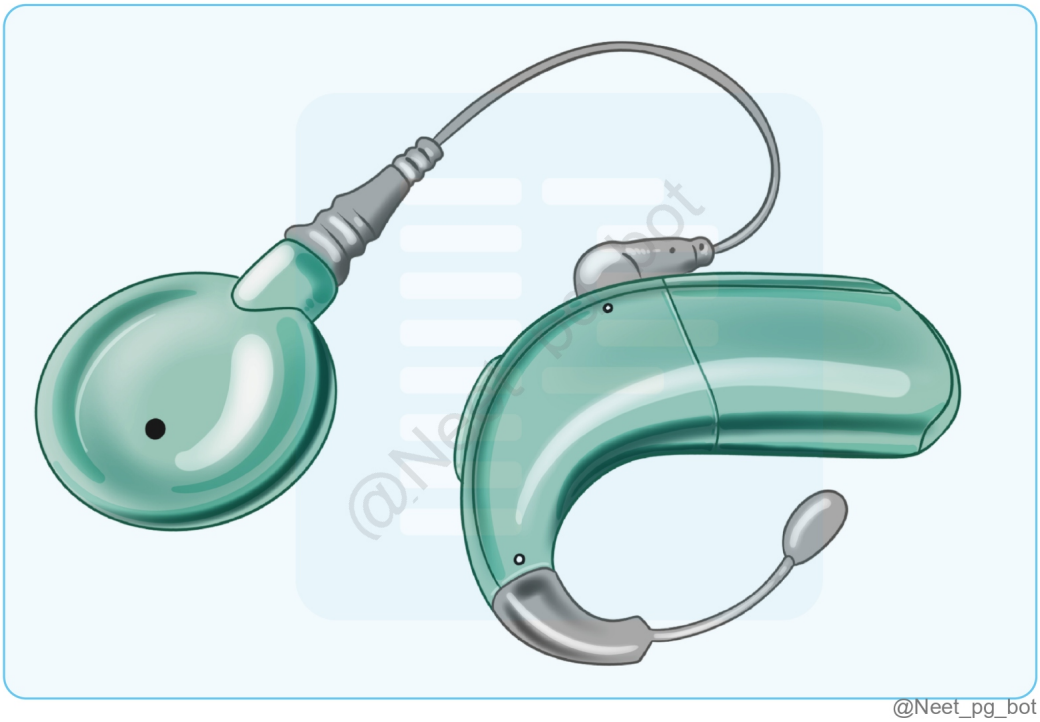
A. 1

B. 2

C. 3

D. 4





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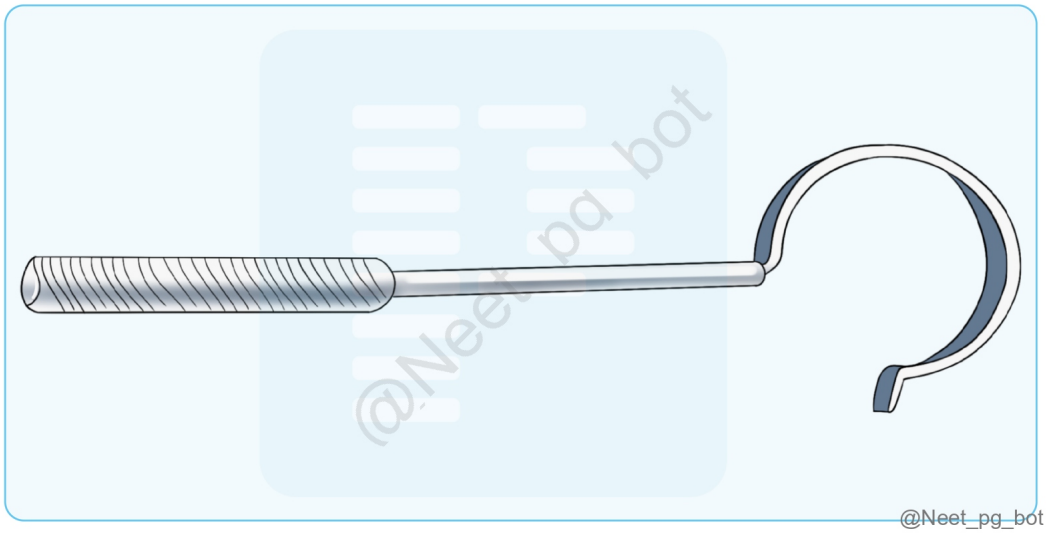

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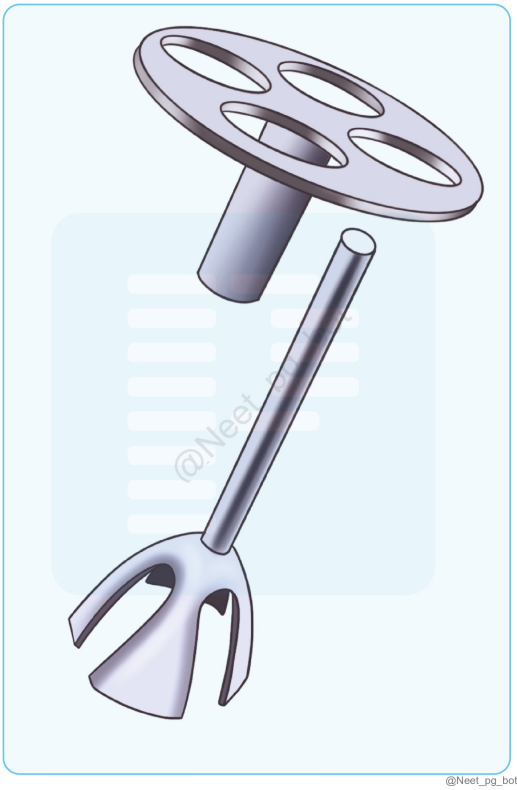
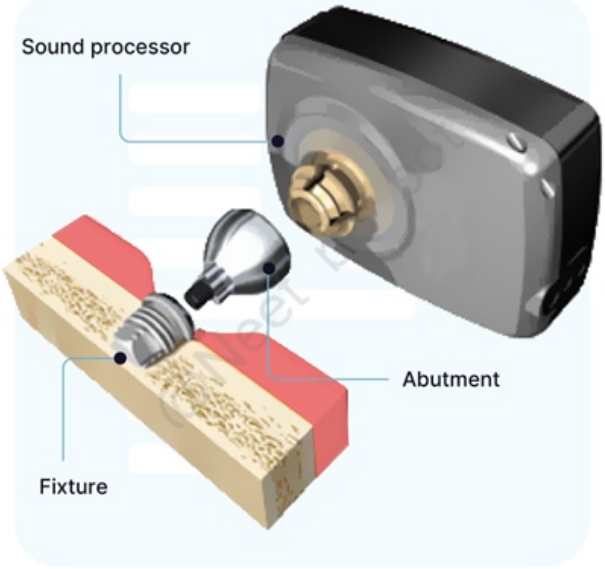
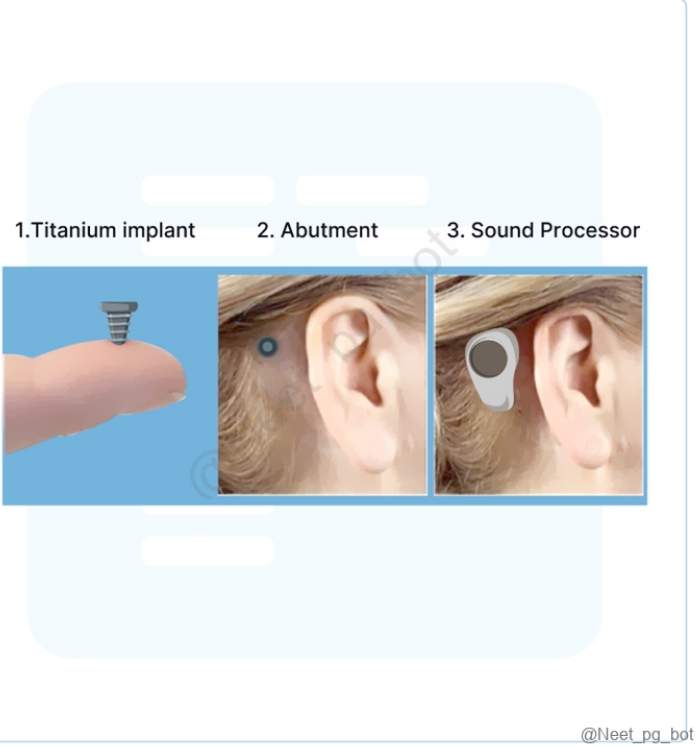


Correct Answer: A. 1

Explanation: In a patient with bilateral external auditory atresia we use hearing devices. The first image shows such device known as BAHA. BAHA stands for Bone Anchored Hearing Aid. Bone-anchored hearing aid (BAHA) captures the sound and transmits vibrations to the skull, stimulating the cochlea directly and bypassing the external auditory canal and middle ear. It is used when the air conduction method of rehabilitation cannot be used. Components : Titanium Fixture : Surgically embedded in the skull. It bonds with the surrounding skin (osseointegration) Titanium Abutment : Connects the sound processor. Sound Processor : Attached after osseointegration (2 to 6 months after implantation). Indication: Chronic ear discharge . Single-sided hearing loss. Children with microtia , anotia, canal atresia. Conductive or mixed hearing loss (e.g., otosclerosis, tympanosclerosis) with contraindications for surgery. Following MRM (large mastoid cavity). Excessive feedback or discomfort from AC hearing aids. Age of implantation: >5yrs Surgical Procedure : Adults typically have a single-stage surgery with a 3-month osseointegration wait. Children usually undergo a two-stage procedure, with the fixture placed first and the abutment connected after 6 months. Incorrect Options: The second image shows a cochlear implant (Option B): A cochlear implant is a medical device that is used to restore hearing in individuals with severe to profound sensorineural hearing loss. Unlike traditional hearing aids, which amplify sound, cochlear implants bypass the damaged parts of the inner ear (cochlea) and directly stimulate the auditory nerve to provide a sense of sound. The Platinum K piston is a type of middle ear prosthesis (Option C): The Platinum K piston is designed to replace or bypass the damaged or malfunctioning ossicles in the middle ear, specifically the incus. The piston is attached to the incus on one end and to the tympanic membrane on the other end. Ossicular prosthesis (Option D): Also known as middle ear prosthesis or ossicular replacement prosthesis, is a device used in otologic surgery to restore or improve hearing in patients with middle ear conditions that affect the function of the ossicles. The ossicles are the three small bones in the middle ear: the malleus, incus, and stapes.





↑ *Back to this question in Part A*

@Neet_pg_bot

Q77: A patient with a history of chronic ear infection presents with fever, headache, vomiting, irritability, and confusion. His CT brain is shown in the image below. What is the possible diagnosis? (Q856240)

A. Temporal lobe abscess

B. Cerebellar abscess

C. Subdural abscess

D. Meningitis

Correct Answer: A. Temporal lobe abscess

Explanation: - Temporal lobe abscess: The CT scan shows a ring-enhancing lesion in the temporal lobe , which is characteristic of a brain abscess . The patient's history of chronic ear infection (chronic otitis media or mastoiditis) suggests that the infection may have spread to the temporal lobe , forming an abscess. Key Clinical Features: Fever, headache, vomiting → Systemic signs of infection Irritability, confusion → Suggestive of increased intracranial pressure (ICP) or local brain involvement History of chronic ear infection → A common cause of temporal lobe abscess Cerebellar abscess (Option B): Incorrect because cerebellar abscesses usually present with ataxia, dysmetria, and nystagmus , which are not mentioned in the case. Subdural abscess (Option C): Incorrect because subdural empyemas usually show a crescentic fluid collection rather than a ring-enhancing lesion within

the brain parenchyma. Meningitis (Option D): Incorrect because meningitis would present with diffuse meningeal enhancement rather than a localized ring-enhancing lesion seen on the CT scan.

References:

Diseases of Ear, Nose & Throat - PL Dhingra - 8th Edition • Page no: 98-100

Scott-Brown's Otorhinolaryngology and Head and Neck Surgery 8th Edition: Volume 2: Paediatrics, The Ear, and Skull Base Surgery • Page no: 1012

↑ *Back to this question in Part A*

@Neet_pg_bot

Q78: What is the diagnostic maneuver performed by an ENT surgeon when a patient presents with vertigo but no hearing loss? (Q856780)

A. Yacovino maneuver

B. Dix-Hallpike maneuver

C. Epley’s maneuver

D. Simon’s maneuver

Correct Answer: B. Dix-Hallpike maneuver

Explanation: Dix-Hallpike maneuver : The Dix-Hallpike maneuver is used to diagnose benign paroxysmal positional vertigo (BPPV) , a common cause of vertigo. It involves rapidly moving the patient from a sitting position to a supine position with their head turned to one side, and then observing for signs of nystagmus (involuntary eye movement). BPPV typically presents with vertigo triggered by head movement but no hearing loss, making this maneuver the correct diagnostic tool for such cases. Dix-Hallpike Maneuver: The Dix-Hallpike maneuver is specifically used to diagnose BPPV , where tiny calcium crystals (canaliths) become dislodged and move into the semicircular canals of the inner ear. This leads to episodes of vertigo. The maneuver helps to provoke the vertigo and nystagmus by positioning the patient's head in a way that stimulates the affected semicircular canal, aiding in diagnosis. Incorrect Options: Yacovino maneuver (Option A): is incorrect because it is not a standard diagnostic maneuver for vertigo. The Yacovino maneuver is typically used to test for peripheral vestibular dysfunction . Epley’s maneuver (Option C): is incorrect because while Epley’s maneuver is used for treating BPPV , it is not used for diagnosis. It helps reposition the canaliths to alleviate the vertigo. Simon's maneuver (Option D): is incorrect as it is not commonly used for vertigo diagnosis. It is a historical maneuver that was more relevant in older diagnostic practices.

References:

Diseases of Ear, Nose & Throat - PL Dhingra - 8th Edition • Page no: 48, 52, 53

↑ *Back to this question in Part A*

@Neet_pg_bot

Q79: Determine the accurate order of the pathways involved in the auditory system. A. Superior Olivary nucleus B. Cochlear Nucleus C. Inferior Colliculi D. Lateral lemniscus E. Medial geniculate ganglion (Q856784)

A. ABCDE

B. BADCE

C. BACDE

D. BAEDC

Correct Answer: B. BADCE

Explanation: The accurate order for the auditory pathway is as follows: Cochlear Nucleus (B) : The first structure where auditory information from the cochlea synapses. It is located in the brainstem. Superior Olivary Nucleus (A) : After the cochlear nucleus, the auditory information is relayed to the superior olivary nucleus , which is involved in sound localization and the processing of binaural auditory signals. Lateral Lemniscus (D) : The lateral lemniscus transmits auditory signals from both the superior olivary nucleus and the cochlear nucleus to higher brainstem centers. Inferior Colliculi (C) : Located in the midbrain, the inferior colliculi are involved in auditory processing and reflexes. Medial Geniculate Ganglion (E) : The final relay station in the thalamus before auditory signals reach the auditory cortex for perception. Auditory Pathway: The auditory system processes sound information starting from the cochlea. The cochlear nucleus receives the initial signal, which is then sent to the superior olivary nucleus for sound localization. The signal then travels via the lateral lemniscus to the inferior colliculi for further processing, followed by the medial geniculate ganglion in the thalamus before reaching the auditory cortex in the temporal lobe. ABCDE (Option A) : This order is incorrect because lateral lemniscus comes after the superior olivary nucleus and should not be placed before it. BACDE (Option C) : Incorrect because the inferior colliculi should come before the medial geniculate ganglion , not after it. BAEDC (Option D) : Incorrect as the medial geniculate ganglion should not come before the inferior colliculi .

References:

Diseases of Ear, Nose & Throat - PL Dhingra - 8th Edition • Page no: 17

↑ *Back to this question in Part A*

@Neet_pg_bot

Q80: In a case of otitis media, which of the following is absent? (Q856310)

A. Bezold abscess

B. Griesinger’s sign

C. Battle sign

D. Delta sign

Correct Answer: C. Battle sign

Explanation: Battle sign refers to bruising behind the ear, which is often indicative of a basilar skull fracture . This is not typically associated with otitis media . Otitis media itself does not lead to Battle sign but can lead to complications such as Bezold abscess , Griesinger’s sign. Otitis Media: Otitis media is an infection or inflammation of the middle ear that can lead to a variety of complications, especially when it becomes chronic or severe. Griesinger's sign (pain when pulling the ear) and Bezold abscess (a deep neck abscess) are known complications. However, Battle sign typically suggests trauma, such as a basilar skull fracture, and is not a direct manifestation of otitis media. Incorrect Options: Bezold abscess (Option A) : Extension of infection from mastoid tip into neck; seen in otitis media. Griesinger’s sign (Option B) : Tenderness over mastoid due to mastoid emissary vein thrombosis; seen in otitis media. Delta sign (Option D): Seen in sigmoid sinus thrombosis, a known complication of otitis media.

References:

P L Dhingra Diseases of Ear Nose and Throat and Head and Neck Surgery - 8th Edition • Page no: 94, 101, 545

↑ *Back to this question in Part A*

@Neet_pg_bot

Q81: Which of the following tests are used to objectively assess hearing ability? BERA (Brainstem Evoked Response Audiometry) OAE (Otoacoustic Emission) PTA (Pure Tone Audiometry) Tympanometry (Q856312)

A. 1, 2 and 4

B. 1, 2 and 3

C. 2, 3 and 4

D. 1, 2, 3 and 4

Correct Answer: A. 1, 2 and 4

Explanation: The tests that objectively assess hearing ability are BERA (Brainstem Evoked Response Audiometry), OAE (Otoacoustic Emission), and Tympanometry . Pure Tone Audiometry (PTA) is a subjective test because it requires patient participation and conscious responses to auditory stimuli Objective Hearing Tests BERA (Brainstem Evoked Response Audiometry) : An objective neurological test measuring the brainstem's response to sound. It does not require patient participation and is valuable for infants and uncooperative adults.

OAE (Otoacoustic Emission) : An objective test that evaluates cochlear (specifically outer hair cell) function. Used widely in newborn and infant screening, as it does not need active patient response. Tympanometry : Also an objective test, tympanometry measures eardrum movement in response to pressure changes and helps assess middle ear function. Subjective Hearing Test PTA (Pure Tone Audiometry): This is a subjective test requiring the patient to respond when they hear tones. It is the gold standard for assessing hearing thresholds, but it depends on patient cooperation. Incorrect Options: 1, 2 and 3 (Option B) : Incorrect because PTA is subjective and requires the patient's response to tones, unlike the other tests. 2, 3 and 4 (Option C) : Incorrect because PTA is a subjective test. 1, 2, 3 and 4 (Option D) : Incorrect because PTA is subjective, not objective.

References:

P L Dhingra Diseases of Ear Nose and Throat and Head and Neck Surgery - 8th Edition • Page no: 27-32

↑ *Back to this question in Part A*

@Neet_pg_bot

Q82: A 55-year-old male came to the hospital with a history of trauma to the ear. On examination, the ear has swelling, tenderness, and discoloration. Which of the following is false regarding the given image? (Q856316)

A. All cases should receive prophylactic antibiotics

B. May lead to Pugilistic ear

C. Caused by accumulation of blood in perichondrial space

D. Resolves spontaneously

Correct Answer: D. Resolves spontaneously

Explanation: The condition described is likely auricular hematoma , which occurs due to the accumulation of blood between the ear's cartilage and the perichondrium (the tissue covering the cartilage). It is a common result of trauma to the ear and leads to swelling, tenderness, and discoloration. False statement : "Resolves spontaneously" is false. Auricular hematomas typically do not resolve spontaneously and require timely treatment. If left untreated, the blood collection can lead to cartilage necrosis , resulting in deformities like cauliflower ear (pugilistic ear). Treatment usually involves drainage of the accumulated blood and often the use of a pressure dressing to prevent re-accumulation of blood. Auricular Hematoma: Auricular hematomas require intervention, usually involving drainage and sometimes the use of prophylactic antibiotics to prevent infection. If untreated or improperly managed, the condition can lead to permanent deformities of the ear (like cauliflower ear), commonly seen in boxers or wrestlers (hence the term pugilistic ear). All cases should receive prophylactic antibiotics : This is true as there is a risk of infection, and antibiotics are used to prevent bacterial infections like auricular cellulitis or chondritis . May lead to Pugilistic ear : This is true. If auricular hematoma is untreated or inadequately treated, it may lead to cauliflower ear , which is a permanent deformed ear. Caused by accumulation of blood in perichondrial space : This is true. Auricular hematoma occurs due to blood collecting between the cartilage of the ear and the perichondrium, which can lead to further complications if not managed appropriately.

References:

P L Dhingra Diseases of Ear Nose and Throat and Head and Neck Surgery - 8th Edition • Page no 58

↑ *Back to this question in Part A*

@Neet_pg_bot

Q83: What is the name of the surgical procedure performed to enlarge the cartilaginous segment of the outer ear canal? (Q854870)

A. Meatoplasty

B. Tympanoplasty

C. Myringoplasty

D. Otoplasty

Correct Answer: A. Meatoplasty

Explanation: Correct Option A - Meatoplasty: Meatoplasty is a surgical procedure performed to enlarge the cartilaginous portion of the external auditory canal. This procedure is commonly done when there is narrowing or stenosis of the ear canal, often due to chronic infections or congenital malformations. The surgery involves removing a portion of the ear canal's walls to create a larger opening, which allows better access to the middle ear and improved drainage. It is often used to treat conditions like chronic otitis externa or to facilitate ear surgeries. Tympanoplasty (Option B): is incorrect because tympanoplasty is a surgical procedure performed to repair a perforated eardrum (tympanic membrane) or the bones of the middle ear, not to enlarge the ear canal. Myringoplasty (Option C): is incorrect because myringoplasty is the surgical repair of a perforated eardrum, similar to tympanoplasty, but it does not involve enlarging the ear canal. Otoplasty (Option D): is incorrect because otoplasty refers to the cosmetic surgical procedure that reshapes the outer ear, usually to correct protruding ears or deformities, rather than enlarging the ear canal.

References:

Diseases of Ear, Nose & Throat - PL Dhingra - 8th Edition • Page no: 473

↑ *Back to this question in Part A*

@Neet_pg_bot

Q84: Stimulation of which of the following causes cough when the external acoustic canal is scratched? (Q854876)

A. Auriculotemporal nerve

B. Auricular branch of vagus

C. Great auricular nerve

D. Facial nerve

Correct Answer: B. Auricular branch of vagus

Explanation: rnold's nerve): Stimulation of the auricular branch of the vagus nerve, which supplies sensation to the external acoustic canal, can trigger a cough reflex. This occurs due to the vagus nerve's involvement in reflex pathways, particularly through its connection to the cough center in the brainstem. Auriculotemporal nerve (Option A): is incorrect because the auriculotemporal nerve primarily provides sensory innervation to the anterior auricle and external auditory meatus, but it does not typically cause coughing when stimulated. Great auricular nerve (Option C): is incorrect because this nerve provides sensory innervation to the ear and the skin over the parotid gland but is not involved in the cough reflex. Facial nerve (Option D): is incorrect because the facial nerve primarily controls facial muscles and taste sensation, and its stimulation does not trigger a cough reflex in the external acoustic canal.

References:

P L Dhingra Diseases of Ear Nose and Throat and Head and Neck Surgery - 8th Edition • Page no: 5, 149, 548

↑ *Back to this question in Part A*

@Neet_pg_bot

Q85: A person who met with an accident and suffered from a skull fracture presents with the following finding. Identify this clinical finding. (Q854878)

A. Battle sign

B. Bezold abscess

C. Mastoiditis

D. Griesinger sign

Correct Answer: A. Battle sign

Explanation: – Battle Sign: Battle sign is commonly associated with basilar skull fractures, especially those involving the temporal bone. The bruising occurs due to the leakage of blood from the middle ear into the surrounding soft tissue. It is an important clinical sign to help identify skull fractures and potential trauma to the cranial nerves or other vital structures. Bezold abscess (Option B): is incorrect because Bezold abscess is a deep neck infection that results from untreated mastoiditis, leading to swelling and abscess formation, not bruising behind the ear. Mastoiditis (Option C): is incorrect because mastoiditis is an infection of the mastoid bone, usually caused by untreated otitis media, and presents with pain, swelling, and fever rather than bruising behind the ear. Griesinger sign (Option D): is incorrect because Griesinger sign refers to the presence of a high fever and a characteristic rash seen in meningitis, not a skull fracture or bruising behind the ear.

References:

PL Dhingra Diseases of Ear, Nose & Throat 8th Edition • Page no: 91, 92, 94, 101, 545

↑ *Back to this question in Part A*

@Neet_pg_bot

Q86: From which of the following structures does the saccule develop? (Q858482)

A. Saculus anterior

B. Saculus posterior

C. Pars superior

D. Pars inferior

Correct Answer: D. Pars inferior

Explanation: Pars inferior: The saccule develops from the pars inferior of the otic vesicle. The pars inferior forms the saccule and the cochlea during the development of the inner ear. Saculus anterior (Option A): is incorrect because the saccule does not develop from the anterior part of the otic vesicle; this part is more involved in forming the semicircular canals. Saculus posterior (Option B): is incorrect because while the saccule is located in the posterior part of the ear, it actually develops from the pars inferior, not from the posterior segment. Pars superior (Option C): is incorrect because the pars superior is primarily involved in the development of the semicircular canals and not the saccule.

References:

Diseases of Ear, Nose & Throat - PL Dhingra - 8th Edition • Page no: 15

Gray's Anatomy: The Anatomical Basis of Clinical Practice - 42nd Edition • Page no: 269, 270

↑ *Back to this question in Part A*

@Neet_pg_bot

Q87: Which of the following does not represent a characteristic of tubercular otitis media? (Q858484)

A. Ear ache

B. Multiple perforations

C. Pale granulation

D. Non-foul smelling ear discharge

Correct Answer: A. Ear ache

Explanation: Ear ache is not typically a prominent feature of tubercular otitis media. Characteristics of Tubercular otitis media. This condition is a chronic middle ear infection caused by Mycobacterium tuberculosis. It presents with symptoms like pale granulation tissue, multiple perforations in the tympanic membrane, and sometimes a mild, non-foul-smelling ear discharge. Unlike acute otitis media or other chronic forms, tubercular otitis media usually does not cause severe pain in the ear, making ear ache an uncommon complaint. Multiple perforations (Option B): is correct because tubercular otitis media often results in multiple tympanic membrane perforations due to the chronic and destructive nature of the infection. Pale granulation (Option C): is correct because pale, non-purulent granulation tissue is a characteristic feature of tubercular otitis media, often seen around the

perforations. Non-foul smelling ear discharge (Option D): is correct because tubercular otitis media does not produce a foul-smelling discharge.

References:

PL Dhingra Diseases of Ear, Nose & Throat - 8th Edition • Page no: 88

↑ *Back to this question in Part A*

@Neet_pg_bot

Q88: Which of the following is not seen in Meniere's Disease? (Q859364)

A. Tinnitus

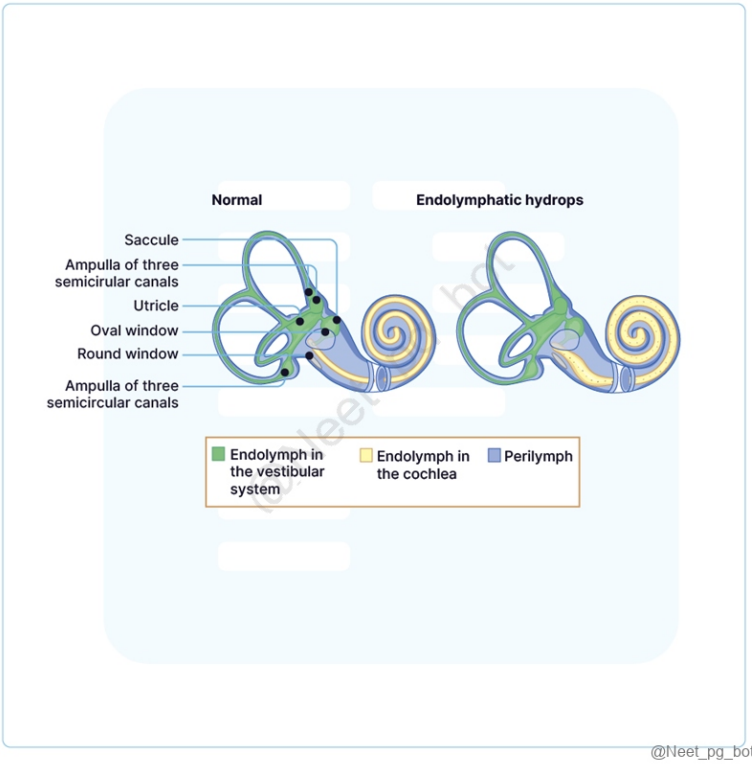
B. Vertigo

C. Fullness of ear

D. Ear Pain

Correct Answer: D. Ear Pain

Explanation: Meniere’s disease is an inner ear disorder characterized by episodes of vertigo, tinnitus, fluctuating sensorineural hearing loss, and aural fullness due to endolymphatic hydrops . However, ear pain is not a typical feature of Meniere’s disease unless secondary infections or complications occur. Meniere’s Disease Feature Description Cause Excess endolymph accumulation (endolymphatic hydrops) Triad of Symptoms 1. Vertigo (episodic, lasts minutes to hours) 2. Tinnitus (low-frequency, roaring type) 3. Hearing loss (sensorineural, fluctuating, progressive) Other Symptoms Aural fullness (blocked ear sensation) Not Typically Seen Ear pain , except in secondary infections Diagnosis Clinical + Audiometry (low-frequency SNHL) Treatment Dietary modifications (low sodium), diuretics, vestibular suppressants, intratympanic steroids, and surgery in refractory cases {{caption_text}} Incorrect Options: Tinnitus (Option A): is incorrect because tinnitus (low-pitched, roaring) is a hallmark of Meniere’s disease. Vertigo (Option B): is incorrect because Meniere’s disease presents with episodic vertigo , lasting minutes to hours. Fullness of ear (Option C): is incorrect because aural fullness or pressure sensation in the affected ear is a classic symptom.



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References:

Diseases of Ear, Nose, Throat - PL Dhingra, 8th edition, Pg - 119,120

↑ *Back to this question in Part A*

@Neet_pg_bot

Q89: Which of the following is characterized by the presence of both reservoir sign and mastoid tenderness? (Q859388)

A. Otosclerotic lesion

B. Acute mastoiditis

C. Intratympanic glomus tumor

D. Chronic suppurative otitis media

Correct Answer: B. Acute mastoiditis

Explanation: Acute mastoiditis is characterized by: Reservoir sign : It refers to the collection of fluid or pus in the mastoid air cells, which can be visualized during otoscopy or imaging. Mastoid tenderness : This is a key clinical

sign of acute mastoiditis, where the patient experiences pain and tenderness over the mastoid process due to inflammation. Acute Mastoiditis: Acute mastoiditis is an infection of the mastoid bone, typically following an untreated or inadequately treated middle ear infection (acute otitis media). It involves the inflammation of the mastoid air cells, which can lead to symptoms like: Pain and tenderness over the mastoid process Swelling behind the ear Fever and irritability in children It can be diagnosed through clinical examination (looking for the reservoir sign and mastoid tenderness) and imaging like CT scans. If left untreated, it can lead to severe complications like hearing loss, intracranial infections, and abscess formation. Incorrect Options: Otosclerotic lesion (Option A): is incorrect because otosclerosis is a bone condition affecting the stapes in the middle ear, and it does not cause mastoid tenderness or a reservoir sign. Intratympanic glomus tumor (Option C): is incorrect because glomus tumors, though they can cause ear symptoms, do not cause mastoid tenderness or reservoir sign. These tumors are typically vascular and are located in the middle ear or jugular bulb. Chronic suppurative otitis media (Option D): is incorrect because while chronic otitis media may have purulent discharge, it does not typically present with mastoid tenderness or the reservoir sign unless there's a complication such as cholesteatoma or a coexisting acute mastoiditis.

References:

P L Dhingra Diseases of Ear Nose and Throat and Head and Neck Surgery - 7th Edition Page no: 85

P L Dhingra Diseases of Ear Nose and Throat and Head and Neck Surgery - 6th Edition Page no: 77 and 109

↑ *Back to this question in Part A*

@Neet_pg_bot

Q90: Hallpike maneuver aids in the assessment of which of the following? (Q859863)

A. Vestibular function

B. Audiometry

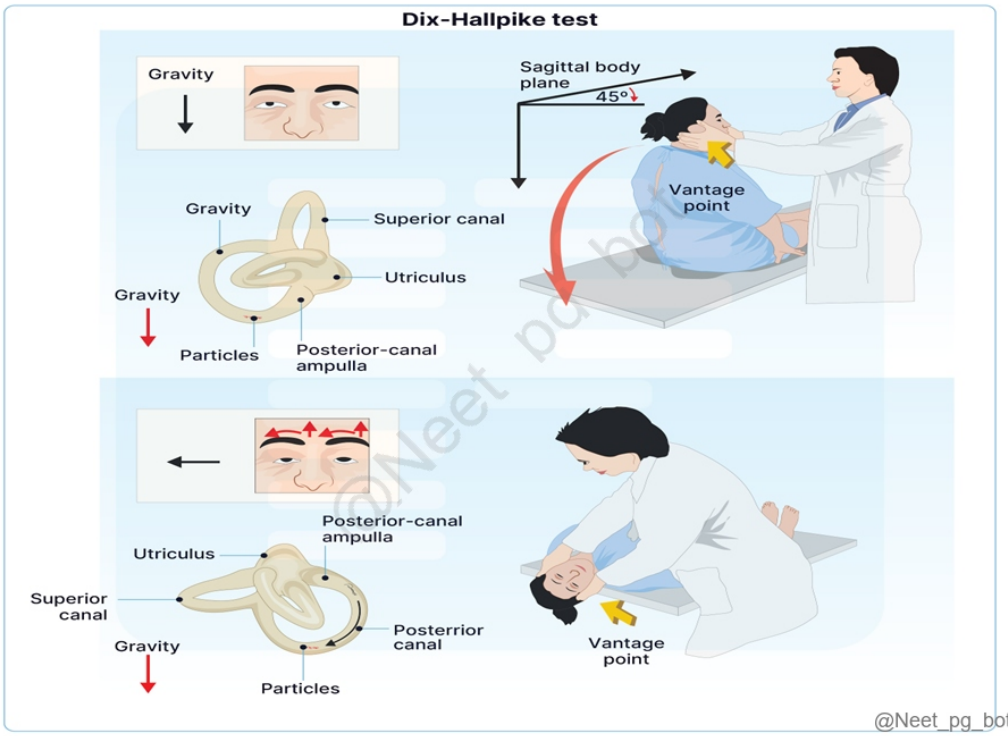
C. Cochlear function

D. Corneal test

Correct Answer: A. Vestibular function

Explanation: The Hallpike maneuver , also known as the Dix-Hallpike test , is primarily used to assess vestibular function . It helps in diagnosing benign paroxysmal positional vertigo (BPPV) by provoking vertigo symptoms related to the inner ear . The test involves rapidly positioning the patient’s head in specific ways to observe for symptoms like nystagmus , which are indicative of vestibular disorders. Hallpike Maneuver : The Hallpike maneuver is designed to provoke vertigo and nystagmus in patients suspected of having BPPV . It tests the function of the posterior semicircular canal of the inner ear, which is involved in balance. The test is positive if a burst of vertigo and nystagmus occur when the patient is moved into the position, and this supports the diagnosis of BPPV . The maneuver is specifically used for evaluating vestibular disorders , not for assessing hearing or corneal reflexes. Incorrect Options: Audiometry (Option B) : is incorrect because audiometry assesses hearing, not balance or vestibular function. Cochlear function (Option C) : is incorrect because cochlear function pertains to

hearing, and the Hallpike maneuver is not used to assess hearing but rather balance. Corneal test (Option D) : is incorrect because the corneal reflex test assesses the sensory and motor pathways for blinking, unrelated to vestibular or hearing functions.



References:

Diseases of Ear, Nose, Throat - PL Dhingra, 8th edition, page no: 48,49,52

Logan Turner’s Diseases of the Nose, Throat and Ear,11th edition, page no: 388,464

Current Diagnosis and Treatment-Otolaryngology Head and Neck Surgery, 2nd edition, page no: 714

Scott-Brown’s Otorhinolaryngology Head and Neck Surgery, 8th edition, page no: 831,832

↑ *Back to this question in Part A*

@Neet_pg_bot

Q91: A 35-year-old male presents to the with a three-day history of severe headache, fever, and nausea. He also reports experiencing pain and swelling behind his left ear and blood-tinged ear discharge. On examination tenderness and bluish discoloration over the mastoid process of the left temporal bone is observed. His CT showed an empty delta sign. What is the likely diagnosis? (Q859869)

A. Meningitis

B. Lateral sinus thrombosis

C. Brain Abscess

D. Extradural Abscess

Correct Answer: B. Lateral sinus thrombosis

Explanation: The empty delta sign on CT imaging refers to a sign of lateral sinus thrombosis . It is characterized by the absence of contrast in the lateral sinus, which is usually filled with a clot, causing a "delta" shape around the thrombus. This condition is typically a complication of otitis media or mastoiditis , leading to infection spreading to the lateral sinus , which can cause severe headache, fever, nausea, and pain and swelling behind the ear. Lateral Sinus Thrombosis : Lateral sinus thrombosis is a rare but serious condition that can result from the spread of infection from the middle ear or mastoid to the lateral sinus . It is characterized by: Headache , fever , nausea , and pain/swelling behind the ear (mastoid process). Bluish discoloration over the mastoid, which is called "mastoid ecchymosis" or "Battle's sign" . The empty delta sign on CT, which is highly suggestive of lateral sinus thrombosis . Meningitis (Option A) is incorrect because while meningitis can cause headache, fever, and nausea, it would not present with the empty delta sign or swelling behind the ear associated with lateral sinus thrombosis Brain Abscess (Option C) is incorrect because a brain abscess would present with neurological symptoms, such as focal deficits or altered consciousness, and would not typically show the empty delta sign on CT. Extradural Abscess (Option D) is incorrect because although an extradural abscess can cause swelling and localized pain, it does not typically show the empty delta sign or the same pattern of infection spread as lateral sinus thrombosis.

References:

radiopaedia.org/articles/empty-delta-sign-dural-venous-sinus-thrombosis

↑ *Back to this question in Part A*

@Neet_pg_bot

Q92: Which of the given options is most likely to cause sensory neural hearing loss? (Q859876)

A. Labyrinthitis

B. Otosclerosis

C. Ear wax

D. CSOM

Correct Answer: A. Labyrinthitis

Explanation: Labyrinthitis refers to an inflammation of the inner ear, specifically the labyrinth , which contains both the cochlear (hearing) and vestibular (balance) systems. When the cochlear part is affected, it can lead to sensorineural hearing loss due to damage to the cochlear structures or the auditory nerve. It is often caused by a viral or bacterial infection, resulting in hearing impairment and balance issues. Labyrinthitis: Labyrinthitis typically results from viral or bacterial infections, leading to inflammation of the inner ear. It can cause sensorineural hearing loss , vertigo, nausea, and tinnitus. The hearing loss is sensorineural because it involves damage to the cochlea or the auditory nerve. Treatment typically involves managing the infection (if bacterial) and symptomatic relief for the hearing and balance disturbances. Incorrect Options: Otosclerosis (Option B) : is incorrect because otosclerosis is a condition that affects the ossicles (middle ear bones), leading to conductive hearing loss , not sensorineural hearing loss. Ear wax (Option C) : is incorrect because ear wax can cause conductive hearing loss by blocking the ear canal, but it does not affect the inner ear, so it does not cause sensorineural hearing loss . Chronic Suppurative Otitis Media (CSOM) (Option D) : is incorrect because CSOM primarily causes conductive hearing loss due to the damage to the middle ear structures, not sensorineural hearing loss.

References:

Dhingra Diseases Of Ear, Nose And Throat & Head And Neck Surgery, Edition 8, Pg 52, 53, 54.

Scott-Brown’s Otorhinolaryngology Head and Neck Surgery 8th Edition, Chapter 65:Superior Semicircular Canal Dehiscence (SSCD), Pg 843

↑ *Back to this question in Part A*

@Neet_pg_bot

Q93: Which statement accurately describes BERA (Brainstem Evoked Response Audiometry)? (Q859903)

A. It can be used for screening for hearing loss

B. It is an invasive procedure

C. It can be used for assessing sensorineural hearing loss

D. It is a subjective investigation

Correct Answer: C. It can be used for assessing sensorineural hearing loss

Explanation: BERA (Brainstem Evoked Response Audiometry) is a non-invasive diagnostic test that measures the auditory pathways' response to sound stimulation. It is primarily used to assess the sensorineural hearing loss , as it evaluates the function of the auditory nerve and brainstem. BERA is particularly helpful in diagnosing hearing loss in infants, young children, and patients who are unable to cooperate with standard hearing tests. BERA (Brainstem Evoked Response Audiometry): Procedure : During BERA, electrodes are placed on the scalp, and sound stimuli are presented through headphones. The electrical response generated by the brainstem in reaction to the sound is recorded and analyzed. Uses : It is primarily used to assess the function of the auditory pathway up to the

brainstem, particularly to detect sensorineural hearing loss , and can help in identifying conditions like auditory neuropathy or brainstem lesions. Incorrect Options: It is an invasive procedure (Option B) : is incorrect because BERA is non-invasive . It does not require any surgical intervention or insertion of instruments inside the body. It can be used for screening for hearing loss (Option A) : While BERA can aid in diagnosing hearing loss, it is not commonly used for general screening in routine practice. It is more useful for confirming and assessing hearing loss, particularly sensorineural types, in specific cases (e.g., infants, patients who cannot cooperate with standard tests). It is a subjective investigation (Option D) : is incorrect because BERA is objective , as it records the brainstem's electrical response to sound stimuli, which is an automated and measurable process, not dependent on patient feedback or subjective interpretation.

References:

Diseases of Ear, Nose, Throat - PL Dhingra, 8th edition, Pg 31, 32.

↑ *Back to this question in Part A*

@Neet_pg_bot

Q94: A 5-year-old child presents with reduced hearing for the past 2-3 months. The otoscopy finding is given below. What is the most likely diagnosis? (Q855566)

A. Myringitis bullosa

B. Serous otitis media

C. Acute otitis media

D. Pneumo Tympanum

Correct Answer: B. Serous otitis media

Explanation: Correct Option: B) Serous otitis media Based on the otoscopy finding of a retracted and opaque tympanic membrane with fluid visible behind it, the foremost likely diagnosis is serous otitis media. Serous Otitis Media (SOM): Category Details Symptoms Hearing Loss : Conductive, mild to moderate (20-40 dB), gradual onset, may fluctuate; children may not complain, but parents may notice difficulties in hearing. Delayed/Defective Speech Mild Earaches Fullness in Ear. Signs Tympanic Membrane Appearance : Dull, opaque, possibly yellow, grey, or bluish; absence of the usual light reflex. Visible Fluid/Bubbles: Air-fluid levels or bubbles visible behind the eardrum. Retracted Tympanic Membrane : Negative middle ear pressure causing eardrum retraction, with the malleus handle appearing shortened or horizontal. Reduced Tympanic Membrane Mobility. Diagnostic Tests for SOM: Test Description Rinne Test In conductive hearing loss (SOM), bone conduction is better than air conduction (negative Rinne test). Weber Test In conductive hearing loss (SOM), the sound is louder in the affected ear when the tuning fork is placed on the forehead. Absolute Bone Conduction (ABC) Test Both patient and examiner hear the tuning fork for a similar duration when placed on the mastoid bone (ear canals plugged) in conductive hearing loss (SOM). (Bone conduction not impaired) Schwabach's Test In conductive hearing loss (SOM), the patient hears the tuning fork for a longer duration than the examiner when placed on the mastoid bone (ear canals not plugged). Pneumatic Otoscopy Visualizes eardrum movement with air pressure changes; reduced/absent movement indicates fluid presence. Impedance audiometry Measures eardrum movement; typically shows a flat/dome-shaped curve with negative pressure, indicating reduced compliance. Audiometry Conductive hearing loss (20-40 dB). Sometimes, associated sensorineural hearing loss (d/t fluid on the round window membrane. X-ray/CT Scan of Temporal Bone May show mastoid air cell clouding due to fluid Incorrect Options: Myringitis bullosa (Option A) : This is often an uncommon condition where fluid-filled blisters develop on the tympanic membrane causing pain and hearing loss. In any case, the otoscopy finding within the given scenario does not describe to have any blisters or erythema. Acute otitis media (Option C) : Typically a bacterial infection of the middle ear causing pain, fever, cartwheel appearance and bulging of the tympanic membrane. The otoscopy

finding within the given scenario does not describe any bulging or signs of infection. Pneumo tympanum (Option D) : Typically the presence of air in the middle ear causes a bulging and retracted tympanic membrane. It is more often than not seen after a sudden change in pressure such as diving or a blast injury. The otoscopy finding within the given scenario does not describe any bulging or increased air space within the middle ear.

References:

Diseases of the Ear, Nose, Throat, 8th Edition, Page no: 78

↑ *Back to this question in Part A*

@Neet_pg_bot

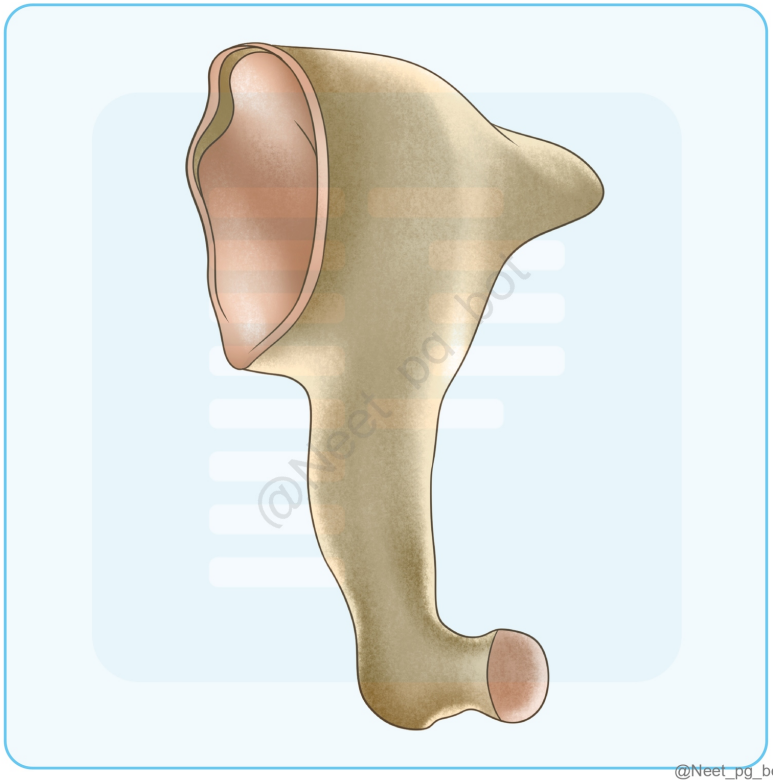
Q95: Identify the structure given in the image. (Q855576)

A. Malleus

B. Incus

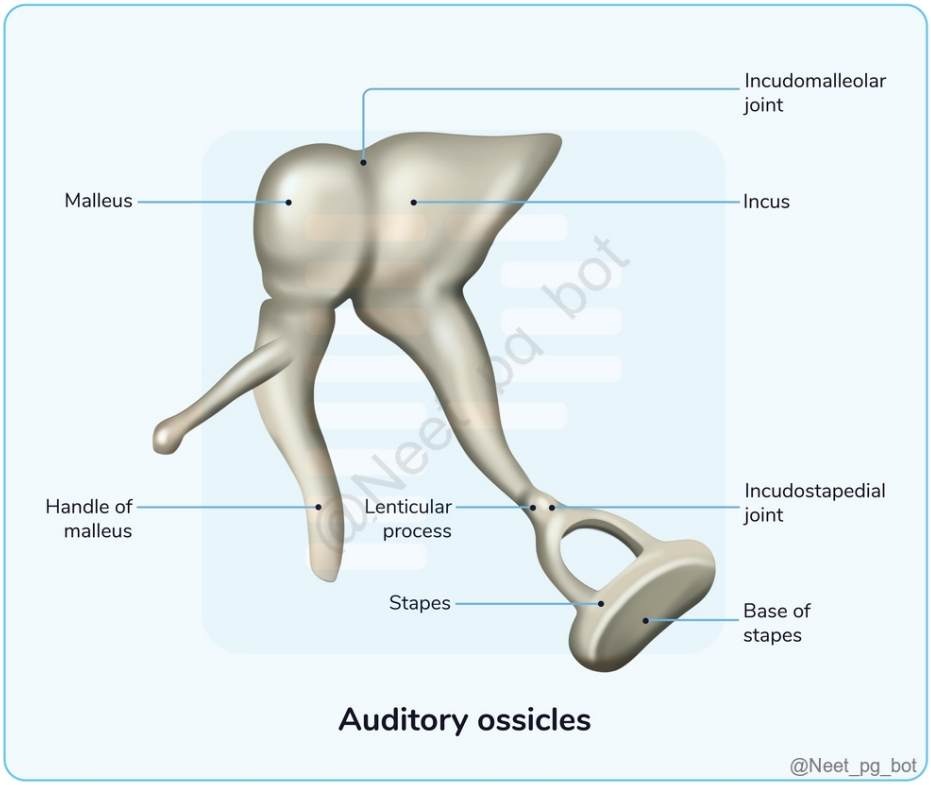
C. Stapes

D. Vomer



Correct Answer: B. Incus

Explanation: Correct Option: B) Incus The structure given within the picture is the Incus, also known as the anvil. It is one of the three ossicles of the center ear, alongside the malleus and stapes. The incus is found between the malleus and stapes and is associated to them by synovial joints. Incorrect Options : Malleus (Option A): The malleus, too known as the hammer, is the primary of the three ossicles and is attached to the eardrum. Stapes (Option C): The stapes, moreover known as the stirrup, is the last of the three ossicles and is attached to the oval window of the inner ear. Vomer (Option D): The vomer may be a bone within the cranium that forms part of the nasal septum.



References:

Diseases of the Ear, Nose, Throat, 8th Edition, Page no: 56

↑ *Back to this question in Part A*

@Neet_pg_bot

Q96: Which nerve is most likely to be affected in a patient who complains of an inability to close the eye, drooling of saliva, and deviation of the angle of the mouth? (Q855590)

A. Facial nerve

B. Trigeminal nerve

C. Oculomotor nerve

D. Glossopharyngeal nerve

Correct Answer: A. Facial nerve

Explanation: Correct Option A) Facial nerve: The presentation of inability to close the eye, drooling of saliva, and deviation of the angle of the mouth is indicative of facial nerve palsy or Bell's palsy, which is caused by the dysfunction of the facial nerve. The facial nerve innervates the muscles of facial expression, including those involved in closing the eye, controlling the point of the mouth, and creating saliva. {{caption_text}} Incorrect Options: Trigeminal nerve (Option B): The trigeminal nerve innervates the muscles of mastication and is responsible for sensation of the face. Dysfunction of this nerve can cause facial numbness, trouble chewing, and jaw weakness, but it would not cause the particular indications specified within the question. Oculomotor nerve (Option C): The oculomotor nerve is dependable for innervating the muscles of the eye, including those involved in controlling the size of the pupil and the position of the eyelid. Dysfunction of this nerve can cause drooping of the eyelid and double vision, but it would not cause the other side effects specified within the question. Glossopharyngeal nerve (Option D): The glossopharyngeal nerve is dependable for innervating the tongue and pharynx and is involved in the taste sensation of the posterior one third. Dysfunction of this nerve can cause trouble swallowing and loss of taste sensation, but it would not cause the specific side effects said within the question.

References:

Diseases of the Ear, Nose, Throat, 8th Edition, Page no: 67

↑ *Back to this question in Part A*

@Neet_pg_bot

Q97: Which of the following structures are in close proximity to the affected structure in a 70-year-old male patient presenting with decreased hearing in higher frequencies, where the basilar membrane has been affected? (Q855777)

A. Modiolus

B. Stria vascularis

C. Oval window

D. Helicotrema

Correct Answer: B. Stria vascularis

Explanation: Correct Option: B) Stria vascularis The basilar membrane lies inside the cochlea and plays a crucial role in detecting sound frequency. In a 70-year-old patient with high-frequency hearing loss, the basal turn of the cochlea (closest to the oval window) is typically affected. The stria vascularis , located on the lateral wall of the cochlear duct , is closely associated with the basilar membrane , both anatomically and functionally. The basilar membrane is responsible for tonotopic mapping of sound frequencies in the cochlea. The stria vascularis lies directly adjacent to the basilar membrane, on the lateral wall of the scala media . It produces endolymph and maintains the ionic composition required for hair cell function. Hearing loss in higher frequencies is typically due to damage near the base of the cochlea , where the stria vascularis and basilar membrane are closely related. Modiolus (Option A): The central bony core of the cochlea; provides structural support but is not adjacent to the basilar membrane. Oval window (Option C): Located at the base of the cochlea, where the stapes footplate transmits vibrations to the scala vestibuli. While functionally related, it is not close or parallel to the basilar membrane. Helicotrema (Option D): A small opening at the apex of the cochlea that connects the scala vestibuli and scala tympani; far from the basilar membrane's primary region of involvement in high-frequency hearing loss.

References:

Diseases of the Ear, Nose, Throat, 8th Edition, Page no: 98

↑ *Back to this question in Part A*

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Q98: A 45-year-old female presents with a 2-year history of progressive unilateral hearing loss, tinnitus, and unsteadiness. An MRI scan reveals a well-defined tumor located in the cerebellopontine angle (CPA). A surgical resection is performed, and subsequent histopathological examination of the tumor tissue is given below. Based on

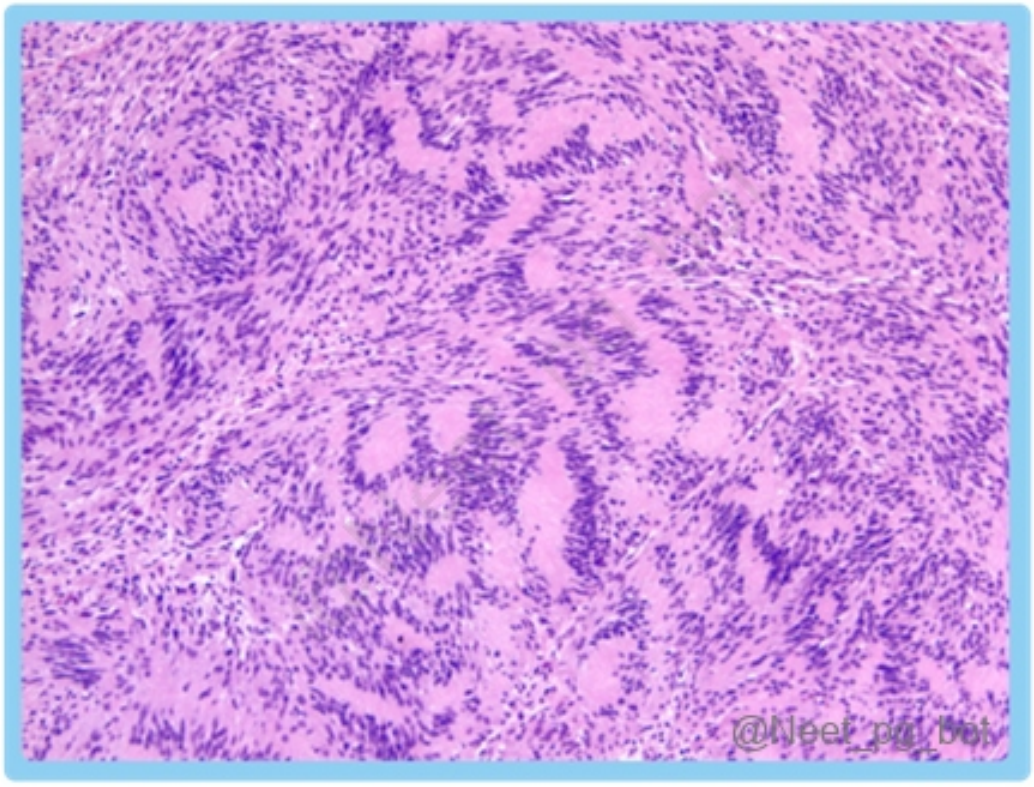
these histopathological findings, what is the most likely diagnosis? (Q866534)

A. Schwannoma

B. Ependymoma

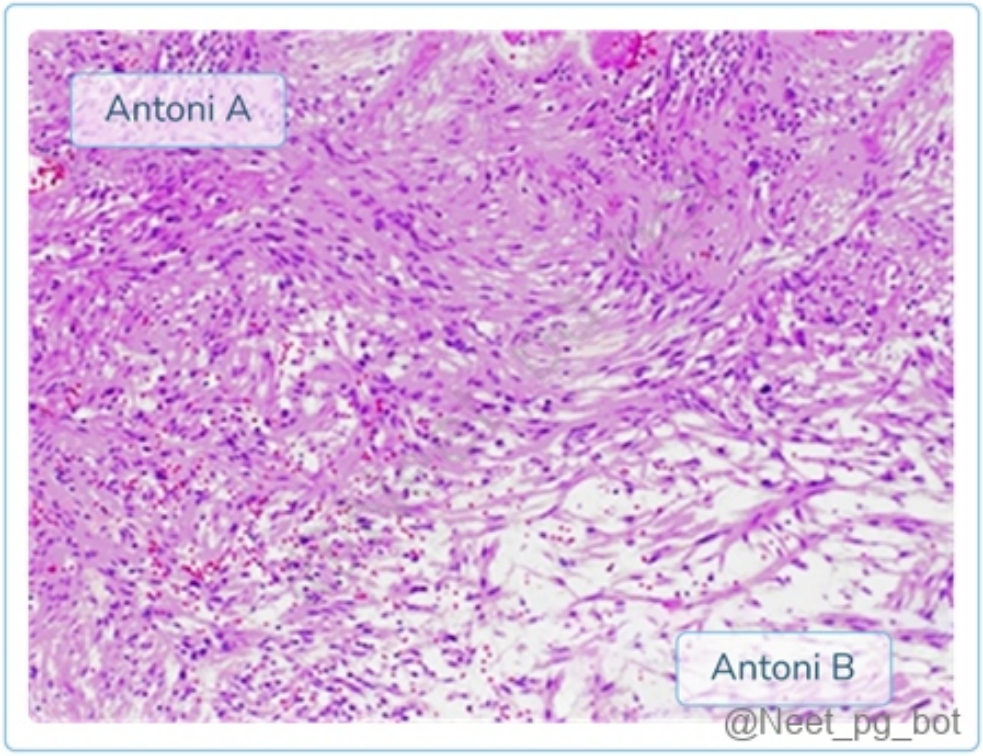
C. Meningioma

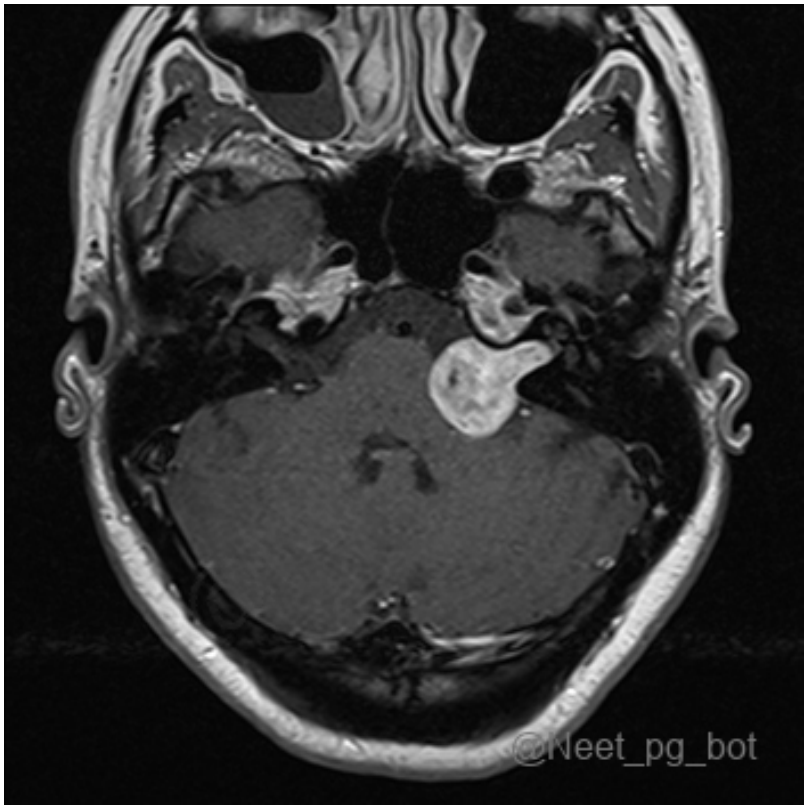
D. Neurofibroma



Correct Answer: A. Schwannoma

Explanation: Based on the clinical features and the histopathological findings, the most likely diagnosis is Schwannoma (also known as vestibular schwannoma/ acoustic neuroma). The patient presents with progressive unilateral hearing loss, tinnitus, and unsteadiness, which strongly suggest involvement of vestibulocochlear nerve (CN VIII) . MRI shows a CPA (cerebellopontine angle) mass, which is the most common location for vestibular schwannomas. Histopathology typically shows: Antoni A areas: densely packed spindle cells arranged in palisades (Verocay bodies). Antoni B areas: loosely arranged cells in a myxoid background. Incorrect Options: Option B - Ependymomas are tumors arising from the ependymal lining of the ventricles or central canal of the spinal cord. They do not present in the CPA and are more commonly intraventricular or intraspinal. Histology shows perivascular pseudorosettes, not Antoni patterns. Option C - Meningiomas can occur in the CPA but are extra-axial, dural-based tumors. On histology, they show whorled patterns, psammoma bodies, and syncytial cells, not Antoni A/B areas. Option D - Neurofibromas also arise from Schwann cells but are non-encapsulated, infiltrative tumors involving multiple nerve fascicles. Histology lacks Verocay bodies and the distinct Antoni A/B areas. They are more diffuse than the well-circumscribed schwannoma.





↑ *Back to this question in Part A*

@Neet_pg_bot

Q99: A 60-year-old man presents with gradual, progressive hearing loss. On examination, he has difficulty perceiving high-frequency sounds, but the other findings are normal. Which structure is primarily affected in this condition? (Q879164)

A. Striae vascularis

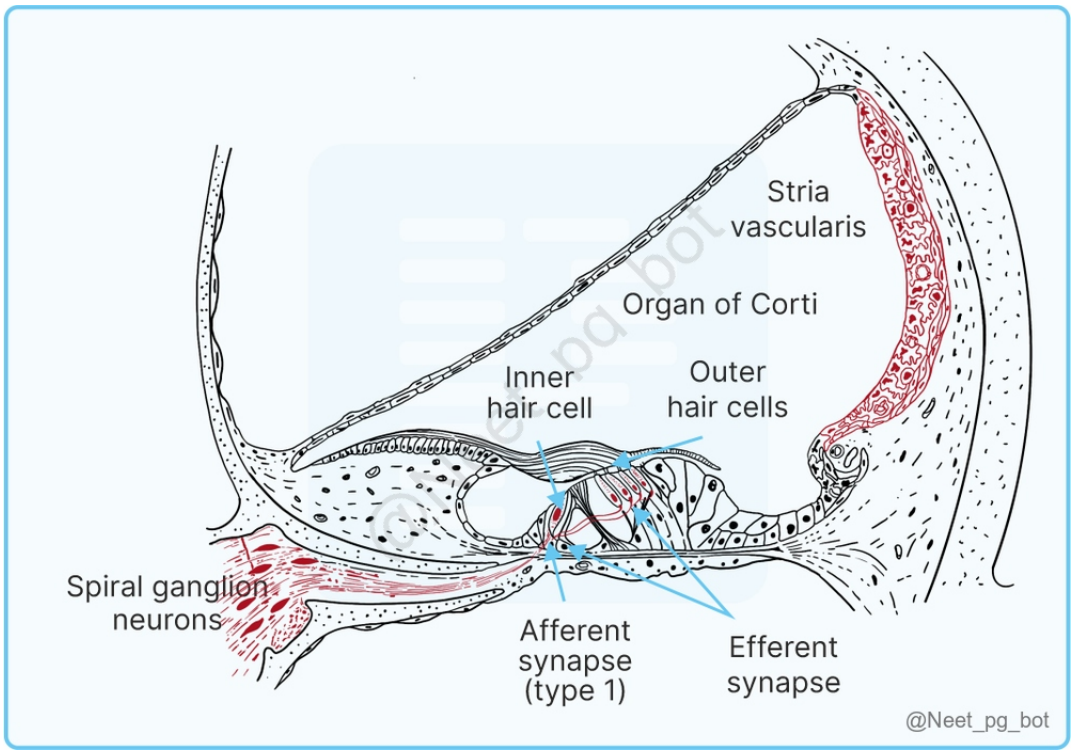
B. Tectorial membrane

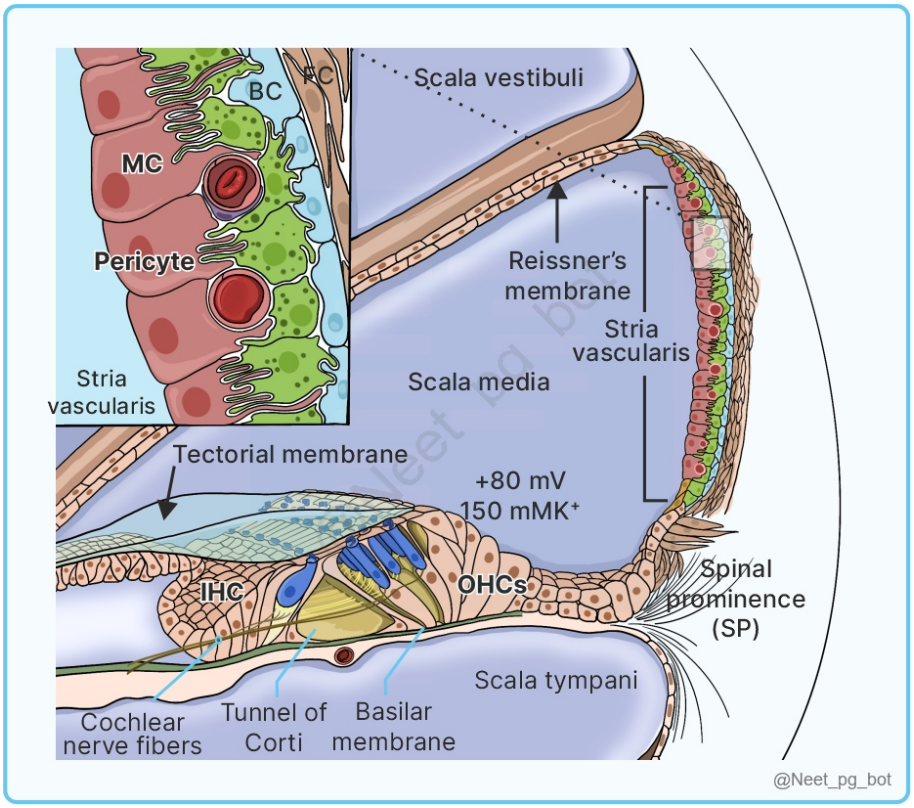
C. Inner hair cells of the basal turn

D. Outer hair cells of the apical turn

Correct Answer: C. Inner hair cells of the basal turn

Explanation: The clinical picture describes age-related, symmetric, slowly progressive sensorineural hearing loss , which is characteristic of presbycusis . The basal turn of the cochlea is responsible for detecting high-frequency sounds . In presbycusis, there is degeneration of inner hair cells —primarily at the basal (proximal) turn of the cochlea—resulting in: Loss of high-frequency hearing (first and most prominent) Difficulty understanding consonants (e.g., “s”, “t”, “k”, “f”) Poor speech discrimination , especially in noisy environments Incorrect Options: Striae vascularis (Option A): Atrophy of the striae vascularis causes strial/metabolic presbycusis, which mainly affects endolymph production and overall cochlear metabolism, resulting in flat hearing loss across all frequencies. Major stria vascularis cell types (marginal (MC), intermediate (IC) and basal (BC) cells) are colored as red, green and blue, respectively. Tectorial membrane (Option B): Damage to the tectorial membrane may affect mechanical transduction between stereocilia and the organ of Corti, but it is not the characteristic pathology of age-related high-frequency hearing loss; it more commonly affects sound amplification and tuning. Outer hair cells of the apical turn (Option D): The apical turn detects low-frequency sounds, and its outer hair cells contribute to sound amplification. Damage here would cause low-frequency hearing loss.





References:

Dhingra Diseases of Ear, Nose and Throat and Head and Neck Surgery, 8th Edition, Page 19.

↑ *Back to this question in Part A*

@Neet_pg_bot

Q100: Which of the following modalities is not used for hearing assessment in an infant? (Q879170)

A. OAE

B. BERA

C. PTA

D. Free field audiometry

Correct Answer: C. PTA

Explanation: Pure Tone Audiometry (PTA) requires the patient to actively respond (e.g., by raising a finger or pressing a button) when they hear a sound. Infants cannot give reliable behavioral responses , so PTA cannot be used in hearing assessment until about 5–6 years of age when the child can understand and follow instructions. Incorrect Options: OAE (Option A): Measures echoes generated by outer hair cells of the cochlea when a sound stimulus is given. It is for detecting cochlear (outer hair cell) dysfunction . BERA (Option B): An electrophysiological test that records electrical activity along the auditory pathway up to the brainstem, which can be performed in newborns, infants, and even during natural sleep . It can determine the hearing threshold, site of lesion (cochlear vs. retrocochlear), and the degree of hearing loss. It is often done when OAE fails or when neurogenic hearing loss is suspected. Free field audiometry (Option D): A behavioural audiometry technique, done in older infants (~6 months-2 years). The infant is placed in a sound-treated room and sounds of different frequencies and intensities are delivered through loudspeakers. Infant's responses include head turn, eye widening and cessation of activity.

References:

Dhingra Diseases of Ear, Nose and Throat and Head and Neck Surgery, 8th Edition, Page 138.

↑ *Back to this question in Part A*

@Neet_pg_bot

Q101: While performing a caloric test, what type of nystagmus would you expect on cold water irrigation ? (Q805675)

A. Nystagmus towards the same side

B. Nystagmus towards the opposite side

C. Central nystagmus

D. Positional nystagmus

Correct Answer: B. Nystagmus towards the opposite side

Explanation: Correct option C - nystagmus towards the opposite side: The mnemonic for this concept is COWS; Cold water will induce nystagmus toward the Opposite side, and Warm water will induce nystagmus towards the Same side. Incorrect options: Options A, B, and D are incorrect. Central nystagmus can arise from lesions affecting the midbrain or cerebellum, resulting in up- and down-beat nystagmus. Positional nystagmus is triggered by specific head positions, often observed in conditions like benign paroxysmal positional vertigo (BPPV).

References:

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↑ *Back to this question in Part A*

@Neet_pg_bot

Q102: What is the probable diagnosis for a 60-year-old individual with diabetes who is experiencing intense ear pain and otorrhea that is not improving with antibiotics? During examination, the presence of granulation tissue in the ear canal and facial nerve paralysis was observed? (Q793522)

A. Otomycosis

B. Serous otitis media

C. Malignant otitis externa

D. Eczematous otitis externa

Correct Answer: C. Malignant otitis externa

Explanation: Correct Option C - Malignant otitis externa: Malignant otitis externa is the most likely diagnosis for a 60-year-old diabetic patient with acute ear discomfort, otorrhea that is not responding to treatments, granulation tissue in the external auditory canal (EAC), and facial nerve palsy. A severe and sometimes fatal infection of the bones and soft tissue of the external auditory canal is known as malignant otitis externa. Symptoms include extreme discomfort, otorrhea, granulation tissue in the EAC, and cranial nerve involvement, which can result in facial nerve palsy. It is frequently observed in senior diabetic individuals. Incorrect Options: Option A - Otomycosis: Although otomycosis, a fungus that affects the ear canal, can cause itchiness, pain, and discharge, it is not frequently linked to facial nerve palsy. Option B - Serous otitis media: The illness known as serous otitis media causes fluid to build up in the middle ear, which might result in hearing loss, although it doesn't often produce excruciating pain or otorrhea. Option D - Eczematous otitis externa: Eczematous otitis externa is an inflammation of the ear canal's skin that can result in itching, redness, and discharge, but it is not frequently linked to granulation

tissue or facial nerve palsy.

References:

Prepladder Notes

↑ *Back to this question in Part A*

@Neet_pg_bot

Q103: What could be the potential clinical diagnosis for a 35-year-old man who visited the clinic reporting intermittent dizziness, sensation of pressure and fullness in the ear, reduced hearing, and a low-frequency roaring sound in the ears? (Q793541)

A. Meniere’s disease

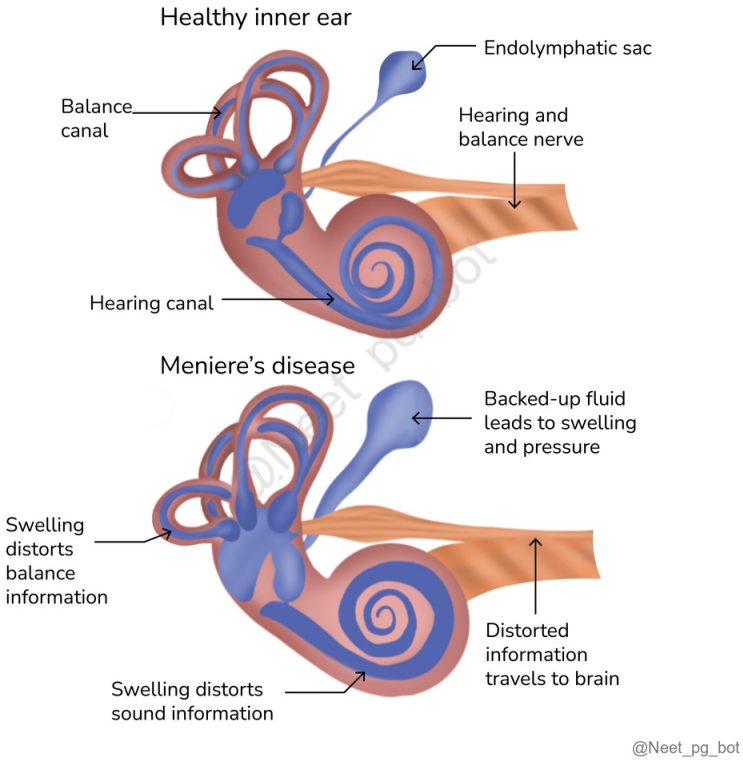
B. Benign paroxysmal positional vertigo

C. Labyrinthitis

D. Syncope

Correct Answer: A. Meniere’s disease

Explanation: Correct Option A - Meniere’s disease: The patient is likely suffering from Meniere’s disease, It is characterized by: Spontaneous attacks of vertigo, Fluctuating sensorineural hearing loss, and Tinnitus and Aural fullness Diuretics to lessen fluid buildup in the inner ear, medicines to decrease vertigo and nausea, and in extreme cases, surgery to alleviate pressure in the inner ear are all possible treatments for Meniere's disease. Incorrect Options: Option B - Benign paroxysmal positional vertigo: A common cause of vertigo known as benign paroxysmal positional vertigo (BPPV) is characterized by transient episodes of vertigo brought on by changes in head position. BPPV is not often accompanied by hearing loss or tinnitus, unlike Meniere's illness. Option C - Labyrinthitis: Inflammation of the inner ear called labyrinthitis can result in vertigo, hearing loss, and tinnitus. The onset of symptoms, however, can be abrupt and is frequently accompanied by fever and earache. Option D - Syncope: The symptoms mentioned in the scenario are not often linked to syncope, which is a sudden loss of consciousness or fainting.



References:

Prepladder Notes

↑ *Back to this question in Part A*

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Q104: For which of the subsequent conditions is Bone Anchored Hearing Aid (BAHA) implemented? (Q793561)

A. Sensorineural hearing loss

B. Acoustic neuroma

C. Congenital external auditory atresia

D. Otitis media

Correct Answer: C. Congenital external auditory atresia

Explanation: Correct Option C - Congenital external auditory atresia: The use of Bone Anchored Hearing Aids (BAHA) is frequently advised when a person has congenital external auditory atresia, a condition in which the external ear canal is absent at birth or is undeveloped. It works by bypassing the outer and middle ear and directly stimulating the cochlea . However, other conditions like sensorineural hearing loss, acoustic neuroma, or otitis media are not treated with BAHA. Incorrect Options: Option A - Sensorineural hearing loss: Because the issue is unrelated to the external ear canal or middle ear, bone-anchored hearing aids (BAHA) are not typically used to treat sensorineural hearing loss, a type of hearing loss that arises from damage to the inner ear or the auditory nerve. Option B - Acoustic neuroma: The benign tumor known as an acoustic neuroma, which develops on the nerve that controls hearing and balance, is typically treated with surgery or radiation therapy rather than BAHA. Option D - Otitis media: Otitis media is a frequent form of middle ear infection that is often treatable with antibiotics and other treatments, and it usually does not cause irreversible hearing loss. Otitis media is not routinely treated with BAHA.

References:

Prepladder Notes

↑ *Back to this question in Part A*

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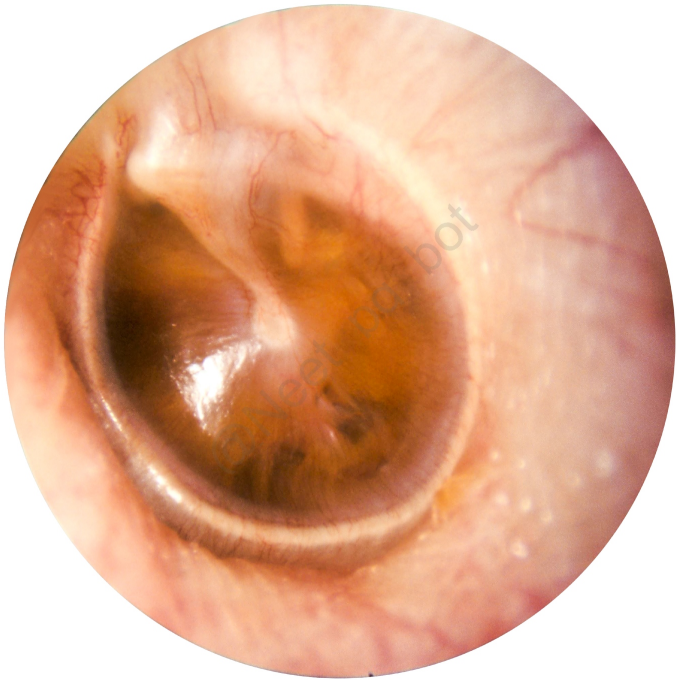
Q105: You see a child with delayed speech development as part of a health visit at a local school. The otoscopic appearance of the ear is shown below. Hearing loss of 20 dB is detected in audiometric tests. What is your diagnosis? (Q793611)

A. Acute suppurative otitis media

B. Serous otitis media

C. Chronic suppurative otitis media

D. Glomus tumor



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Correct Answer: B. Serous otitis media

Explanation: Correct Option B - Serous otitis media: Based on the given information, the most likely diagnosis for this case would be Serous otitis media. Serous otitis media, also known as otitis media with effusion, is characterized by the presence of non-infected fluid in the middle ear. It can cause conductive hearing loss, leading to speech and language delays, especially in children. A hearing loss of 20 dB fits the profile of serous otitis media. Incorrect Options: Option A - Acute suppurative otitis media: Acute suppurative otitis media typically presents with symptoms such as ear pain, fever, and drainage of pus from the ear. It is an acute infection of the middle ear. Option C - Chronic suppurative otitis media: Chronic suppurative otitis media is characterized by recurrent or persistent ear discharge through a perforated tympanic membrane. It involves ongoing infection of the middle ear space. Option D - Glomus tumor: Glomus tumors, also known as paragangliomas, are rare neoplasms arising from the glomus cells. They can occur in the middle ear and may cause hearing loss, but they usually present with pulsatile tinnitus and are not a common cause of speech delay in children.

References:

Prepladder Notes

↑ *Back to this question in Part A*

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• [02_Nose and Paranasal Sinuses] 013 Anatomy Of Nose And Paranasal Sinuses - I

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[02_Nose and Paranasal Sinuses] 013 Anatomy Of Nose And Paranasal Sinuses - I — Quick Jump

Q1 (p. 893)	*Q2 (p. 895)*	*Q3 (p. 896)*	*Q4 (p. 896)*	*Q5 (p. 897)*	*Q6 (p. 900)*
Q7 (p. 901)	*Q8 (p. 902)*	*Q9 (p. 904)*	*Q10 (p. 906)*	*Q11 (p. 907)*	*Q12 (p. 909)*
Q13 (p. 910)	*Q14 (p. 911)*	*Q15 (p. 913)*	*Q16 (p. 915)*	*Q17 (p. 916)*	*Q18 (p. 917)*

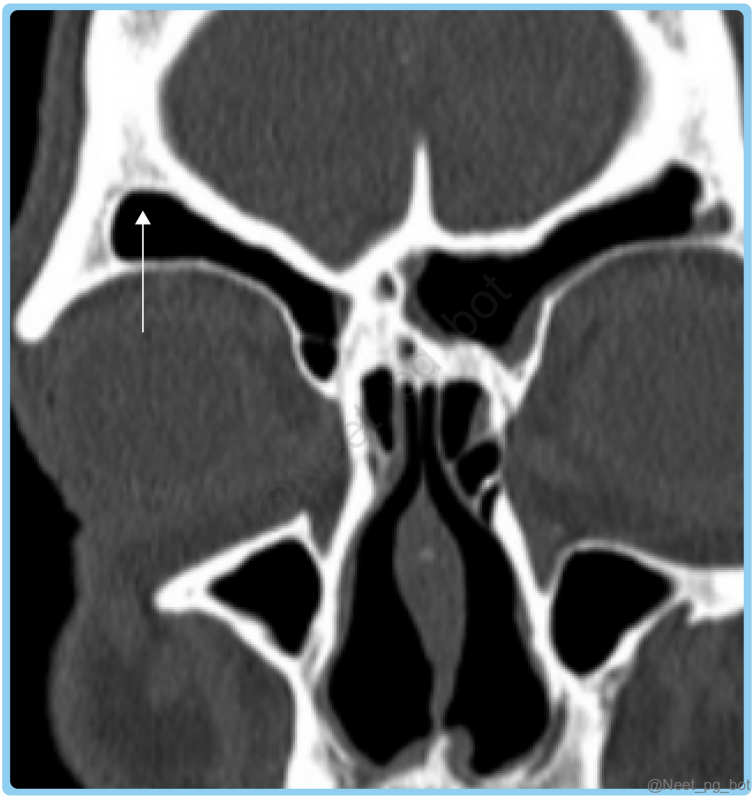
Q1: Which of the following best describes the drainage pathway of the sinus that is marked with an arrow in the image below? (Q847930)

A. Sphenoethmoidal recess

B. Superior meatus

C. Middle meatus

D. Ethmoid bulla

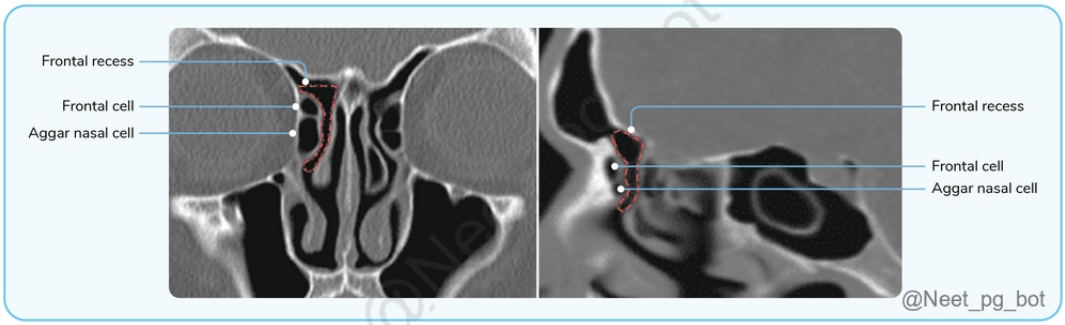


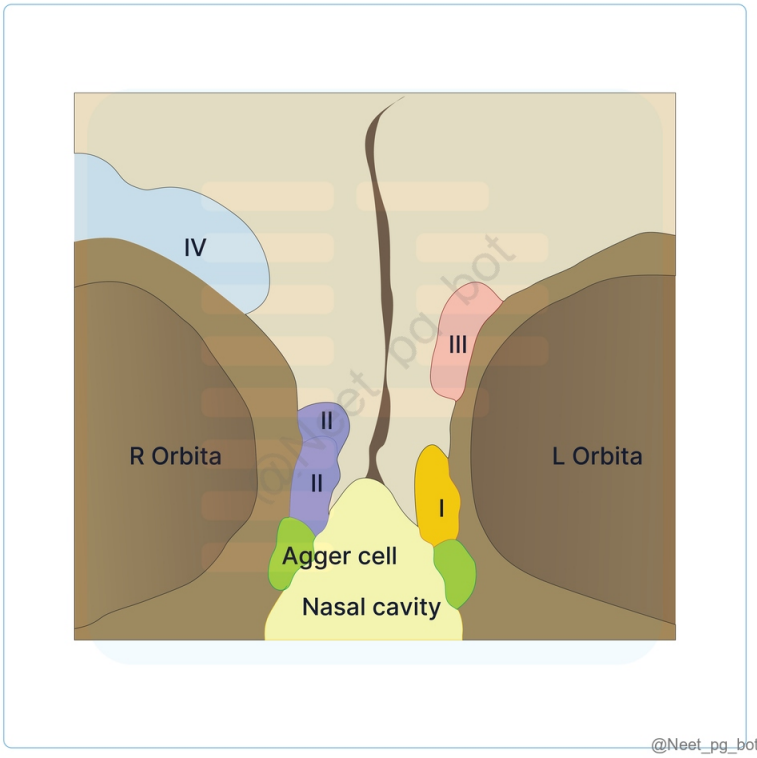
Correct Answer: C. Middle meatus

■ *Listen (English)*

■ *Listen (Hindi)*

Explanation: The frontal sinus is an air-filled cavity located in the frontal bone. The frontal sinus drains through the frontonasal duct into the infundibulum and finally into the middle meatus. Middle Meatus Ostiomeatal Unit or Complex of frontal, anterior ethmoidal, and maxillary sinuses drains. Common drainage pathway of the anterior group of sinuses. Sphenoethmoidal recess (Option A) : Incorrect; this is the drainage site for the sphenoid sinus , not the frontal. Superior meatus (Option B) : Incorrect; posterior ethmoid air cells drain here, not the frontal sinus. Ethmoid bulla (Option D) : Incorrect; while it's a key structure in the lateral nasal wall, it is the site where middle ethmoid air cells typically drain—not the frontal sinus.





References:

Scott-Brown's Otorhinolaryngology, Head and Neck Surgery, 8th Edition, Pg. 973, 974.

Dhingra Diseases of Ear, Nose, and Throat, Head and Neck Surgery, 8th Edition, Pg. 218, 219.

↑ *Back to this question in Part A*

@Neet_pg_bot

Q2: A 45-year-old patient complains of difficulty breathing through their nose. He also reports complaints of smell perception. The otolaryngologist decides to perform both the University of Pennsylvania Smell Identification Test (UPSIT) and rhinomanometry. Which of the following statements regarding these tests is incorrect? (Q847938)

A. The UPSIT helps to understand if the patient's ability to perceive smell is good or bad.

B. Rhinomanometry is a subjective function test to assess nasal airflow.

C. In the UPSIT, the patient is given scratch cards of odorous stimuli and asked to write down the smell.

D. Rhinomanometry results can be used to check for improvement after nasal surgery.

Correct Answer: B. Rhinomanometry is a subjective function test to assess nasal airflow.

■ *Listen (English)*

■ *Listen (Hindi)*

Explanation: Rhinomanometry: Rhinomanometry is an objective diagnostic technique used to assess nasal airflow and resistance. It involves measuring the pressure and airflow within the nasal cavity, providing valuable insights into nasal function. By quantifying nasal airflow parameters, such as resistance and volume, rhinomanometry aids in the evaluation of various nasal conditions, including nasal obstruction, allergic rhinitis, septal deviations and to assess improved nasal function after surgery. (Option D ruled out) UPSIT Test is the University of Pennsylvania Smell Identification Test: It is a subjective test to assess smell perception (Option A ruled out) Patients are given scratch cards of odorous stimuli to identify (Option C ruled out) It is used to diagnose olfactory dysfunction associated with certain diseases Tests done to assess nasal airflow Tests done for smell perception Subjective Tests: Nasal Airflow Questionnaire Visual Analog Scale (VAS) Objective Tests: Rhinomanometry Acoustic Rhinometry Peak Nasal Inspiratory Flow (PNIF) University of Pennsylvania Smell Identification Test (UPSIT) Sniffin' Sticks Test Odor Threshold Test Olfactory Event-Related Potentials (OERP)

References:

www.ncbi.nlm.nih.gov/pmc/articles/PMC11214531/

www.ncbi.nlm.nih.gov/pmc/articles/PMC10115503/

↑ *Back to this question in Part A*

@Neet_pg_bot

Q3: Which of the following statements about the airflow dynamics during respiration through the nose is INCORRECT? (Q847937)

A. Mouth breathing is not present in newborns

B. Very little air passes through olfactory region of nose

C. Maximum airflow during quiet respiration occurs through inferior turbinate

D. Friction during expiration causes the air to form eddies at the nasal valve , ventilating the sinuses.

Correct Answer: C. Maximum airflow during quiet respiration occurs through inferior turbinate

■ *Listen (English)*

■ *Listen (Hindi)*

Explanation: The maximum airflow during quiet respiration occurs through middle turbinate , not inferior turbinate. The nose is the natural and instinctive pathway for breathing, especially crucial for newborns. Mouth breathing is learned with age . (Option A ruled out) Inspiratory and expiratory airflows follow different patterns, with expiration being more complex and involving eddy current formation causing ventilation of sinuses . (Option D ruled out) The turbinates play a significant role in regulating airflow through swelling and shrinkage. The nasal cycle involves alternating congestion and decongestion of nasal chambers, regulating airflow. Each cycle lasts between 1.5-4 hours. The nose is multifunctional, allowing for simultaneous breathing and eating, as well as playing a crucial role in olfaction and air conditioning. Very little air passes through the inferior meatus or olfactory region of the nose. (Option B ruled out) The maximum airflow during quiet respiration occurs through middle turbinate in a parabolic pattern.

References:

Diseases of Ear, Nose and Throat Dhingra 8th Edition Page 162

↑ *Back to this question in Part A*

@Neet_pg_bot

Q4: A junior resident is studying the anatomy of the medial wall of the orbit. Which of the following statements about this structure is incorrect? (Q847936)

A. The medial walls of both orbits run parallel to each other and form the lateral walls of ethmoid air cell

B. The medial wall is formed by parts of the sphenoid, ethmoid, lacrimal, and maxillary bones

C. The anterior and posterior ethmoidal foramina are located at the junction of the roof and the lateral wall of the orbit

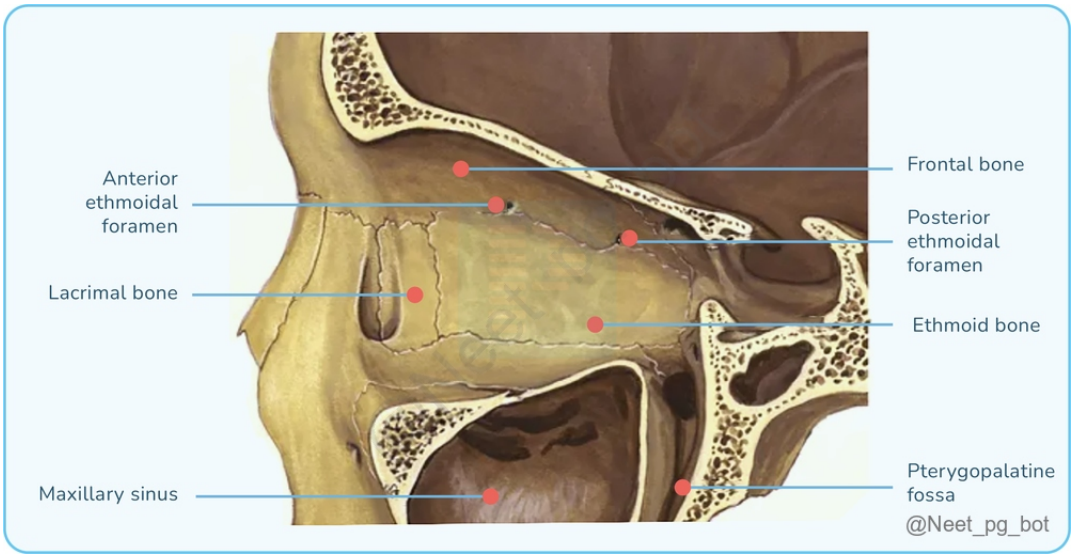
D. The optic canal is situated at the posterior junction of the medial wall and the roof of the orbit

Correct Answer: C. The anterior and posterior ethmoidal foramina are located at the junction of the roof and the lateral wall of the orbit

■ *Listen (English)*

■ *Listen (Hindi)*

Explanation: The anterior and posterior ethmoidal foramina are located at the junction of the roof and the medial wall of the orbit, not the lateral wall. Features of the Medial Wall of the Orbit Composition Formed by parts of the sphenoid bone, orbital surface of the ethmoid bone, lacrimal bone, and frontal process of the maxilla. Fig: Composition of Medial Wall of Orbit Orientation Runs parallel to the contralateral medial wall; forms lateral wall of nasal cavity Ethmoidal Air Cells Air-filled spaces in the ethmoid bone portion of the medial wall Foramina Anterior Ethmoidal Foramen Posterior Ethmoidal Foramen Optic canal The 6-12-24 rule: To locate important structures on the medial wall of the orbit, measured from the anterior lacrimal crest: Anterior Ethmoid Foramen: 24 mm from the anterior lacrimal crest Posterior Ethmoid Foramen: 12 mm behind the anterior ethmoid foramen Optic Canal: 6 mm behind the posterior ethmoid foramen



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www.imaios.com/en/e-anatomy/anatomical-structure/medial-wall-of-orbit-1536890476

↑ *Back to this question in Part A*

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Q5: Which of the following statements about the venous drainage of the nose is FALSE? (Q847935)

A. The venous networks parallel the arterial supply in their distribution.

B. The fronto-median area drains to the facial vein, while the orbito-palpebral area drains to the ophthalmic vein.

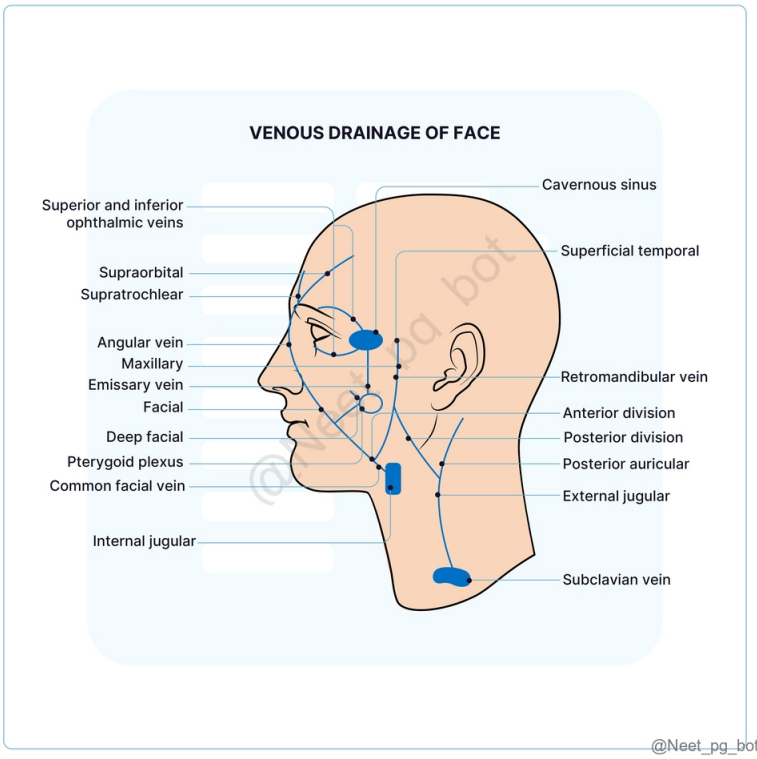
C. The facial vein originates as the angular vein, which is formed by the confluence of the supratrochlear and supraorbital veins.

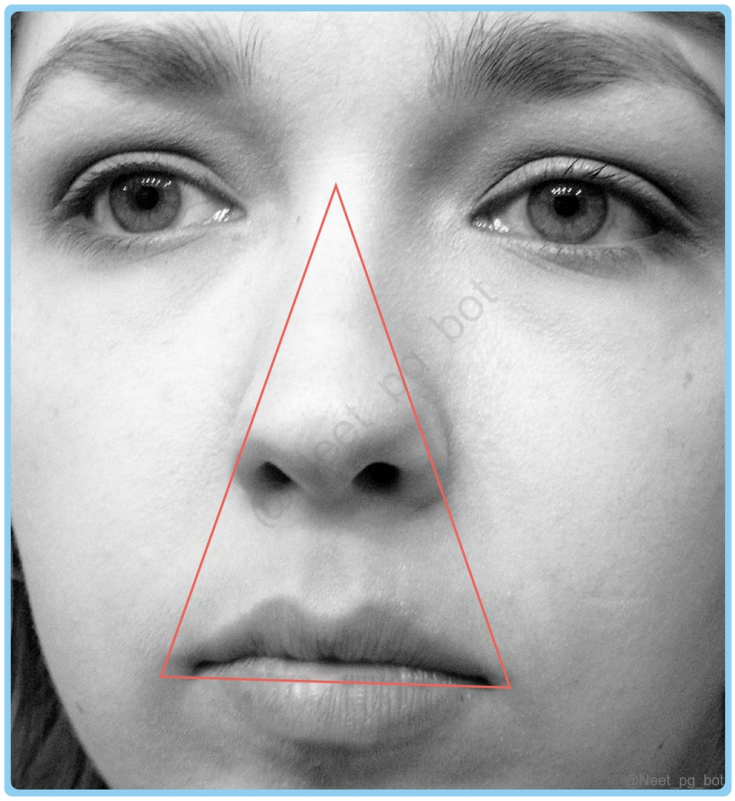
D. Infections in the upper lip and nose can potentially spread to the cavernous sinus due to a valveless venous connection.

Correct Answer: A. The venous networks parallel the arterial supply in their distribution.

- *Listen (English)*
- *Listen (Hindi)*

Explanation: The venous networks do not parallel the arterial supply but correspond to territories termed arteriovenous units. Venous drainage of nose has following characteristics: The venous networks do not parallel the arterial supply but correspond to territories termed arteriovenous units. Different areas of the face drain to different veins (fronto-median to facial vein, orbito-palpebral to ophthalmic vein). (Option B) The facial vein originates as the angular vein, which is formed by the supratrochlear and supraorbital veins. (Option C) The upper lip and nose are considered a "danger area" due to the potential for retrograde infection spread to the cavernous sinus. (Option D) The venous system connecting the facial area to the cavernous sinus is valveless, allowing for potential bidirectional flow. Fig: Dangerous area of face





References:

Scott’s Brown Otorhinolaryngology. Edition 8th. Volume 1. Page 965

↑ *Back to this question in Part A*

@Neet_pg_bot

Q6: Which of the following statements about the lining membrane of the internal nose is INCORRECT? (Q847934)

A. The vestibule is lined by skin containing hair, hair follicles, and sebaceous glands.

B. The olfactory region covers the lower two-thirds of the nasal cavity.

C. The respiratory region's mucous membrane is thickest over nasal conchae.

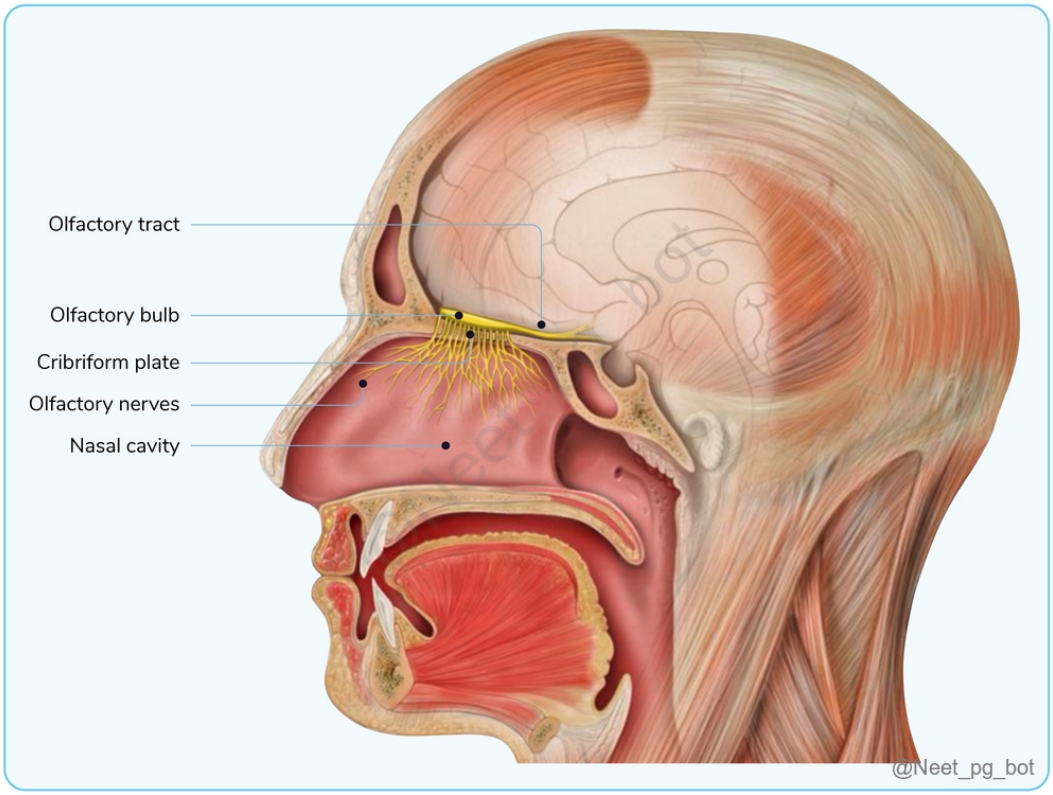
D. The olfactory region's membrane is paler in color compared to other regions.

Correct Answer: B. The olfactory region covers the lower two-thirds of the nasal cavity.

■ *Listen (English)*

■ *Listen (Hindi)*

Explanation: The olfactory region covers the upper one-third of the lateral wall, the corresponding part of the nasal septum, and the roof of the nasal cavity. The respiratory region covers the lower two-thirds of the nasal cavity. Region Location Lining Key Feature Vestibule (Option A) Entrance of the nose Skin containing hair, hair follicles, and sebaceous glands Epithelium- Stratified squamous epithelium Acts as initial filter for air entering the nose Olfactory Region Upper one-third of lateral wall, corresponding part of nasal septum, and roof of nasal cavity Olfactory epithelium Specialized for detecting odors, membrane is paler in color (Option D) Respiratory Region Lower two-thirds of the nasal cavity Pseudostratified ciliated columnar epithelium with goblet cells Variable thickness (thickest over nasal conchae) (Option C) , highly vascular, contains erectile tissue Fig: Linings of Nose



References:

Dhingra, Diseases of Ear, Nose and Throat 8th Edition Page 160

↑ *Back to this question in Part A*

@Neet_pg_bot

Q7: Which type of sphenoid sinus pneumatization is contraindicated in endoscopic transsphenoidal surgery? (Q847933)

A. Sellar

B. Presellar

C. Conchal

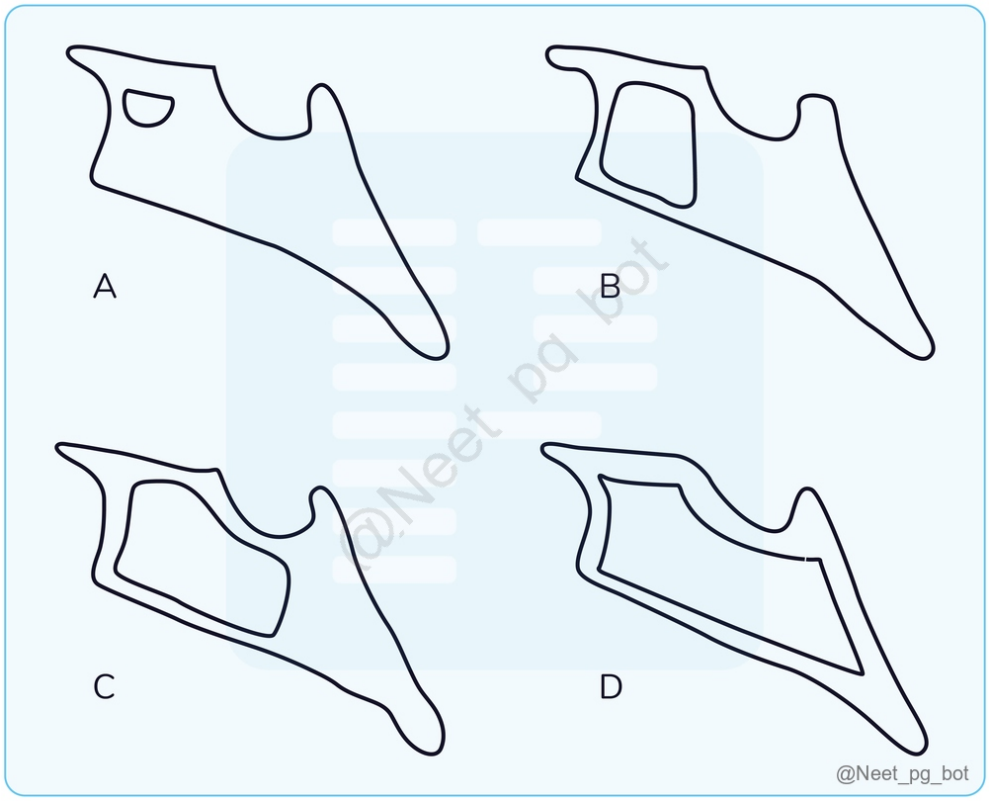
D. post sellar

Correct Answer: C. Conchal

■ *Listen (English)*

■ *Listen (Hindi)*

Explanation: Conchal Pneumatization involves minimal air space and dense trabecular bone, making surgical access to the sella tursica extremely difficult. The pneumatization of the sphenoid sinus refers to the extent to which air cells develop within the sphenoid bone, creating the hollow spaces of the sinus;Greater pneumatization makes the pituitary gland easier to access, while lesser pneumatization makes access more difficult. This pattern can vary significantly among individuals, and it is categorized into three main types: Sellar Pneumatization - air cells extend posteriorly beyond the sella turcica . This type results in a well-developed sphenoid sinus. Most common(82%) It is ideal for this surgery because the sinus is well pneumatized Presellar Pneumatization - reaches up to the anterior wall of the sella but does not extend beyond it. This creates a smaller sinus compared to the sellar type. Sellar and Presellar Pneumatization provide adequate access for surgery. (Option A and B) Conchal Pneumatization - shallow bowl with minimal sphenoid pneumatization and trabecular bone between the sinus and sella. Lateral Pneumatization - extending into the pterygoid processes, resulting in the formation of a lateral sphenoid recess. While complex, is not a contraindication but may require additional surgical expertise. Post-sellar Pneumatization is a variant with pneumatization extending beyond the sella , which is generally acceptable for surgery, though it may carry additional risks depending on surrounding anatomy. Fig: Pneumatization types of the sphenoid sinus. A – conchal, B - pre-sellar, C – sellar. D - post-sellar.



References:

Scott-Brown’s Otorhinolaryngology, Head and Neck Surgery, Volume 1, 8th Edition, Page 975, 976.

↑ *Back to this question in Part A*

@Neet_pg_bot

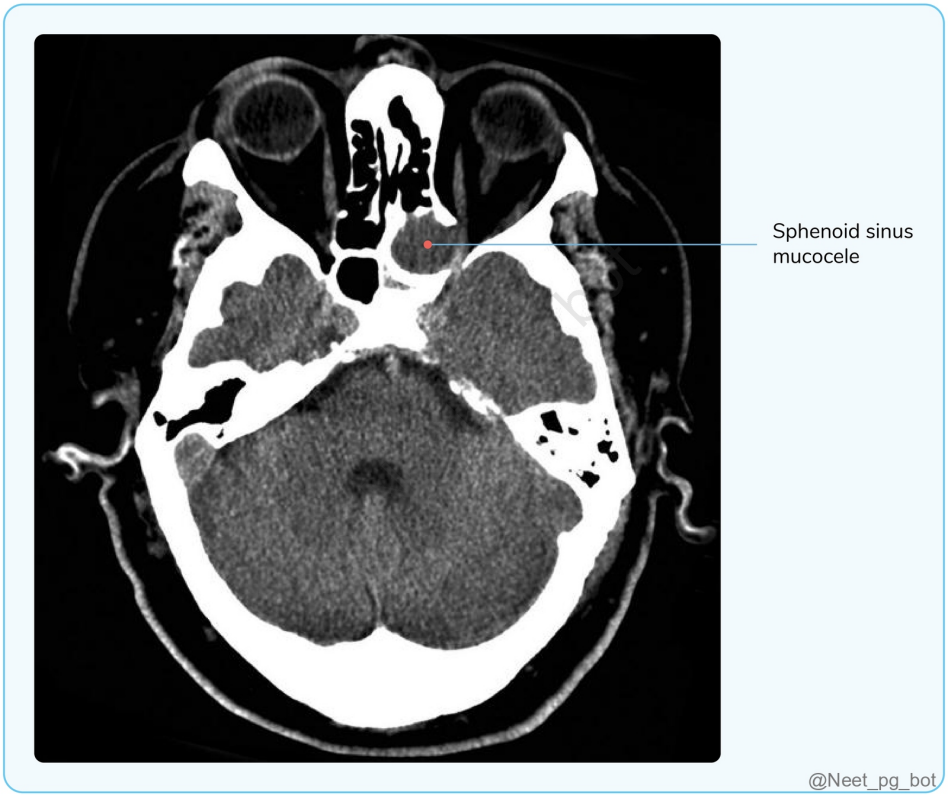
Q8: A 50-year-old male complains of deep-seated headaches and visual disturbances. Imaging reveals a sphenoid sinus mucocele compressing adjacent structures. Which of the following is most likely to be compressed by this mucocele? (Q847932)

A. Optic nerve

B. Mandibular nerve

C. Middle meningeal artery

D. Superior sagittal sinus

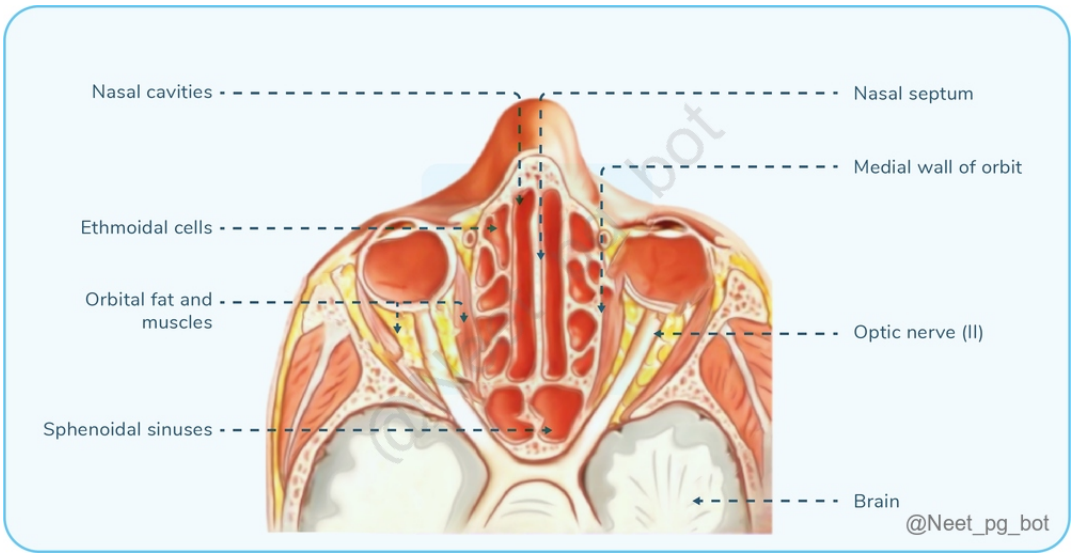


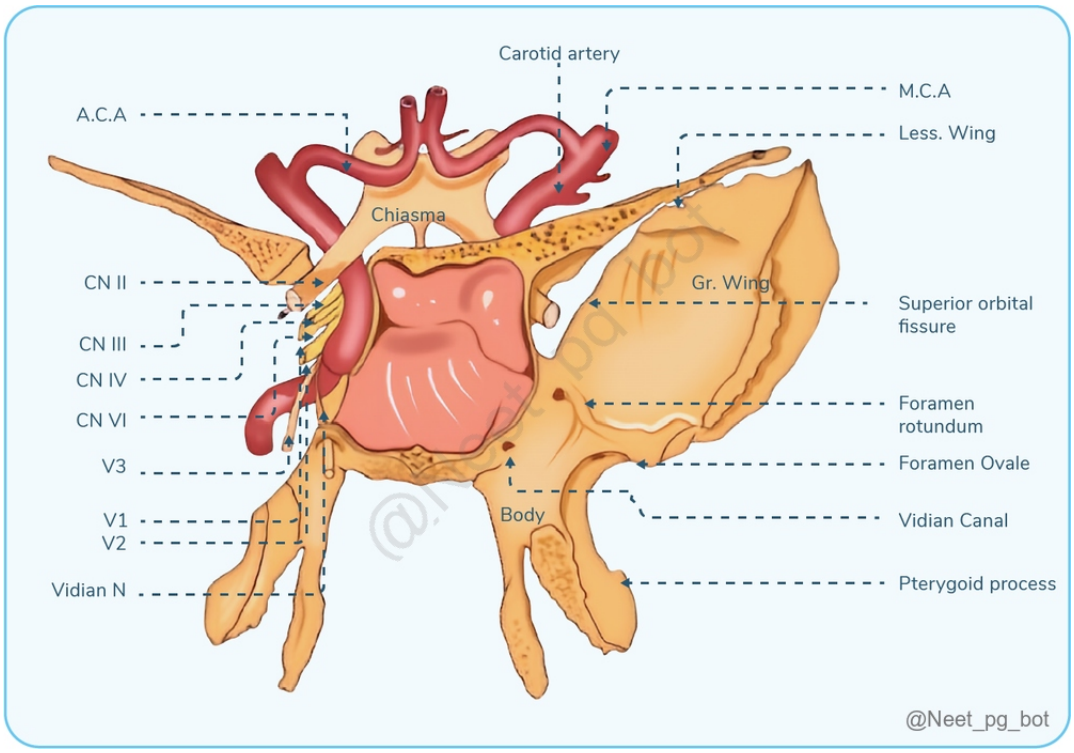
Correct Answer: A. Optic nerve

■ *Listen (English)*

■ *Listen (Hindi)*

Explanation: The optic nerve runs along the superior wall of the sphenoid sinus and is the most likely structure compressed by a mucocele, leading to visual symptoms. Anatomical Relations of the Sphenoid Sinus Lateral wall: Related to the optic nerve, internal carotid artery, and maxillary nerve. Posterior wall: Adjacent to the sella turcica (above) and clivus (below). Roof: Related to the optic chiasma, olfactory tract, frontal lobe, and pituitary gland. Floor: Related to the Vidian nerve and sphenopalatine nerve branches. Mandibular nerve (Option B) runs through the infratemporal fossa, not in direct contact with the sphenoid sinus. Middle meningeal artery (Option C) courses through the temporal bone, not near the sphenoid sinus. Superior sagittal sinus (Option D) is located along the midline of the brain, distant from the sphenoid sinus.





References:

Logan Turner’s Diseases of Nose, Throat and Ear; Head and Neck Surgery, 11th Edition, Pg. 8.

Dhingra Diseases of Ear, Nose, and Throat; Head and Neck Surgery, 8th Edition, Pg. 219.

↑ *Back to this question in Part A*

@Neet_pg_bot

Q9: Which of the following is NOT true regarding the ethmoid air cells? (Q847931)

A. The anterior ethmoid air cells drain into the middle meatus.

B. They are the last of the paranasal sinuses to fully develop.

C. They are closely related to the orbit.

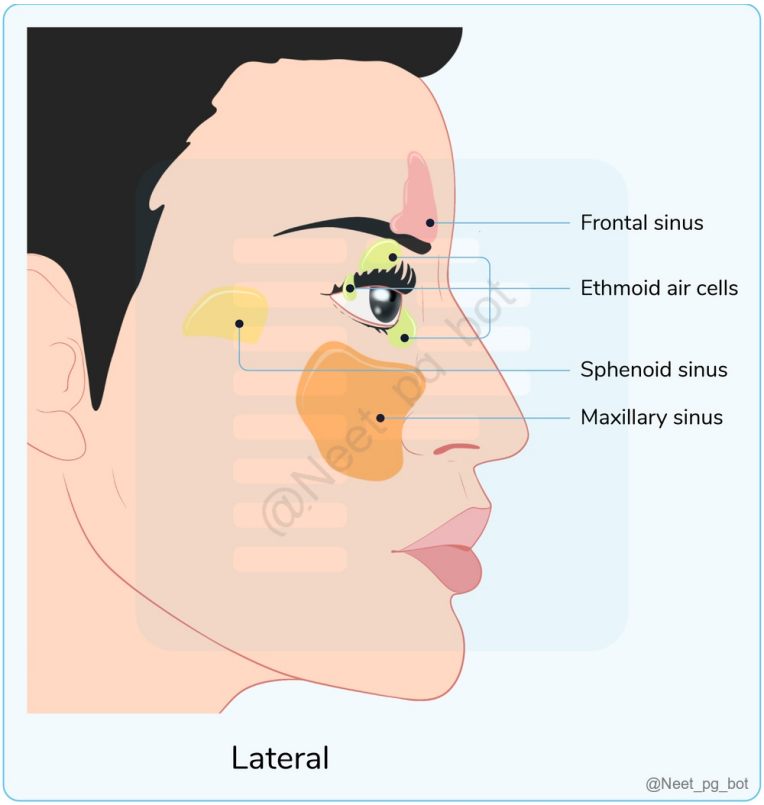
D. The posterior ethmoid air cells drain into the superior meatus.

Correct Answer: B. They are the last of the paranasal sinuses to fully develop.

■ *Listen (English)*

■ *Listen (Hindi)*

Explanation: Ethmoidal Sinus is found within the ethmoid bone and arises from the pneumatization (air cell formation) of the ethmoid bone. Ethmoid air cells are not fully developed at birth; they develop progressively after birth and continue growing until adolescence and are the first among the paranasal sinuses to fully develop. Air Cells: Divided into anterior and posterior groups. Up to 2-18 air cells may form. The largest anterior air cell is the ethmoid bulla . Drainage: Anterior air cells drain into the middle meatus. (Option A) Posterior air cells drain into the superior meatus. (Option D) Anatomical Relations: Laterally: Separated from the orbit by the lamina papyracea. (Option C) Medially: Adjacent to the cribriform plate. Posterior boundary: Formed by the sphenoid sinus. Fig: Anatomical Relations of Ethmoid sinus



References:

Logan Turner’s Diseases of Nose, Throat and Ear; Head and Neck Surgery, 11th Edition, Pg. 6,7.

Dhingra Diseases of Ear, Nose, and Throat; Head and Neck Surgery, 8th Edition, Pg. 219.

Pediatric paranasal sinuses-PMC

↑ *Back to this question in Part A*

@Neet_pg_bot

Q10: All the following are paired cartilage forming the external nose anatomy except: (Q847919)

A. Septal cartilage

B. Upper lateral cartilage

C. Lower lateral cartilage

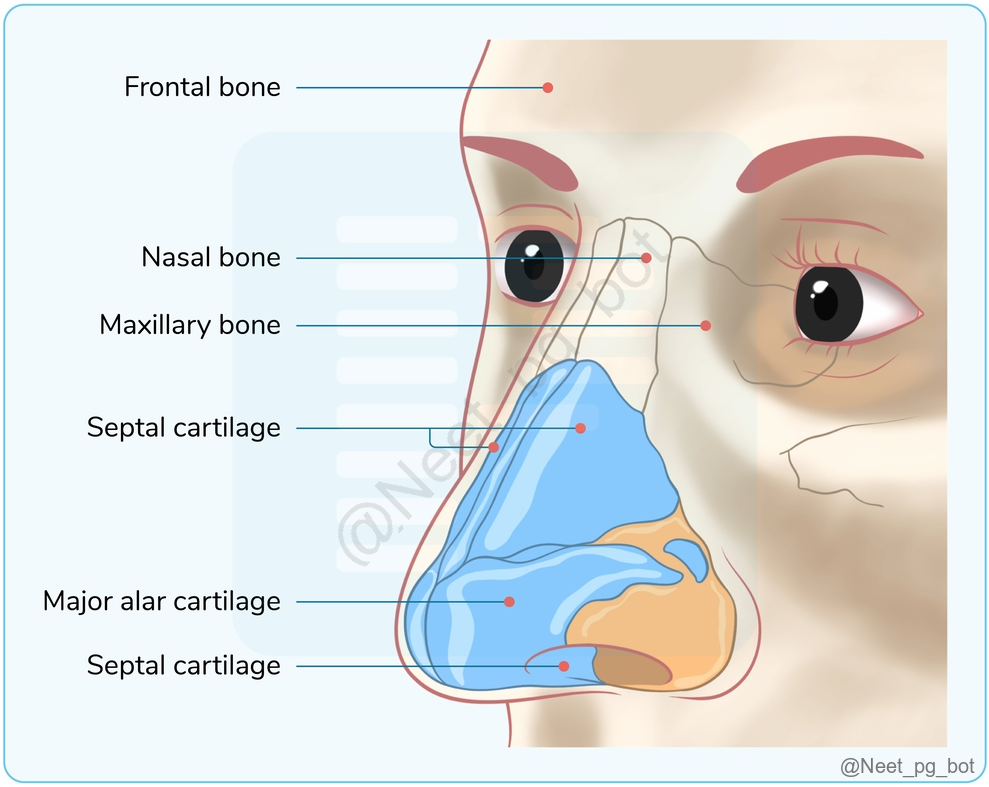
D. Sesamoid cartilage

Correct Answer: A. Septal cartilage

■ *Listen (English)*

■ *Listen (Hindi)*

Explanation: The nasal septum/ septal cartilage present on the dorsum supporting the cartilaginous pyramid is the only unpaired cartilage. External nose anatomy The upper one-third of the external nose is bony, while the lower two-thirds are cartilaginous. Fig: Anatomy of the External Nose Bony part: The bony part consists of two nasal bones, which meet in the midline and rest on the upper part of the nasal process of the frontal bones and are also held between the frontal processes of the maxillae. Paired bones: nasal bone and ascending process of the maxilla Unpaired bones: Frontal bone Cartilaginous part: It consists of: Paired cartilages: Upper lateral cartilage, lower lateral cartilage, sesamoid cartilage (Option B, C, D) Unpaired cartilage: Septal cartilage



References:

Diseases of Ear, Nose, and Throat, PL Dhingra 8th Edition Page: 155

↑ *Back to this question in Part A*

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Q11: Which structure lies posterior to the posterior wall of the maxillary sinus? (Q847929)

A. Nasolacrimal duct

B. Optic nerve

C. Pterygopalatine fossa

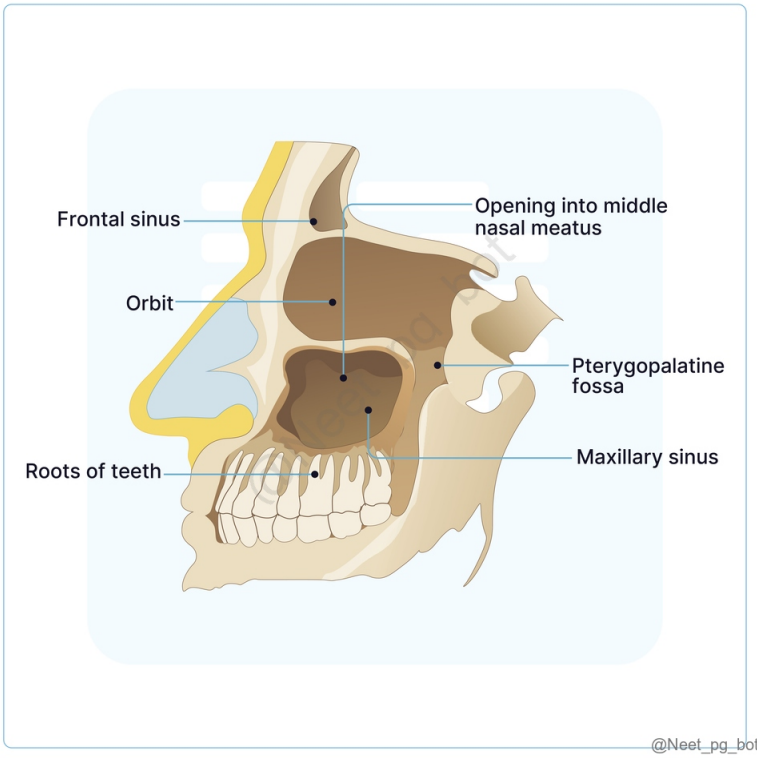
D. Inferior rectus muscle

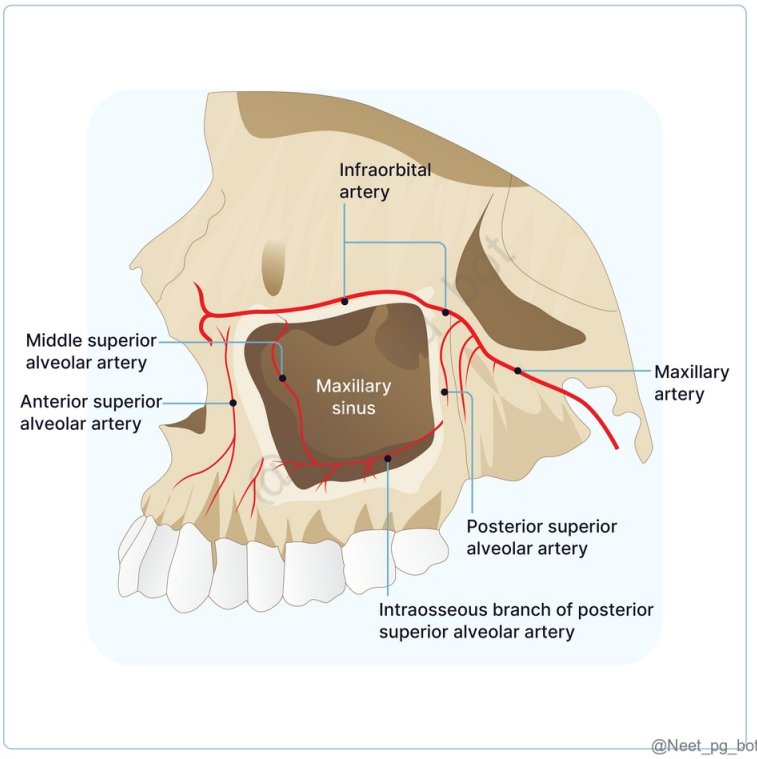
Correct Answer: C. Pterygopalatine fossa

■ *Listen (English)*

■ *Listen (Hindi)*

Explanation: The pterygopalatine fossa is located immediately posterior to the posterior wall of the maxillary sinus. This space contains vital neurovascular structures, including: Maxillary nerve (V2) Branches of the maxillary artery, such as the sphenopalatine artery The pterygopalatine ganglion Maxillary sinus/Antrum of Highmore Largest of the paranasal sinuses, occupying the body of the maxilla Shape Pyramidal Size 15mL Base Toward the lateral wall of the nose Apex Extends into the zygomatic process of the maxillary bone Anterior wall Formed by the facial surface of the maxilla Posterior wall Anterior surface of the pterygopalatine fossa Medial wall Thin and membranous in some areas, this wall borders the middle and inferior meatuses and separates the maxillary sinus from the nasal cavity. Roof Formed by the floor of the orbit Floor Located approximately 1 cm below the floor of the nasal cavity, it is formed by the alveolar and palatine processes of the maxilla. Closely related to the roots of the second premolar and first molar teeth. Cavities in these teeth are associated with an oro-antral fistula Arterial supply Branches of the maxillary artery, specifically the infraorbital artery, greater palatine artery, and the posterior superior alveolar artery Venous drainage Pterygoid venous plexus and the facial vein Lymphatic drainage Submandibular lymph nodes Nerve supply Infraorbital nerve, greater palatine nerve, and the posterior superior alveolar nerve, which are branches of the maxillary division of the trigeminal nerve (CN V2) Fig: Anatomy of Maxillary sinus Fig: Blood supply of the maxillary sinus Nasolacrimal duct (Option A) : Runs anteriorly and medially, draining tears into the inferior meatus of the nasal cavity. Optic nerve (Option B) : Associated with the roof of the sphenoid sinus, located superiorly in the orbit, not near the maxillary sinus's posterior wall. Inferior rectus muscle (Option D) : Lies superior to the maxillary sinus, closely related to the orbital floor but unrelated to the posterior wall of the sinus.





References:

Logan Turner's Diseases of Nose, Throat and Ear; Head and Neck Surgery, 11th Edition, Page 7-8

Dhingra Diseases of Ear, Nose, and Throat; Head and Neck Surgery, 8th Edition, Page 218

www.ncbi.nlm.nih.gov/books/NBK499826/#

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Q12: Which of the following is not a part of the middle meatus of the nose? (Q847928)

A. Uncinate process

B. Bulla ethmoidalis

C. Ostiomeatal complex

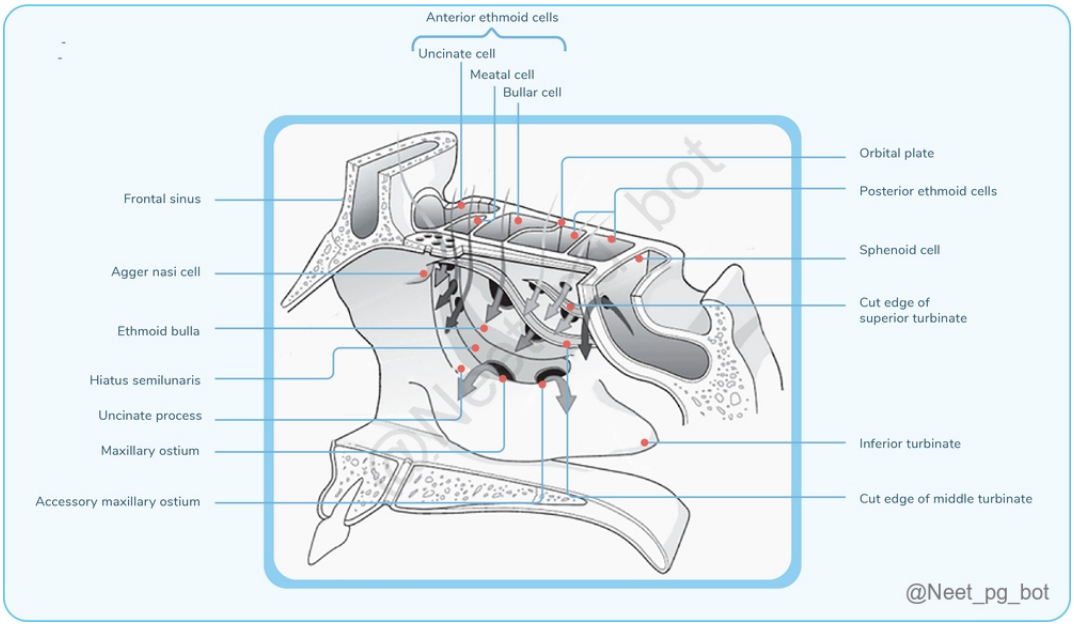
D. Nasolacrimal duct opening

Correct Answer: D. Nasolacrimal duct opening

■ *Listen (English)*

■ *Listen (Hindi)*

Explanation: The nasolacrimal duct, guarded at its terminal end by a mucosal valve called Hasner’s valve, opens into the inferior meatus , not the middle meatus. Components of the Middle Meatus of the Nose: Uncinate Process (Option A) Hook-like structure running from anterosuperior to posteroinferior Forms a gap with the bulla ethmoidalis called the hiatus semilunaris inferior Divides the lower middle meatus into anterior and posterior fontanelles (membranous areas) Infundibulum Bounded medially by the uncinate process and laterally by the lamina papyracea Contains the natural ostium of the maxillary sinus in its lower part Bulla Ethmoidalis: (Option B) The ethmoidal cell is located behind the uncinate process, forming the posterior boundary of the hiatus semilunaris May be pneumatized or a solid prominence Hiatus Semilunaris Inferior : The gap between the uncinate process and the bulla Superior : The cleft between the bulla and skull base Ostiomeatal Unit (Complex): (Option C) Key area where the ostia of the frontal, ethmoidal, and maxillary sinuses drain into the middle meatus Common drainage pathway for the anterior group of sinuses Fig: Components of the Middle Meatus of the Nose



References:

PL Dhingra's Diseases of Ear, Nose & Throat and Head and Neck Surgery, 8th Edition, Pages156- 159

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Q13: Match the following: 1. Middle Meatus a) Sphenoid sinus 2. Superior Meatus b) Frontal sinus 3. Sphenoethmoidal Recess c) Posterior Ethmoid sinus (Q847927)

A. 1-a, 2-b, 3-c

B. 1-c, 2-a, 3-b

C. 1-b, 2-a, 3-c

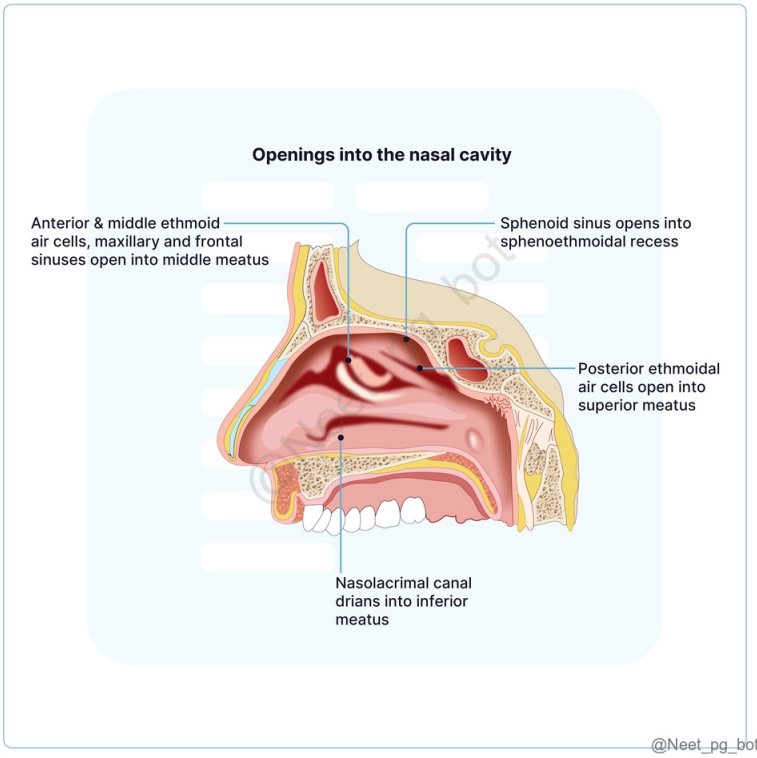
D. 1-b, 2-c, 3-a

Correct Answer: D. 1-b, 2-c, 3-a

■ *Listen (English)*

■ *Listen (Hindi)*

Explanation: MEATUS DRAINAGE OF SINUS Middle Meatus Ostiomeatal Unit or Complex of frontal, anterior ethmoidal, and maxillary sinuses drain. Common drainage pathway of anterior group of sinuses. Superior Meatus Posterior Ethmoid sinus drains. Sphenoethmoidal Recess Sphenoid sinus drains.



References:

Diseases of Ear, Nose, and Throat, PL Dhingra 8th Edition Page. 159

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Q14: Which of the following statements about the lateral nasal wall is correct? (Q847926)

A. The lateral nasal wall has turbinates: inferior, middle andsuperior

B. Spaces below the turbinates are called sinuses.

C. The turbinates include inferior, middle, superior, and lateral.

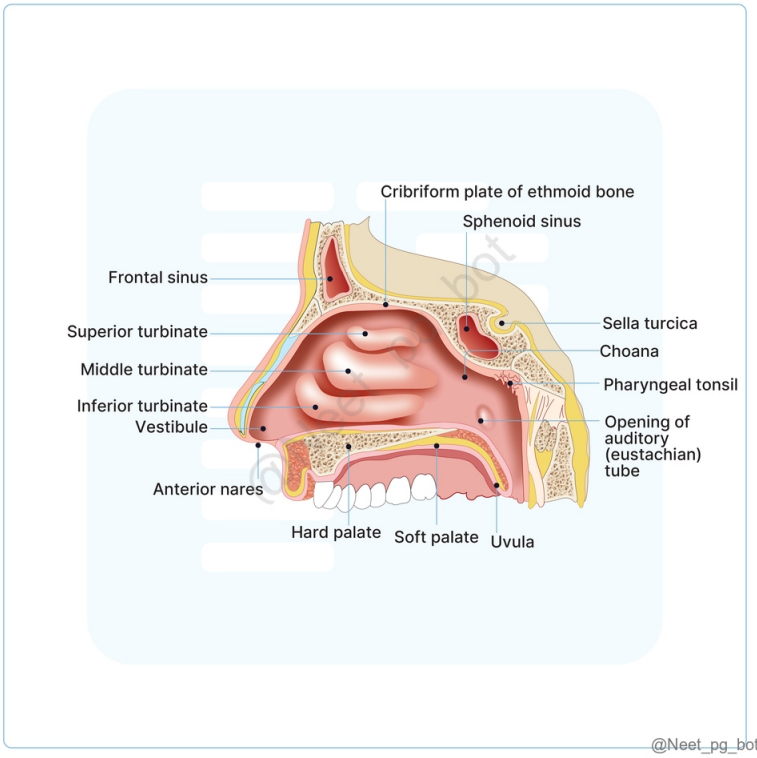
D. Spaces below the turbinates are meatuses: superior, middle, and supreme.

Correct Answer: A. The lateral nasal wall has turbinates: inferior, middle andsuperior

■ *Listen (English)*

■ *Listen (Hindi)*

Explanation: The lateral nasal wall has four turbinates (concha): inferior, middle, superior, and sometimes supreme. Lateral Nasal Wall It has 3 bony projections known as turbinate or conchae . (Option C ruled out) Inferior turbinate Middle turbinate Superior turbinate. Sometimes, supreme turbinate is present in few. Spaces below the turbinates are known as Meatus . (Option B & D ruled out) Inferior meatus Middle meatus Superior meatus. Fig: Lateral Nasal Wall Anatomy



References:

Diseases of Ear, Nose and Throat, PL Dhingra 8th Edition Pg. 156- 159

↑ *Back to this question in Part A*

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Q15: Which of the following statements regarding the medial wall of the nose is FALSE? (Q847925)

A. The anterior ethmoidal artery is a branch of the internal carotid system.

B. The sphenopalatine artery is a branch of the maxillary artery from the external carotid system.

C. Kiesselbach’s plexus is formed by the anastomosis of the anterior & posterior ethmoidal, sphenopalatine, and infraorbital arteries.

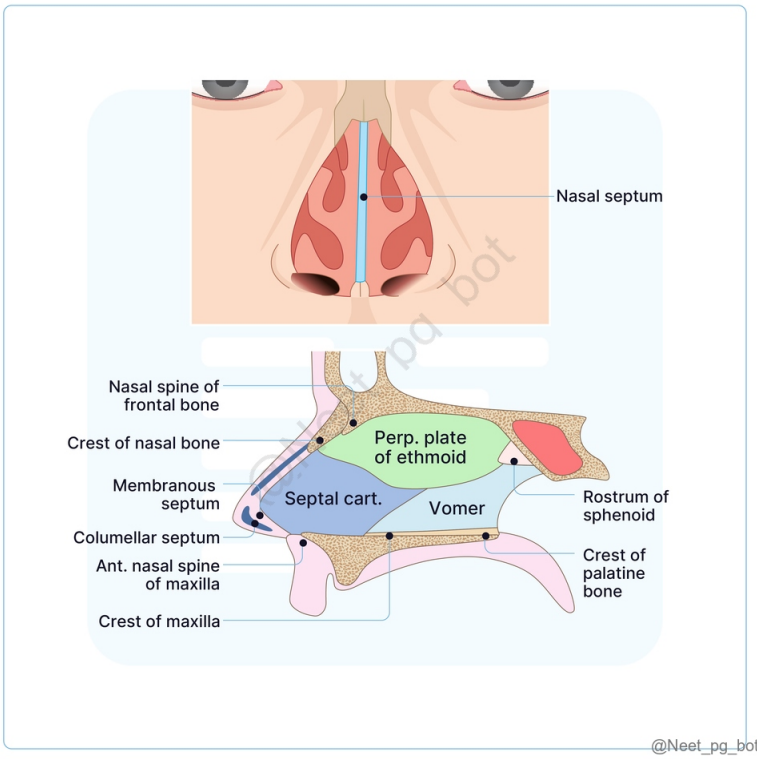
D. The columellar septum is formed by the medial crura of the alar cartilages.

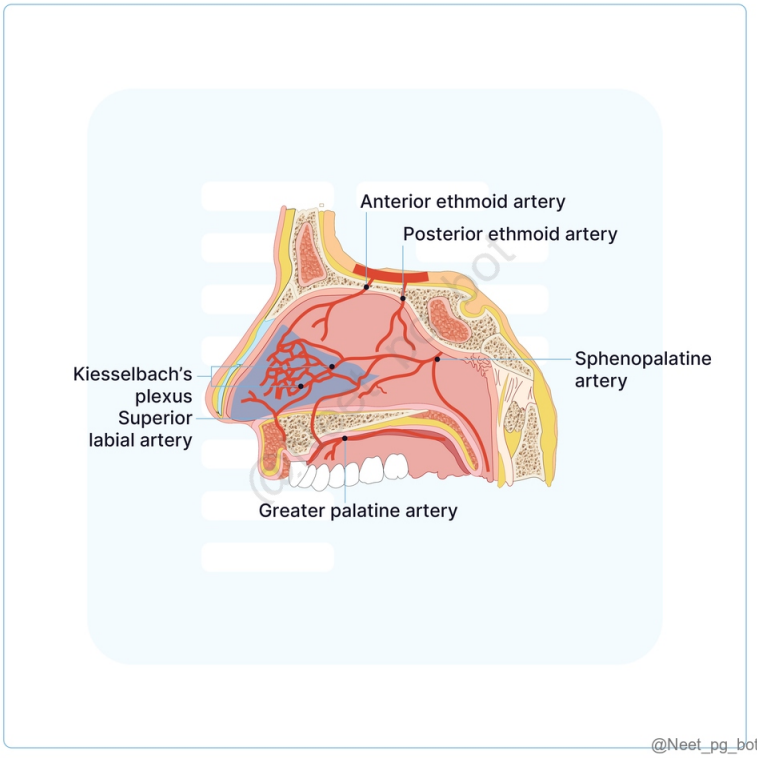
Correct Answer: C. Kiesselbach’s plexus is formed by the anastomosis of the anterior & posterior ethmoidal, sphenopalatine, and infraorbital arteries.

■ *Listen (English)*

■ *Listen (Hindi)*

Explanation: Kiesselbach's plexus is formed by the anastomosis of the anterior ethmoidal artery, sphenopalatine artery, greater palatine artery, and septal branch of the superior labial artery. The posterior ethmoidal and infraorbital artery are not involved in forming this plexus . Nasal septum forms the medial wall. Medial wall of nose (Nasal septum) Components of Nasal septum: Columellar Septum Formed by the columella containing medial crura of alar cartilages. (Option D) United by fibrous tissue and covered by skin. Membranous Septum Composed of a double layer of skin without bony or cartilaginous support. Septum Proper Consists of osteocartilaginous framework covered with nasal mucous membrane. Fig: Septum Proper Nasal Septum Blood Supply: Internal Carotid System Anterior Ethmoidal Artery: (Option A) A branch of the ophthalmic artery. Posterior Ethmoidal Artery: A branch of the ophthalmic artery. External Carotid System Sphenopalatine Artery (SPA): (Option B) A branch of the maxillary artery. Septal Branch of Greater Palatine Artery: A branch of the maxillary artery. Septal Branch of Superior Labial Artery: A branch of the facial artery. Little’s Area (Kiesselbach’s Plexus) Formed by the anastomosis of: (Option C) Anterior ethmoidal artery Sphenopalatine artery Greater palatine artery Septal branch of the superior labial artery Commonest site for nosebleeds (epistaxis). Venous plexus that is present at the posteroinferior portion of the septum is known as Woodruff's plexus . Fig: Blood supply of Nasal Septum





References:

Diseases of Ear, Nose and Throat, PL Dhingra 8th Edition Page 160, 170, 205, 206

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Q16: Which of the following statements about the anatomy of the nose are true? The anterior sloping part of the roof of the nose is formed by the nasal bones. The floor of the nose is formed by the cribriform plate of the ethmoid bone. The posterior sloping part of the roof of the nose is formed by the body of the sphenoid bone. The anterior three-fourths of the floor of the nose is formed by the palatine process of the maxilla. The posterior one-fourth of the floor of the nose is formed by the horizontal part of the sphenoid bone. (Q847924)

A. Only 2

B. 2, 5

C. 1, 3, 4

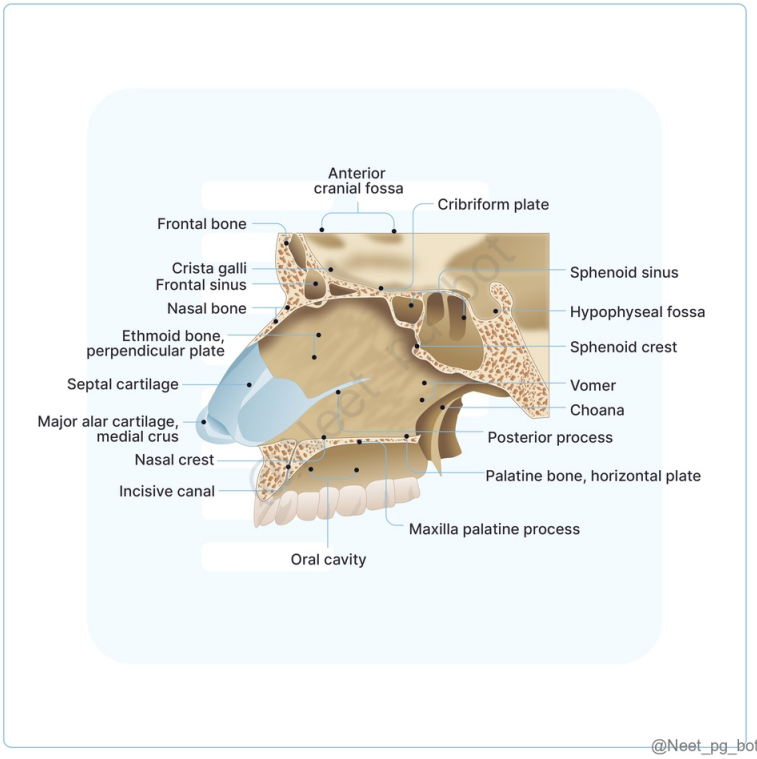
D. 1, 4, 5

Correct Answer: C. 1, 3, 4

■ *Listen (English)*

■ *Listen (Hindi)*

Explanation: Each nasal cavity features a lateral wall, a medial wall, a roof, and a floor. Roof of the nose Floor of the nose Anterior Sloping Part : Formed by the nasal bones. (Statement 1) Posterior Sloping Part : Formed by the body of the sphenoid bone. (Statement 3) Middle Horizontal Part : Formed by the cribriform plate of the ethmoid bone (passage of olfactory nerves into the nasal cavity). (Statement 2) Anterior Three-Fourths : Formed by the palatine process of the maxilla. (Statement 4) Posterior One-Fourth : Formed by the horizontal part of the palatine bone. (Statement 5)



References:

Diseases of Ear, Nose and Throat, PL Dhingra 8th Edition Page 156, 160

↑ *Back to this question in Part A*

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Q17: What is the primary function of the nasal valve in the nasal respiratory system? (Q847923)

A. To provide resonance to the voice

B. Regulating airflow resistance and airflow dynamics

C. Modulating the temperature and humidity of inspired air

D. Sensing and processing olfactory stimuli

Correct Answer: B. Regulating airflow resistance and airflow dynamics

■ *Listen (English)*

■ *Listen (Hindi)*

Explanation: The nasal valve is the narrowest area in the nose and plays an important part in regulating the flow of air into the nose. Physiologically, it provides resistance to the flow of air and thus helps in filtration, warming, and humidification of air. It has 2 valves. Its upper limit on the lateral wall is marked by limen nasi (also called nasal valve). Nasal valve: Boundaries: Medially by the septum, superiorly by the lower border of the upper lateral cartilage, and inferiorly by the head of the inferior turbinate. The upper lateral cartilage meets the nasal septum in the midline forming an angle of 10-15°. During hump removal and medialization of the nasal dorsum in rhinoplasty, the function of this valve may get disturbed leading to nasal obstruction. Nasal valve area: It is the cross-sectional area at the level of the lower border of upper lateral cartilage, the corresponding part of the caudal septum, and the head of the inferior turbinate and measures nearly 55-73 mm. External nasal valve : Is the cross-sectional area of the nasal vestibule, i.e. the opening of the nasal vestibule. It is made of alar cartilage and fibro-fatty tissue and is controlled by nasal muscles. Boundaries: Medially by columella, laterally by ala of nose, and inferiorly by the skin of the floor To provide resonance to the voice is the functions of paranasal sinuses(Option A) Modulating the temperature and humidity of inspired air is a function that occurs in the nasal cavity, but it's not the primary function of the nasal valve specifically. (Option C) Sensing and processing olfactory stimuli are sensed and processed by the olfactory receptors located in the upper part of the nasal cavity, not by the nasal valve (Option D)

References:

Diseases of Ear, Nose, and Throat, PL Dhingra 8th Edition Page: 155, 156

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Q18: Match the following in relation to the internal anatomy of the nose. a. Anterior 1. Nasal septum b. Lateral 2. Choanae c. Medial 3. Vestibule d. Posterior 4. Lateral wall of nose (Q847922)

A. a-3, b-4, c-1, d-2

B. a-2, b-3, c-1, d-4

C. a-1, b-2, c-3, d-4

D. a-4, b-3, c-4, d-2

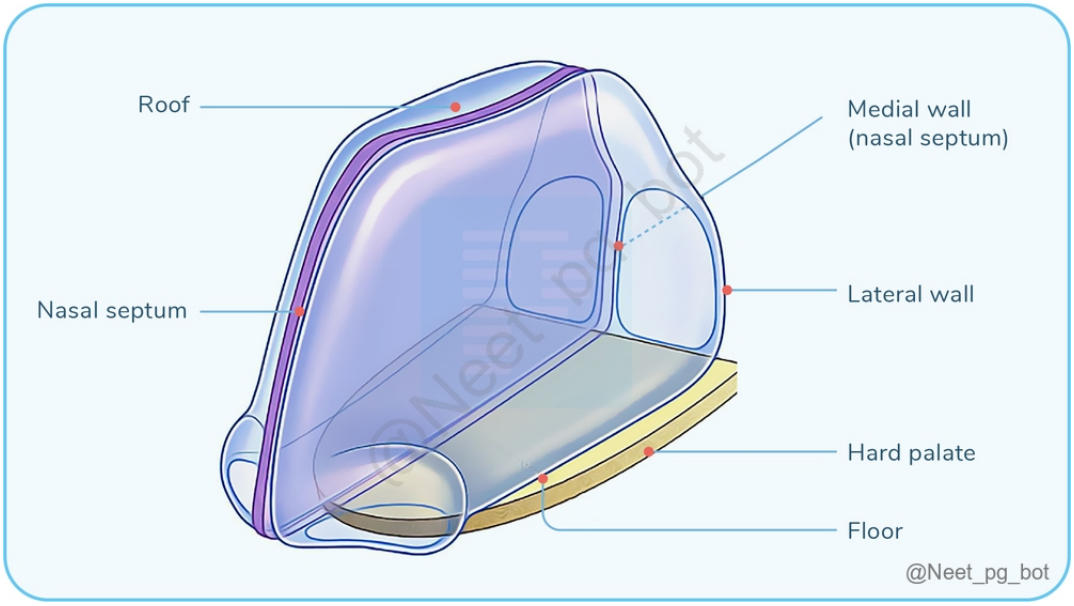
Correct Answer: A. a-3, b-4, c-1, d-2

■ *Listen (English)*

■ *Listen (Hindi)*

Explanation: The boundaries of internal nose anatomy are shown below in the table: The nasal septum divides the internal nose into right and left nasal cavities. Each nasal cavity communicates with the exterior through the naris or nostril and with the nasopharynx through a posterior nasal aperture or the choana. Each nasal cavity consists of a skin-lined portion—the vestibule and a mucosa-lined portion, the nasal cavity proper. Anterior Vestibule

Posterior Choanae Roof Roof of the nose separates the nasal cavity from the anterior cranial fossa Floor The floor of the nose separates the nasal cavity from the oral cavity Medial Septum: separates the right side of the nose from the left side Lateral The lateral wall of the nose Fig: Anatomy of Internal Nose



References:

Diseases of Ear, Nose, and Throat, PL Dhingra 8th Edition Page:155

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• [02_Nose and Paranasal Sinuses] 014 Diseases Of The External Nose And Septum

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[02_Nose and Paranasal Sinuses] 014 Diseases Of The External Nose And Septum — Quick Jump

Q1 (p. 919)	*Q2 (p. 920)*	*Q3 (p. 921)*	*Q4 (p. 922)*	*Q5 (p. 922)*	*Q6 (p. 923)*
Q7 (p. 924)	*Q8 (p. 925)*	*Q9 (p. 926)*	*Q10 (p. 927)*	*Q11 (p. 928)*	*Q12 (p. 930)*
Q13 (p. 932)	*Q14 (p. 933)*	*Q15 (p. 937)*	*Q16 (p. 940)*	*Q17 (p. 942)*	*Q18 (p. 945)*

Q1: A 45-year-old man with a history of trauma 1 week back, presents with fever, frontal headache, nasal bridge redness, and septal tenderness. O/E there smooth bilateral swelling of the nasal septum. What should be the initial approach to managing this patient's condition? (Q848010)

A. Immediate drainage

B. Observation and follow-up in a week

C. Nasal decongestants

D. Corticosteroid therapy

Correct Answer: A. Immediate drainage

■ *Listen (English)*

■ *Listen (Hindi)*

Explanation: The clinical features point to a Septal Abscess. When left untreated, septal abscesses can lead to serious complications like necrosis of the septal cartilage, septal perforation, and even life-threatening conditions such as meningitis or cavernous sinus thrombosis. Immediate surgical drainage of the abscess is necessary to remove the pus collection and prevent these severe outcomes. Antibiotic therapy should also be started after drainage. Fig: Septal Abscess Observation and follow-up in a week (Option B): This would be inappropriate for managing a septal abscess, as delaying treatment worsens infection, leading to significant complications. Nasal decongestants (Option C): Although decongestants might provide temporary relief from nasal obstruction, they do not treat the underlying infection or address the collection of pus within the septum. Corticosteroid therapy (Option D): Corticosteroids are used to reduce inflammation in many conditions, but in the case of a septal abscess, the issue is infection. Corticosteroids would not resolve the abscess and could worsen it by suppressing the immune response.

References:

Diseases of Ear, Nose and Throat, PL Dhingra, 8th Edition, Pg.174

Scott-Brown's Otorhinolaryngology, 8th Edition, Volume 1, Pg.434

↑ *Back to this question in Part A*

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Q2: Which of the following is recognized as the most common cause of nasal septal perforation? (Q892061)

A. Septal abscess

B. Trauma

C. Syphilis

D. Tuberculosis

Correct Answer: B. Trauma

Explanation: Trauma is the most common etiology of nasal septal perforation. This primarily includes iatrogenic trauma occurring during nasal surgeries like submucous resection (SMR) or septoplasty, where opposing mucosal

tears are made. It also includes "habitual" trauma from nose picking (epistaxis digitorum). Etiology of Septal Perforation Traumatic Iatrogenic (post Submucous Resection or Septoplasty) Habitual nose picking → Hajek's ulcer Bilateral cauterization for epistaxis Pathological Septal Abscess causing cartilage necrosis (Option A ruled out) Syphilis, Tuberculosis, Leprosy (Option C and D ruled out) Inflammatory or Vasculitis Granulomatosis with polyangiitis (Wegener's). Sarcoidosis. Chemical/Irritants Wood dust, chrome salts, and cocaine use Idiopathic -

References:

PL Dhingra's Diseases of Ear, Nose and Throat and Head and Neck Surgery, 8th Edition, Page 174-175.

↑ *Back to this question in Part A*

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Q3: A 7-year-old child presents with total nasal obstruction and a tender, bilateral, fluctuant septal swelling 24 hours after a nasal injury. Which of the following statements regarding this condition are correct? Trauma is the most frequent cause. Blood accumulates under the perichondrium. It can result in a hump-nose deformity. Secondary infection can lead to a septal abscess. (Q892060)

A. 1, 2, and 3

B. 1, 2, and 4

C. 2, 3, and 4

D. 1, 2, 3, and 4

Correct Answer: B. 1, 2, and 4

Explanation: The presentation suggests a Nasal Septal Hematoma , commonly occurring after trauma . Blood collects between the septal cartilage and mucoperichondrium , compromising cartilage nutrition and risking necrosis. If untreated, secondary infection may lead to a Septal Abscess . The resulting deformity is typically saddle nose , not hump nose. Etiology Most commonly due to trauma (falls, sports injury, nasal surgery). (Statement 1) Pathophysiology Blood collects in the subperichondrial space ; septal cartilage fracture often makes it bilateral (Statement 2) Clinical complications If the hematoma is not drained, the resulting necrosis of the septal cartilage leads to a loss of dorsal support. This manifests as a saddle nose deformity (supratip depression), not a hump nose deformity (which is a convex excess of the bridge) (Statement 3 ruled out) Infection Stagnant blood may get infected. Secondary infection, most commonly by Staphylococcus aureus , can rapidly convert the hematoma into a septal abscess. (Statement 4)

References:

PL Dhingra's Diseases of Ear, Nose and Throat and Head and Neck Surgery, 8th Edition, Page 173-174.

↑ *Back to this question in Part A*

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Q4: Which of the following is NOT a characteristic feature of septoplasty? (Q892059)

A. Suitable for pediatric patients

B. Limited selective dissection

C. Bilateral mucoperichondrial flap elevation

D. Correction by scoring and cross-hatching

Correct Answer: C. Bilateral mucoperichondrial flap elevation

Explanation: Septoplasty is a conservative procedure that preserves most of the septal framework. It typically involves limited, selective dissection with unilateral mucoperichondrial flap elevation , maintaining blood supply from the opposite side and reducing complications like Septal perforation . Hence, bilateral mucoperichondrial flap elevation is not a characteristic feature of septoplasty. Feature Submucous Resection (SMR) Septoplasty Dissection Extensive; removes most deformed parts except caudal/dorsal struts. Limited, selective correction. (Option B ruled out) Age Limit Avoided before 17 yrs Can be done in children (Option A ruled out) Flaps Bilateral mucoperichondrial flaps Usually unilateral flap (Option C) Management Bony and cartilaginous parts are excised. Deformed cartilage is corrected by scoring, cross-hatching, or wedge excision (Option D ruled out) Complications Higher risk of supratip depression and columellar recession. Significantly lower risk of complications. Reoperation Technically difficult due to fibrosis. Technically easier.

References:

PL Dhingra’s Diseases of Ear, Nose and Throat and Head and Neck Surgery, 8th Edition, Page 490.

↑ *Back to this question in Part A*

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Q5: A patient with a markedly deviated nasal septum is planned for submucous resection (SMR). Which of the following incisions is classically used to perform this procedure? (Q892056)

A. Killian’s incision

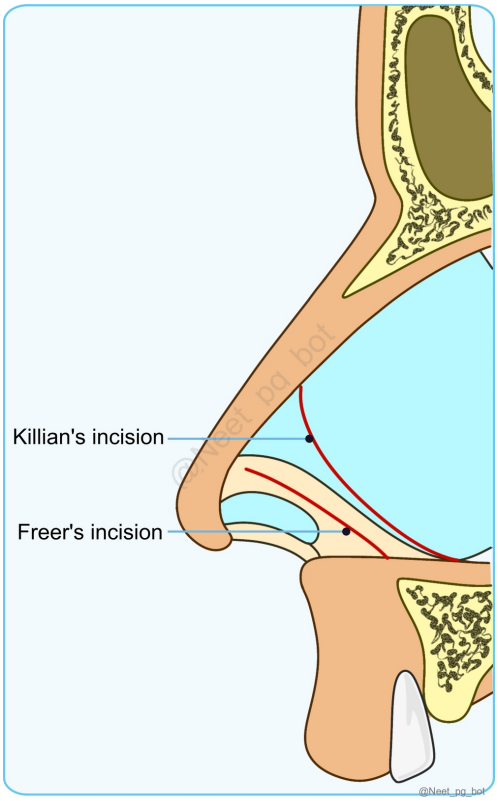
B. Transfixion incision

C. Freer’s incision

D. Weber-Ferguson incision

Correct Answer: A. Killian’s incision

Explanation: Incision for a submucous resection (SMR) is Killian’s incision . It is an oblique or curvilinear incision made on the side of the septal convexity, approximately 5 to 8 mm behind the caudal border of the septal cartilage. This allows for the easy elevation of mucoperichondrial and mucoperiosteal flaps on both sides of the septum before the deviated parts of the bone and cartilage are resected. This differs from septoplasty, where a more anterior incision is used to preserve more of the septal framework. Transfixion incision (Option B) is a surgical technique used in endonasal rhinoplasty and septoplasty, involving a vertical cut through the membranous septum just in front of the caudal edge of the septal cartilage. Freer’s incision (Option C) is a septocolumellar incision between caudal end of septal cartilage and columella (hemitransfixion incision). This approach is used in septoplasty when the dislocation is at the caudal end. Weber-Ferguson incision (Option D) is a surgical approach used for a maxillectomy to provide exposure to the maxillary bone and is not used for internal septal surgery.



References:

Scott-Brown’s Otorhinolaryngology, Head and Neck Surgery, 8th Edition, Volume 1, Page 1137.

PLDhingra’s Diseases of Ear, Nose and Throat and Head and Neck Surgery, 8th Edition, Page 491.

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Q6: Which of the following are recognized clinical indications for performing a septoplasty? Nasal obstruction on one or both sides Recurrent epistaxis usually from a septal spur Trans-sphenoidal approach to the pituitary fossa Chronic allergic watery discharge (Q892053)

A. 1, 2, and 3

B. 1, 2, and 4

C. 2, 3, and 4

D. 1, 2, 3, and 4

Correct Answer: A. 1, 2, and 3

Explanation: Septoplasty is a functional surgical procedure indicated for correcting mechanical impairments and specific clinical complications caused by a structural deformity of the nasal septum. Indications : Symptomatic nasal obstruction (unilateral/bilateral). (Statement 1) Part of septorhinoplasty for cosmetic correction. Recurrent epistaxis from a septal spur. (Statement 2) Recurrent/chronic sinusitis due to septal deviation. Contact point headache (Sluder’s neuralgia) from septum touching lateral nasal wall. To improve surgical access in Endoscopic Sinus Surgery (ESS). Access for Endoscopic Dacryocystorhinostomy (DCR). Trans-septal trans-sphenoidal approach to pituitary fossa. (Statement 3) Septal deviation contributing to **Obstructive Sleep Apnea. Chronic allergic watery discharge (Statement 4) is a mucosal symptom associated with hypersensitivity and hyper-responsiveness, not an indication for septoplasty.

References:

PL Dhingra’s Diseases of Ear, Nose and Throat and Head and Neck Surgery, 8th Edition, Page 489.

↑ *Back to this question in Part A*

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Q7: This clinical maneuver seen in the image is known as: (Q892052)

A. Cottle's test

B. Rinne's test

C. Cold spatula test

D. Posterior rhinoscopy

Correct Answer: A. Cottle's test

Explanation: Cottle's test is a diagnostic maneuver used to evaluate nasal valve patency. In this test, the cheek is pulled laterally while the patient inspires; if this action relieves the sensation of nasal obstruction, the test is considered positive. A positive result indicates that the site of obstruction is the nasal valve. This helps the surgeon decide if a simple septoplasty is sufficient or if the nasal valve needs to be addressed surgically. Rinne's test (Option B) is a tuning fork test used in audiology to compare air conduction with bone conduction. Cold spatula test (Option C) involves placing a cold metal spatula under the nostrils to observe the misting pattern, used to subjectively assess the patency of each nasal airway. Posterior rhinoscopy (Option D) is a clinical procedure using a mirror or endoscope to visualize the nasopharynx and the posterior ends of the turbinates.

References:

PL Dhingra’s Diseases of Ear, Nose and Throat and Head and Neck Surgery, 8th Edition, Page 172-173.

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Q8: Which of the following conditions is not recognized as a primary etiological factor for deviated nasal septum? (Q892050)

A. Birth trauma

B. Developmental error

C. Racial factors

D. Allergic rhinitis

Correct Answer: D. Allergic rhinitis

Explanation: Allergic rhinitis is an IgE-mediated inflammatory disease of the nasal mucosa and does not cause mechanical changes to the osseocartilaginous framework of the septum. Primary Etiological Factors for DNS Trauma Most common cause; includes birth trauma (septal molding, forceps delivery) and later nasal injuries. (Option A ruled out) Developmental Error Disproportionate growth between the septum and facial skeleton (e.g., high-arched palate pushing the vomer upward). (Option B ruled out) Hereditary Genetic influence on the size and shape of the septum; familial tendency. Racial Factors Higher incidence reported in Caucasians. (Option C ruled out) Masses Long-standing nasal polyps or tumors may push the septum to one side

References:

PL Dhingra's Diseases of Ear, Nose and Throat and Head and Neck Surgery, 8th Edition, Page 171.

↑ *Back to this question in Part A*

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Q9: A 35-year-old man presents with nasal obstruction and frequent crusting. Examination reveals a large perforation in the nasal septum. What is the most appropriate initial management? (Q848011)

A. Surgical closure with plastic flaps

B. Cauterization of the perforation

C. Use of steroid nasal sprays

D. Application of saline nasal washes and insertion of septal button

Correct Answer: D. Application of saline nasal washes and insertion of septal button

■ *Listen (English)*

■ *Listen (Hindi)*

Explanation: The initial management of a large nasal septal perforation focuses on alleviating symptoms, such as crusting, obstruction, and irritation, while preventing further damage. Saline nasal washes help keep the nasal cavity clean and free from crusting. A silastic sheet or septal button is a prosthetic device inserted into the perforation to physically seal it. This improves airflow, reduces crusting, and minimizes irritation, significantly enhancing the patient's comfort. Fig: Septal Perforation Etiology: Bony perforations: Caused by syphilis or other conditions affecting the bony septum. Cartilaginous perforations: Commonly result from trauma, tuberculosis, or

septal abscess. Total perforations: Can occur in systemic diseases like Wegener's granulomatosis. Surgical closure with plastic flaps (Option A): This is reserved for small, inactive perforations where the hole in the septum can be closed surgically using plastic flaps. However, for larger perforations, closure can be challenging and is not the first-line treatment. Cauterization of the perforation (Option B): Cauterization involves burning tissue and is used to stop nosebleeds or other issues, but it is not a recommended treatment for septal perforations. Use of steroid nasal sprays (Option C): While nasal sprays are commonly used to treat allergies and reduce inflammation, they can also contribute to septal perforations, especially when used long-term. Therefore, this is not an appropriate treatment and may exacerbate the issue rather than help manage it.

References:

Diseases of Ear, Nose and Throat, PL Dhingra, 8th Edition, Pages 174,175

Scott-Brown's Otorhinolaryngology, 8th Edition, Volume 1, Page 1152

emedicine.medscape.com/article/863325-clinical?form=fpf

↑ *Back to this question in Part A*

@Neet_pg_bot

Q10: A 42 y/o woman with a history of nasal surgery presents with a depressed nasal bridge and difficulty breathing through her nose. Examination reveals a significant depression involving both the bony and cartilaginous parts of her nose. What would

be the treatment approach for this patient? (Q847983)

A. A cartilage graft from the nasal septum

B. Cancellous bone graft from the iliac crest

C. Silicone implant

D. Observation without intervention

Correct Answer: B. Cancellous bone graft from the iliac crest

■ *Listen (English)*

■ *Listen (Hindi)*

Explanation: This presentation suggests saddle nose deformity , characterized by a depressed nasal bridge, often following trauma or previous nasal surgery. The goal of treatment is to restore the nasal structure and improve both the aesthetic appearance and airway function. When both the bony and cartilaginous structures of the nose are depressed, the best treatment involves using cancellous bone . This graft, often harvested from the iliac crest , provides structural support to restore the shape of the nose. If depression involves: Only cartilage : Cartilage is taken from the nasal septum or the auricle. Both Bone and Cartilage: Cancellous bone from the iliac crest is the best. Causes of Saddle Nose Deformity: Nasal trauma Excessive septum removal Septal damage due to septal hematoma or abscess. Conditions like leprosy, tuberculosis, or syphilis. A cartilage graft from the nasal septum (Option A) is used when only the cartilage of the nose is affected by the deformity. Silicone implant (Option C): Although synthetic materials like silicone can be used to fill the nasal dorsum, autologous grafts like bone are generally preferred due to lower risks of complications such as extrusion or rejection by the body. Observation without intervention (Option D): Leaving the deformity untreated, especially when it is causing functional issues like difficulty breathing, is not advisable.

References:

Diseases of Ear, Nose and Throat, PL Dhingra, 8th Edition, Pg.165

Scott-Brown’s Otorhinolaryngology, 8th Edition, Volume 1, Pg.435

↑ *Back to this question in Part A*

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Q11: A 30 y/o man presents with bilateral nasal obstruction, frontal headache, and a feeling of pressure over the nasal bridge following a recent nasal injury. On examination, a smooth, rounded, soft, and fluctuant swelling is noted in both nasal cavities. Which of the following is the most appropriate management step for this condition? (Q848009)

A. Nasal packing.

B. Use cryotherapy to manage the nasal swelling

C. Use of systemic antibiotics without drainage.

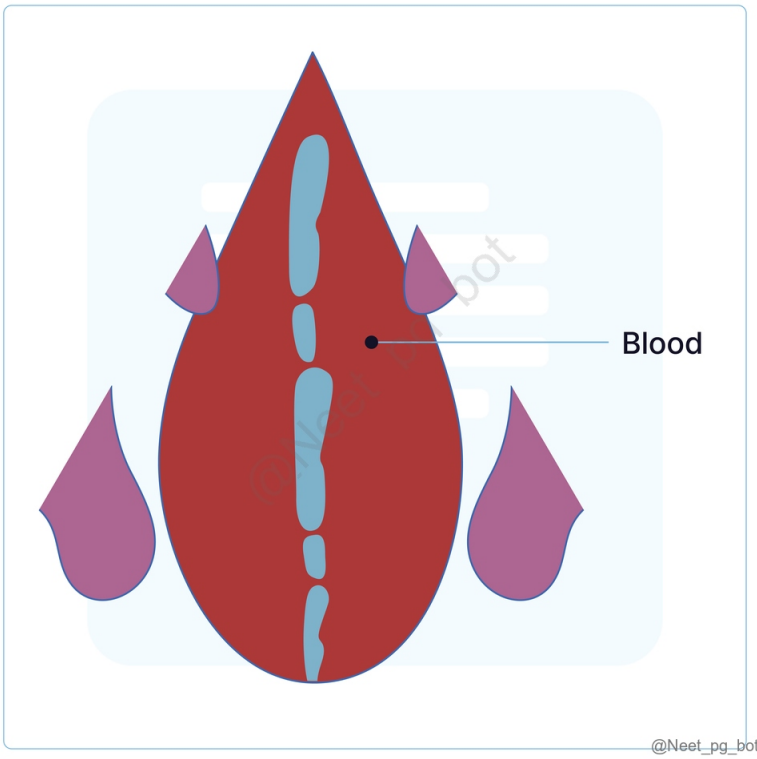
D. Incision and drainage, followed by nasal packing.

Correct Answer: D. Incision and drainage, followed by nasal packing.

■ *Listen (English)*

■ *Listen (Hindi)*

Explanation: In the scenario presented, the patient exhibits signs of a septal hematoma following nasal trauma, including bilateral nasal obstruction, frontal headache, and a soft, fluctuant swelling in the nasal cavities. The appropriate management for a septal hematoma involves incision and drainage for proper management, followed by nasal packing to prevent reaccumulation. Septal Hematoma Aetiology Collection of blood under the perichondrium or periosteum of the nasal septum. Commonly caused by: Nasal trauma. Septal surgery. Spontaneous occurrence in bleeding disorders. Clinical features Bilateral nasal obstruction (most common symptom). Fontal headache and pressure over the nasal bridge. Smooth, rounded, soft, and fluctuant swelling in both nasal fossae (or sometimes unilateral). Treatment Small hematomas: Aspirated with a wide-bore sterile needle. Larger hematomas: Incision and drainage via a septal incision parallel to the nasal floor, excising a small piece of mucosa for better drainage. Nasal packing on both sides to prevent reaccumulation. Systemic antibiotics to prevent septal abscess. Complications Fibrous tissue formation leads to permanent septal thickening if untreated. Secondary infection may lead to septal abscess, cartilage necrosis, and nasal dorsum depression. Nasal packing (Option A) : Nasal packing alone is not sufficient for managing larger septal hematomas, which typically require incision and drainage. Use cryotherapy to manage nasal swelling without drainage(Option B): Cryotherapy is not appropriate for treating septal hematomas; proper drainage is required to resolve the condition. Use of systemic antibiotics without drainage(Option C) : Systemic antibiotics are important to prevent infection, but they do not replace the need for drainage in larger hematomas.



References:

es of Ear, Nose and Throat, PL Dhingra, 8th Edition, Pg.173,174

Logan Turner’s Diseases of Nose, Throat and Ear, 11th Edition, Pg.88

↑ *Back to this question in Part A*

@Neet_pg_bot

Q12: A 15-year-old with a deviated nasal septum, significant nasal obstruction, and frequent sinus infections has a deviation mainly anterior to Cottle’s line, with no growth concerns. Which statement is true regarding surgical management? (Q848008)

A. Submucous resection (SMR) can be done in a 10-year-old child.

B. Septoplasty is preferred for limited dissection, with no impact on nasal growth in children.

C. SMR is preferred due to limited dissection and lower complication rates than septoplasty.

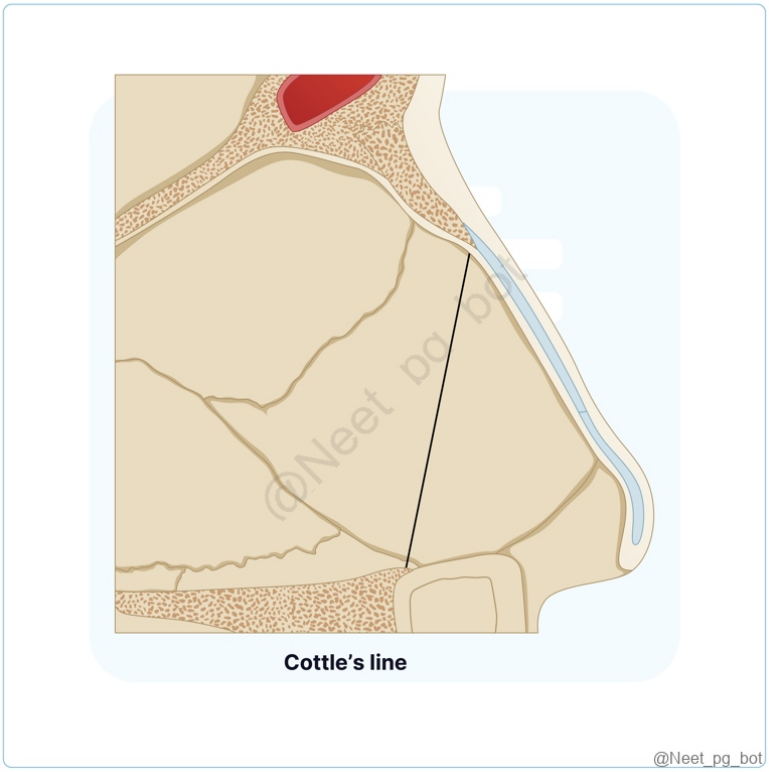
D. SMR is preferred for safer reoperation and anterior deviations.

Correct Answer: B. Septoplasty is preferred for limited dissection, with no impact on nasal growth in children.

■ *Listen (English)*

■ *Listen (Hindi)*

Explanation: Septoplasty is a conservative approach suitable for children, involves minimal dissection, and does not interfere with growth. Cottle's line A vertical line between the nasal processes of the frontal and maxillary bones. The surgical approach depends on the deviation's location relative to Cottle's line: Anterior to Cottle's line: Septoplasty is preferred. (Option D ruled out) Posterior to Cottle's line: Submucous resection (SMR) is preferred. Feature Submucous Resection Septoplasty Extent of Dissection Extensive dissection, removing all deformed bony and cartilaginous parts, preserving only a caudal and dorsal strut. Limited, selective dissection, removing minimal cartilage and bone, preserving most of the framework. (Option C ruled out) Age Consideration Not performed before 17 years to avoid interference with nasal growth. (Option A ruled out) Can be performed in children without affecting nasal growth. Flap Elevation Flaps are raised on both sides of the septum. Flap raised on one side with limited elevation on the opposite side Treatment of Deformed Parts Bony and cartilaginous parts are excised. Deformed cartilage is corrected by scoring, cross-hatching, wedge excision, or realigning after external correction (extracorporeal septoplasty). Risk of Complications Higher chances of complications (e.g., supratip depression, columellar recession, flapping of the septum) Lower chances of complications. Reoperation Reoperation is difficult. Reoperation is easier.



References:

Diseases of Ear, Nose and Throat, PL Dhingra, 8th Edition, Pages 490,172

Logan Turner's Diseases of Nose, Throat and Ear, 11th Edition, Page 68

↑ *Back to this question in Part A*

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Q13: Which of the following statements is true regarding the clinical features and complications of a deviated nasal septum (DNS)? (Q848007)

A. Nasal obstruction is less severe when the upper part of the septum is deviated

B. Septal spurs rarely cause headaches

C. DNS can cause hyposmia

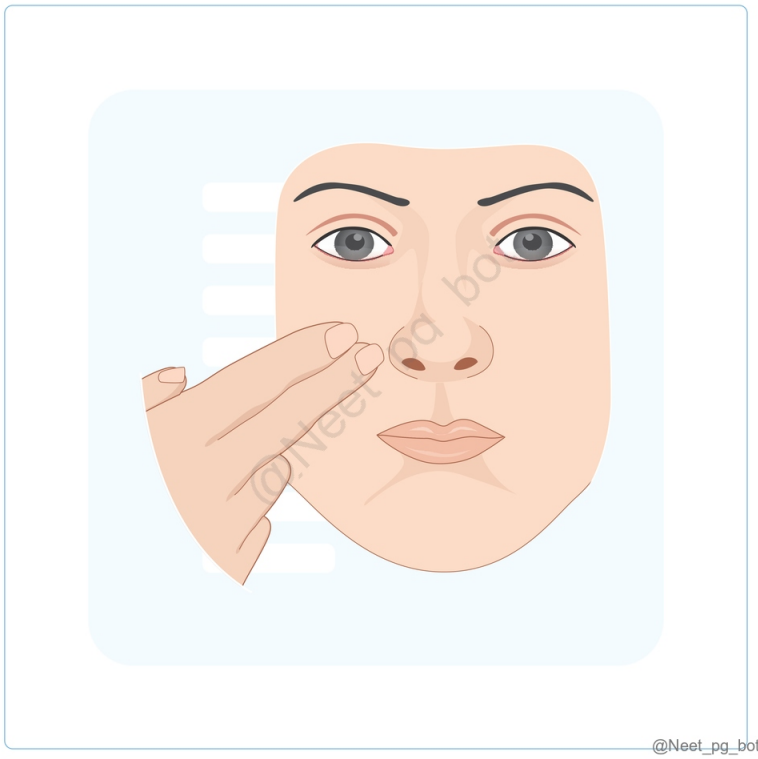
D. Cottle's test is used to diagnose choanal atresia in patients with DNS

Correct Answer: C. DNS can cause hyposmia

■ *Listen (English)*

■ *Listen (Hindi)*

Explanation: DNS can block airflow to the olfactory region, resulting in a loss of smell. Clinical Features of Deviated Nasal Septum (DNS): Nasal Obstruction Unilateral or bilateral obstruction, more severe in high septal deviations (Option A ruled out) . Obstruction sites can include vestibular, nasal valves, attic, turbinal, or choanal regions. Cottle Test : Positive if the airway improves when the cheek is pulled laterally (indicates nasal valve abnormality). (Option D ruled out) Headache Pressure from septal spurs against the lateral wall of the nose causes a pressure-type headache (Option B ruled out) Sinusitis DNS can block sinus ostia, leading to poor ventilation and a predisposition to sinus infections. Epistaxis Drying and crust formation over the deviated septum can cause bleeding upon removal of crusts. Bleeding can also occur from vessels on septal spurs. Anosmia Partial or total loss of smell due to failure of air to reach the olfactory region. External Deformity Visible nasal deformities such as deviation of the nasal dorsum or deformities of the nasal tip or columella. Middle Ear Infection DNS predisposes to middle ear infections due to poor ventilation through the Eustachian tube.



References:

Diseases of Ear, Nose and Throat, PL Dhingra, 8th Edition, Page172,173

Logan Turner’s Diseases of Nose, Throat and Ear, 11th Edition, Page 65,66

↑ *Back to this question in Part A*

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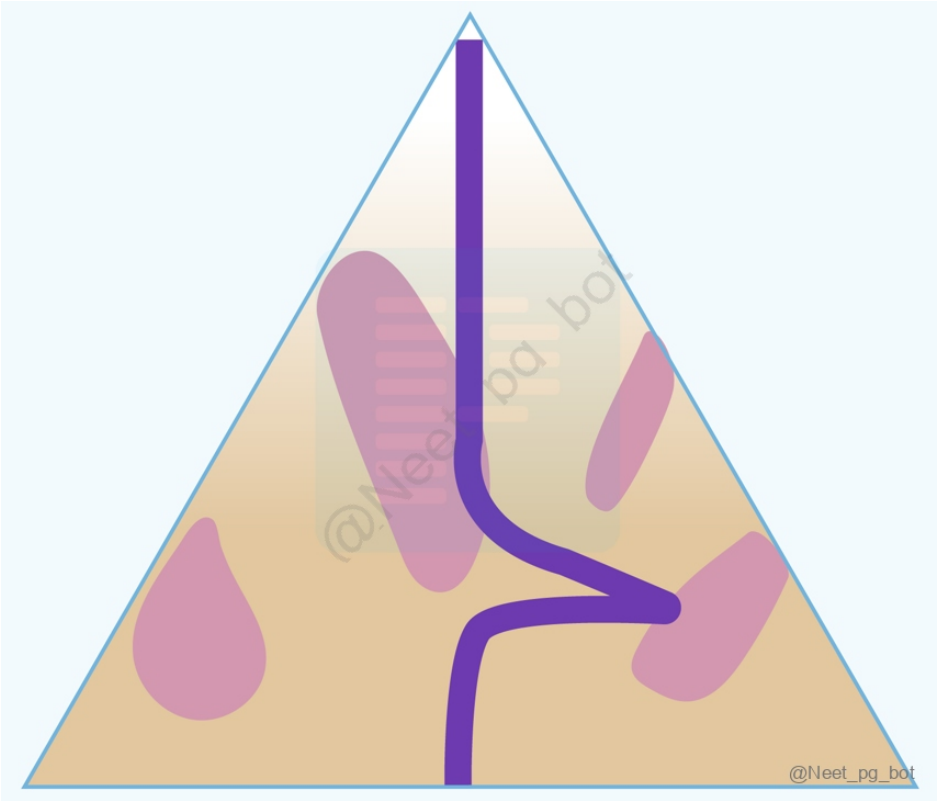
Q14: A 30-year-old male presents with chronic nasal obstruction, headaches, and frequent nosebleeds. On examination, there is a shelf-like projection felt along the nasal septum. The image below describes the obstruction. What is the most likely cause of this patient's symptoms? (Q848006)

A. Anterior dislocation of the septum

B. C-shaped deformity

C. Septal spur

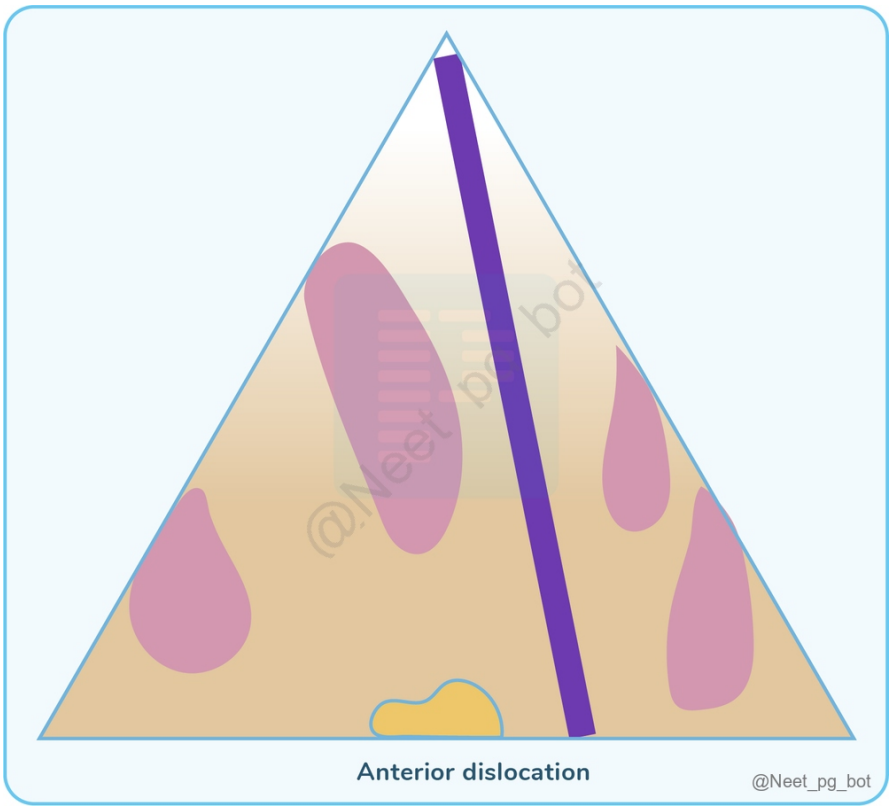
D. S-shaped deformity



Correct Answer: C. Septal spur

- *Listen (English)*
- *Listen (Hindi)*

Explanation: The image shows a septal spur . Septal spur is associated with symptoms such as headaches and recurrent epistaxis, due to pressure and stretching of the vessels over the shelf-like projection at the bone-cartilage junction, fitting the patient’s presentation. Types of Deviated Nasal Septum (DNS) Anterior Dislocation (Option A ruled out) Displacement of septal cartilage to one nasal chamber. C-shaped Deformity (Option B ruled out) Simple curve to one side, wider nasal chamber on the concave side with possible turbinate hypertrophy S-shaped Deformity (Option D ruled out) Deviation in a vertical or anteroposterior plane leads to bilateral nasal obstruction. Spurs Shelf-like projections at bone-cartilage junction causing headache or recurrent epistaxis Thickening Due to organized hematoma or overriding of septal fragments



Anterior dislocation

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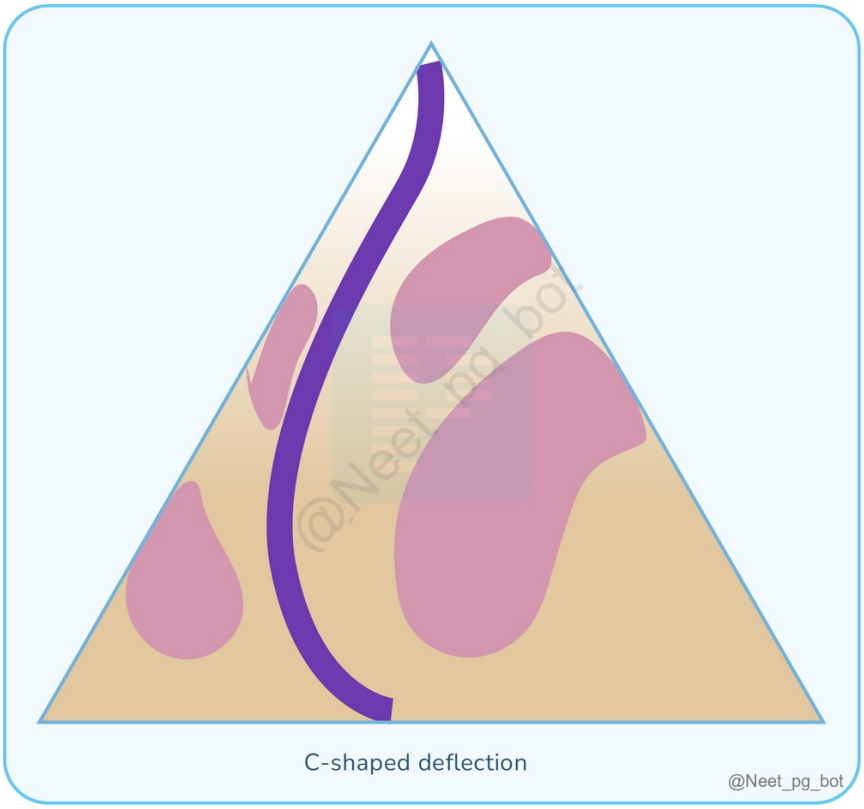

C-shaped deflection

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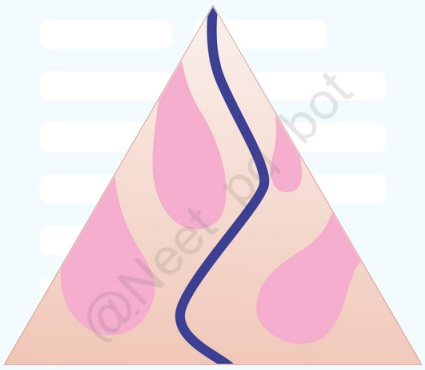

S-shaped deflection

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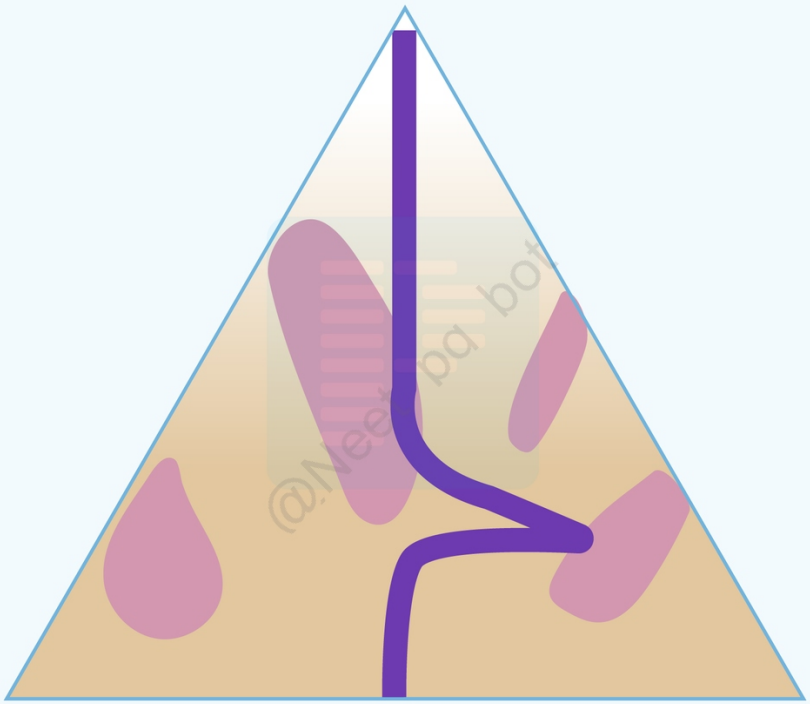

Nasal spur impinging on turbinate

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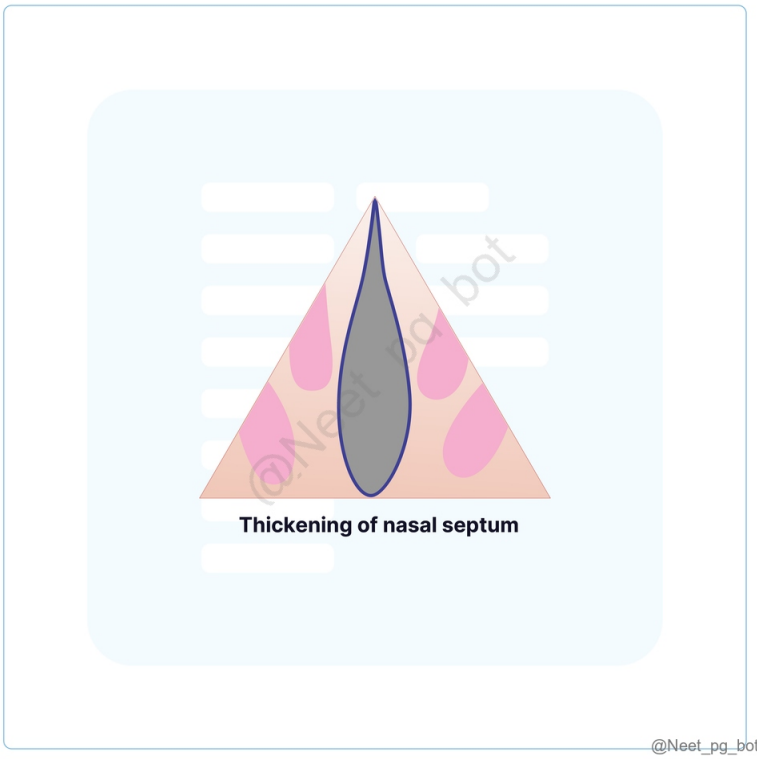

References:

Diseases of Ear, Nose and Throat, PL Dhingra, 8th Edition, Page 171,172

Logan Turner’s Diseases of Nose, Throat and Ear, 11th Edition, Page 64,65

DNS

↑ *Back to this question in Part A*

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Q15: A 55-year-old woman presents with a slowly growing ulcerated lesion on the tip of her nose, which has rolled edges and has been present for several months. There is no regional lymphadenopathy or pain. Which of the following is the most likely diagnosis? (Q848005)

A. Squamous cell carcinoma

B. Basal cell carcinoma

C. Malignant melanoma

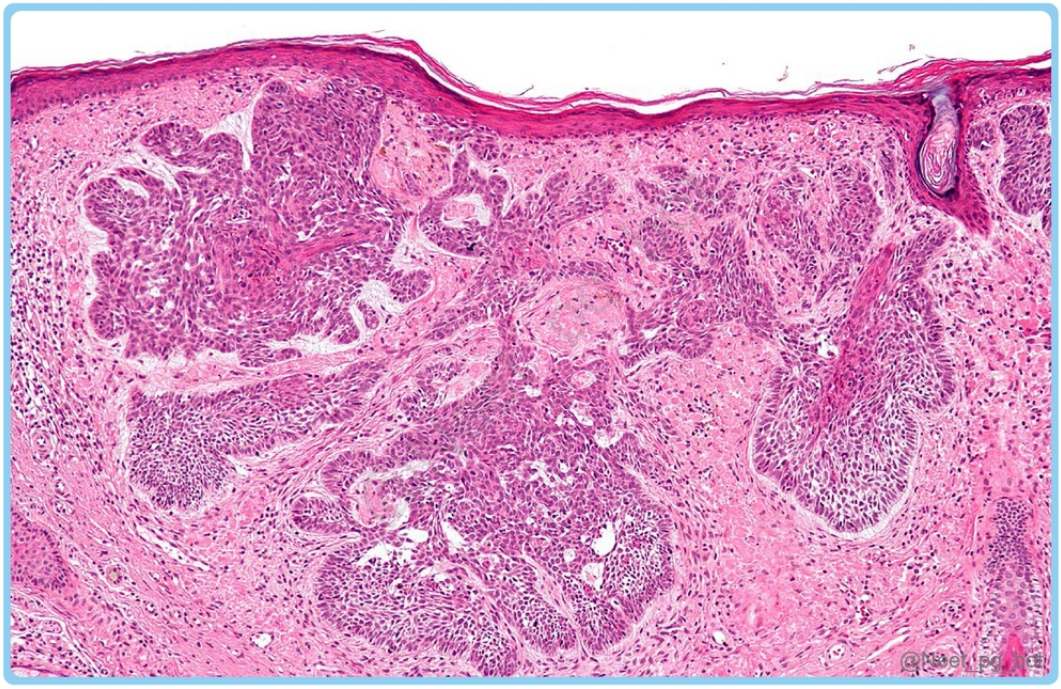
D. Sebaceous adenoma

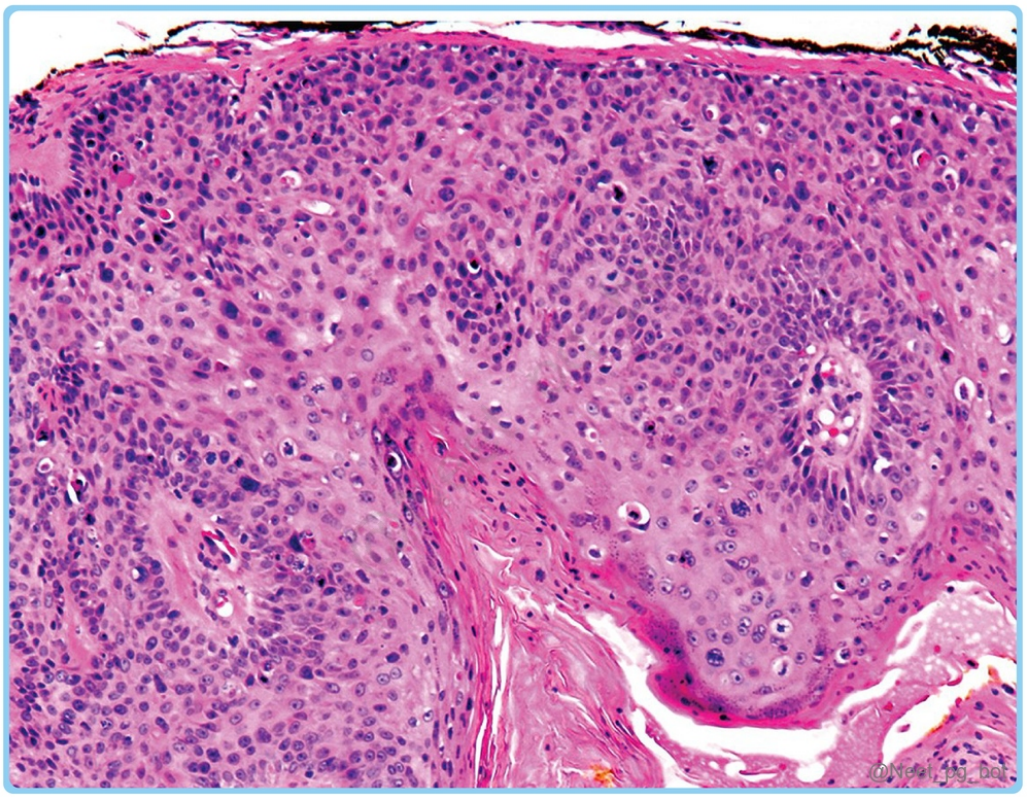
Correct Answer: B. Basal cell carcinoma

■ *Listen (English)*

■ *Listen (Hindi)*

Explanation: Basal cell carcinoma is the most common malignant tumour of the nasal skin, especially at sites like the tip or ala of the nose. It typically presents as a slow-growing ulcer with rolled edges, as described in the scenario. Type of malignancy Basal cell carcinoma Squamous cell carcinoma Features The most common malignant tumour of nasal skin (87%). Also known as Rodent ulcer The second most common nasal skin malignancy (11%). Also known as Epithelioma Causes It is caused by exposure to UV radiation. Occupational exposure to formaldehyde, chrome, nickel, arsenic and welding fumes. Common sites Tip and ala of the nose. Side of nose or columella. Clinical features Cyst, papulo-pearly nodule, or ulcer with rolled edges. Slow-growing, confined to skin for a long time, may invade cartilage or bone. Nodal metastases are extremely rare. Infiltrating nodule or ulcer with rolled-out edges. Nodal metastases occur in 20% of cases. Histopathology Treatment Early lesions: cryosurgery, irradiation, or surgical excision with a 3-5 mm healthy margin. Advanced/recurrent lesions: excision with local or distant flap or prosthesis repair. Moh's surgery Early lesions: radiotherapy. Advanced lesions with cartilage/bone exposure: wide surgical excision and plastic repair. Regional lymph node involvement: block dissection. Squamous cell carcinoma (Option B) would more likely present on the side of the nose or columella and has a higher rate of nodal metastasis (20%), which is not observed here. Malignant melanoma (Option C) usually presents as a pigmented lesion, which was not mentioned. Sebaceous adenoma (Option D) is a benign lesion of sebaceous glands, less likely to present as an ulcerated lesion with rolled edges.





References:

Diseases of Ear, Nose and Throat, PL Dhingra, 8th Edition, Page167

Logan Turner’s Diseases of Nose, Throat and Ear, 11th Edition, Page126

www.healthline.com/health/skin-cancer/basal-cell-carcinoma-nose#treatment-options

www.ncbi.nlm.nih.gov/pmc/articles/PMC7314379/

↑ *Back to this question in Part A*

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Q16: A 55-year-old man has a pink, lobulated mass on his nose with visible blood vessels, causing cosmetic and breathing concerns. Which treatment is best for minimal scarring? (Q847986)

A. Cryotherapy

B. Surgical paring

C. Topical antibiotics

D. Carbon dioxide laser ablation

Correct Answer: D. Carbon dioxide laser ablation

- *Listen (English)*
- *Listen (Hindi)*

Explanation: Rhinophyma (potato tumour) is a slow-growing, benign tumour characterized by enlarged sebaceous glands on the nose tip and is associated with long-standing acne rosacea. It presents as a pink, lumpy mass with visible blood vessels. Commonly seen in middle-aged and older men. Carbon dioxide laser ablation is used to precisely remove the excess tissue of rhinophyma. It is effective for reducing the tumour's bulk with minimal scarring, making it an ideal choice for both cosmetic and functional concerns. Cryotherapy (Option A): Cryotherapy involves freezing the tissue to destroy it, but it is not typically used for rhinophyma. Surgical paring (Option B): Although surgical paring involves removing the tumour's bulk with a sharp instrument, it may result in more noticeable scarring compared to laser ablation. It is a viable option but less preferred for minimizing cosmetic impact. Topical antibiotics (Option C): Topical antibiotics are used for treating infections, not for removing the benign tumour of rhinophyma.

Rhinophyma

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References:

Diseases of Ear, Nose and Throat, PL Dhingra, 8th Edition, Page 166

Scott-Brown's Otorhinolaryngology, 8th Edition, Volume 1, Page 439

Fractionated Carbon Dioxide Laser

↑ *Back to this question in Part A*

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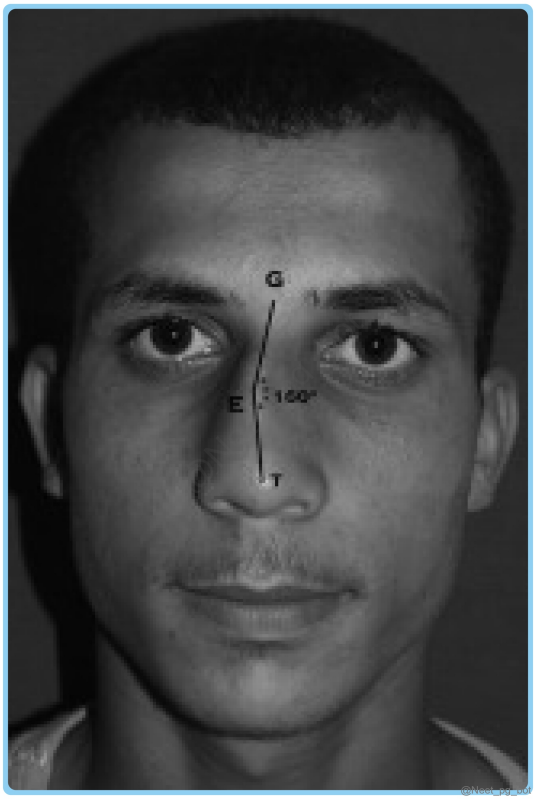
Q17: A 30 y/o man presents with a nose that appears curved from the front, giving it an S-shaped appearance. He reports a history of facial trauma during childhood. What is the most likely diagnosis? (Q847985)

A. Crooked nose

B. Deviated nose

C. Septal hematoma

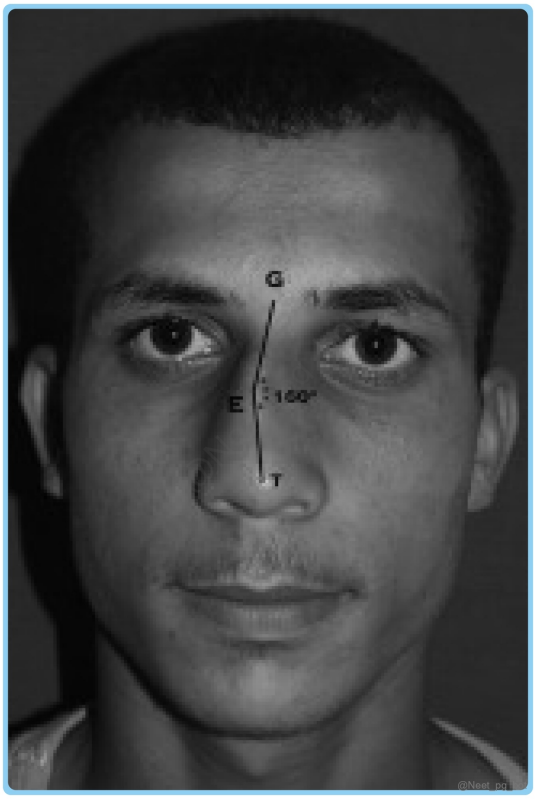
D. Saddle nose deformity

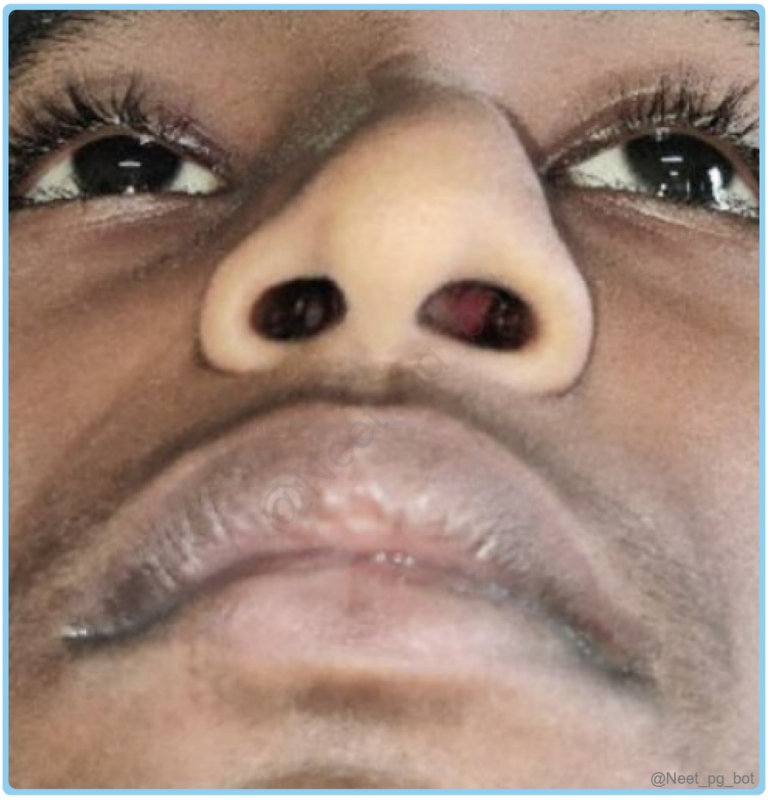


Correct Answer: A. Crooked nose

- *Listen (English)*
- *Listen (Hindi)*

Explanation: A crooked nose is characterized by a curved midline of the nasal dorsum, which may appear C-shaped or S-shaped when viewed from the front. Trauma during childhood or early life can lead to this type of nasal deformity, making it the most likely diagnosis based on the patient's presentation. Fig: Crooked Nose Deviated nose (Option B) involves a straight nasal midline that has shifted to one side rather than a curved or S-shaped appearance. Fig: Deviated Nose Septal hematoma (Option C) occurs when blood collects between the cartilage and the lining of the nasal septum. This condition causes swelling inside the nose. Saddle nose deformity (Option D) is characterized by a depressed nasal dorsum





References:

Diseases of Ear, Nose and Throat, PL Dhingra, 8th Edition, Pg.165,174

Scott-Brown’s Otorhinolaryngology, 8th Edition, Volume 3, Pg.1152

↑ *Back to this question in Part A*

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Q18: A 28 year-old woman presents with concerns about a prominent nasal hump. What is the primary treatment option for correction? (Q847984)

A. Reduction rhinoplasty

B. Augmentation rhinoplasty

C. Septoplasty

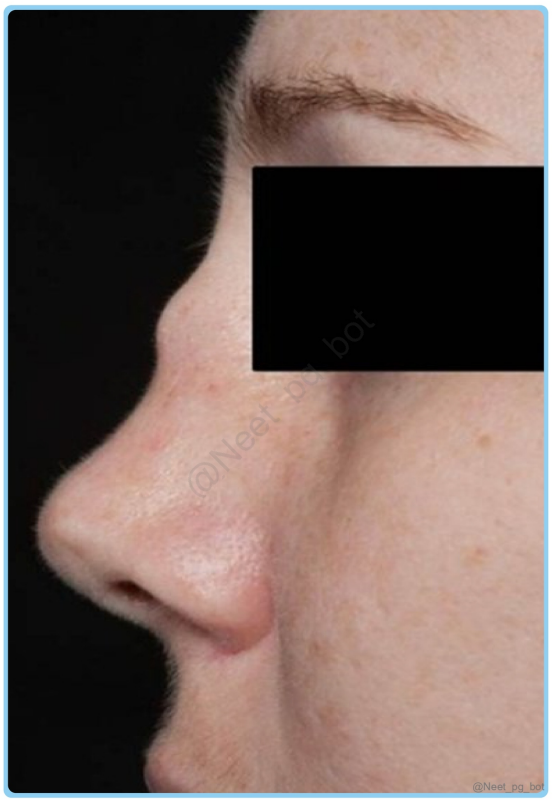
D. Nasal steroid therapy

Correct Answer: A. Reduction rhinoplasty

■ *Listen (English)*

■ *Listen (Hindi)*

Explanation: Hump nose deformity refers to a nasal profile with excessive prominence along the dorsum (bridge) of the nose. It is often due to excess bone and cartilage. This condition is mainly cosmetic. Reduction rhinoplasty addresses the removal of the nasal hump by reshaping the nose. It involves exposing the nasal framework, removing the hump, and performing osteotomies to refine the shape and prevent widening. Fig: Saddle Nose deformity Augmentation rhinoplasty (Option B) is used to increase nasal height or fill a depression, such as in cases of a saddle nose deformity. Septoplasty (Option C): Septoplasty is primarily performed to correct a deviated nasal septum, improving airflow. While it may be part of rhinoplasty if nasal function is affected, it does not focus on removing a hump or reshaping the nasal dorsum. Nasal steroid therapy (Option D) is used to reduce inflammation in nasal conditions like allergic rhinitis. It does not address structural issues, such as a hump, and is not a solution for cosmetic nasal concerns.



References:

PL Dhingra's Diseases of Ear, Nose & Throat and Head and Neck Surgery, 8th Edition, Page 165

Scott-Brown’s Otorhinolaryngology, 8th Edition, Page 1169

↑ *Back to this question in Part A*

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• [02_Nose and Paranasal Sinuses] 015 Rhinitis And Csf Rhinorrhea

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[02_Nose and Paranasal Sinuses] 015 Rhinitis And Csf Rhinorrhea — Quick Jump

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Q7 (p. 954)	*Q8 (p. 955)*	*Q9 (p. 956)*	*Q10 (p. 957)*	*Q11 (p. 957)*	*Q12 (p. 958)*
Q13 (p. 959)	*Q14 (p. 961)*	*Q15 (p. 962)*	*Q16 (p. 962)*	*Q17 (p. 963)*	*Q18 (p. 964)*
Q19 (p. 965)	*Q20 (p. 965)*	*Q21 (p. 966)*	*Q22 (p. 967)*		

Q1: Which of the following signs is commonly observed in individuals who frequently rub their nose to alleviate itching caused by allergic reactions? (Q848068)

A. Granular pharyngitis

B. Erythematous conjunctiva

C. Allergic shiners

D. Allergic salute

Correct Answer: D. Allergic salute

■ *Listen (English)*

■ *Listen (Hindi)*

Explanation: Allergic salute describes the horizontal crease that forms on the middle of the dorsum of the nose due to the repeated action of rubbing to relieve itching, a common behaviour in people with allergic rhinitis. Allergic salute Allergic Rhinitis Symptoms Signs Watery Nasal Discharge. Nasal Obstruction Sneezing Nasal Itching Itching in the Eyes, Palate, and Pharynx Nasal Signs: Transverse Nasal Crease Pale and Swollen Nasal Mucosa Swollen Turbinates Ocular Signs: Eyelid Swelling Conjunctival Congestion (Cobble-stone appearance), associated with VKC Dark Circles ('Allergic Shiners') Otologic Signs: Retracted Tympanic Membrane Serous Otitis Media Pharyngeal Signs: Granular Pharyngitis Laryngeal Signs: Hoarseness Laryngeal Oedema Granular pharyngitis (Option A): This refers to inflammation and swelling in the throat's lymphoid tissue, which is not caused by facial rubbing. Erythematous conjunctiva (Option B): This sign involves redness and inflammation of the eye membranes, often seen in allergic reactions, but is not related to the action of rubbing the face. Allergic shiners (Option C): These are dark circles under the eyes resulting from congestion and swelling due to allergic reactions, but they are not caused by rubbing the face. Fig: Allergic Shiners

References:

Diseases of Ear, Nose and Throat, PL Dhingra, 8th Edition, Page.194,195

Scott-Brown’s Otorhinolaryngology, 8th Edition, Volume 1, Page.1001

↑ *Back to this question in Part A*

Q2: A 42 y/o male presents with a history of persistent nasal discharge following a recent head trauma. He reports clear, watery fluid leaking from his nose which tests positive for beta-2 transferrin. After initial conservative management, the patient's symptoms persist. HRCT shows injury to the cribriform plate. Which of the following is the most appropriate next step in the surgical management of this patient? (Q848085)

A. External ethmoidectomy

B. Transnasal endoscopic repair

C. Osteoplastic flap and sinus obliteration

D. Lumbar drain

Correct Answer: B. Transnasal endoscopic repair

■ *Listen (English)*

■ *Listen (Hindi)*

Explanation: Persistent clear, watery nasal discharge and a positive beta-2 transferrin test after head trauma indicates a cerebrospinal fluid (CSF) leak. This patient is thus diagnosed as a case of CSF Rhinorrhoea. The cribriform plate in the in the anterior cranial fossa is usually the most commoly injured site. Transnasal endoscopic repair is the most appropriate next step for managing CSF rhinorrhea, especially for leaks in the anterior cranial fossa. The transnasal endoscopic approach allows direct visualization and repair of the defect with grafting materials and high-antibiotic nasal packing, addressing the leak effectively. CSF Rhinorrhoea- Surgical Repair Approaches: Neurosurgical Intracranial Approach. Extradural Approaches (rarely used): External ethmoidectomy (cribriform plate/ethmoid area). Transseptal sphenoidal approach. Osteoplastic flap (frontal sinus leaks). Transnasal Endoscopic Approach (preferred for anterior cranial fossa and sphenoid sinus): Site identification (e.g., cribriform plate, sphenoid, ethmoid roof) Grafting with fascia, and cartilage for large defects (>2 cm), followed by mucosa placement Use of Surgicel and Gelfoam to further strengthen the area. High-antibiotic nasal packing Lumbar drain for high CSF pressure Frontal Sinus Leaks- May require osteoplastic flap and sinus obliteration with fat. External ethmoidectomy (Option A) is rarely used for CSF leaks and is typically reserved for specific cases involving defects in the ethmoid area. It is not the preferred approach for anterior cranial fossa leaks, which are more common in head trauma cases presenting with CSF rhinorrhea. Osteoplastic flap and sinus obliteration (Option C) are generally used for managing frontal sinus leaks, involving more invasive procedures to reconstruct and obliterate the sinus to prevent further leakage. It is not indicated for CSF leaks unless there is specific involvement of the frontal sinus. Lumbar drain (Option D): While a lumbar drain is used to manage high CSF pressure and may aid in conservative management, it is not a definitive surgical solution. Since conservative measures have already been exhausted, the next step should be a surgical intervention to repair the leak directly.

References:

Dhingra's Diseases Of Ear, Nose And Throat, & Head and Neck Surgery, Edition 8, Page 193

Logan Turner’s Diseases of Nose, Throat and Ear, 11th Edition, Page 88

↑ *Back to this question in Part A*

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Q3: A 45-year-old male presents with a clear, watery nasal discharge that worsens when bending forward. He has a history of recent head trauma. Examination shows no signs of infection or sinusitis. Which of the following is the most appropriate initial imaging modality for diagnosing the cause of his symptoms? (Q848084)

A. MRI

B. High-Resolution CT (HRCT)

C. CT Cisternography

D. X-ray of the skull

Correct Answer: B. High-Resolution CT (HRCT)

■ *Listen (English)*

■ *Listen (Hindi)*

Explanation: The clinical scenario describes a clear nasal discharge that worsens with bending forward which is a classic sign of CSF leak. HRCT is the investigation of choice for identifying skull base defects associated with CSF rhinorrhea, especially following trauma, as it provides excellent visualization of bone structures and defects. Radiological Examination for CSF Rhinorrhea High-Resolution CT(HRCT) Investigation of choice for identifying skull base defects. 3D reconstruction helps evaluate congenital or spontaneous defects. Useful for detecting trauma, developmental abnormalities, or erosive lesions. CT Cisternography Involves intrathecal contrast injection to localize the CSF leak. Improves diagnostic yield, especially in active leaks. May miss cribriform or ethmoid sinus defects. Invasive procedure with potential side effects like nausea and headaches. MRI (Option A) Not first-line unless encephalocele is suspected. Less effective for identifying bony defects compared to CT. More costly and time-consuming, and may require a contrast agent. CT cisternography (Option C) involves intrathecal contrast and is more invasive, reserved for difficult cases when the leak site isn't found by HRCT. X-ray of the skull (Option D) has limited value in detecting CSF leaks or skull base defects.

References:

Dhingra's Diseases of Ear, Nose And Throat, & Head and Neck Surgery, 8th Edition, Page 192

Logan Turner’s Diseases of Nose, Throat, and Ear, 11th Edition, Page 88

https://emedicine.medscape.com/article/861126-workup#c7

↑ *Back to this question in Part A*

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Q4: A 50-year-old woman presents with clear, watery nasal discharge that increases when she bends forward. She denies any history of allergies and reports having undergone nasal surgery a few weeks ago. Which biochemical test is the most appropriate to confirm the diagnosis in this patient? (Q848083)

A. Glucose oxidase test

B. Beta-2 transferrin test

C. Sniff test

D. Lactate dehydrogenase (LDH) test

Correct Answer: B. Beta-2 transferrin test

■ *Listen (English)*

■ *Listen (Hindi)*

Explanation: In this case, the patient's symptoms of clear, watery nasal discharge that worsens when bending forward after nasal surgery are classic indicators of CSF rhinorrhea. The Beta-2 transferrin test is highly specific and sensitive for detecting CSF in nasal discharge, making it the best confirmatory test for this patient's symptoms. CSF Rhinorrhea - Biochemical Tests Glucose estimation test Beta-2 Transferrin test Beta trace protein test Rapid but unreliable test using glucose oxidase paper. Not specific to the site or side of the leak. A protein unique to CSF, not found in nasal discharge. Its presence is a specific and sensitive test for CSF rhinorrhea. Requires only a few drops of CSF for testing. Found in CSF, perilymph, and aqueous humor. The best test for confirming CSF in nasal fluid, but doesn't localize the leak. Another protein-specific test to detect CSF. Secreted by the meninges and choroid plexus. Also known as prostaglandin D synthase. High sensitivity and specificity. Present in other tissues (testes, heart) and altered in conditions like renal failure and CNS diseases. But, facilities to test these are not easily available. Glucose oxidase paper test (Option A): This test is unreliable for detecting CSF rhinorrhea due to potential false positives from other substances and false negatives if glucose levels in CSF are low or if there is active meningitis. Sniff test (Option C) is a fluoroscopic or dynamic test used to assess diaphragmatic movement, especially in cases of suspected phrenic nerve palsy. It evaluates paradoxical diaphragm motion during a quick nasal inspiration. Lactate dehydrogenase (LDH) test (Option D): LDH is a non-specific enzyme that is not suitable for diagnosing CSF rhinorrhea as it does not differentiate between CSF and other fluids in the nasal cavity.

References:

Dhingra's Diseases Of Ear, Nose And Throat, & Head and Neck Surgery, 8th Edition, Page 192

Logan Turner's Diseases of Nose, Throat and Ear, 11th Edition, Page 88

↑ *Back to this question in Part A*

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Q5: A patient presents with a clear, watery nasal discharge. The patient has a history of head injury. Which of the following characteristics would best differentiate this condition from simple rhinorrhea? (Q848082)

A. Presence of a continuous discharge that can be sniffed back.

B. Discharge with a salty taste and lower sugar content.

C. Presence of Beta-2 transferrin and high sugar content in the fluid.

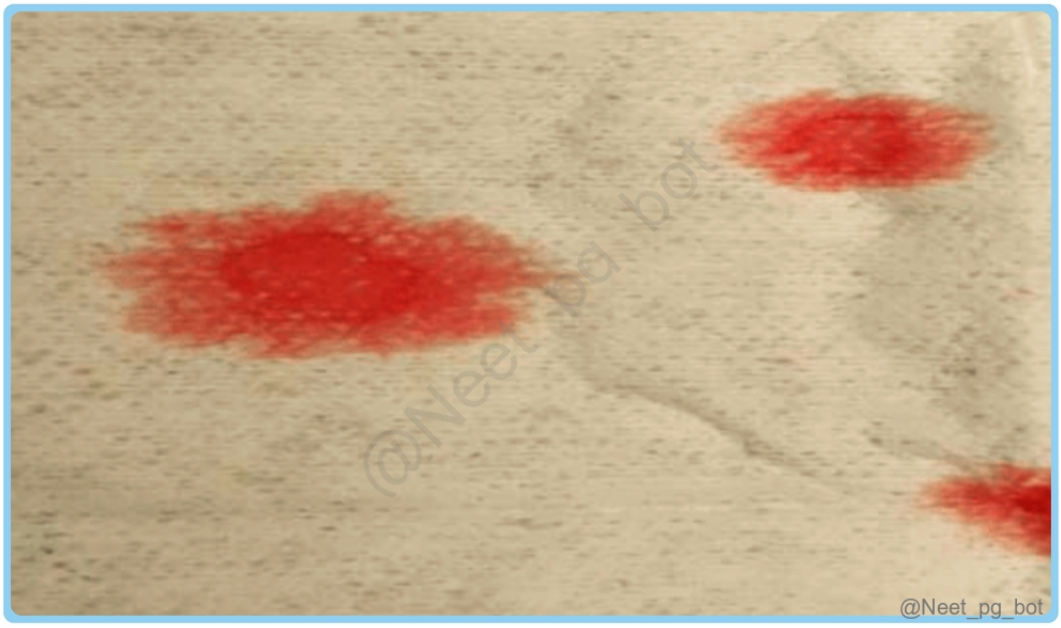
D. Discharge that causes the handkerchief to stiffen.

Correct Answer: C. Presence of Beta-2 transferrin and high sugar content in the fluid.

■ *Listen (English)*

■ *Listen (Hindi)*

Explanation: Given the presentation of clear, watery nasal discharge in a patient with a history of head injury, a cerebrospinal fluid (CSF) leak is a likely diagnosis. Features CSF rhinorrhea Simple rhinorrhea History Nasal or sinus surgery Head injury Intracranial tumour Sneezing Nasal stuffiness. Itching in the nose/lacrimation. Flow of discharge A few drops or a stream of fluid gushes down when bending forward or straining, cannot be sniffed back. (Option A) Continuous, no effect of bending forwards or straining, can be sniffed back Character of discharge Thin, watery and clear. Usually slimy (mucous). Taste Sweet (Option B) Salty Sugar content More than 30gm/dl Less than 10mg/dl Presence of Beta-2 Transferrin Always present, specific for CSF. Always absent. Sniff Test: In CSF rhinorrhea, the discharge gushes out in drops when bending and cannot be sniffed back, unlike nasal discharge from allergic or vasomotor rhinitis. Halo Sign: Seen in CSF rhinorrhea after head trauma. When collected on filter paper, the fluid shows a double target sign: a central red spot (blood) and a lighter peripheral halo (CSF). Halo Sign Reservoir Sign: Clear, watery discharge occurs when the patient bends their head, typically in the morning, as CSF collected in the sinuses (especially sphenoid) empties into the nose. Handkerchief Test: Nasal discharge from rhinitis stiffens the handkerchief due to its mucus content, whereas CSF does not cause stiffening. (Option D)



References:

Dhingra's Diseases Of Ear, Nose And Throat, & Head and Neck Surgery, Edition 8, Page 192

Logan Turner’s Diseases of Nose, Throat and Ear, 11th Edition, Page 88

↑ *Back to this question in Part A*

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Q6: A 32 y/o patient presents with clear nasal discharge that has been persistent for the past week, worsening after a recent head injury from a fall. The discharge is occasionally mixed with blood and is more prominent when bending forward. Which of the following is the most likely common site of CSF leakage in this patient? (Q848081)

A. Roof of the ethmoid air cells

B. Cribriform plate

C. Frontal sinus

D. Sphenoid sinus

Correct Answer: B. Cribriform plate

■ *Listen (English)*

■ *Listen (Hindi)*

Explanation: Cribriform plate is a common site for CSF leakage, particularly in cases of head trauma, making it a likely source of the patient's symptoms. CSF Rhinorrhea: Leakage of cerebrospinal fluid (CSF) into the nose. Can present as clear fluid or mixed with blood , especially in acute head injuries. Common Sites of CSF Rhinorrhea : Anterior cranial fossa Middle cranial fossa Temporal bone fracture Cribriform plate(most common) Roof of ethmoid air cells Frontal sinus Sphenoid sinus(following trauma) CSF reaches the middle ear, escaping through the eustachian tube into the nose (CSF otorhinorrhea) Roof of the ethmoid air cells(Option A), Frontal sinus(Option C), and Sphenoid sinus(Option D): While these are possible sites of CSF leakage following head trauma, they are less commonly injured when compared to the cribriform plate.

References:

Dhingra's Diseases Of Ear, Nose And Throat, & Head and Neck Surgery, 8th Edition, Page 191,192

Logan Turner's Diseases of Nose, Throat and Ear, 11th Edition, Page 88

CSF Rhinorrhea

↑ *Back to this question in Part A*

@Neet_pg_bot

Q7: A 45 y/o goldsmith reports persistent nasal crusting in bilateral nostrils in the anterior part . He has occasional nosebleeds and his nasal septum appears eroded. Which of the following is the most likely diagnosis for this patient's symptoms? (Q848080)

A. Rhinitis Sicca

B. Rhinitis Caseosa

C. Chronic sinusitis

D. Allergic rhinitis

Correct Answer: A. Rhinitis Sicca

■ *Listen (English)*

■ *Listen (Hindi)*

Explanation: The patient's symptoms, including crusting, bilateral involvement, and septal erosion, align with the diagnosis of Rhinitis sicca , especially given his occupation in a dry and dusty environment. Rhinitis Sicca Etiology Affects individuals working in hot, dry, dusty environments (e.g., bakers, ironsmiths, goldsmiths) Location Confined to the anterior third of the nose, especially the nasal septum. Pathology Ciliated columnar epithelium undergoes squamous metaplasia with atrophy of sero-mucinous glands. Symptoms Crust formation, ulceration, epistaxis, and possible septal perforation due to crust removal. Treatment Improve occupational

surroundings Apply bland or antibiotic/steroid ointment. Avoid nose picking/removal of crusts. Use nasal douche. Rhinitis Caseosa (Option B): This condition typically presents unilaterally with offensive purulent discharge, unlike the patient's bilateral nasal crusting and septal erosion. Chronic sinusitis (Option C): Although it may involve crusting and discharge, it usually affects both nostrils and is less specific to the occupational setting described. Allergic rhinitis (Option D): This condition generally causes itchy, watery discharge and is not associated with the characteristic crusting and offensive odour described.

References:

Dhingra's Diseases Of Ear, Nose And Throat, & Head and Neck Surgery, 8th Edition, Page 180

↑ *Back to this question in Part A*

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Q8: A 45-year-old patient presents with persistent nasal crusting and foul odour, unresponsive to medical treatment. Which procedure narrows the nasal cavity to reduce crusting? (Q848079)

A. Young's operation

B. Use of 25% glucose in glycerine nasal application

C. Nasal irrigation with an alkaline solution

D. Lautenschlaeger technique

Correct Answer: D. Lautenschlaeger technique

■ *Listen (English)*

■ *Listen (Hindi)*

Explanation: The patient is diagnosed with atrophic rhinitis , which is characterized by persistent nasal crusting and a foul odour due to the atrophy of the nasal mucosa. The Lautenschlaeger technique specifically involves medial displacement of the lateral nasal wall to narrow the nasal cavities, which can help reduce crusting by improving airflow and humidifying the nasal passages in patients with atrophic rhinitis. Surgical Treatment of Atrophic Rhinitis Young's Operation and Modifications Complete closure of both nostrils in the nasal vestibule. Reopen nostrils after approximately 6 months to encourage mucosal regeneration and reduce crusting. Modified versions partially close nostrils to reduce discomfort while aiming for similar benefits. Techniques to narrow excessively wide nasal chambers Autologous grafts (fat, cartilage, bone) placed under the mucoperiosteum of nasal floor/lateral walls or mucoperichondrium of septum. Allografts (Alloderm, Cymetra) can be used. The Lautenschlaeger technique involves medial displacement of the lateral nasal wall to narrow nasal cavities which can help reduce crusting by improving airflow and humidifying the nasal passages. Young's operation and its modifications (Option A): Involves closing and then reopening the nostrils to promote mucosal regeneration and reduce crusting, not specifically for narrowing nasal cavities. Use of 25% glucose in glycerine nasal application (Option B): Helps inhibit bacterial growth and reduce odour, not related to narrowing nasal cavities. Nasal

irrigation with an alkaline solution (Option C): Aimed at crust removal and odour reduction, not for narrowing nasal cavities.

References:

Dhingra's Diseases Of Ear, Nose And Throat, & Head and Neck Surgery, Edition 8, Page 179, 180

Logan Turner’s Diseases Of Ear, Nose And Throat, & Head and Neck Surgery, Edition 11, Page 68

↑ *Back to this question in Part A*

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Q9: A 16 y/o girl presents with a foul-smelling nasal discharge, nasal obstruction, and anosmia. She has noticeable atrophy of the nasal turbinates and pale nasal mucosa. O/E the nasal chambers are enlarged and roomy. Which of the following is the most likely diagnosis? (Q848078)

A. Secondary atrophic rhinitis.

B. Vasomotor rhinitis.

C. Primary atrophic rhinitis.

D. Rhinitis sicca.

Correct Answer: C. Primary atrophic rhinitis.

■ *Listen (English)*

■ *Listen (Hindi)*

Explanation: The clinical presentation of foul-smelling nasal discharge, nasal obstruction, anosmia, atrophy of the nasal turbinates, pale nasal mucosa, and enlarged, roomy nasal chambers in a 16-year-old girl is most consistent with primary atrophic rhinitis. Atrophic rhinitis, or ozaena, is a chronic inflammatory nasal condition classified into primary and secondary types. Primary Atrophic Rhinitis Causes Heredity Endocrine disturbance Racial factors Nutritional deficiency Infective: Klebsiella ozaenae Autoimmune Clinical Features And Examination findings Primarily affects females, starts around puberty Foul-smelling nasal discharge; patients are usually unaware of it themselves and have anosmia (merciful anosmia). Paradoxical nasal obstruction despite enlarged nasal chambers. Epistaxis from crust removal. Pale nasal mucosa, atrophied turbinates, potential septal perforation, nasal vestibule dermatitis, saddle nose deformity. Possible extension to pharynx and larynx leading to atrophic pharyngitis and laryngitis. Eustachian tube obstruction and middle ear effusion cause hearing impairment. Secondary atrophic rhinitis (Option A) is usually due to another underlying cause and does not typically present with such pronounced atrophy and nasal chamber enlargement. Vasomotor rhinitis (Option B) generally causes nasal congestion and discharge but is not associated with atrophy of the turbinates or foul-smelling discharge. Rhinitis sicca (Option D) or dry rhinitis, involves dryness rather than the atrophic changes and foul-smelling discharge described here.

References:

Dhingra's Diseases Of Ear, Nose And Throat, & Head and Neck Surgery, 8th Edition, Page 178,179,180,198

Logan Turner’s Diseases Of Ear, Nose And Throat, & Head and Neck Surgery, 11th Edition, Page 62, 64

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@Neet_pg_bot

Q10: A 35 y/o woman who has been taking OCP's for 5 years presents with nasal congestion and obstruction for the last 2 months. What is the most likely diagnosis for her nasal symptoms? (Q848077)

A. Rhinitis medicamentosa

B. Drug-induced rhinitis from antihypertensive medication

C. Drug-induced rhinitis from contraceptive pills

D. Non-allergic rhinitis due to environmental triggers

Correct Answer: C. Drug-induced rhinitis from contraceptive pills

Explanation: Oral contraceptive pills (as the patient is on birth control) can cause nasal congestion as a side effect, making this the most likely diagnosis. Rhinitis Medicamentosa vs. Drug-Induced Rhinitis: Condition Cause Mechanism/Details Examples of Causative Agents Rhinitis Medicamentosa (Option A ruled out) Rebound effect from excessive use of topical nasal decongestants. Nasal mucosa becomes dependent on decongestants for normal blood flow, causing a cycle of worsening congestion. Topical nasal decongestants (e.g., oxymetazoline, phenylephrine) Drug-Induced Rhinitis Nasal congestion due to side effects of various systemic medications. A broad category of drugs causing nasal congestion. Antihypertensives: Reserpine guanethidine methyldopa propranolol Anticholinesterase drugs: Neostigmine Contraceptive pills : Contain oestrogens Drug-induced rhinitis from antihypertensive medication (Option B): The patient is on a DASH diet, not antihypertensive medications, making this option less likely. Non-allergic rhinitis due to environmental triggers (Option D): The patient’s symptoms are more likely linked to medication use rather than environmental factors.

References:

Dhingra's Diseases Of Ear, Nose And Throat, & Head and Neck Surgery, Edition 8, Page 199

Logan Turner’s Diseases Of Ear, Nose And Throat, & Head and Neck Surgery, Edition 11, Page 73, 75

↑ *Back to this question in Part A*

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Q11: A 45 y/o woman with a long-standing history of non-allergic rhinitis presents with persistent nasal obstruction and rhinorrhoea that has not responded to antihistamines and nasal steroid sprays. Which of the following would be the next best step in managing her condition? (Q848074)

A. Increase the dose of topical steroid sprays

B. Start systemic steroids for a short period and add ipratropium bromide nasal spray

C. Vidian neurectomy

D. Psychological support and tranquillisers

Correct Answer: B. Start systemic steroids for a short period and add ipratropium bromide nasal spray

■ *Listen (English)*

■ *Listen (Hindi)*

Explanation: Systemic Steroids are appropriate for severe cases when topical treatments have failed. They offer broader anti-inflammatory effects that can help control symptoms more effectively. Ipratropium Bromide Nasal Spray is specifically useful for managing excessive rhinorrhea, and combining it with systemic steroids can provide comprehensive symptom relief. Non-Allergic Rhinitis: Treatment Non-allergic rhinitis presents with symptoms similar to allergic rhinitis (nasal obstruction, rhinorrhoea, sneezing) but without positive allergy tests. Treatment is categorised into medical and surgical options. Medications: Antihistamines and Decongestants: Alleviate nasal obstruction, sneezing, and rhinorrhoea. Topical Steroid Sprays: Control Symptoms. Eg. Beclomethasone dipropionate, budesonide, fluticasone Systemic Steroids: Used for severe cases for a short time Ipratropium Bromide Nasal Spray: Effective for Excessive Rhinorrhoea. Increase the dose of topical steroid sprays (Option A): This might help control symptoms, but it has already been tried without sufficient relief. Vidian Neurectomy (Option C) is a surgical procedure, used for severe non-allergic rhinitis resistant to medical management, that involves cutting parasympathetic nerves to reduce nasal secretions. It is generally considered only after other treatments have failed, so it is not suitable as a first-line option. Psychological Support and tranquillizers (Option D) can be beneficial for managing emotional distress associated with chronic symptoms, but they do not address the underlying physical symptoms of non-allergic rhinitis. The primary focus should be on managing the physical symptoms before considering psychological interventions.

References:

Dhingra's Diseases Of Ear, Nose And Throat, & Head and Neck Surgery, 8th Edition, Pages 178, 198

Logan Turner’s Diseases Of Ear, Nose And Throat, & Head and Neck Surgery, 11th Edition, Page 73

↑ *Back to this question in Part A*

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Q12: A 25 y/o male with a history of perennial allergic rhinitis presents with persistent nasal obstruction despite regular use of oral antihistamines.What would be the next best step in managing this patient? (Q848072)

A. Add intranasal corticosteroids

B. Start a short course of oral corticosteroids

C. Begin immunotherapy

D. Use intranasal ipratropium bromide

Correct Answer: A. Add intranasal corticosteroids

■ *Listen (English)*

■ *Listen (Hindi)*

Explanation: For patients with moderate to severe or persistent symptoms of allergic rhinitis, and no improvement on oral antihistaminics, intranasal corticosteroids are recommended as monotherapy and are the next step in management according to ARIA guidelines. ARIA Step-Care Approach Mild Intermittent Disease Oral antihistamines, intranasal cromolyn sodium Moderate Severity/Persistent Disease Intranasal corticosteroids Severe Symptoms Oral non-sedating antihistamines + intranasal steroids Severe Persistent Symptoms Short course oral steroids + immunotherapy Persistent Nasal Obstruction Short course intranasal/oral decongestants (with antihistamines for oral) Start a short course of oral corticosteroids (Option B): This is considered in severe persistent symptoms unresponsive to other treatments but not as a first escalation step. Begin immunotherapy (Option C): This is considered when drug therapy fails or causes intolerable side effects but is not the immediate next step. Use intranasal ipratropium bromide (Option D): This is effective for blocking rhinorrhoea but is not the first-line treatment for persistent nasal obstruction.

References:

Dhingra's Diseases Of Ear, Nose And Throat, & Head and Neck Surgery, Ed 8, Page 196, 197

Logan Turner’s Diseases Of Ear, Nose And Throat, & Head and Neck Surgery, Ed 11, Page 73, 75

↑ *Back to this question in Part A*

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Q13: Which test is frequently utilised to identify the precise allergens responsible for allergic rhinitis symptoms? (Q848070)

A. Nasal smear

B. Skin Prick Test

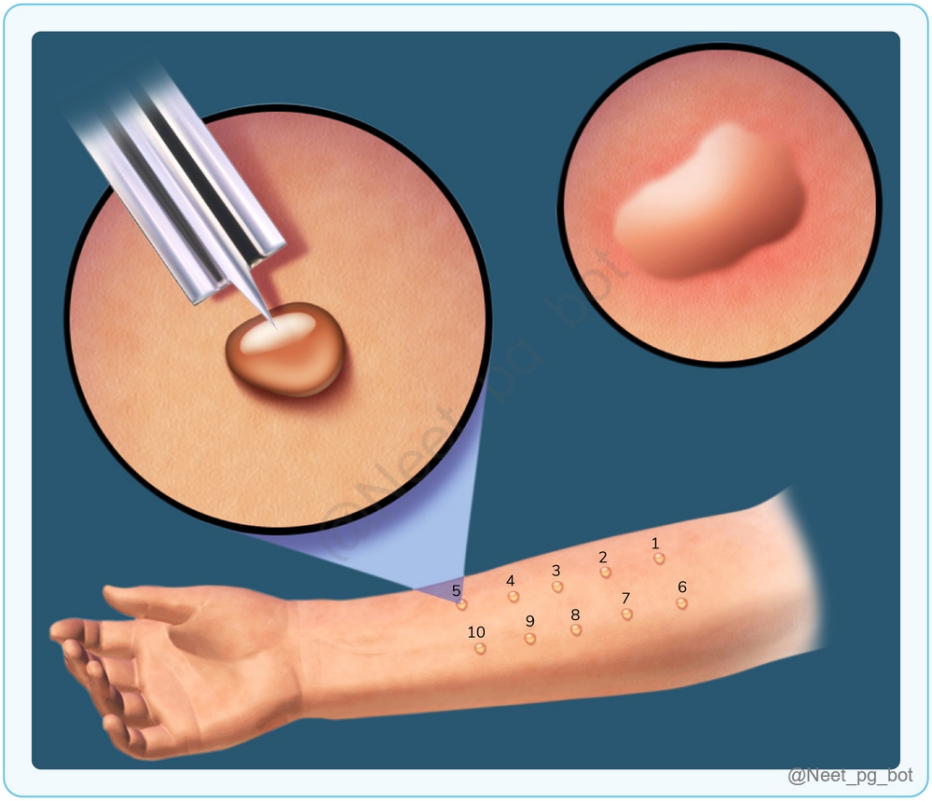
C. Complete Blood Count

D. Serum IgE

Correct Answer: B. Skin Prick Test

- *Listen (English)*
- *Listen (Hindi)*

Explanation: Skin prick test involves placing drops of allergen extracts on the skin and making small punctures to introduce the allergens. A localized reaction, such as a central wheal surrounded by a zone of erythema, indicates sensitivity to the specific allergens. It is widely recognized as the most effective test for pinpointing the exact allergens causing allergic rhinitis. Skin Prick Test Nasal smear (Option A) involves examining a sample of nasal secretions under a microscope to identify the presence of eosinophils. While it can support the diagnosis of allergic rhinitis by showing eosinophil predominance, it does not identify specific allergens causing the symptoms. Complete Blood Count (Option C): This test helps evaluate general health and detect eosinophilia, which may be associated with allergic conditions. However, it does not specify which allergens are responsible for the symptoms. Serum IgE (Option D): This blood test measures the levels of IgE which is elevated in allergic rhinitis but, it does not provide immediate, practical results about allergen triggers like the skin prick test.



References:

Diseases of Ear, Nose and Throat, PL Dhingra, 8th Edition, Page 196

Scott-Brown’s Otorhinolaryngology, 8th Edition, Volume 1, Page 1002

https://www.ncbi.nlm.nih.gov/pmc/articles/PMC8974728/

↑ *Back to this question in Part A*

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Q14: A 35-year-old woman complains of ongoing nasal congestion and sneezing throughout the year. She lives with two cats and works in an environment with mold exposure. What is the most likely diagnosis? (Q848063)

A. Seasonal allergic rhinitis

B. Non-allergic rhinitis

C. Perennial allergic rhinitis

D. Allergic asthma

Correct Answer: C. Perennial allergic rhinitis

■ *Listen (English)*

■ *Listen (Hindi)*

Explanation: Perennial allergic rhinitis is most commonly triggered by allergens present all year , such as pet dander and mold, which the patient is exposed to continuously. The persistent nature of the symptoms points to this diagnosis. Early Phase Symptoms: Histamine: Causes vasodilation, increased mucus secretion, and itching Leukotrienes: Contribute to nasal congestion Prostaglandin D2: Further enhances congestion and rhinorrhea. Late Phase Response: Recruitment of inflammatory cells (eosinophils, neutrophils, and T-cells). Eosinophils release mediators that perpetuate inflammation. Chronic Inflammation: Continuous exposure to allergens leads to prolonged nasal congestion, rhinorrhea, sneezing, and itching due to ongoing inflammation. Seasonal allergic rhinitis (Option A) is triggered by pollen, which only causes symptoms during specific times of the year, such as spring or fall. Since the patient experiences symptoms year-round, this is unlikely. Non-allergic rhinitis (Option B) is caused by irritants such as strong odours, smoke, or weather changes, but it does not involve an allergic reaction to specific triggers like mould or pet dander. The presence of allergen exposure in this patient makes this option less likely. Allergic asthma (Option D) can coexist with allergic rhinitis and be triggered by similar allergens, asthma primarily involves respiratory symptoms such as wheezing and shortness of breath, which are not part of this patient’s presentation.

References:

Diseases of Ear, Nose and Throat, PL Dhingra, 8th Edition, Page.177,194,195

Scott-Brown’s Otorhinolaryngology, 8th Edition, Volume 1, Page.999

https://www.ncbi.nlm.nih.gov/books/NBK526018/

↑ *Back to this question in Part A*

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Q15: A 25-year-old medical student presents with sneezing, nasal congestion, and a scratchy throat. Which of the following viral agents is statistically the most frequent cause of this clinical syndrome? (Q885154)

A. Adenovirus

B. Coronavirus

C. Rhinovirus

D. Respiratory Syncytial Virus

Correct Answer: C. Rhinovirus

Explanation: The clinical presentation of sneezing, nasal congestion, and a scratchy throat is diagnostic of Acute Coryza . The etiology involves several viral agents, primarily Adenovirus and the Picornavirus group. The Picornavirus family includes subgroups such as Rhinovirus , Coxsackievirus , and Enteric Cytopathic Human Orphan (ECHO) virus. Rhinovirus is the most frequent cause of this syndrome, accounting for more than 50% of cases in the adult population. These viruses are highly contagious and thrive in the slightly lower temperatures of the nasal cavity mucosa. Adenovirus (Option A) is a common cause of upper respiratory infections but is more frequently associated with pharyngoconjunctival fever and severe pharyngitis. Coronavirus (Option B) is the second most common cause of the common cold. Respiratory Syncytial Virus (Option D) is a primary cause of lower respiratory tract infections, such as bronchiolitis and pneumonia, particularly in infants and young children.

References:

PL Dhingra’s Diseases of Ear, Nose and Throat and Head and Neck Surgery, 8th Edition, Page 176.

↑ *Back to this question in Part A*

@Neet_pg_bot

Q16: During anterior rhinoscopy of a patient complaining of persistent nasal obstruction, the clinician observes a characteristic mulberry appearance of the posterior end of the inferior turbinate. What is the most likely diagnosis? (Q885159)

A. Atrophic rhinitis

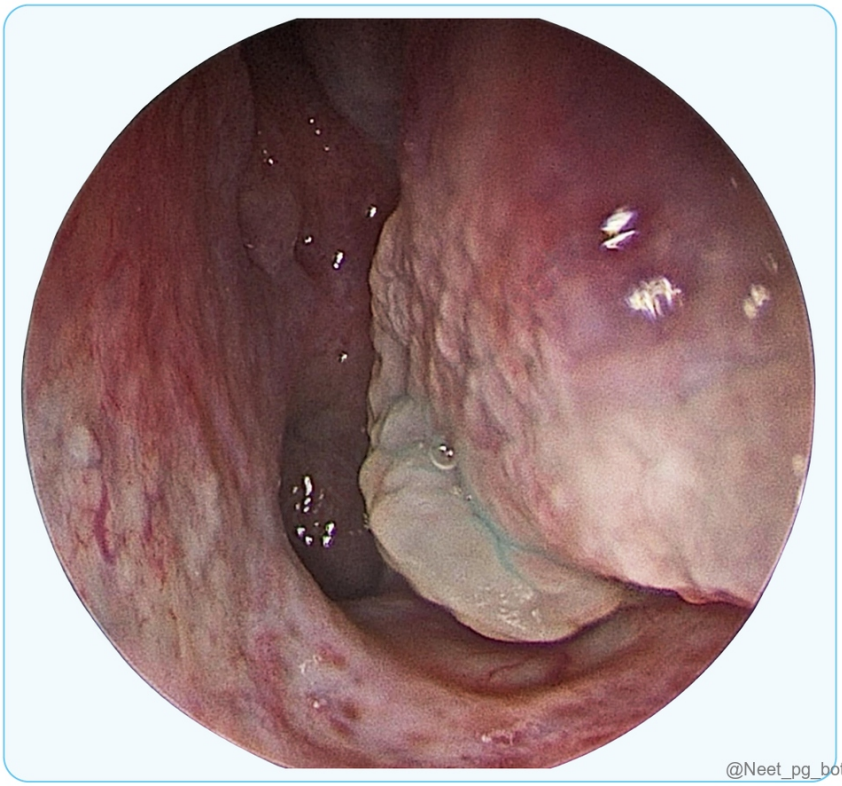
B. Hypertrophic rhinitis

C. Vasomotor rhinitis

D. Rhinitis sicca

Correct Answer: B. Hypertrophic rhinitis

Explanation: The diagnosis is Hypertrophic rhinitis based on the finding of a mulberry appearance of the turbinate in a patient with persistent obstruction. This condition is characterized by permanent thickening of the nasal mucosa, particularly involving the inferior turbinates, due to irreversible fibrosis and venous engorgement. The pitted or mulberry surface is most prominent at the anterior, posterior ends or along the inferior border of the turbinate. This leads to a constant, non-fluctuating nasal obstruction, distinguishing it from the variable obstruction seen in allergic or vasomotor rhinitis. Atrophic rhinitis (Option A) is characterized by a widening of the nasal airway and thinning of the mucosa. Vasomotor rhinitis (Option C) is a non-allergic condition causing paroxysmal sneezing and watery rhinorrhea where the turbinates appear swollen and congested but lack permanent, pitted mulberry-like fibrosis. Rhinitis sicca (Option D) is a form of dry rhinitis involving mucosal crusting and thinning, usually seen in patients working in hot, dusty environments.



References:

PL Dhingra’s Diseases of Ear, Nose and Throat and Head and Neck Surgery, 8th Edition, Page 178.

↑ *Back to this question in Part A*

@Neet_pg_bot

Q17: Which of the following clinical entities is also called Ozaena? (Q885160)

A. Atrophic rhinitis

B. Allergic rhinitis

C. Vasomotor rhinitis

D. Hypertrophic rhinitis

Correct Answer: A. Atrophic rhinitis

Explanation: Ozaena is the clinical synonym for primary atrophic rhinitis , a chronic inflammatory condition characterized by the progressive atrophy of the nasal mucosa and the underlying turbinate bones. The term is derived from the Greek word oze , meaning to smell, which refers to the hallmark feature of the disease: a foul, fetid odor (stench) produced by the decomposition of greenish-black nasal crusts by secondary invaders such as Klebsiella ozaenae . The condition typically presents with a paradoxically wide nasal cavity and merciful anosmia, where the patient is unable to perceive the offensive odor themselves due to destruction of the olfactory neuroepithelium. Allergic rhinitis (Option B) is a Type I IgE-mediated hypersensitivity reaction of the nasal mucosa characterized by paroxysmal sneezing, watery rhinorrhea, and nasal itching. Vasomotor rhinitis (Option C) is a non-allergic condition caused by autonomic instability of the nasal vasculature, leading to congestion and profuse watery discharge without crusting or atrophy. Hypertrophic rhinitis (Option D) is characterized by permanent thickening and fibrosis of the nasal mucosa, often showing a mulberry appearance, which is the pathological opposite of atrophic rhinitis.

References:

PL Dhingra’s Diseases of Ear, Nose and Throat and Head and Neck Surgery, 8th Edition, Page 178.

↑ *Back to this question in Part A*

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Q18: Which of the following is most commonly associated with atrophic rhinitis? (Q885163)

A. Klebsiella rhinoscleromatis

B. Klebsiella ozaenae

C. Staphylococcus aureus

D. Streptococcus pyogenes

Correct Answer: B. Klebsiella ozaenae

Explanation: Klebsiella ozaenae is the organism most commonly associated with primary atrophic rhinitis . This Gram-negative bacillus acts as a secondary invader that thrives in the atrophic nasal environment, contributing to

the formation of the characteristic greenish-black, foul-smelling crusts. Other organisms associated are: Diphtheroids Proteus mirabilis Escherichia coli Staphylococci (Option C ruled out) Streptococci (Option D ruled out) Klebsiella rhinoscleromatis (Option A) is the causative agent of Rhinoscleroma, a chronic granulomatous condition of the respiratory tract characterized by woody hard swellings and the presence of Mikulicz cells.

References:

PL Dhingra's Diseases of Ear, Nose and Throat and Head and Neck Surgery, 8th Edition, Page 178.

↑ *Back to this question in Part A*

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Q19: Which of the following statements regarding the clinical presentation of primary atrophic rhinitis is false? It is significantly more common in males. The onset typically occurs around the age of puberty. It is characteristically a unilateral condition. Patients frequently exhibit merciful anosmia. (Q885165)

A. 1 and 2

B. 2 and 4

C. 1 and 3

D. 2 and 3

Correct Answer: C. 1 and 3

Explanation: Primary atrophic rhinitis is an almost always bilateral condition that exhibits a significant female preponderance attributed to endocrine factors or nutritional deficiencies. Bilateral disease (Statement 3) More common in females than males (Statement 1) Typically manifests around the age of puberty/adolescence . (Statement 2 ruled out) Atrophic process destroys the olfactory neuroepithelium, resulting in merciful anosmia. (Statement 4 ruled out)

References:

PL Dhingra's Diseases of Ear, Nose and Throat and Head and Neck Surgery, 8th Edition, Page 179.

↑ *Back to this question in Part A*

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Q20: Which of the following conditions is the most common cause of unilateral atrophic rhinitis? (Q885167)

A. Severe deviated nasal septum

B. Rhinoscleroma

C. Radiotherapy to the nose

D. Syphilis

Correct Answer: A. Severe deviated nasal septum

Explanation: Unilateral atrophic rhinitis is based on localized atrophic changes occurring in the wider nasal cavity of a patient with a severe deviated nasal septum . On the side concave to the septum, the increased space leads to excessive airflow, which causes mucosal drying, crust formation, and subsequent atrophy of the turbinate bones. Etiology of atrophic rhinitis: Primary Atrophic Rhinitis: Hereditary: Often involves more than one member of a family. Endocrine: Shows a female preponderance, typically starts at puberty, and may regress after menopause. Racial: Found more commonly in Mongoloid and Caucasian races. Nutritional deficiency: Associated with Vitamin A, D, and Iron deficiencies. Autoimmune: Involves antibodies against antigens of the nasal mucosa. Organism: Klebsiella ozaenae is the classically associated primary pathogen. Secondary Atrophic Rhinitis: Specific infections: Syphilis, lupus, leprosy, and rhinoscleroma. (Option B and D ruled out) Iatrogenic/Traumatic: Excessive surgical removal of turbinates (Empty nose syndrome) or radiotherapy to the nose. (Option C ruled out) Chronic Inflammation: Long-standing purulent sinusitis. Secondary Invaders: Diphtheroids, Proteus vulgaris , Escherichia coli , staphylococci, and streptococci contribute to the characteristic stench and crusting.

References:

PL Dhingra’s Diseases of Ear, Nose and Throat and Head and Neck Surgery, 8th Edition, Page 178-180.

↑ *Back to this question in Part A*

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Q21: In a patient with primary atrophic rhinitis, what is the primary physical cause for the sensation of nasal obstruction? (Q885168)

A. Hypertrophy of turbinates

B. Extensive crust formation

C. Excessive synechiae

D. Nasal polyposis

Correct Answer: B. Extensive crust formation

Explanation: The feeling of blockage in an anatomically wide nasal cavity is the characteristic of primary atrophic rhinitis . Mechanisms for this sensation: Mechanical presence of large, dry, greenish-black crusts physically

occludes the airway despite the underlying cavity being wide. Progressive atrophy of the nasal mucosa involves the destruction of sensory nerve endings. This neurosensory loss means the patient no longer perceives the normal coolness or pressure of air passing through the nose, leading to the subjective feeling of being blocked even when the passage is patent. Hypertrophy of turbinates (Option A) involves thickening and fibrosis of the mucosa, commonly seen in vasomotor rhinitis. Excessive synechiae (Option C) are fibrous adhesions between the septum and turbinates that typically occur after nasal surgery or trauma. Nasal polyposis (Option D) are edematous, prolapsed mucosal growth usually resulting from chronic inflammation or allergy.

References:

PL Dhingra's Diseases of Ear, Nose and Throat and Head and Neck Surgery, 8th Edition, Page 179.

↑ *Back to this question in Part A*

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Q22: Which of the following are components used to prepare the standard alkaline nasal douche for managing crusting in atrophic rhinitis? Sodium chloride Potassium chloride Sodium bicarbonate Sodium biborate (Q885170)

A. 1, 2, and 3

B. 1, 3, and 4

C. 2, 3, and 4

D. 1, 2, 3, and 4

Correct Answer: B. 1, 3, and 4

Explanation: The alkaline nasal douche is a conservative treatment used to liquefy and remove the tenacious, foul-smelling crusts associated with atrophic rhinitis. Standard composition consists of three salts mixed in a specific ratio: Sodium bicarbonate is essential for its alkaline property, which helps dissolve the crusts (Option 3) Sodium biborate provides a mild antiseptic action to reduce secondary infection (Option 4) Sodium chloride provides the necessary tonicity to the solution to prevent mucosal irritation (Option 1) This mixture is typically dissolved in 280 ml of lukewarm water for patient use, 2 to 3 times a day. Potassium chloride (Option 2) is not a component of the traditional alkaline nasal wash formulation.

References:

PL Dhingra's Diseases of Ear, Nose and Throat and Head and Neck Surgery, 8th Edition, Page 179.

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• [02_Nose and Paranasal Sinuses] 016 Granulomatous Lesions Congenital Anomalies And Nasal Polyps

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[02_Nose and Paranasal Sinuses] 016 Granulomatous Lesions Congenital Anomalies And Nasal Polyps — Quick Jump

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Q13 (p. 984)	*Q14 (p. 986)*	*Q15 (p. 987)*	*Q16 (p. 990)*	*Q17 (p. 990)*	*Q18 (p. 991)*
Q19 (p. 992)	*Q20 (p. 993)*	*Q21 (p. 994)*	*Q22 (p. 995)*	*Q23 (p. 998)*	*Q24 (p. 999)*
Q25 (p. 1000)	*Q26 (p. 1002)*	*Q27 (p. 1002)*			

Q1: A 7 year old child presents with a unilateral nasal obstruction and a smooth, greyish mass noted on nasal examination. The mass extends posteriorly and is visible in the nasopharynx. Which of the following is the most likely diagnosis? (Q848109)

A. Nasal Dermoid Cyst

B. Antrochoanal Polyp

C. Juvenile Nasopharyngeal Angiofibroma

D. Sinonasal Adenocarcinoma

Correct Answer: B. Antrochoanal Polyp

■ *Listen (English)*

■ *Listen (Hindi)*

Explanation: Antrochoanal Polyp typically presents as a unilateral nasal obstruction with a mass extending posteriorly into the nasopharynx. It originates from the maxillary antrum and has a smooth, greyish appearance. Antrochoanal Polyp: Definition : A nasal polyp, also known as Killian polyp , with distinct origin and growth pattern. Origin: Maxillary Antrum : Originates from the mucosa of the maxillary antrum near its accessory ostium. Extent and Growth Pattern: Three Parts : Antral Part : Thin stalk in the maxillary antrum. Choanal Part : Round portion extending into the choana. Nasal Part : Flattened segment within the nasal cavity. Growth : Grows posteriorly towards the choana. May extend into the nasopharynx, possibly obstructing both sides. Laterality : Typically unilateral (occurs on one side of the nasal cavity). Visualisation: Anterior Rhinoscopy : May miss early-stage polyps; visible as a smooth, greyish mass with nasal discharge in later stages. Posterior Rhinoscopy : May reveal a globular mass in the nasopharynx behind the soft palate. Nasal Endoscopy : Best method for visualising the polyp's origin and extent. Nasal Dermoid Cyst (Option A) usually presents with a midline pit or sinus with hair protruding and is not typically found in the nasopharynx. Juvenile Nasopharyngeal Angiofibroma

(Option C) usually affects adolescent males and is often unilateral, presenting as a vascular mass in the nasopharynx. Sinonasal Adenocarcinoma (Option D) is rare in children and would present differently, often with more aggressive symptoms and at an older age.

References:

Dhingra's Diseases Of Ear, Nose And Throat, & Head and Neck Surgery, 8th Edition, Page 200

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Q2: A 62-year-old man presents to the ENT clinic with a complaint of persistent nasal obstruction and intermittent epistaxis (nosebleeds) for the past three months. He also reports a sensation of pressure in his right nasal cavity and does not have any known allergies. What is the most likely diagnosis for this patient? (Q848122)

A. Nasal polyps

B. Inverted papilloma

C. Angiofibroma

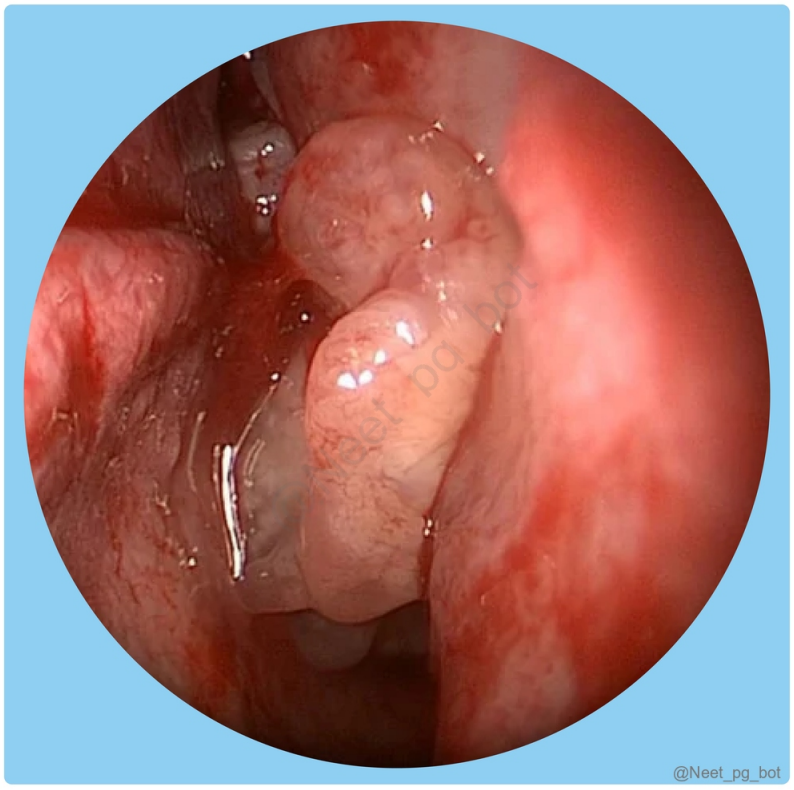
D. Sinonasal adenocarcinoma

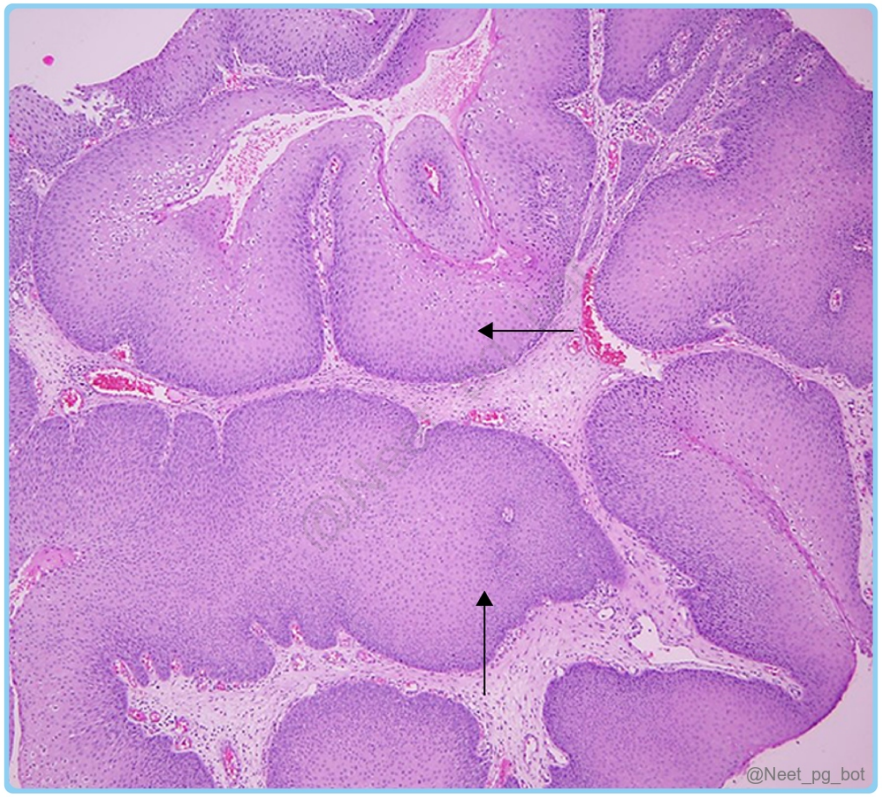
Correct Answer: B. Inverted papilloma

■ *Listen (English)*

■ *Listen (Hindi)*

Explanation: Inverted papilloma is a benign tumor arising from the nasal epithelium, often associated with the paranasal sinuses, particularly the maxillary sinus. It typically presents in older adults and is more common in males. Clinical Presentation: The patient presents with nasal obstruction, epistaxis, and a sensation of pressure, which are common symptoms associated with inverted papilloma. Examination : The presence of a fleshy, lobulated mass on the lateral wall of the nasal cavity is characteristic of inverted papilloma. Fig: Inverted Papilloma Histopathology: Invagination of the superficial epithelium into the underlying stroma. The epithelium may be of the keratinized squamous, respiratory or transitional types which may coexist in varying proportions. Fig: Histopathology of Inverted Papilloma Nasal Polyps (Option A) : Usually appear as smooth, pale masses and are not typically lobulated. They also do not usually cause significant bleeding. Angiofibroma (Option C) : Commonly occurs in young males (typically adolescents) and presents with nasal obstruction and epistaxis, but it typically originates from the nasopharynx rather than the nasal cavity. Sinonasal Adenocarcinoma (Option D): This is a malignant tumor that would present with similar symptoms but typically has a more aggressive behavior and associated symptoms like facial pain or swelling.





References:

Dhingra Diseases of Ear, Nose and Throat & Head and Neck Surgery, 8th Edition, Page 166, 167, 211.

↑ *Back to this question in Part A*

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Q3: A 57-year-old man presents to the dermatology clinic with a slowly enlarging, thickened area on his nose that has developed over the past several years. He has a history of rosacea and has noticed increased facial flushing over the past few years. There are no associated symptoms of pain or itching. What is the most likely diagnosis for this patient? (Q848121)

A. Acne vulgaris

B. Rhinophyma

C. Squamous cell carcinoma

D. Basal cell carcinoma

Correct Answer: B. Rhinophyma

■ *Listen (English)*

■ *Listen (Hindi)*

Explanation: Rhinophyma is a subtype of rosacea, specifically characterized by thickening of the skin on the nose. It often leads to a bulbous, irregular appearance and can affect the shape and texture of the nose. Risk Factors: Middle-aged Men. History of Rosacea Genetics Appearance: Bulbous, bumpy, and red appearance (cobblestone texture) Management : Topical Treatments Laser Therapy or Surgery Acne Vulgaris (Option A): Typically presents with comedones, papules, and pustules, mainly affecting younger individuals and not presenting with such pronounced thickening. Squamous Cell Carcinoma (Option C) and Basal Cell Carcinoma (Option D): These skin cancers can cause irregularities in the skin but are usually associated with other symptoms (e.g., ulceration or bleeding) and occur in sun-exposed areas. The age and history of rosacea make rhinophyma more likely in this scenario.

References:

Dhingra Diseases of Ear, Nose and Throat & Head and Neck Surgery, 8th Edition, Page 165, 166, 204.

↑ *Back to this question in Part A*

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Q4: Granulomatosis with polyangiitis (GPA) is suspected in a 45-year-old male who presents with chronic sinusitis, hemoptysis, and hematuria. A chest X-ray shows multiple cavitating nodules. Which of the following antibodies is most commonly associated with GPA? (Q848120)

A. Anti-double-stranded DNA (anti-dsDNA)

B. Anti-Smith (Anti-Sm)

C. p-ANCA (perinuclear ANCA)

D. c-ANCA (cytoplasmic ANCA)

Correct Answer: D. c-ANCA (cytoplasmic ANCA)

■ *Listen (English)*

■ *Listen (Hindi)*

Explanation: c-ANCA (cytoplasmic ANCA) is positive in over 90% of patients with generalized active disease and titers have been shown to correlate well with disease activity. Granulomatosis with polyangiitis: Previously known as Wegener's granulomatosis. It is a systemic granulomatous inflammation and necrotizing vasculitis affecting small- to medium-sized vessels. Clinical features: Upper respiratory tract symptoms: Clear or purulent bloody nasal discharge Sinusitis On examination, crusting, granulations, septal perforation, and a saddle nose. Lower respiratory tract symptoms: cough, pleuritic pain, and hemoptysis. kidneys: Hematuria, later renal failure. Oral: 'strawberry' gingival hyperplasia is said to be pathognomonic. Skin: ulceration and nodules. Diagnosis: Chest X-ray: Nodules, fixed infiltrates or cavities Urine analysis: Microscopic haematuria with or without red cell casts. Biopsy: Necrosis and ulceration of mucosa, epithelioid granuloma, and necrotizing vasculitis involving small arteries or veins. c-ANCA (cytoplasmic ANCA): Positive in 90% of the cases. (Option D) p-ANCA (perinuclear ANCA): Positive in 10% of the cases. (Option C) CT and MRI: Non-specific mucosal thickening in the nasal cavity or paranasal sinuses, bone destruction, and new bone formation in the walls of the sinus cavities. Treatment: Systemic corticosteroids. Cyclophosphamide, azathioprine, methotrexate and rituximab are used.
Anti-double-stranded DNA (anti-dsDNA) (Option A): High titers of it are specific for SLE (Systemic Lupus Erythematosus). Not associated with GPA. Anti- Smith (Anti-Sm) (Option B): Very specific for SLE. Not associated with GPA.

References:

Dhingra Diseases of Ear, Nose and Throat & Head and Neck Surgery, 8th Edition- Page 187.

Scott Brown's Otorhinolaryngology Head and Neck Surgery, 8th Edition- Page 1214-17.

Harrison's Principle of Internal Medicine, 21st Edition- Page 2738

↑ *Back to this question in Part A*

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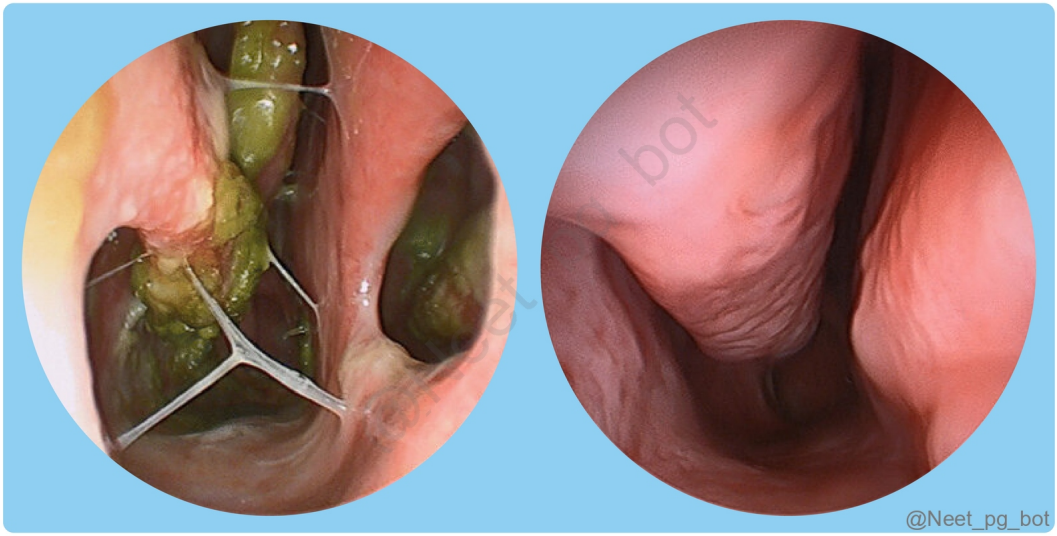
Q5: A 35-year-old male has chronic nasal obstruction, anosmia, and thick nasal crusting with foul-smelling discharge for the past several years. On examination, the following is found. Culture reveals Klebsiella ozaenae. All of the following options are potential treatment modalities to manage the condition except: (Q848119)

A. Oestradiol nasal spray

B. Modified Young's operation

C. Alkaline nasal douching

D. Long-term fluoroquinolones



Correct Answer: D. Long-term fluoroquinolones

■ *Listen (English)*

■ *Listen (Hindi)*

Explanation: Clinical manifestations and detection of Klebsiella ozaenae are most consistent with atrophic rhinitis . A 7 to 10-day course of systemic antibiotics like fluoroquinolones with metronidazole helps to clear the infections, but long-term antibiotics are not recommended. Medical treatment: Alkaline nasal douching solution: Nasal irrigation with an alkaline solution made by dissolving sodium bicarbonate 1 part, sodium biborate 1 part, and sodium chloride 2 parts in 280 ml of water. (Option C) 25% glucose in glycerine: Nose is painted with this solution to inhibit the growth of proteolytic organisms. Nemicetene anti- ozaena solution: Contains chloramphenicol, estradiol diproprionate, vitamin D2, and propylene glycol. Antibiotics: Appropriate topical antibiotics will help eliminate secondary infection. A 7- to 10-day course of systemic antibiotics like fluoroquinolones with metronidazole will help clear the infections, but not recommended for long-term use of antibiotics. (Option D) Oestradiol nasal spray and submucosal injections of placental extract are of minimal benefit. (Option A) Potassium iodide mixed with juice is used as mucolytics. A balanced diet containing vitamin A, vitamin D, folic acid, iron, and proteins. Surgery: Young’s operation: Mucosal flaps are elevated to close the nasal cavity completely. Modified Young's operation: Partially close the nostrils. (Option B) Narrowing of nasal cavity: Submucosal injection of allograft Lautenslagers operation (Section and medial displacement of lateral wall of nose) Insertion of fat, cartilage, bone under mucoperiosteum of floor and lateral wall of nose

References:

Dhingra's Diseases of Ear, Nose and Throat & Head and Neck Surgery, 8th Edition, Pages 179-80

https://www.ncbi.nlm.nih.gov/pmc/articles/PMC8303640/

↑ *Back to this question in Part A*

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Q6: A 55-year-old woman has a history of progressive nasal congestion, loss of smell, and chronic nasal crusting. Her husband noted a foul smell from her. She has noticed worsening nasal obstruction despite the absence of nasal secretions. On examination, there is evidence of nasal cavity widening with significant crusting and atrophy of the nasal mucosa. Nasal endoscopy shows extensive widespread thinning of the mucosa and bones on turbinates. Which of the following is NOT typically associated with the etiology of her condition? (Q848118)

A. Klebsiella ozaenae

B. Industrial irritants

C. Endocrine disturbances

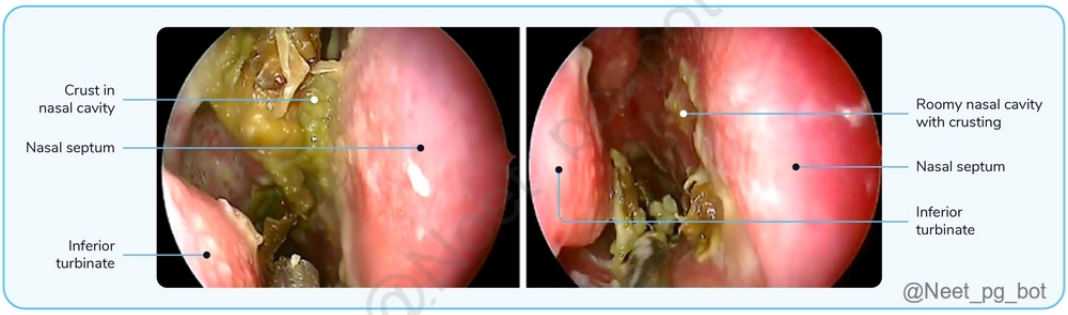
D. Autoimmune process

Correct Answer: B. Industrial irritants

■ *Listen (English)*

■ *Listen (Hindi)*

Explanation: Based on the clinical presentation and examination findings, the most probable diagnosis is atrophic rhinitis. Industrial irritants cause hypertrophic rhinitis, characterized by thickening of mucosa, submucosa, sero-mucinous glands, periosteum, and bone, not atrophic rhinitis. Atrophic rhinitis: Also known as ozaena. It is a chronic inflammation of the nose characterized by atrophy of the nasal mucosa and the turbinate bones. Theories of primary atrophic rhinitis Hereditary Disease involvement in more than one member of the same family. Endocrine (Option C) Disease usually starts at puberty, involves females more than males, and subsides after menopause. Racial White and yellow races > natives of equatorial Africa. Nutritional deficiency Vitamin A, D, or iron Infective Various organisms have been cultured from cases of atrophic rhinitis. Klebsiella ozaenae is the most common organism. (Option A) Autoimmune (Option D) Destructive process to the antigens released from the nasal mucosa. Clinical features: Merciful anosmia (due to degeneration of sensory nerves in the mucosa): Patient himself is unware of the foul smell due to marked anosmia. Paradoxical nasal obstruction : Patient will complain of nasal obstruction despite unduly wide nasal chambers. Examination findings Nose- Filled with greenish or greyish-black dry crusts. Attempts to remove cause bleeding. Roomy cavities Atrophic pale mucosa Septal perforation Small turbinates Paranasal sinuses: Small with thick walls Atrophic pharyngitis Atrophic laryngitis Fig: Atrophic Rhinitis



References:

Dhingra Diseases of Ear, Nose and Throat & Head and Neck Surgery, 8th Edition- Page 178-80

↑ *Back to this question in Part A*

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Q7: Which of the following is NOT usually a cause of unilateral nasal polyps? (Q848117)

A. Antrochoanal polyp

B. Allergic rhinitis

C. Chronic bacterial rhinosinusitis

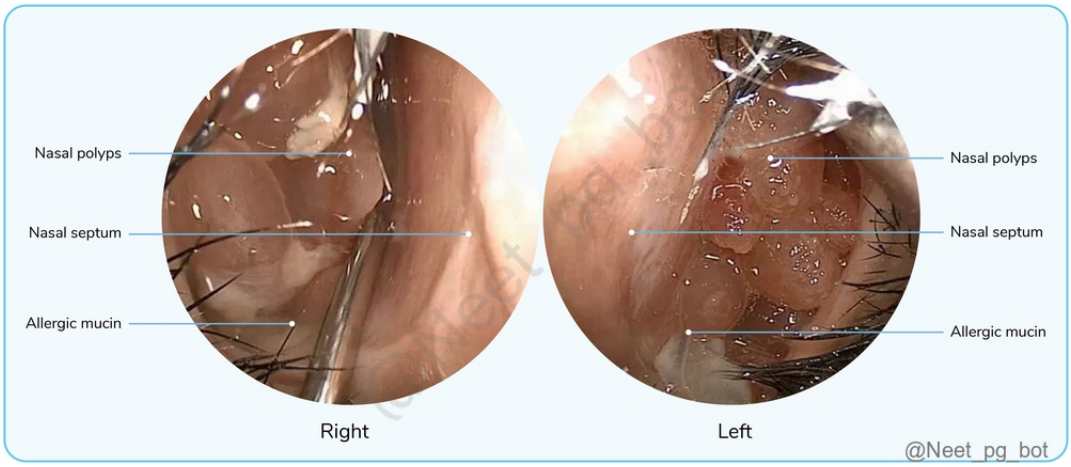
D. All of the above

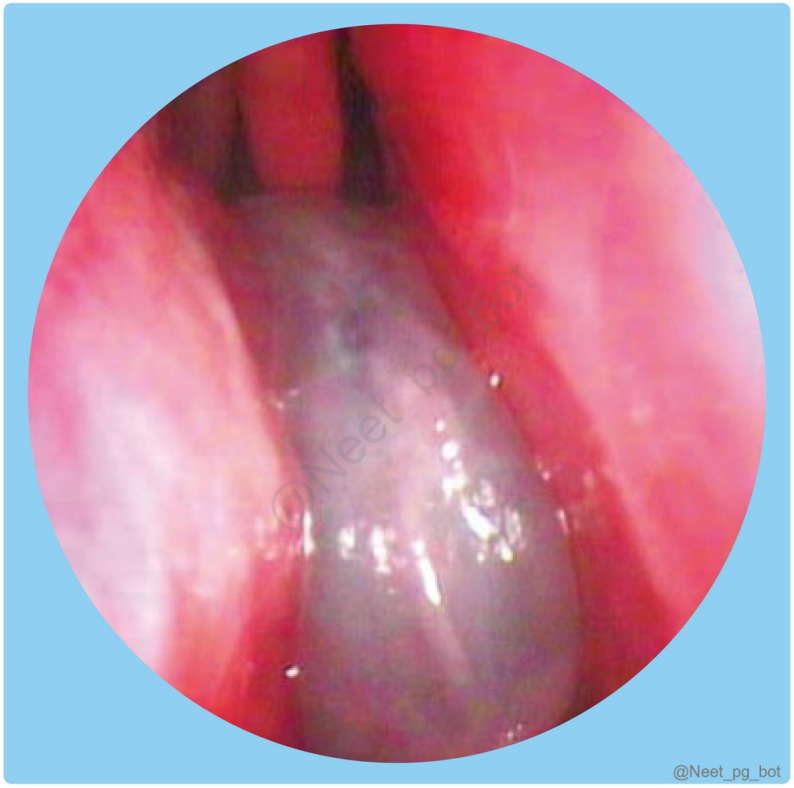
Correct Answer: B. Allergic rhinitis

■ *Listen (English)*

■ *Listen (Hindi)*

Explanation: Chronic rhinosinusitis develops secondary to allergic rhinitis. It may present as nasal polyps (nasal polyposis) due to chronic inflammation of the paranasal sinus mucosa. Nasal polyps in this condition are typically benign and present bilaterally. Unilateral nasal polyps: Chronic bacterial or fungal rhinosinusitis (Option C) Allergic fungal rhinosinusitis (Can also present as bilateral nasal polyps) Fig: Unilateral Nasal Polyps Antrochoanal polyp (Option A): arises from maxillary sinus; classically unilateral .





References:

https://www.sciencedirect.com/science/article/abs/pii/S019607090700110X

https://www.ncbi.nlm.nih.gov/books/NBK538186/

↑ *Back to this question in Part A*

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Q8: Which of the following conditions is least likely to be misdiagnosed as nasal polyps on clinical examination? (Q848116)

A. Concha bullosa

B. Meningoencephalocele

C. Glioma

D. Rhinoscleroma

Correct Answer: D. Rhinoscleroma

■ *Listen (English)*

■ *Listen (Hindi)*

Explanation: Rhinoscleroma is a chronic granulomatous disease caused by gram-negative bacillus Klebsiella rhinoscleromatis. It presents with painless, and non-ulcerative nodules in the nasal mucosa. Conditions that mimic nasal polyp (polypoidal mass): Concha bullosa- Pneumatization of middle turbinate leading to an enlarged ballooned out middle turbinate. (Option A) Encephalocoele/Meningoencephalocoele (Option B) It is herniation of brain tissue along with its meninges through a congenital bony defect. It is a pulsatile swelling with cough impulse and may be reducible. Intranasal glioma (Option C) Mucoceles are formed by sinus ostial obstruction that results in accumulation of secretions. Benign tumors: Squamous Papilloma Inverted Papilloma Haemangioma Malignant tumors: Squamous cell carcinoma (SCC) Melanoma Esthesioneuroblastoma

References:

Dhingra's Diseases of Ear, Nose and Throat & Head and Neck Surgery, 8th Edition, Pages 165, 166, 204.

https://www.ncbi.nlm.nih.gov/books/NBK560746/

https://www.sciencedirect.com/science/article/abs/pii/S019607090700110X

↑ *Back to this question in Part A*

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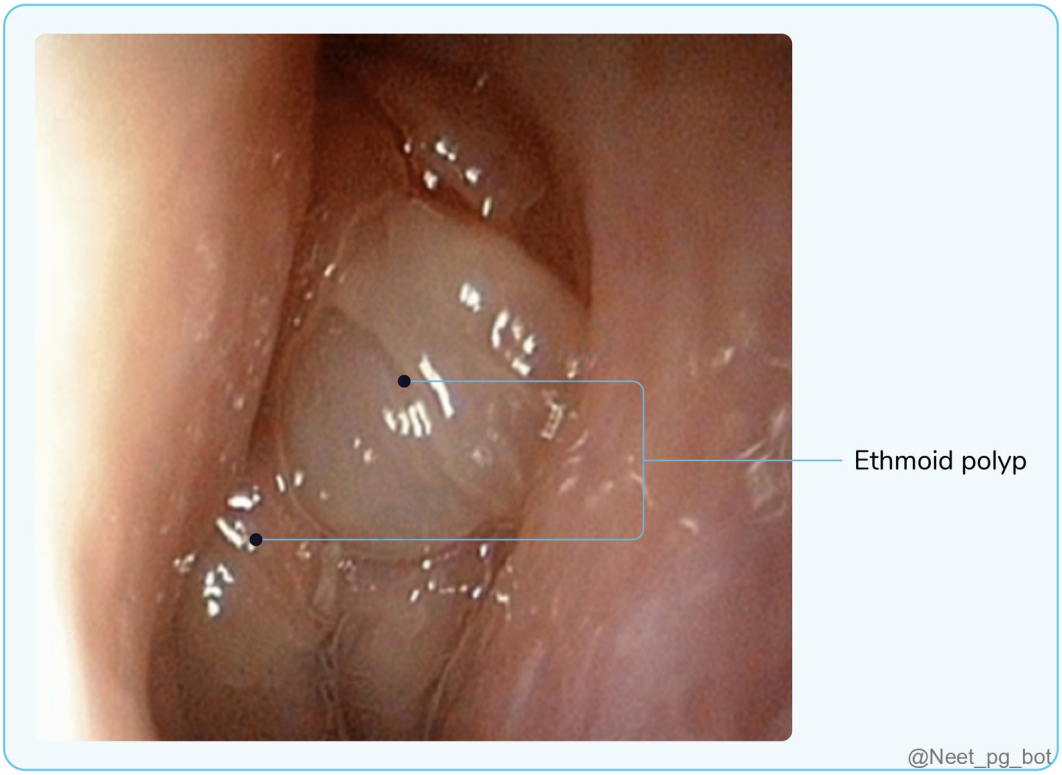
Q9: A 35-year-old male patient presents with persistent nasal congestion, difficulty breathing, and headaches. Anterior rhinoscopy reveals multiple sessile masses resembling a bunch of grapes, which are insensitive to touch and do not bleed. What is the most appropriate initial step in managing his condition? (Q848115)

A. Immediate functional endoscopic sinus surgery

B. Initiation of intranasal steroids

C. Conducting a saccharin test

D. Performing a sweat chloride test

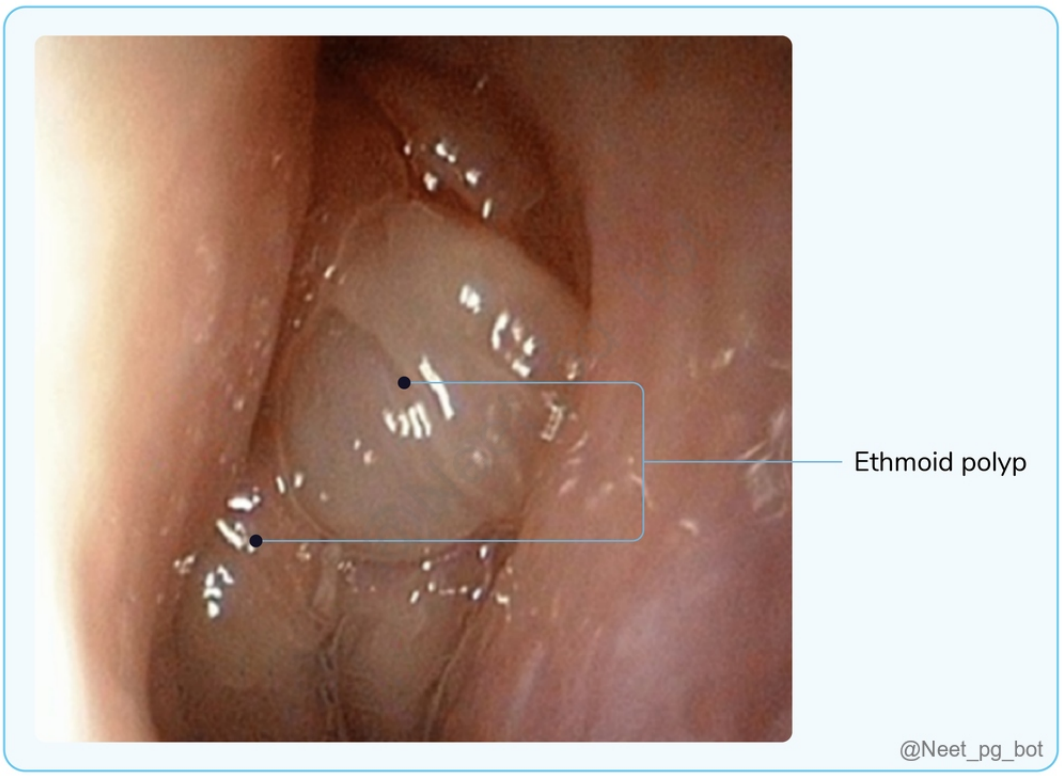


Correct Answer: B. Initiation of intranasal steroids

■ *Listen (English)*

■ *Listen (Hindi)*

Explanation: Clinical presentation is consistent with an ethmoidal polyp due to the presence of multiple sessile masses resembling a bunch of grapes, which are insensitive to touch and do not bleed. The initial management should involve the use of intranasal steroids to manage allergic reaction, reduce inflammation and potentially shrink the polyps. Diagnosis: X-ray: This may be used but is less detailed. Non-contrast CT scan: Investigation of choice for detailed imaging, more sensitive and specific. Elevated Serum IgE Levels: Indicates allergy but not specific to ethmoidal polyps . Saccharin Test: Assesses ciliary motility disorder. Elevated Nasal Nitric Oxide Measurement: Indicates ciliary motility disorder. Elevated Sweat Chloride Test: Suggests cystic fibrosis, a ciliary motility disorder. Electron Microscopy: Elevated trans-epithelial electrical potential difference indicates cystic fibrosis when suspected. Gene and DNA Analysis: Diagnoses genetic abnormalities, including cystic fibrosis. Treatment: Conservative: Antihistamines: To manage allergic symptoms. Steroids: Systemic Steroids: For more severe cases. Topical Intranasal Steroids: For localized treatment. Nasal Decongestants: To reduce nasal congestion. Reevaluation: After medical therapy, check if the polyps have shrunk or disappeared. Surgery: Functional Endoscopic Sinus Surgery (FESS): For removal of polyps and addressing underlying issues. KTP laser used for ablation. Immediate Functional Endoscopic Sinus Surgery (Option A): Surgery is usually considered after medical management fails not as the initial step. Conducting a Saccharin Test (Option C): This test assesses ciliary motility disorder, which is not indicated based on the presentation of nasal polyps. Performing a Sweat Chloride Test (Option D): Not relevant as the initial management of nasal polyps.



References:

Dhingra Diseases of Ear, Nose and Throat & Head and Neck Surgery, 8th Edition- Page 203.

↑ *Back to this question in Part A*

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Q10: A 35-year-old patient presents with nasal congestion, difficulty breathing, and frequent headaches. Anterior rhinoscopy reveals multiple sessile masses resembling a bunch of grapes, which are insensitive to touch and do not bleed. What is the most likely diagnosis? (Q848114)

A. Allergic Rhinitis

B. Ethmoidal Polyp

C. Nasal Carcinoma

D. Acute Sinusitis

Correct Answer: B. Ethmoidal Polyp

■ *Listen (English)*

■ *Listen (Hindi)*

Explanation: Clinical presentation is consistent with ethmoidal polyp because the examination reveals multiple sessile or pedunculated masses that resemble a bunch of grapes, which are typically insensitive to touch and do not bleed. Bernoulli's principle can contribute to the development of nasal polyps by causing negative pressure in the nasal cavity, which can suck the sinus mucosa into the nasal cavity. Symptoms of Ethmoidal Polyps: Bilateral Nasal Obstruction Difficulty in Breathing Nasal Discharge Bilateral Nasal Intonation in the Voice Bilateral Hyposmia Eustachian Tube Blockage (Bilateral) Excessive Sneezing Anosmia Snoring Headache Bilateral Middle Ear Disease Examination: Only anterior rhinoscopy is sufficient. On anterior rhinoscopy: Multiple sessile or pedunculated masses resembling a bunch of grapes, characteristic of ethmoidal polyp. Masses are insensitive to touch and do not bleed easily. Fig: Ethmoidal Polyp Allergic Rhinitis (Option A): It usually does not cause pedunculated or sessile masses resembling a bunch of grapes, nor is it characterized by insensitive masses on examination. Nasal Carcinoma (Option C): Presents with irregular, bleeding masses rather than smooth, non-bleeding ones. Acute sinusitis (Option D): Causes nasal congestion, facial pain, and purulent nasal discharge, but it does not typically present with multiple sessile or pedunculated masses resembling a bunch of grapes.

References:

Dhingra Diseases of Ear, Nose and Throat & Head and Neck Surgery, 8th Edition- Page 202,203.

↑ *Back to this question in Part A*

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Q11: A 32-year-old woman with a history of bronchial asthma and aspirin intolerance presents with worsening nasal congestion, sinus infections, and diminished sense of

smell. Nasal polyps are observed on examination. What is the most likely diagnosis? (Q848113)

A. Cystic Fibrosis

B. Samter's Triad

C. Churg-Strauss Syndrome

D. Kartagener Syndrome

Correct Answer: B. Samter's Triad

■ *Listen (English)*

■ *Listen (Hindi)*

Explanation: Samter's Triad also known as the aspirin sensitivity triad, consists of three key components: Nasal Polyps: Growths in the nasal or sinus passages. Asthma: Chronic inflammatory disease of the airways. Aspirin Sensitivity: Adverse reactions to aspirin or other nonsteroidal anti-inflammatory drugs (NSAIDs), such as nasal congestion or respiratory symptoms. Ethmoidal polyp-associated conditions: Chronic Rhinosinusitis Seen in both allergic and nonallergic origins of chronic rhinosinusitis. Nonallergic Rhinitis with Eosinophilia Syndrome (NARES) is a specific type of chronic rhinitis linked with polyps. Asthma 7% of asthma patients may develop nasal polyps. Including both atopic and nonatopic asthma. Aspirin Intolerance 36% of patients with aspirin intolerance may have nasal polyps. Samter's Triad: Combination of nasal polyps, asthma, and aspirin intolerance. (Option B) Cystic Fibrosis (Option A ruled out) 20% of patients with cystic fibrosis develop nasal polyps. Caused by abnormal mucus production. Allergic Fungal Sinusitis Almost all cases present with nasal polyps. Kartagener Syndrome (Option D ruled out) Includes bronchiectasis, sinusitis, situs inversus, and ciliary dyskinesia. Young Syndrome Characterized by sinopulmonary disease and azoospermia. Churg-Strauss Syndrome (Option C ruled out) Features asthma, fever, eosinophilia, vasculitis, and granuloma. Nasal Mastocytosis Chronic rhinitis with mast cell infiltration in the nasal mucosa. Few eosinophils are present; allergy skin tests and IgE levels are normal.

References:

Dhingra Diseases of Ear, Nose and Throat & Head and Neck Surgery, 8th Edition- Page 201.

↑ *Back to this question in Part A*

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Q12: Which of the following statements is false regarding ethmoidal polyps? (Q848112)

A. Ethmoidal polyps often arise from the middle meatus.

B. Allergic nasal polyps commonly originate from the septum.

C. Ethmoidal polyps can grow anteriorly and may present at the nares.

D. A common site for ethmoidal polyp is the uncinate process.

Correct Answer: B. Allergic nasal polyps commonly originate from the septum.

■ *Listen (English)*

■ *Listen (Hindi)*

Explanation: Allergic nasal polyps rarely originate from the septum. They more commonly arise from the lateral wall of the nose, particularly from sites like the middle meatus, uncinate process, and bulla ethmoidalis. Origin: Multiple nasal polyps typically arise from the lateral wall of the nose. Common sites include: (Option A & D) Middle meatus Uncinate process Bulla ethmoidalis Ostia of sinuses- M/c ethmoidal The medial surface and edge of the middle turbinate Allergic nasal polyps rarely originate from: (Option B) The septum The floor of the nose Extent: (Option C) Polyps usually grow anteriorly. May present at the nares (the nostrils).

References:

Dhingra Diseases of Ear, Nose and Throat & Head and Neck Surgery, 8th Edition- Page 202.

↑ *Back to this question in Part A*

@Neet_pg_bot

Q13: A 10-year-old child presents with a history of nasal obstruction predominantly on the right side, mouth breathing, and occasional snoring for the past year. He also has intermittent right-sided nasal discharge and postnasal drip. There is no history of allergies or asthma. A smooth, grayish mass is seen in the right nasal cavity extending into the nasopharynx on rhinoscopic examination. Which among the following is the most appropriate next step in managing his condition? (Q848111)

A. Perform a non-contrast CT scan and plan for FESS

B. Intranasal corticosteroids and oral antihistamines.

C. Plain X-ray and perform a biopsy.

D. MRI and start empirical antibiotics.

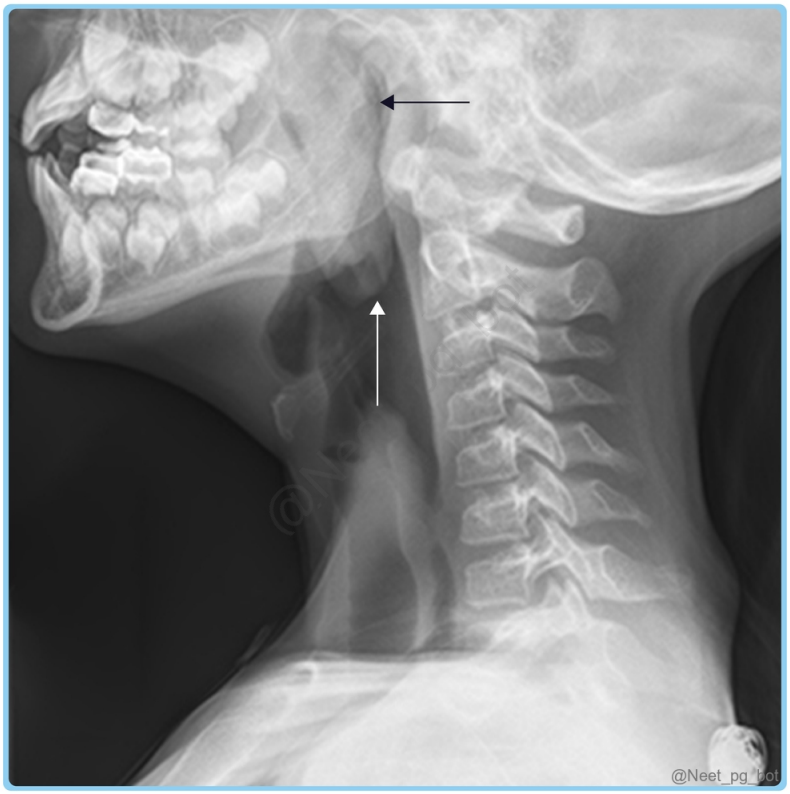
Correct Answer: A. Perform a non-contrast CT scan and plan for FESS

■ *Listen (English)*

■ *Listen (Hindi)*

Explanation: Clinical presentation is suggestive of antrochoanal polyp. The most appropriate next step is to perform a non-contrast CT scan of the nose and paranasal sinuses to assess the extent and origin of the polyp,

followed by planning for Functional Endoscopic Sinus Surgery (FESS) for treatment. Diagnosis of Antrochoanal Polyp Probe test- Bleeds on probing . Probe can be passed all around whereas in hypertropied turbinate it cannot be passed all around. X-ray: Good for initial detection of the disease. Sign: The Crescent Sign (or Dodd's Sign) may be observed in the lateral view of the head and neck. This sign is characterized by a column of air between the mass and the posterior pharyngeal wall. Fig: Crescent sign (Dodd's sign) Non-Contrast CT Scan of Nose and Paranasal Sinuses- imaging of choice (Option A) Fig: Antrochoanal Polyp CT Treatment of Antrochoanal Polyp Medical treatments are not effective for managing Antrochoanal polyp (Option B & D) . Surgery: Functional Endoscopic Sinus Surgery (FESS) (Treatment of choice): (Option A) Approach: Uses an endoscope to remove only the diseased tissues. Objective: To ensure complete removal of the polyp while preserving normal structures and function. Plain X-ray and perform a biopsy (Option C) : A CT scan provides detailed imaging of the polyp’s extent and origin. It is the imaging of choice for accurate diagnosis and surgical planning. A biopsy is not typically needed for this condition.



References:

Dhingra Diseases of Ear, Nose and Throat & Head and Neck Surgery, 8th Edition- Page 200.

↑ *Back to this question in Part A*

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Q14: A 9 y/o child presents with a unilateral nasal obstruction, hyponasality, and a mucoid nasal discharge. Anterior rhinoscopy shows a smooth, greyish mass, but the polyp is not fully visible. What is the most likely finding on posterior rhinoscopy? (Q848110)

A. A pink and congested mass in the anterior nasal cavity

B. A globular mass behind the soft palate in the nasopharynx

C. A firm, non-movable mass in the maxillary antrum

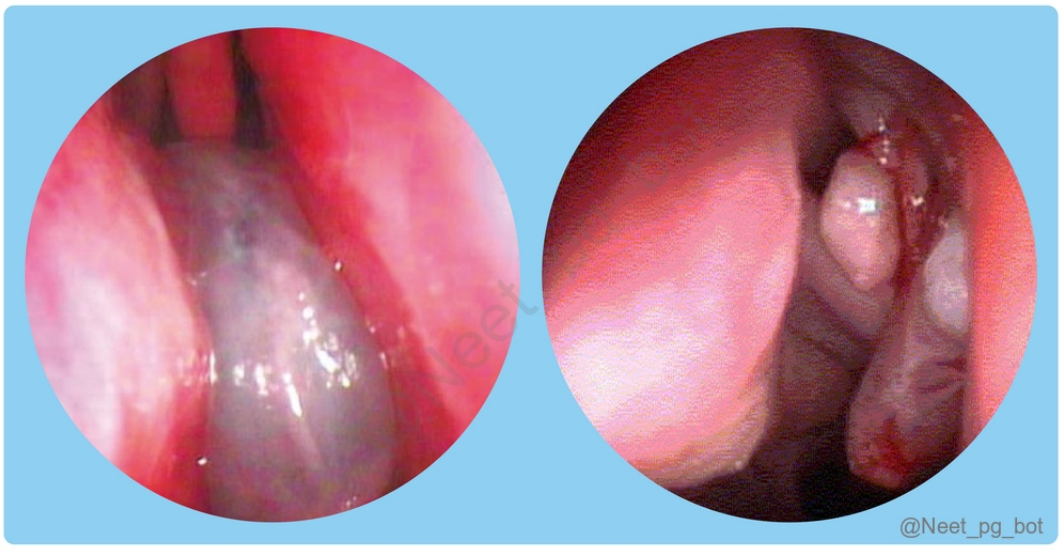
D. A midline pit with protruding hair in the nasal dorsum

Correct Answer: B. A globular mass behind the soft palate in the nasopharynx

■ *Listen (English)*

■ *Listen (Hindi)*

Explanation: Antrochoanal Polyp often presents with a globular mass visible in the nasopharynx on posterior rhinoscopy due to its growth pattern. Fig: Antrochoanal Polyp Examination Findings Anterior Rhinoscopy May miss the polyp if posterior; visible as a smooth, greyish mass with nasal discharge. Can be soft and movable, or protrude pink and congested from the nostril. Posterior Rhinoscopy Reveals a globular mass in the nasopharynx, behind the soft palate. Anterior nasal cavity, nasal dorsum, maxillary antrum are not visible on posterior rhinoscopy Nasal Endoscopy Provides detailed view of the polyp's origin in the maxillary antrum, its three parts, and its extent within the nasal cavity and nasopharynx. Pink and congested mass (Option A) would more likely be seen with a nasal dermoid cyst or other conditions. Firm, non-movable mass in the maxillary antrum (Option C) might be seen on imaging but not on posterior rhinoscopy. Midline pit with protruding hair (Option D) is characteristic of nasal dermoid cysts, not antrochoanal polyps.



References:

Dhingra's Diseases Of Ear, Nose And Throat, & Head and Neck Surgery, Edition 8, Page 200

↑ *Back to this question in Part A*

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Q15: Match the stages of rhinoscleroma with its characteristics features: Stages of rhinoscleroma Characteristic features 1. Atrophic stage a. Stenosis of nares and nasopharynx. 2. Granulomatous stage b. Painless and non-ulcerative nodules. 3. Cicatricial stage c. Foul smelling purulent nasal discharge and crusting. d. Black membrane in the nasal mucosa. (Q848096)

A. 1-c, 2-b, 3-a

B. 1-b, 2-d, 3-b

C. 1-a, 2-c, 3-b

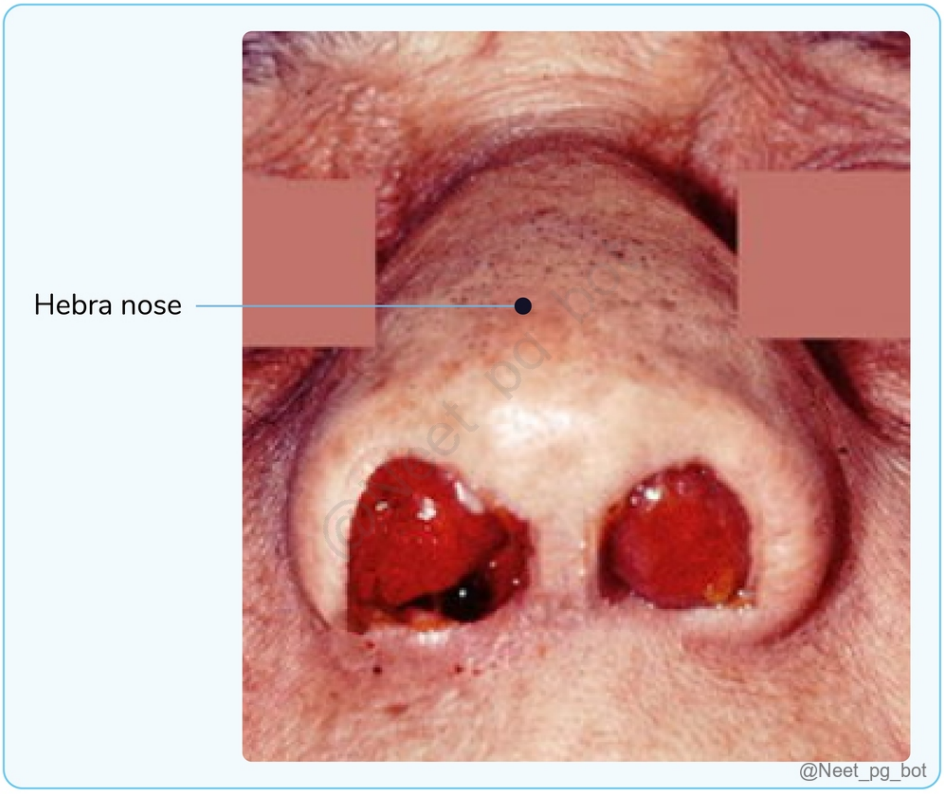
D. 1-d, 2-a, 3-c

Correct Answer: A. 1-c, 2-b, 3-a

■ *Listen (English)*

■ *Listen (Hindi)*

Explanation: Stages of rhinoscleroma Characteristic features 1. Atrophic stage c. Foul smelling purulent nasal discharge and crusting. 2. Granulomatous stage b. Painless and non-ulcerative nodules. 3. Cicatricial stage a. Stenosis of nares and nasopharynx. Rhinoscleroma is a chronic granulomatous disease caused by the gram-negative bacillus, Klebsiella rhinoscleromatis or Frisch bacillus. Atrophic stage: Foul-smelling purulent nasal discharge and crusting. Resembles atrophic rhinitis. Fig: Rhinoscleroma Atrophic stage Granulomatous stage: Formation of granulomatous, painless, and non-ulcerative nodules in the nasal mucosa. Subdermal infiltration of the lower part of the external nose and upper lip gives a “woody” feel- aka Hebra nose . Fig: Rhinoscleroma Granulomatous stage Cicatricial stage: Stenosis of nares, upper lip distortion, nose adhesions, nasopharynx, and oropharynx. In the larynx, subglottic stenosis is the most common causing respiratory distress. Fig: Bilateral Nasal Vestibular Stenosis



References:

Dhingra Diseases of Ear, Nose and Throat & Head and Neck Surgery, 8th Edition- Page 181, 183

↑ *Back to this question in Part A*

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Q16: A 5 y/o child presents with a midline pit on the nasal dorsum, with hair protruding from the opening. Imaging reveals a sinus tract leading to a cyst under the nasal bone. What is the most appropriate next step in management? (Q848108)

A. Observation and monitoring

B. Topical antibiotic treatment

C. Surgical excision of the cyst and sinus tract

D. Corticosteroid injection to reduce the cyst

Correct Answer: C. Surgical excision of the cyst and sinus tract

■ *Listen (English)*

■ *Listen (Hindi)*

Explanation: The scenario is of a dermoid cyst (a benign cutaneous developmental anomaly that arises from the entrapment of ectodermal elements along the lines of embryonic closure). Surgical excision is necessary to remove the cyst and sinus tract, particularly to prevent complications like infection or intracranial extension. Simple Dermoids: Surgical removal by splitting nasal bones if necessary. Dermoids with Sinus or Intracranial Connection: Requires combined neurosurgical and otolaryngological approach to remove the cyst and close the bony defect. Observation and monitoring (Option A) would not address the risk of infection or intracranial involvement. Topical antibiotics (Option B) may manage superficial infection but do not treat the underlying cyst or sinus tract. Corticosteroid injection (Option D) is not appropriate for treating dermoid cysts and would not resolve the underlying structural issue.

References:

Dhingra's Diseases Of Ear, Nose And Throat, & Head and Neck Surgery, Edition 8, Page 165, 238

↑ *Back to this question in Part A*

@Neet_pg_bot

Q17: A 3 year old child presents with a firm swelling on the bridge of the nose. Imaging reveals that the mass is encapsulated and has no connection to the brain. What is the most likely diagnosis? (Q848107)

A. Nasal polyp

B. Encephalocoele

C. Glioma

D. Dermoid cyst

Correct Answer: C. Glioma

■ *Listen (English)*

■ *Listen (Hindi)*

Explanation: Gliomas are firm, subcutaneous swellings on the bridge of the nose that appear as independent masses not connected to the brain. They represent congenital anomalies related to encephaloceles, formed from “nipped-off” portions during embryonic development. Presentation Types Extranasal (60%) Firm, subcutaneous swellings. Common locations: bridge of the nose, side of the nose, near the inner canthus (corner of the eye). Intranasal (30%) Located entirely within the nasal cavity. Combined (10%) Have both intranasal and extranasal components. Treatment: Extranasal gliomas: Encapsulated and easier to remove surgically via an external nasal approach. Intranasal glioma: Minimally Invasive Endoscopic Surgery is essential for intranasal glioma to confirm diagnosis, prevent complications, and address cosmetic concerns. Nasal polyps (Option A) typically arise from the nasal mucosa and are not encapsulated. Encephaloceles (Option B) maintain a connection to the brain, unlike gliomas. Dermoid cysts (Option D) are also firm but often contain skin elements like hair or sebaceous glands, and they are not encapsulated masses.

References:

Dhingra's Diseases Of Ear, Nose And Throat, & Head and Neck Surgery, 8th Edition, Page 166

https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3743595/

↑ *Back to this question in Part A*

@Neet_pg_bot

Q18: A 2 month old infant presents with a pulsatile swelling at the root of the nose that changes size when the infant coughs. Which of the following is the most likely diagnosis? (Q848106)

A. Dermoid cyst

B. Nasal polyp

C. Meningoencephalocele

D. Hemangioma

Correct Answer: C. Meningoencephalocele

■ *Listen (English)*

■ *Listen (Hindi)*

Explanation: Meningoencephalocele is a congenital defect where brain tissue and meninges herniate through an opening in the skull, forming a pulsatile, subcutaneous swelling. Characteristics: Subcutaneous and pulsatile swelling May be reducible (can be pushed back into the skull) Cough impulse : Swelling size changes with coughing Locations Nasofrontal At the root of the nose Nasoethmoid Side of the nose Naso-orbital Anteromedial aspect of the orbit (eye socket) Dermoid cysts (Option A) are non-pulsatile and do not change with coughing. They might change depending on the intra cranial connections. Nasal polyps (Option B) are not associated with a pulsatile mass. Hemangiomas (Option D) are vascular lesions that may be compressible but are not associated with brain tissue herniation.

References:

Dhingra's Diseases Of Ear, Nose And Throat, & Head and Neck Surgery, Edition 8, Page 165, 166

↑ *Back to this question in Part A*

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Q19: A 6-month-old infant presents with a soft, compressible mass at the root of the nose. The mass increases in size when the baby cries and shows a positive Furstenberg test. What is the most appropriate next step in the management of this condition? (Q848105)

A. Fine-needle aspiration

B. Biopsy of the lesion

C. CT scan

D. Antibiotics and follow up

Correct Answer: C. CT scan

■ *Listen (English)*

■ *Listen (Hindi)*

Explanation: The above scenario is suggestive of meningocele , and cross-sectional imaging is the initial step in management to identify the extent of the cranial defect and assess the presence of herniated meninges or brain tissue. Meningocele Definition Herniation of the meninges with the CSF through a congenital defect in the skull base. Clinical Features Soft, cystic swelling Positive compressibility, reducibility, transillumination and cough impulse. Furstenberg test - positive(the size of a nasal or cranial mass increases upon applying pressure to the internal jugular veins or by valsalva) Diagnosis CT and MRI imaging are critical; Biopsy is contraindicated . Treatment Surgical excision and skull base reconstruction. Fine-needle aspiration (Option A) and biopsy (Option

B) are contraindicated in meningocele due to the risk of causing a cerebrospinal fluid (CSF) leak, leading to further complications such as infection. Antibiotic treatment (Option D) is not indicated unless there are signs of infection, which is not present in this case.

References:

Greenberg Handbook of Neurosurgery, Edition10., Page 269

↑ *Back to this question in Part A*

@Neet_pg_bot

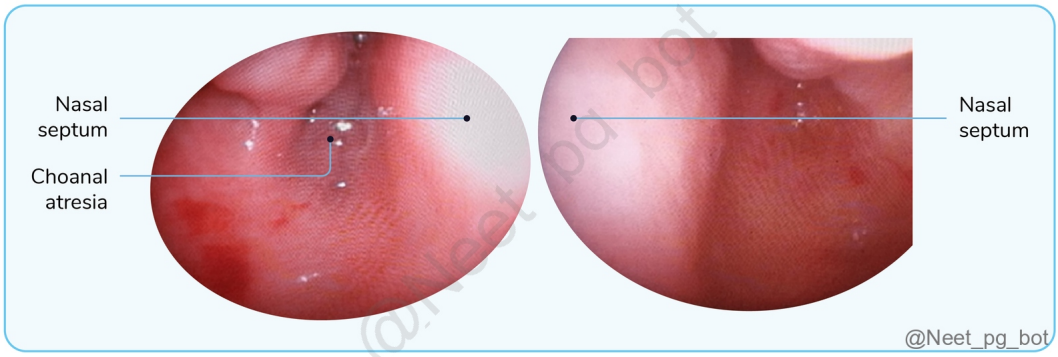
Q20: A 2-day-old full-term male infant is brought to the emergency room with difficulty breathing, especially when feeding, and cyanosis. The cyanosis improves when the infant cries but worsens when feeding. The baby is in respiratory distress. What is the best initial emergency management for this patient? (Q848104)

A. Inserting a wide bore feeding nipple into the mouth of the infant

B. Bag-mask ventilation

C. Immediate tracheostomy

D. Endotracheal intubation



Correct Answer: A. Inserting a wide bore feeding nipple into the mouth of the infant

■ *Listen (English)*

■ *Listen (Hindi)*

Explanation: Inserting a wide bore feeding nipple into the mouth of the infant, known as McGovern's technique can be used to bypass nasal obstruction in choanal atresia. An oropharyngeal airway can also be used to provide immediate relief by maintaining an open airway. Choanal Atresia Etiology Persistence of nasobuccal membrane of Hochstetter. Management Immediate: Oral airway placement. A wide bore feeding nipple is inserted into the mouth of the infant - Mc Govern's technique. (Option A) Definitive: Surgery (at 1.5 years of age) Endoscopic transnasal approach (most common). Transpalatal approach used in complex cases. Bag-mask ventilation (Option

B) , Immediate tracheostomy (Option C) , and Endotracheal intubation (Option D) are not the immediate line of management for choanal atresia, but are used if initial management with Mc Govern's technique or an oral airway fails.

References:

Scott Brown's otorhinolaryngology,(volume 2) Edition 8, Page 251 - 253. Logan Turner's Diseases of the Nose, Throat and Ear, Edition 11, Page 637.

↑ *Back to this question in Part A*

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Q21: A newborn is brought to the clinic with respiratory distress, which worsens during feeding and improves with crying. The baby shows difficulty in passing a nasogastric tube through one nasal passage, and a CT scan reveals a mixed bony and membranous obstruction in the posterior nasal cavity. This condition is due to the persistence of which membrane during development? (Q848103)

A. Buccopharyngeal membrane

B. Orobuccal membrane

C. Nasobuccal membrane

D. Oropharyngeal membrane

Correct Answer: C. Nasobuccal membrane

■ *Listen (English)*

■ *Listen (Hindi)*

Explanation: The condition described above is choanal atresia, which occurs due to persistence of Nasobuccal membrane. Choanal Atresia Clinical Features Bilateral choanal atresia (presents during neonatal period): Acute respiratory distress (as neonates are obligate nasal breathers) Cyclical cyanosis relieved by crying. Cyanosis during feeding. Unilateral choanal atresia (presents later in life): Failure to pass nasogastric tube on that side Associated Syndrome CHARGE syndrome: (due to mutations in the CHD7 gene on chromosome 8) C oloboma H eart defects A tresia choanae R etardation of growth G enital anomalies E ar abnormalities These abnormalities must be excluded in a child with choanal atresia and therefore the minimum investigations in addition to the nasal CT scan are cardiac echo, renal ultrasound scan, and an ophthalmology and audiology review. Diagnosis Clinical: Misting test with a metal spatula below nasal aperture. Inability to pass a nasogastric tube Definitive investigations: CT scan (after suction and nasal decongestants) Nasal endoscopy Buccopharyngeal membrane (Option A) is involved in the separation of the primitive mouth from the foregut, not related to nasal structures. Orobuccal membrane (Option B) is not a recognized anatomical term. Oropharyngeal membrane (Option D) is involved in the formation of the mouth and throat, not the nasal passages.

References:

Scott Brown’s otorhinolaryngology,(volume 2) Edition 8, Page 251 - 253. Logan Turner’s Diseases of the Nose, Throat and Ear, Edition 11, Page 637.

↑ *Back to this question in Part A*

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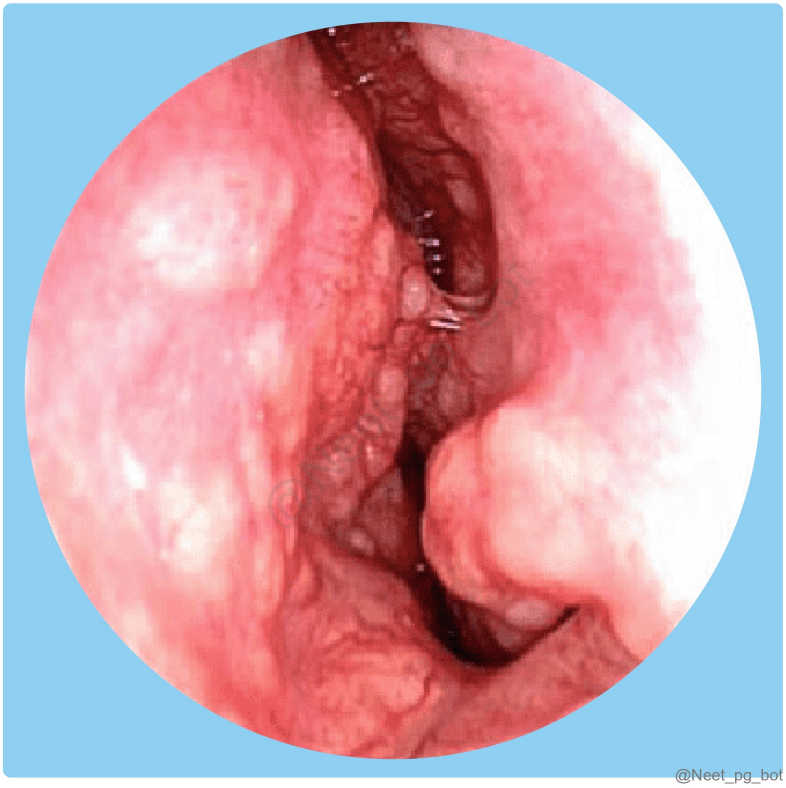
Q22: A 32-year-old woman presents to the clinic with symptoms of nasal obstruction, crusting, and facial pain that have been worsening over the past few months. She reports persistent nasal congestion and frequent nosebleeds. On physical examination, there is purplish discoloration of the nasal skin and a nasal endoscopy reveals erythematous mucosa covered with pale granulomas, as shown in the image. A biopsy of the nasal lesion reveals non-caseating granulomas. Which of the following is the mainstay of treatment? (Q848102)

A. Methotrexate

B. Inhaled corticosteroids

C. Systemic steroids

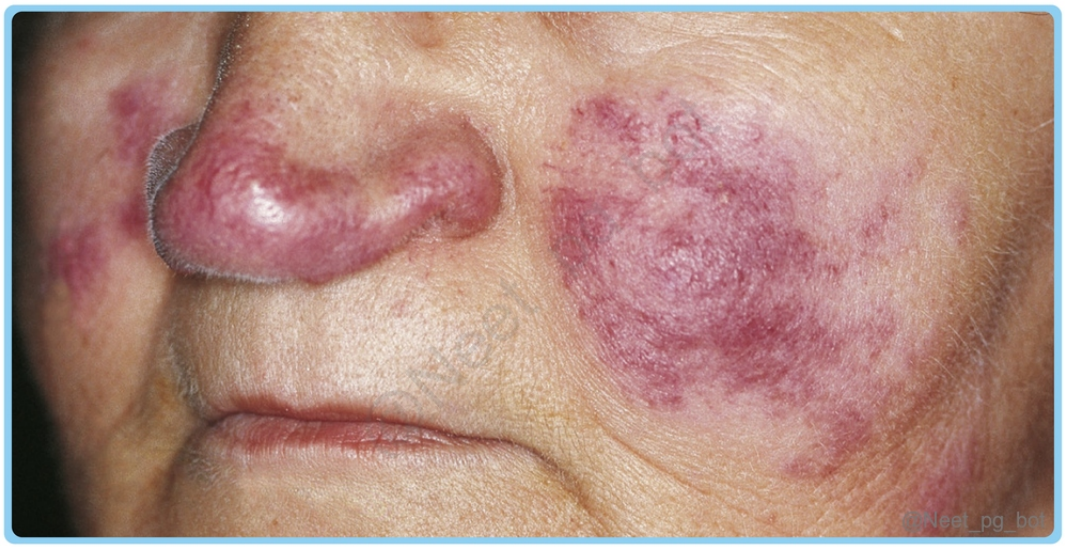
D. Antihistamines

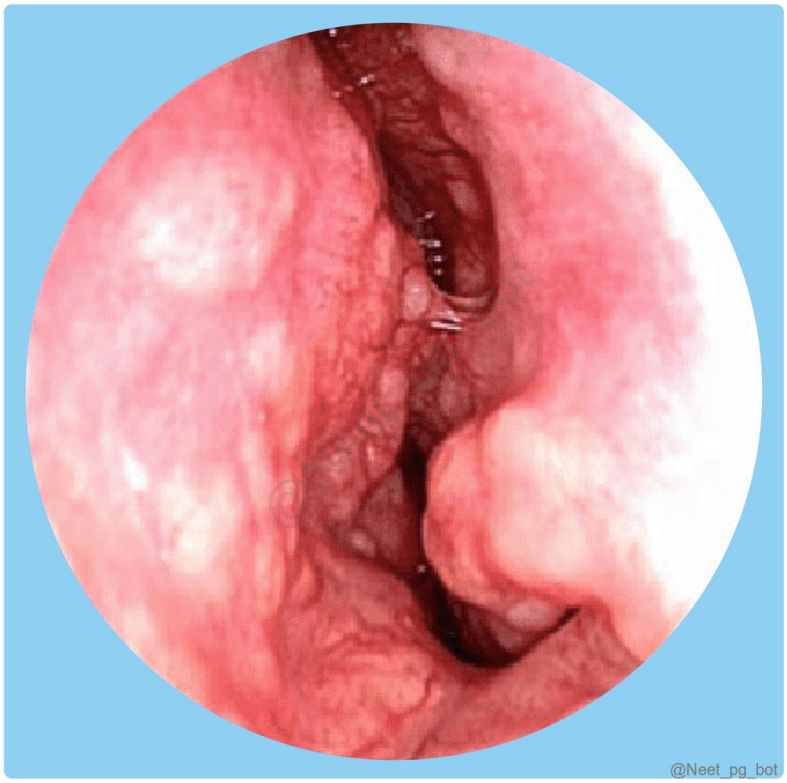


Correct Answer: C. Systemic steroids

- *Listen (English)*
- *Listen (Hindi)*

Explanation: The given clinical scenario, with nasal endoscopy showing strawberry mucosa and biopsy showing non-caseating granulomas is suggestive of Sarcoidosis . Systemic steroids are the mainstay of treatment for sarcoidosis. Clinical features of Sarcoidosis Nasal obstruction Crusting Purplish discoloration - lupus pernio (specific) Nasal bleeding Facial pain. Nasal mucosa - characteristic ‘strawberry’ appearance of inflamed erythematous mucosa covered with pale granulomas . Anterior septal perforation- usually only involves cartilagenous part. Investigations Non-specific: Elevated serum ACE, hypercalcemia. Kveim test (outdated) Imaging: CXR (bilateral hilar lymphadenopathy), CT for sinus/nasal involvement. Biopsy: Non-caseating granulomas. (Confirmatory) Management Systemic steroids (Option C) (mainstay), methotrexate (steroid-sparing). Topical: Nasal steroids, douching, lubricants. Image showing Lupus pernio Image showing strawberry mucosa Methotrexate (Option A) may be used in certain cases but is not the first-line treatment. Inhaled corticosteroids (Option B) are less effective and are not the mainstay of treatment. Antihistamines (Option D) are not effective for this condition.





References:

Scott Brown’s Otorhinolaryngology, Volume 1, 8th Edition, Pages 1211 - 1213.

Logan Turner’s Diseases of the Nose, Throat and Ear, 11th Edition, Pages 45, 46.

↑ *Back to this question in Part A*

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Q23: A 45-year-old man presents with a chronic, non-healing lesion on his nasal tip, accompanied by intermittent nasal obstruction. Over the past several months, the lesion has progressively worsened. On examination, the following lesion is seen as shown in the image. A biopsy of the lesion reveals caseating granulomas. What is the treatment of choice for this condition? (Q848101)

A. Methotrexate

B. Systemic steroids

C. Surgical excision

D. Antitubercular therapy (ATT)

Correct Answer: D. Antitubercular therapy (ATT)

■ *Listen (English)*

■ *Listen (Hindi)*

Explanation: The clinical scenario and biopsy findings are suggestive of Lupus vulgaris , a low-grade cutaneous TB infection in the nasal vestibule characterized by caseating granulomas. It is usually secondary to pulmonary TB. The image shows apple jelly nodule- pale reddish nodules on the dorsum or tip of the nose, which blanch on pressure , revealing a translucent "apple jelly" appearance on diascopy Antitubercular therapy (ATT) is the treatment of choice to address the underlying tuberculosis infection. Methotrexate (Option A) and systemic steroids (Option B) are not appropriate may worsen the condition as primary treatments in lupus vulgaris, and surgical excision (Option C) is not the first-line approach.

References:

Logan Turner’s Diseases of the Nose, Throat and Ear, Edition 11, Page 47.

↑ *Back to this question in Part A*

@Neet_pg_bot

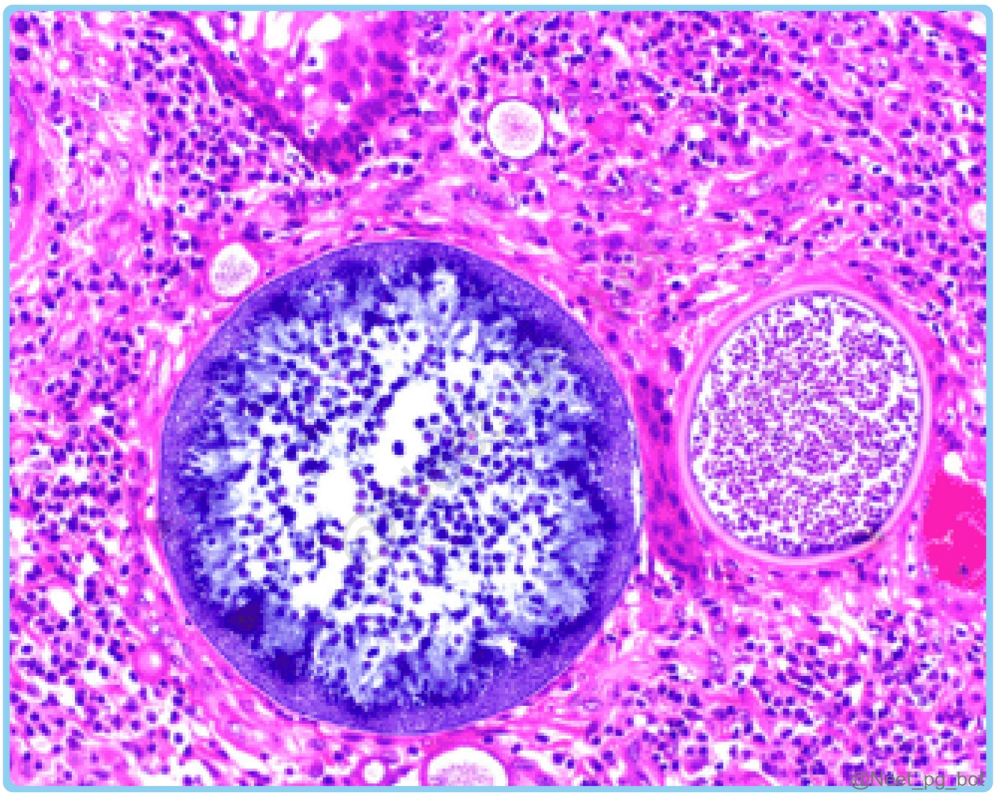
Q24: A 35-year-old man presents with nasal obstruction, recurrent nasal bleeding, and a mass protruding from his nasal cavity. On examination, a polypoidal, pink-colored mass with white dots on the surface is noted. It bleeds easily on touch. A biopsy is shown below. What is the most appropriate treatment for this patient? (Q848100)

A. Amphotericin B

B. Cyclophosphamide

C. Dapsone

D. Complete excision of the mass

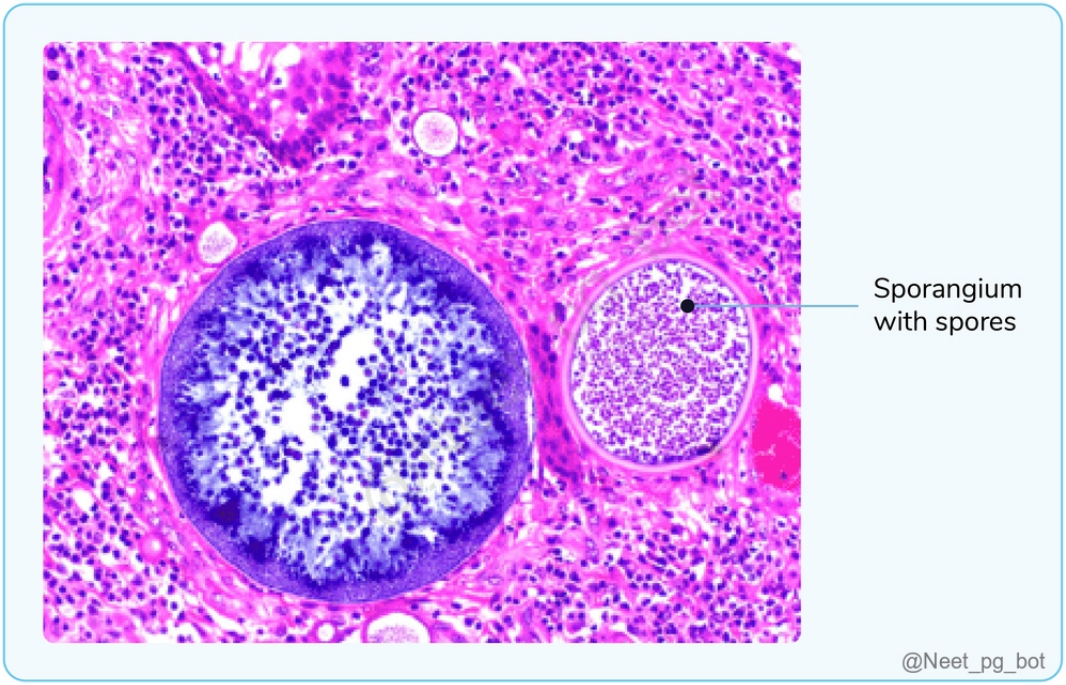


Correct Answer: D. Complete excision of the mass

■ *Listen (English)*

■ *Listen (Hindi)*

Explanation: The clinical presentation and biopsy showing sporangia with spores is most consistent with rhinosporidiosis. The primary treatment is the complete excision of the mass with a diathermy knife and cauterization of its base. Diagnosis of rhinosporidiosis: Biopsy shows several sporangia, oval or round in shape and with spores Diagnosis cannot be established on culture. Treatment: Surgery: (Option D) It is the primary treatment option. Complete excision of the mass with a diathermy knife and cauterization of its base. Recurrence is very common. Medical treatment: Dapsone is partially effective; it is also used post op to prevent recurrence. (Option C) Amphotericin B (Option A): It is an antifungal, used in the treatment of fungal infections, not used in the treatment of rhinoscleroma Cyclophosphamide (Option B): It is a cytotoxic drug, not used in the treatment of rhinosporidiosis



References:

Dhingra Diseases of Ear, Nose and Throat & Head and Neck Surgery, 8th Edition- Page 186, 184, 183, 187

↑ *Back to this question in Part A*

@Neet_pg_bot

Q25: A 42-year-old man presents with a long-standing history of nasal obstruction, recurrent nasal bleeding, and mass protruding from his nasal cavity. He reports frequent swimming in freshwater ponds. Which of the following findings on clinical examination is most characteristic of rhinosporidiosis? (Q848099)

A. Polypoidal, pink-colored mass with white dots on the surface

B. Soft, dark red, pedunculated or sessile mass

C. Pale polypoidal mass

D. Firm, rounded, yellowish mass with blood vessels on the surface

Correct Answer: A. Polypoidal, pink-colored mass with white dots on the surface

■ *Listen (English)*

■ *Listen (Hindi)*

Explanation: Rhinosporidiosis presents with a leafy, polypoidal, pink to purple in color mass. It is very vascular and bleeds easily to the touch. Its surface is studded with white dots representing the sporangia of protozoa- Mulberry/ Strawberry tumors. Rhinosporidiosis: It is a chronic granulomatous disease caused by an aquatic protozoan- Rhinosporidium seeberi. It is a water-borne disease- contaminated water of pond usually with cow dung. Clinical Features: (Option A) Blood-tinged nasal discharge Nasal block Epistaxis Leafy, polypoidal, pink to purple colored mass attached to the nasal septum or lateral wall. Very vascular mass and bleeds easily on touch. White dots are studded on its surface representing the sporangia. Fig: Rhinosporidiosis Soft, dark red, pedunculated, or sessile mass (Option B): Capillary haemangioma presents as a soft, dark red, pedunculated, or sessile tumor arising from the anterior part of the nasal septum. It is usually smooth but can ulcerate and present with recurrent epistaxis and nasal obstruction. Pale polypoidal mass (Option C): Inverted papilloma presents as a pale polypoidal mass resembling a simple nasal polyp or polypi. It manifests almost always unilaterally with nasal obstruction, nasal discharge, and epistaxis. Firm, rounded, yellowish mass with blood vessels on the surface (Option D): Schwannoma is a benign tumor arising from the Schwann cells of the nerve sheath. It presents a rounded, firm, yellowish-colored mass with blood vessels on its surface.

References:

Dhingra Diseases of Ear, Nose and Throat & Head and Neck Surgery, 8th Edition- Page 185, 186, 236, 237

↑ *Back to this question in Part A*

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Q26: A 45-year-old woman has a history of progressive nasal obstruction, recurrent nosebleeds, and crusting. On examination, she has a nasal deformity with a firm mass in the nasal cavity. A biopsy of the mass shows Mikulicz cells and is positive for Klebsiella rhinoscleromatis . What is the most appropriate treatment strategy for this patient? (Q848098)

A. Prolonged course of tetracycline and streptomycin

B. Amphotericin B

C. Only Prednisolone without antibiotics

D. Surgical debridement

Correct Answer: A. Prolonged course of tetracycline and streptomycin

■ *Listen (English)*

■ *Listen (Hindi)*

Explanation: The clinical presentation with histopathology showing Mikulicz cells and a positive test for Klebsiella rhinoscleromatis is consistent with rhinoscleroma . The primary treatment is combined streptomycin and tetracycline for a minimum duration of 4-6 weeks. Treatment of Rhinoscleroma: Medical therapy: Streptomycin + tetracycline for a minimum duration of 4-6 weeks. (Option A) After 1 month it is repeated if necessary. Treatment is stopped only if two consecutive cultures from the biopsy material are negative. To reduce fibrosis steroids can be combined (Option C) Surgery: (Option D) Surgical debridement, laser ablation, and correction of sclerotic defects. These are considered only secondary to antibiotic therapy. Amphotericin B (Option B): This antifungal is used to treat fungal infections like aspergillosis and mucormycosis. It is not used to treat rhinoscleroma, a bacterial infection.

References:

Dhingra's Diseases of Ear, Nose and Throat & Head and Neck Surgery, 8th Edition, Pages 181, 183, 184

https://www.sciencedirect.com/topics/medicine-and-dentistry/rhinoscleroma

↑ *Back to this question in Part A*

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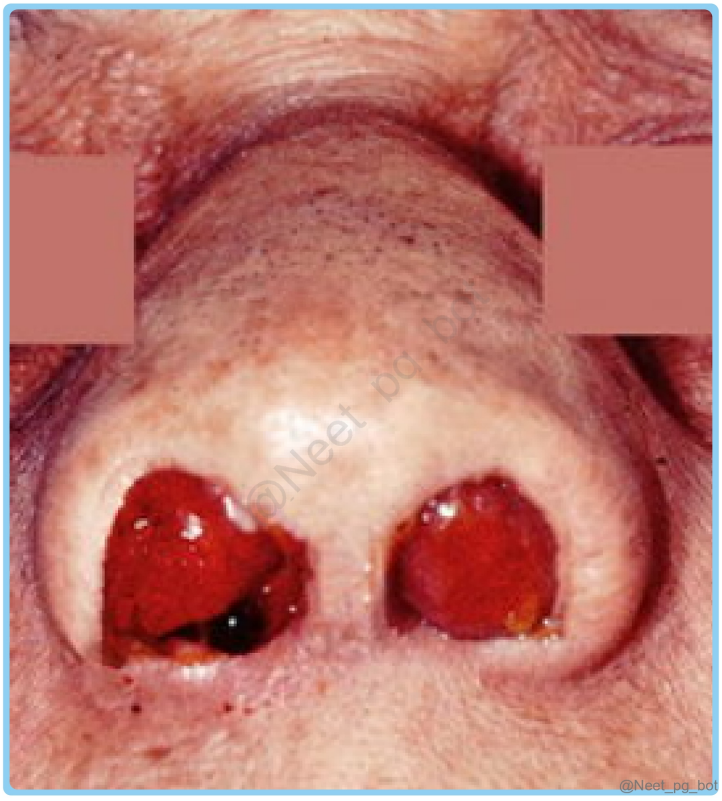
Q27: A 35-year-old woman from a rural area has nasal obstruction, crusting, and a history of progressive nasal swelling over the past several months. On examination, nodular masses in the nasal cavity are noted. A biopsy is done and shown below. Which of the following histopathological findings is characteristic of the condition in this patient? (Q848097)

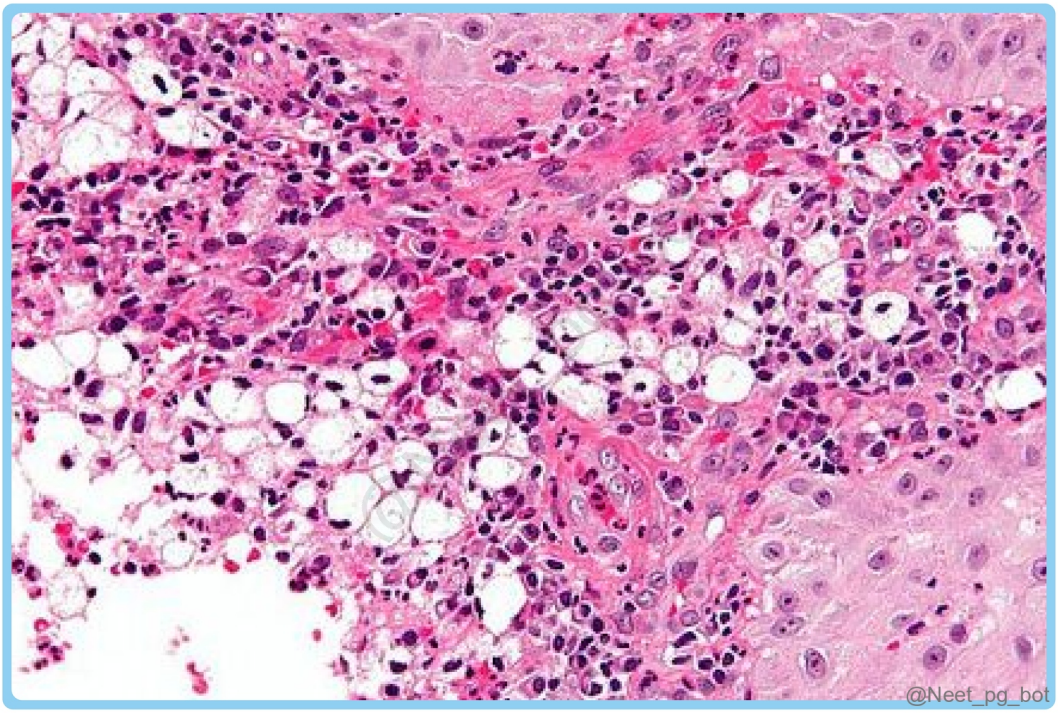
A. Psammoma Bodies

B. Mikulicz cells

C. Aschoff Bodies

D. Verocay Bodies

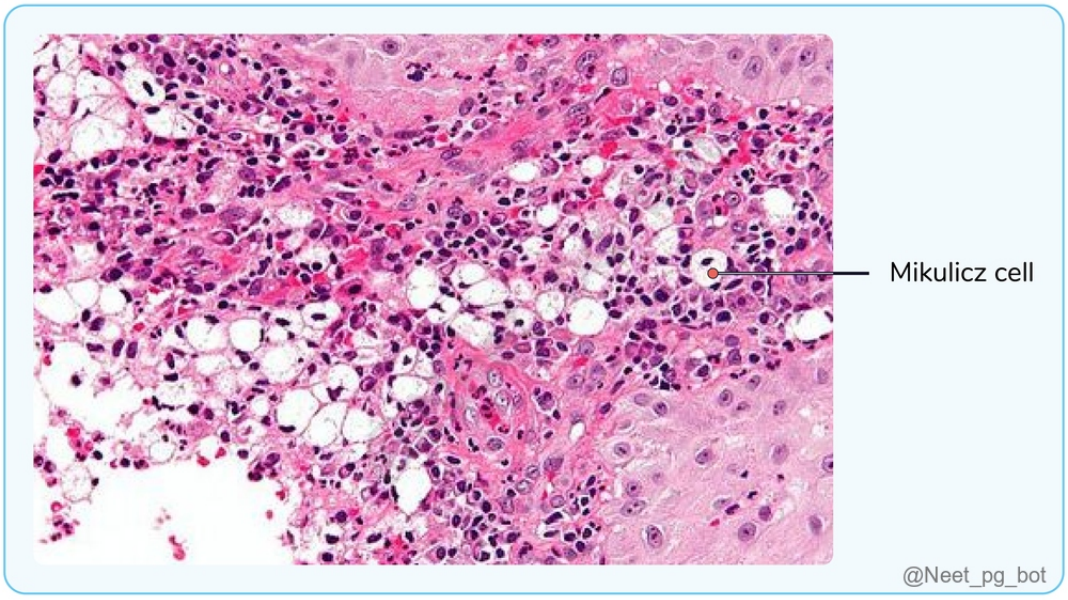


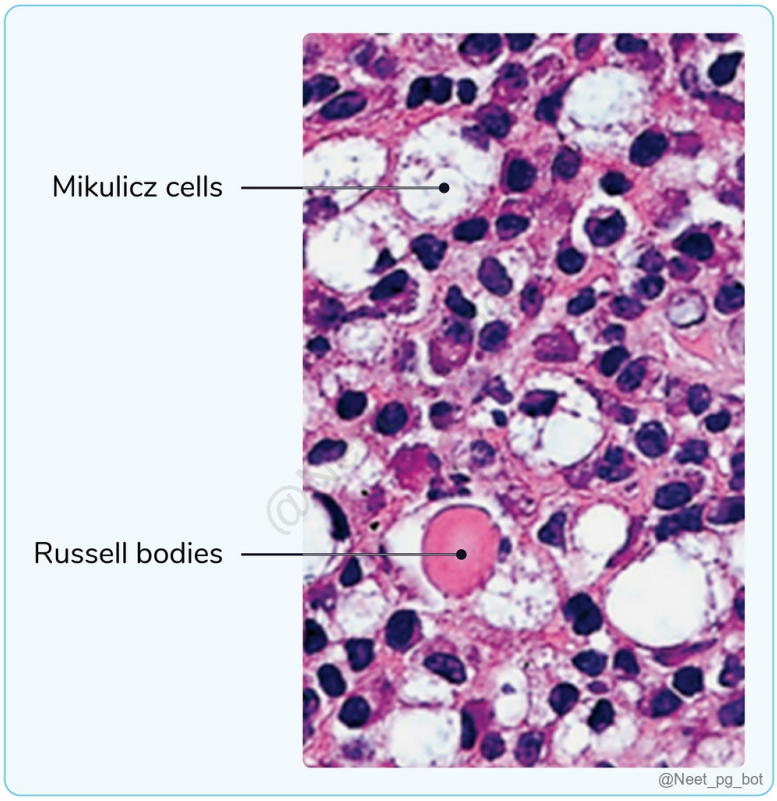


Correct Answer: B. Mikulicz cells

- *Listen (English)*
- *Listen (Hindi)*

Explanation: The clinical presentation of nasal obstruction, crusting, and progressive nodular nasal swelling is most consistent with rhinoscleroma . It is caused by the bacteria Klebsiella rhinoscleromatis . Mikulicz cells are large, foamy histiocytes filled with bacteria, which are characteristic of Rhinoscleroma. Diagnosis of Rhinoscleroma: Confirmatory diagnosis is done by biopsy On biopsy/ HPE: Infiltration of submucosa with plasma cells, lymphocytes, eosinophils, Mikulicz cells, and Russell bodies. Mikulicz cells : Large foamy cells with a central nucleus and vacuolated cytoplasm containing bacilli. Russell bodies: Eosinophilic inclusions in plasma cells. It forms due to the accumulation of immunoglobulins secreted by the plasma cells. Culture from the biopsy Psammoma Bodies (Option A): These are concentric, laminated calcifications often seen in certain tumors, such as papillary thyroid carcinoma, serous papillary ovarian carcinoma, meningioma, and mesotheliomas. They are not characteristic of rhinoscleroma. Aschoff Bodies (Option C): These are specific granulomatous lesions found in the myocardium in cases of acute rheumatic fever. They are not associated with nasal pathology or rhinoscleroma. Verocay Bodies (Option D): These are palisading arrangements of Schwann cells and nuclei within Antoni A areas of schwannomas (neurilemomas), often appearing as alternating cellular and anuclear zones. They are a feature of neural sheath tumors, not infectious granulomas like rhinoscleroma.





References:

Dhingra Diseases of Ear, Nose and Throat & Head and Neck Surgery, 8th Edition, Page 181

↑ *Back to this question in Part A*

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• [02_Nose and Paranasal Sinuses] 017 Epistaxis And Facial Trauma - I

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[02_Nose and Paranasal Sinuses] 017 Epistaxis And Facial Trauma - I — Quick Jump

Q1 (p. 1006)	*Q2 (p. 1007)*	*Q3 (p. 1010)*	*Q4 (p. 1011)*	*Q5 (p. 1013)*	*Q6 (p. 1015)*
Q7 (p. 1018)	*Q8 (p. 1019)*	*Q9 (p. 1023)*	*Q10 (p. 1024)*	*Q11 (p. 1025)*	*Q12 (p. 1026)*
Q13 (p. 1027)	*Q14 (p. 1028)*	*Q15 (p. 1030)*	*Q16 (p. 1032)*	*Q17 (p. 1033)*	*Q18 (p. 1034)*
Q19 (p. 1036)	*Q20 (p. 1038)*	*Q21 (p. 1039)*			

Q1: A 35-year-old patient presents with frequent episodes of anterior epistaxis, which are mild and self-limiting. Examination reveals the bleeding site to be in the anteroinferior part of the nasal septum. Which vascular network is most likely involved in this case? (Q848156)

A. Kiesselbach’s plexus

B. Woodruff’s plexus

C. Pterygoid plexus

D. Cavernous sinus plexus

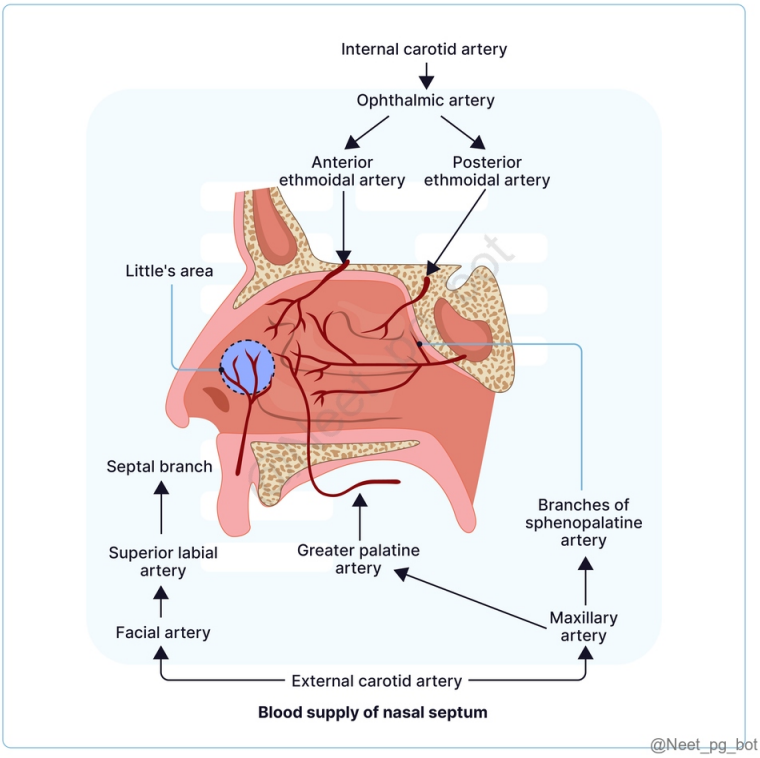
Correct Answer: A. Kiesselbach’s plexus

■ *Listen (English)*

■ *Listen (Hindi)*

Explanation: Kiesselbach’s plexus, also known as Little's area, is a highly vascularised region in the anteroinferior portion of the nasal septum, where multiple arteries converge. It is the most common site of anterior epistaxis, especially in children and young adults. Vessels involved in forming the plexus: Artery Branch of Sphenopalatine artery Maxillary artery Anterior ethmoidal artery Ophthalmic artery (from internal carotid artery) Greater palatine artery Maxillary artery Superior labial artery Facial artery (from external carotid artery) Note: The posterior ethmoidal artery is not part of this plexus Clinical Significance: Anterior epistaxis occurs most often in children and young adults, usually due to trauma (nose-picking), dry air, infections, or irritants. Epistaxis in this area is typically mild and self-limiting and can be controlled with local pressure or simple cauterization. Woodruff’s plexus (Option B) is a venous plexus located on the posterior lateral wall of the nasal cavity, particularly in the inferior nasal meatus. It is often involved in cases of posterior epistaxis. Its primary arterial contributors are the sphenopalatine artery, ascending pharyngeal artery, and posterior nasal branches of the sphenopalatine artery. Pterygoid plexus (Option C) is a venous plexus located in the infratemporal fossa behind the maxilla. It is primarily involved in draining blood from the face and orbit. Cavernous sinus (Option D) is a large venous sinus

located at the base of the skull on either side of the pituitary gland. It is not involved in epistaxis but drains blood from the brain and orbits.



References:

PL Dhingra's Diseases of Ear, Nose & Throat and Head and Neck Surgery, 8th Edition, Pages 205

↑ *Back to this question in Part A*

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Q2: A 22-year-old woman reports experiencing pain, swelling, blurred vision, and double vision following a facial injury from a basketball. Based on the clinical presentation and radiograph findings, which extraocular muscle is most likely restricted, leading to impaired eye movement? (Q848169)

A. Inferior rectus

B. Lateral rectus

C. Medial rectus

D. Superior oblique

Correct Answer: A. Inferior rectus

- *Listen (English)*
- *Listen (Hindi)*

Explanation: The given scenario is a blowout fracture showing a teardrop sign in a CT scan . Blowout Fracture (fracture of floor of orbit): Cause A large blunt object striking the eye globe. Location The floor of the orbit. Clinical features Ecchymosis of the lid, conjunctiva and sclera. Enophthalmos with inferior displacement of the eyeball. Diplopia (displacement of the eyeball or entrapment of inferior rectus and inferior oblique muscles). Hypoaesthesia or anaesthesia of the cheek and upper lip (infraorbital nerve involvement). Presence of periorbital emphysema and oedema. Restricted eye movement (entrapment of the inferior rectus muscle) Forced duction test To determine if the inferior rectus muscle is impinged at the fracture site. A small forceps is used to release the muscle from the fracture site. Improvement in eye movement suggests muscle impingement. Diagnosis X-ray and CT scan shows the characteristic “teardrop” sign due to herniation of orbital contents into the maxillary sinus. Management Reduction (Indicated if associated with zygomatic/maxillary fractures or significant functional impairment) Surgery is required for persistent diplopia, enophthalmos, or muscle entrapment. It typically involves reconstructing the orbital floor to correct anatomical displacement and relieve symptoms. Lateral rectus (Option B), Medial rectus (Option C) and Superior oblique (Option D) are not entrapped in blowout fracture.

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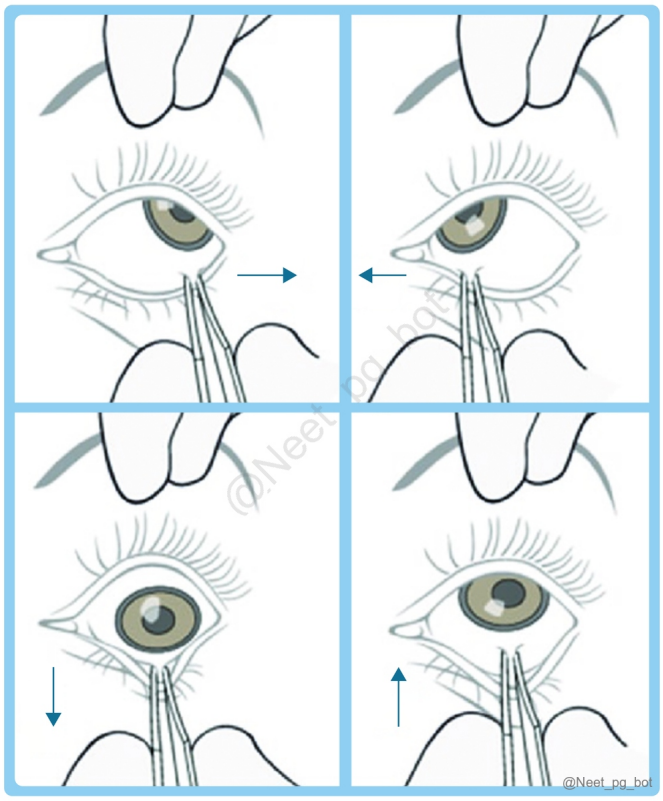

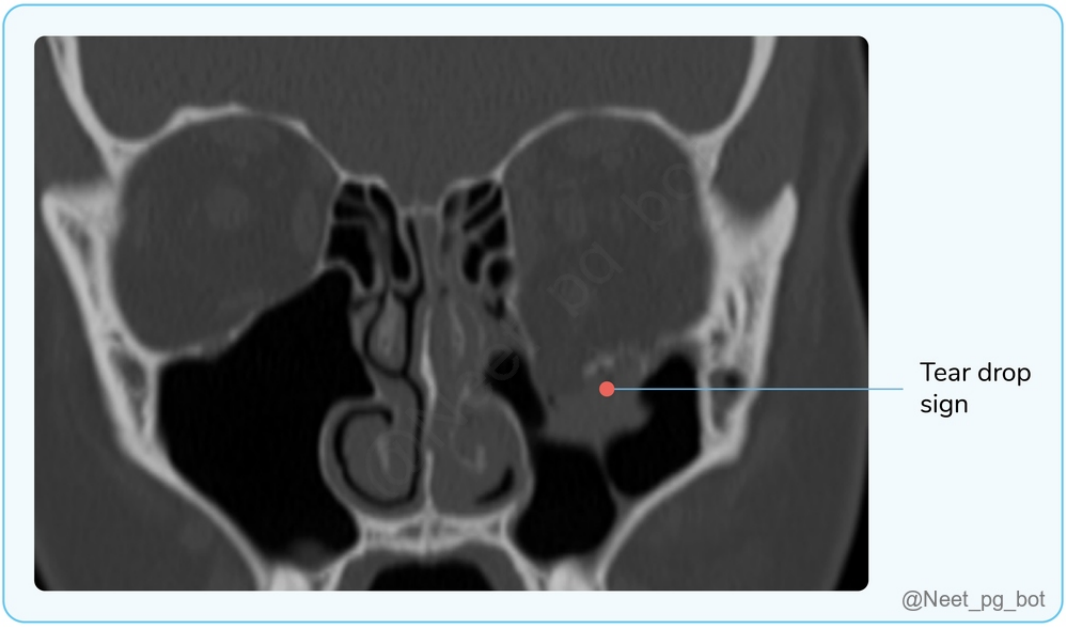

References:

Diseases of Ear, Nose, Throat - PL Dhingra, 8th Edition, Page 215

↑ *Back to this question in Part A*

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Q3: A 26-year-old male presents with jaw pain, swelling, difficulty opening his mouth, and trouble chewing after being struck in the face during a fight. What is the most common site for mandibular fractures? (Q848168)

A. Condylar region

B. Angle of mandible

C. Symphysis menti

D. Body of the mandible

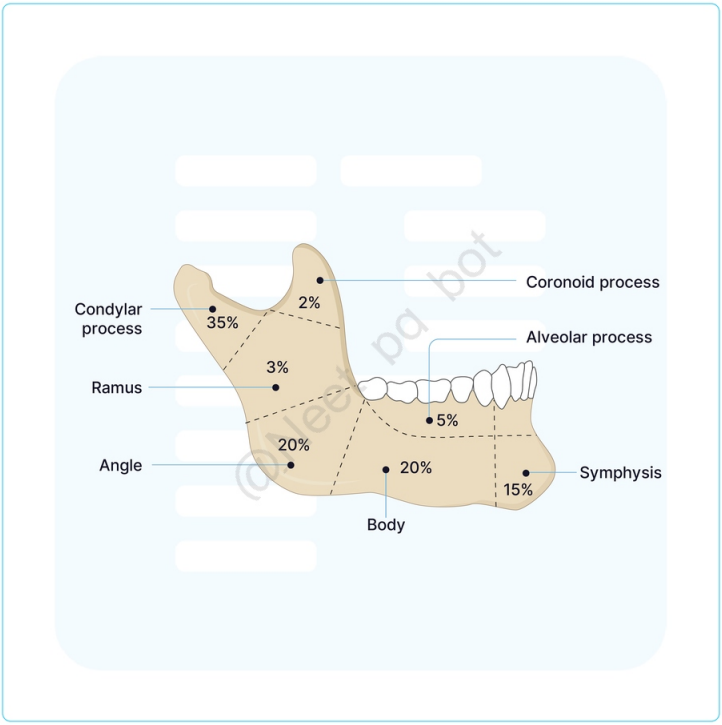
Correct Answer: A. Condylar region

■ *Listen (English)*

■ *Listen (Hindi)*

Explanation: The most common site of mandibular fracture is the condylar region. Fracture of Mandible Fractures of the mandible have been classified according to the Dingman classification , as per their location as shown in the figure below, Fig: Dingman classification The sequence of mandibular fracture sites, from most common to least

common, is as follows: Condylar region (weakest part of the mandible) (Option A) Angle of mandible (Option B) Body of mandible (Option D) Symphysis menti. (Option C) Clinical features: Pain and trismus (most common) Malocclusion of teeth and deviation of the jaw to the opposite side on opening the mouth (in case of displaced fragments)



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References:

Diseases of Ear, Nose, Throat - PL Dhingra, 8th edition, Page 216, 217.

↑ *Back to this question in Part A*

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Q4: A 45-year-old male presents with severe facial pain, swelling, and trouble closing his mouth after a high-impact fall. Examination shows a hanging maxilla. What type of fracture does this indicate? (Q848167)

A. Le fort type I fracture

B. Le Fort type II fracture

C. Le Fort type IIIfracture

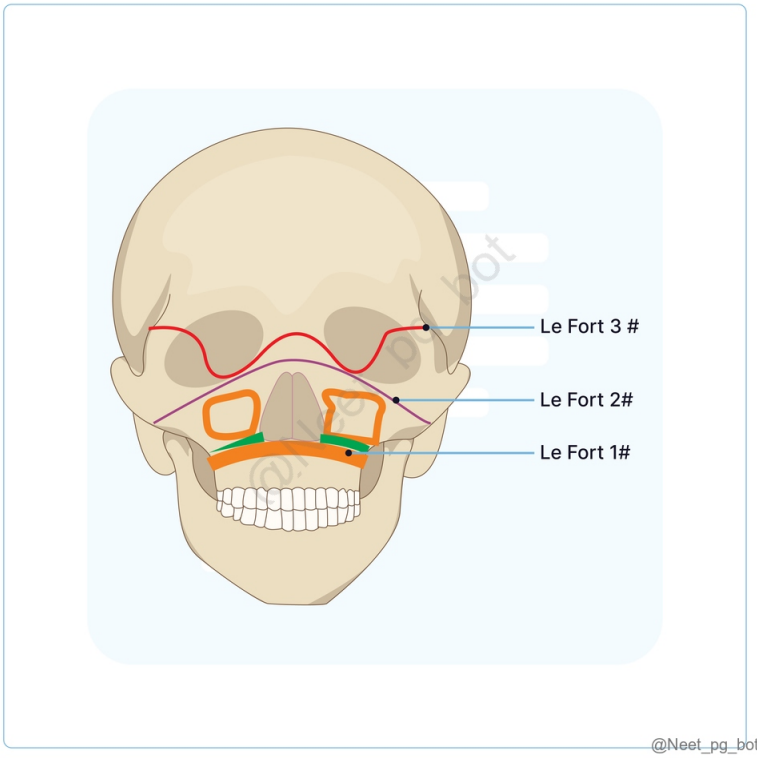
D. Tripod fracture

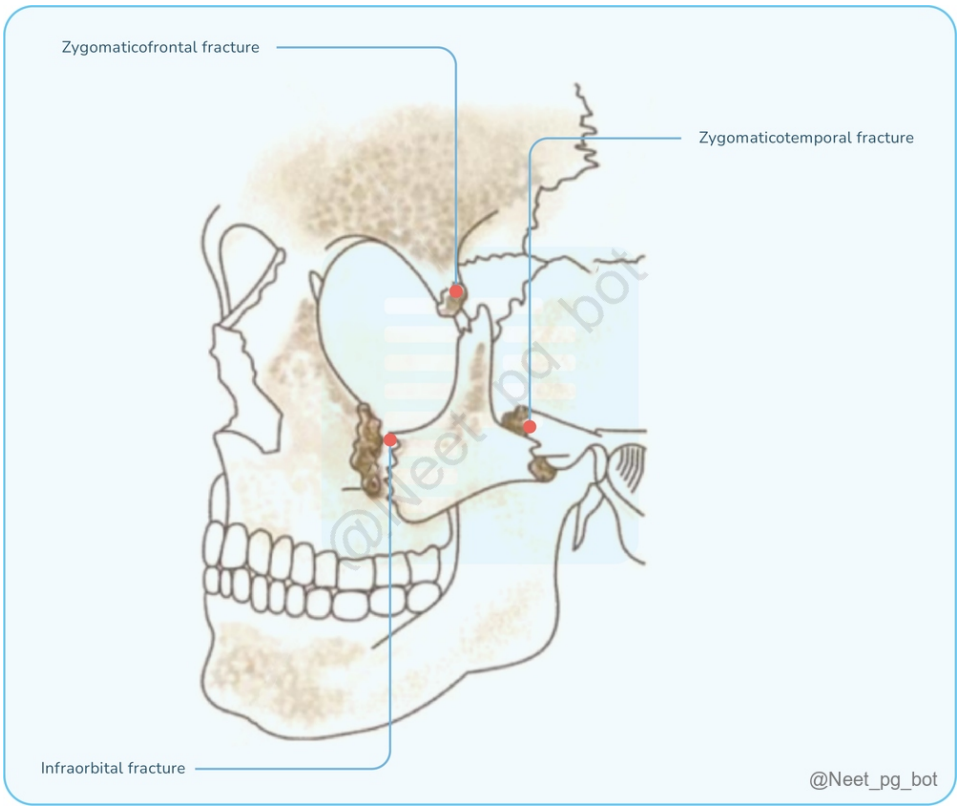
Correct Answer: B. Le Fort type II fracture

■ *Listen (English)*

■ *Listen (Hindi)*

Explanation: The clinical scenario is indicative of a Le Fort type II or pyramidal fracture , a type of maxillary fracture with the hallmark sign of a hanging maxilla. Classification of Fractures of the maxilla: Le Fort I (Option A) Le Fort II (Option B) Le Fort III (Option C) Also known as Guerin's fracture or Transverse fracture Pyramidal fracture Craniofacial disjunction Fracture line Runs above and parallel to the palate, crossing the lower nasal septum, maxillary antra, and pterygoid plates. Passes through the nasal root, lacrimal bone, orbital floor, upper maxillary sinus, and pterygoid plates Note: can cause infraorbital nerve injury. Traverses the root of the nose, ethmoid-frontal junction, superior orbital fissure, lateral orbital wall, frontozygomatic and temporozygomatic sutures, and the upper pterygoid plates. Characteristic feature Hanging palate and hanging teeth Hanging maxilla Complete detachment of the facial bones from the cranial bones CSF Rhinorrhea Absent May be present High risk of CSF Rhinorrhea Management of maxillary fractures: After diagnosing the fracture through clinical examination and x-ray, fixation of maxillary fractures can be achieved by: Interdental wiring Intermaxillary wiring using arch bars. Open reduction and interosseous wiring as in zygomatic fractures. Wire slings from the frontal bone, zygoma or infraorbital rim to the teeth or arch bars. Tripod fracture (Option D) , also known as a zygomatic fracture , involves three fracture lines: zygomaticofrontal , zygomaticotemporal , and zygomaticomaxillary . The characteristic features include depression of the zygomatic arch , localised pain aggravated by talking and chewing, and trismus (restricted jaw movement). It may cause infraorbital nerve injury.





References:

PL DhingraDiseases of Ear, Nose, Throat, 8th Edition, Page 215, 216

Scott-Brown Otorhinology, Head and Neck Surgery, 8th Edition, Page1195

↑ *Back to this question in Part A*

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Q5: A 32-year-old female involved in a car accident presents to the emergency department with a hanging palate and hanging teeth after her face collided with the dashboard. All of the following are true regarding this type of fracture, except: (Q848166)

A. Guerin’s sign is present.

B. Referred to as a transverse maxillary fracture

C. High risk of CSF rhinorrhea

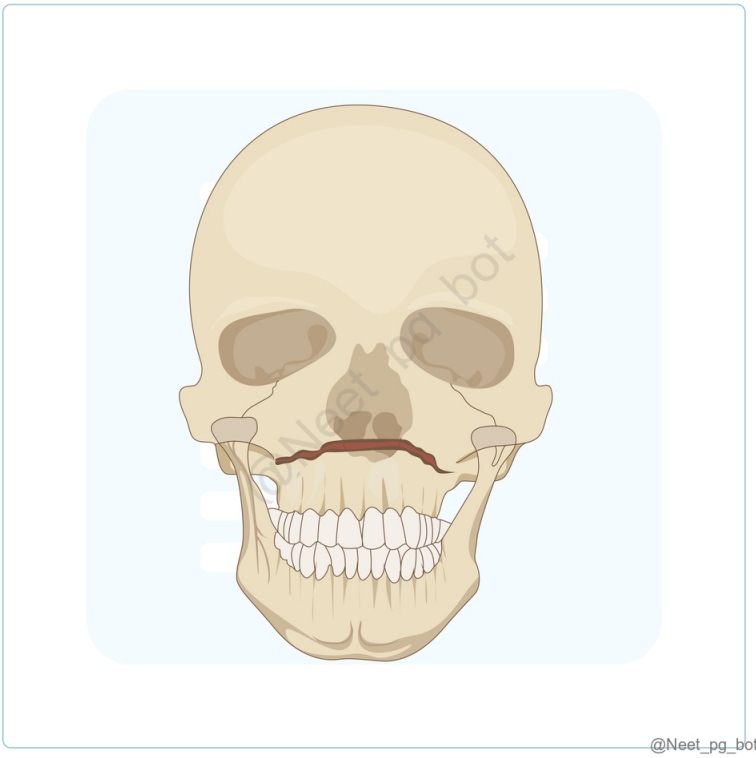
D. Fracture line traverses the nasal and maxillary sinus floors

Correct Answer: C. High risk of CSF rhinorrhea

■ *Listen (English)*

■ *Listen (Hindi)*

Explanation: The clinical scenario is indicative of a Le Fort type I or Guerin's fracture, characterised by the hallmark signs of a hanging palate and hanging teeth, with the absence of CSF rhinorrhea. Features of Le Fort I Fracture: A type of maxillary fracture, also known as Guerin's fracture or Transverse maxillary fracture . (Option B) The fracture line is horizontal and runs above and parallel to the palate, crossing the lower nasal septum, maxillary antra, and pterygoid plates. (Option D) Fig: Le Fort I Fracture It is characterised by hanging palate and hanging teeth. CSF rhinorrhea is absent. Guerin's sign is observed, which is characterised by bluish discolouration of the palate due to rupture of the Greater palatine artery. (Option A) Fig: Guerin's sign



References:

Diseases of Ear, Nose, Throat - PL Dhingra, 8th edition, Page 215, 216.

↑ *Back to this question in Part A*

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Q6: During a closed reduction procedure for a nasal septum, the surgeon selected a forceps, as depicted in the image, and asked the intern to identify it. What is the name of these forceps? (Q848165)

A. Tilley’s forceps

B. Walsham’s forceps

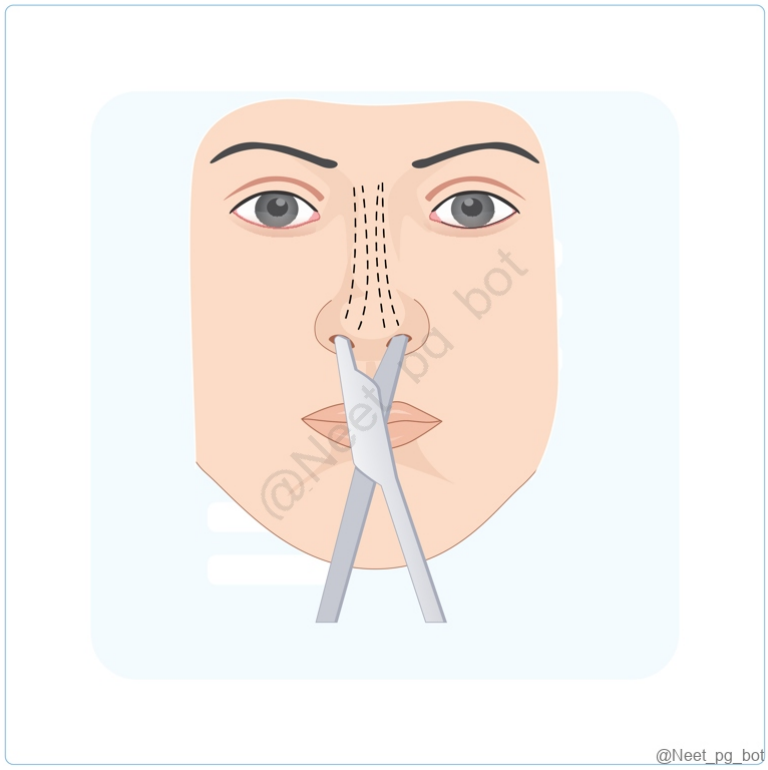
C. Hartmann’s forceps

D. Asch’s forceps

Correct Answer: D. Asch’s forceps

- *Listen (English)*
- *Listen (Hindi)*

Explanation: The instrument shown in the above image is Asch’s forceps , an angulated forceps that is used in the closed reduction of the nasal septum. Tilley’s forceps (Option A), also known as Tilley’s dressing forceps, have a box joint. They are used for nasal packing, ear dressing, and removing foreign bodies from the nose. Walsham’s forceps (Option B) are straight and covered by rubber tubing. They are used to disimpact and reduce nasal bone fractures. Hartmann’s forceps (Option C) have a screw joint, and the jaw is serrated and grooved. It is used the same as Tilley’s forceps, i.e., for nasal packing, ear dressing, and removing foreign bodies from the nose.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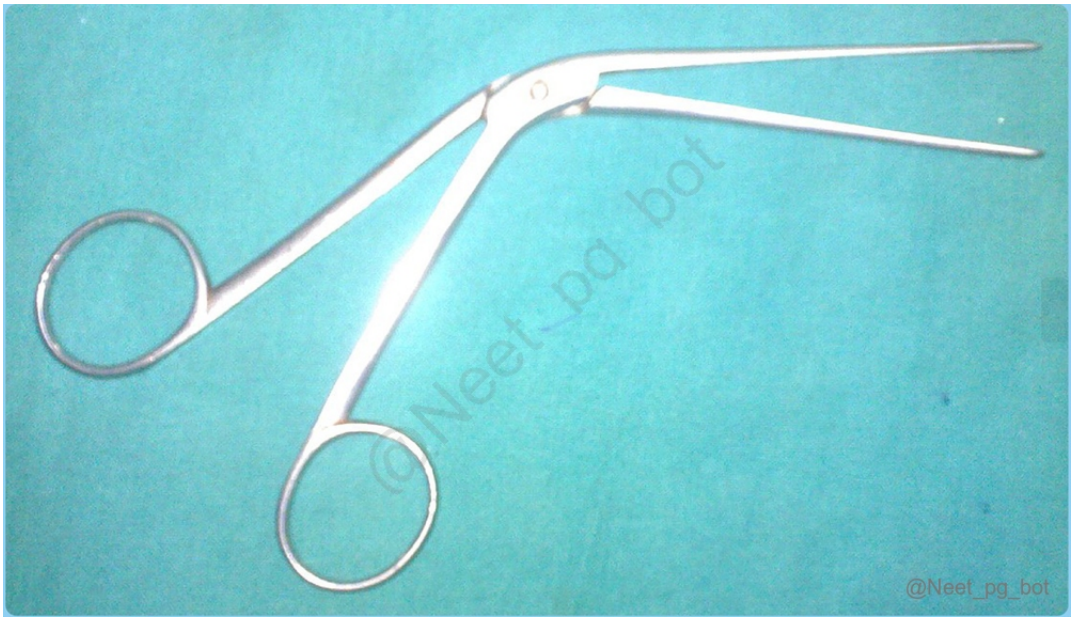
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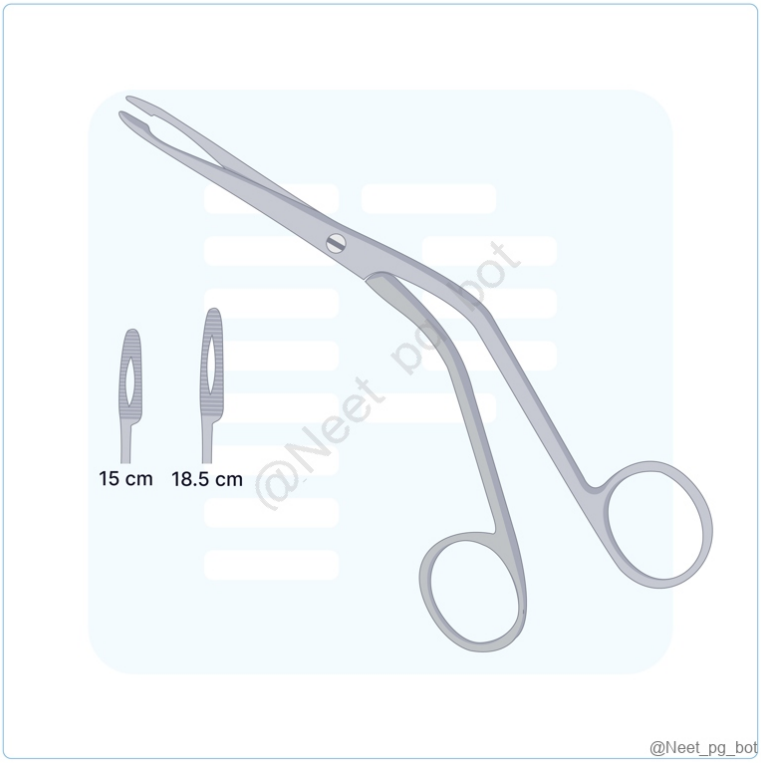
WALSHAM'S FORCEPS



References:

Diseases of Ear, Nose, Throat - PL Dhingra, 8th edition, Page 213, 555.

↑ *Back to this question in Part A*

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Q7: A 30-year-old patient presents with a nasal fracture from a frontal blow during a sports accident. The nasal bridge is deviated with swelling and bruising. The patient reports nasal obstruction, but no other facial fractures are noted. What is the most appropriate management approach? (Q848164)

A. Immediate closed reduction

B. Open reduction after oedema subsides

C. Closed reduction after oedema subsides

D. Nasal packing and observation

Correct Answer: C. Closed reduction after oedema subsides

■ *Listen (English)*

■ *Listen (Hindi)*

Explanation: Closed reduction after oedema subsides is the preferred approach as it is both effective and less invasive than open reduction. Edema can interfere with accurate closed reduction (Option A ruled out) . It is best to wait until swelling subsides, typically 5-7 days, before performing closed reduction. Management of Nasal Fractures: Diagnosis Physical Examination is the best method for diagnosing nasal fractures. Look for signs such as swelling, periorbital ecchymosis, tenderness, nasal deformity, crepitus, epistaxis, and nasal obstruction. X-rays : These may not always reveal fractures. Necessary views include Waters' view, lateral views, and occlusal view. Treatment Simple Fractures : Generally, no treatment is required if there's no displacement. Monitor for natural healing. Closed Reduction : Timing : Ideally performed before significant edema develops or after it subsides (Option C) (usually 5-7 days). Technique : Use a straight blunt elevator guided by digital manipulation from outside for depressed fractures. Reduce laterally displaced nasal bridge with firm digital pressure in the opposite direction. Disimpaction of impacted fragments requires Walsham or Asch's forceps. Septal fractures and hematomas should be managed with Asch's forceps. Packing : Unstable fractures require intranasal packing and external splintage. Open Reduction (Option B): Rarely required early & Considered if closed methods fail, for certain septal injuries & if a patient presents late. Correction of Deformities : May need rhinoplasty or septorhinoplasty for healed deformities from trauma. Nasal packing and observation (Option D) may help manage bleeding or minor fractures but does not address the alignment of the fractured bones.

References:

Diseases of Ear, Nose, Throat - PL Dhingra, 8th edition, Page - 213

↑ *Back to this question in Part A*

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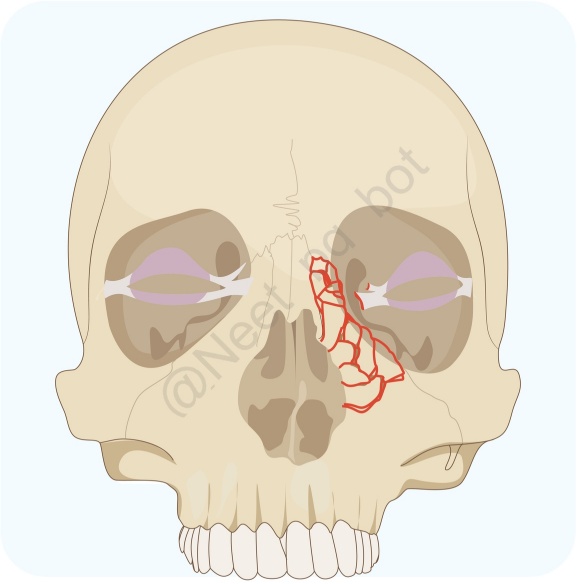
Q8: Match the following types of fractures with their respective findings: Type of Fracture Finding 1. Jarjavay Fracture a) 2. Class III Nasal Fracture b) 3. Chevallet Fracture c) (Q848163)

A. 1-c, 2-b, 3-a

B. 1-a, 2-c, 3-b

C. 1-b, 2-a, 3-c

D. 1-a, 2-b, 3-c



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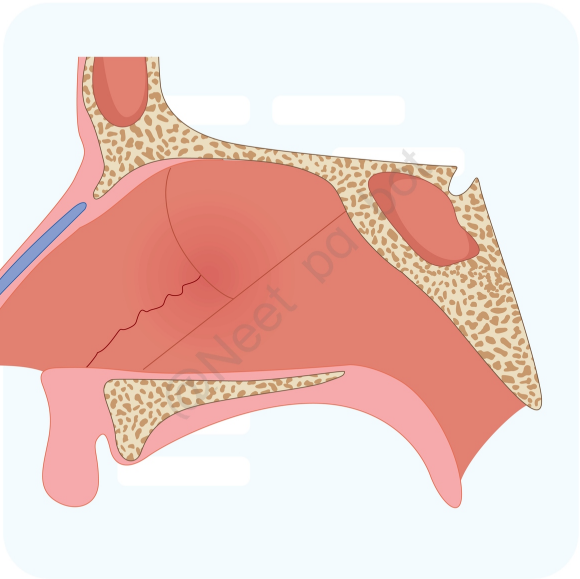

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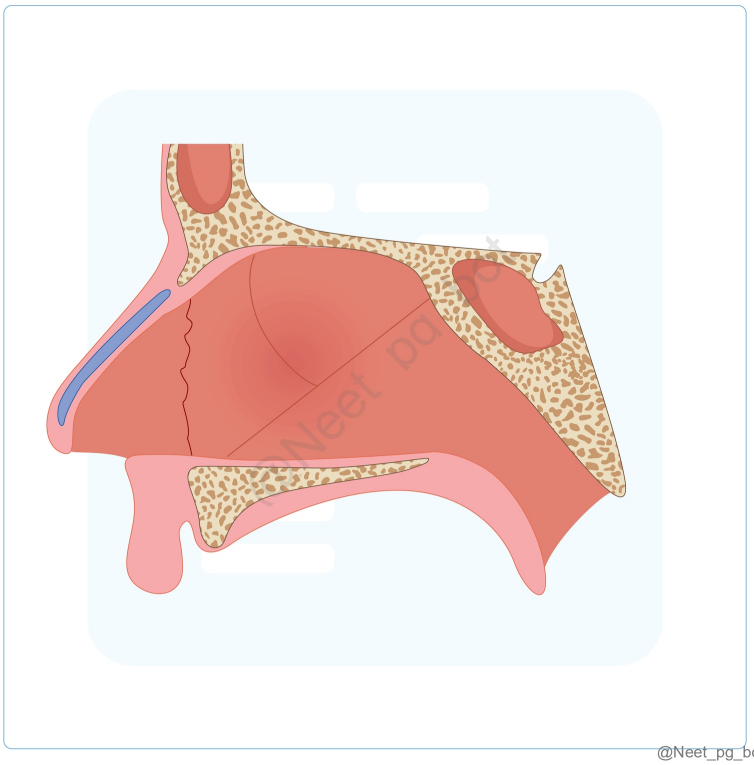
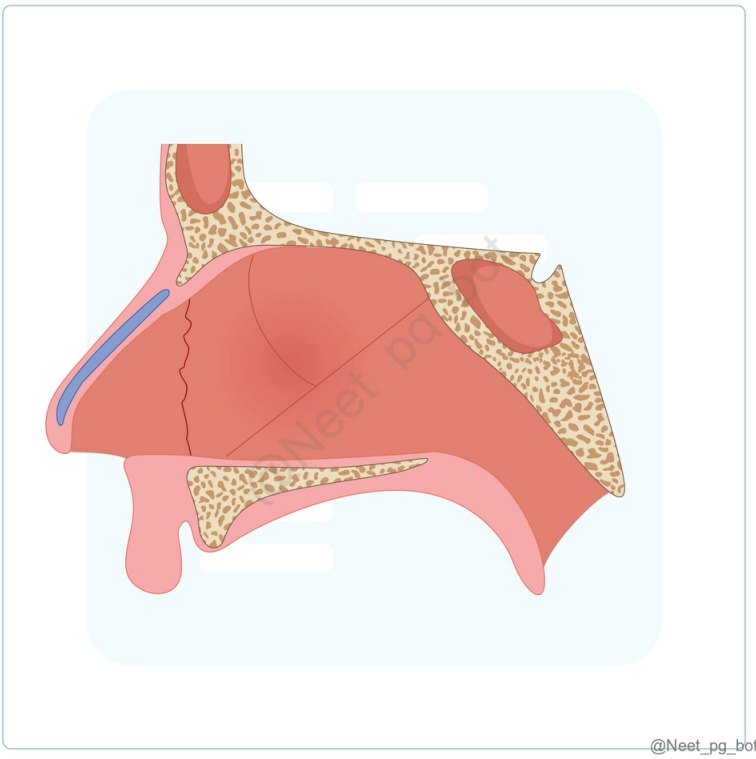


Correct Answer: C. 1-b, 2-a, 3-c

■ *Listen (English)*

■ *Listen (Hindi)*

Explanation: Nasal fractures: Nasal fractures constitute about 40% of all facial fractures and are often accompanied by other facial injuries. Prompt management is crucial to prevent cosmetic and functional deformities. Classification: Nature of Injury: Most fractures result from lateral forces (>66%), with frontal impacts causing fewer injuries. Extent of Deformity: A five-point grading system assesses lateral deviation Grade 0: No deviation Grade 1: Deviation <50% of nose width Grade 2: Deviation 50%-100% of nose width Grade 3: Deviation >100% of nose width Grade 4: Bones almost touching the cheek Pattern of Fracture: Fractures are categorised into three classes based on severity and treatment requirements: Class I (Chevallet Fracture) Class II (Jarjavay Fracture) Class III (Naso-orbito-ethmoid fracture) Cause Blows from below Impacts directed from the front High-velocity trauma Fracture Line Vertical fracture from the anterior nasal spine upwards to the junction of the bony and cartilaginous dorsum of the nose. Horizontal fracture starting just above the anterior nasal spine, running backwards just above the junction of septal cartilage and vomer. Involves external buttresses of the nose and ethmoid labyrinth. Pig-like appearance with foreshortened, saddled nose. Clinical Relations Assess for nasal obstruction and deformity. Significant deformity might only develop later, especially in children. Check for deviation greater than half the width of the nose, which may indicate a septal fracture. Requires reduction of both nasal and septal fractures. Look for signs of more severe injuries, such as CSF leaks , multiple dural tears, and potential cerebral herniation. Evaluate for orbital and skull base involvement.



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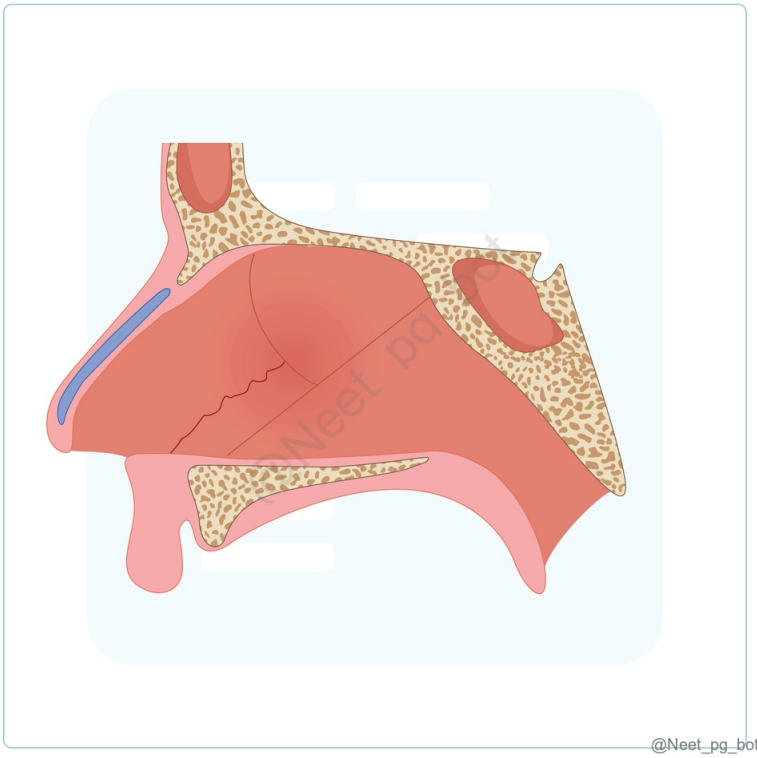

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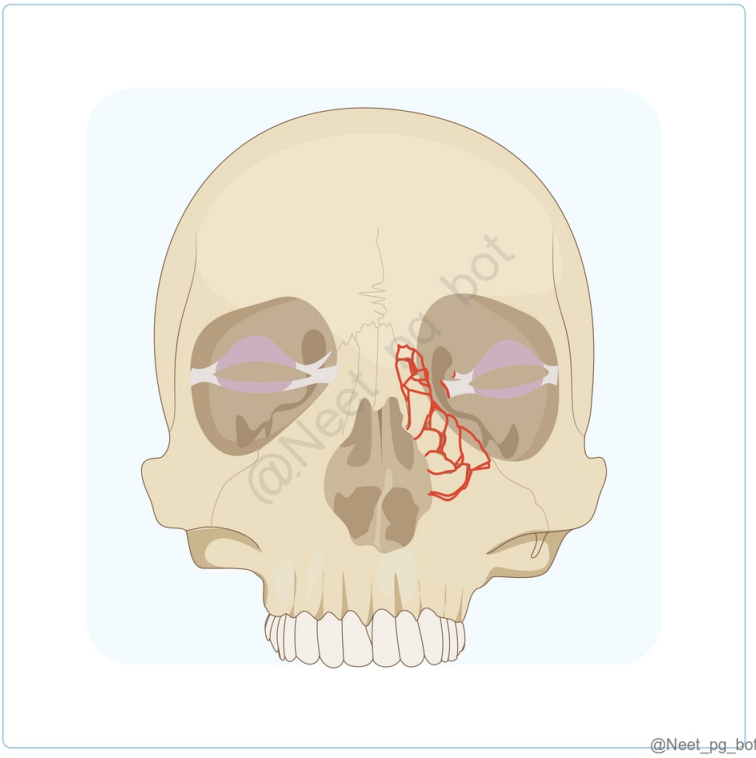


References:

Scott-Brown's Otorhinolaryngology and Head & Neck Surgery, 8th Edition, Page 1184, 1185

PL Dhingra's Diseases of Ear, Nose & Throat and Head and Neck Surgery, 8th Edition, Page 171

↑ *Back to this question in Part A*

@Neet_pg_bot

Q9: A 45-year-old patient with Hereditary Hemorrhagic Telangiectasia presents with recurrent epistaxis despite conservative measures. Which of the following treatments is considered the last resort for severe, persistent bleeding that has not responded? (Q848162)

A. Septal Dermoplasty

B. Nasal Packing

C. Nd Laser Therapy

D. Young's Operation

Correct Answer: D. Young's Operation

■ *Listen (English)*

■ *Listen (Hindi)*

Explanation: Young's operation involves the permanent surgical closure of the nostrils and is considered a last-resort treatment for severe, persistent bleeding in patients with Hereditary Hemorrhagic Telangiectasia (HHT) when other methods have failed. Hereditary Hemorrhagic Telangiectasia (HHT) : (Osler-Weber-Rendu disease) An autosomal dominant condition characterised by abnormal blood vessels in the skin, mucous membranes, and internal organs. Clinical Features : Common symptoms include telangiectasia, arteriovenous malformations (AVMs), and aneurysms. Recurrent epistaxis (nosebleeds) occurs in 93% of cases. Management: Initial Treatments : Nasal packing (Option B) , cautery, antifibrinolytics, systemic or topical estrogens. Advanced Treatments : Coagulative lasers (Nd , Argon, KTP532) (Option C) , septal dermoplasty (Option A) , ligation, and embolization. Last Resort : Young's operation, involving permanent surgical closure of the nostrils, is used for severe, persistent bleeding. Despite the significant disability it may cause, it often improves quality of life by reducing bleeding.

References:

Diseases of Ear, Nose, Throat - PL Dhingra, 8th edition, Page - 210

Scott Brown ENT, 8th Edition Page - 1180

↑ *Back to this question in Part A*

@Neet_pg_bot

Q10: Which of the following incisions is most appropriate when ligating the anterior ethmoidal artery to control anterior epistaxis? (Q848161)

A. Lynch-Howarth incision

B. Sublabial incision

C. Gullwing incision

D. Weber-Ferguson incision

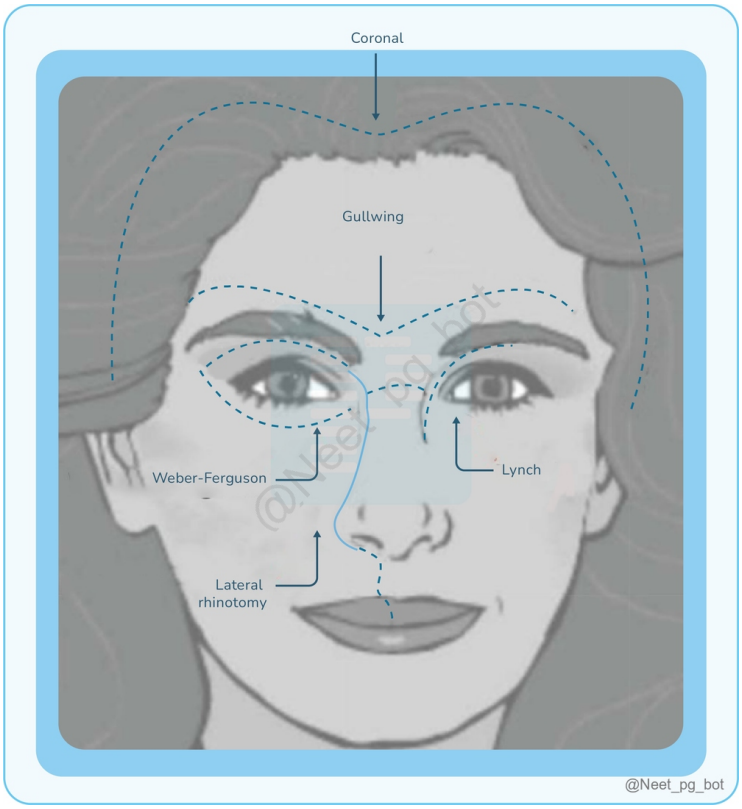
Correct Answer: A. Lynch-Howarth incision

■ *Listen (English)*

■ *Listen (Hindi)*

Explanation: The Lynch-Howarth incision is the most appropriate for accessing the medial wall of the orbit to ligate the anterior ethmoidal artery. The incision is made along the medial canthus of the eye, extending along the inner corner of the eyelid. It allows direct access to this area where the artery can be effectively controlled. Advantages: Direct Access & Minimally invasive. Fig: Lynch-Howarth incision Sublabial Incision (Option B) is typically used to access the maxillary sinus and palatal areas, but it is unsuitable for reaching the anterior

ethmoidal artery. Weber-Ferguson Incision (Option D) is a broader incision used for extensive access to the nasal cavity and maxilla, but not specifically for the anterior ethmoidal artery. Gullwing Incision (Option C) is not commonly used in ENT procedures and is primarily used for cosmetic or reconstructive procedures involving the eyelids or facial skin.



References:

Diseases of Ear, Nose, Throat - PL Dhingra, 8th edition, Page - 210

↑ *Back to this question in Part A*

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Q11: A 30-year-old patient presents with anterior epistaxis after sustaining a nose injury. Despite initial first aid measures, bleeding continues, and a bleeding point is identified. What is the most appropriate next step if the bleeding persists? (Q848160)

A. Anterior nasal packing

B. Cauterize with silver nitrate

C. Embolization

D. TESPAL

Correct Answer: B. Cauterize with silver nitrate

■ *Listen (English)*

■ *Listen (Hindi)*

Explanation: If a bleeding point is identified in the anterior epistaxis that persists despite initial first aid measures, cauterization with silver nitrate is the most appropriate next step. Embolization and TESPAL (Temporal Endoscopic Surgery for Posterior Anterior Ligament) are reserved for more severe or posterior bleeding. Management of Epistaxis: First Line: (Direct therapy) First Aid: Hippocrates method : Pinch the nose with the thumb and index finger for about 5 minutes to control bleeding, especially from Little's area. Trotter's Method : Have the patient sit forward over a basin to spit blood and breathe through the mouth. Apply cold compresses to induce vasoconstriction. Cauterization: Indication : Effective for anterior epistaxis when the bleeding point is identified . Apply topical anaesthesia and cauterize with silver nitrate or electrocautery. Second Line: (Indirect therapy) Anterior Nasal Packing: Clear the nasal cavity of blood clots, localise the bleeding site, and pack with ribbon gauze soaked in liquid paraffin. The packing may need to stay for 24-72 hours with systemic antibiotics to prevent infection. Posterior Nasal Packing: Use a cone-shaped gauze pack and a rubber catheter or nasal balloon. The pack is guided into the nasopharynx, with an anterior nasal pack to stabilize. Patients need to be hospitalised & balloons with separate bulbs for the postnasal space and nasal cavity are used. Third Line: (Surgical Interventions) Ligation of Vessels : Maxillary Artery : Ligation via Caldwell-Luc operation for uncontrollable posterior epistaxis. Ethmoidal Arteries : for bleeding from above the middle turbinate. External Carotid : Ligate above the superior thyroid artery for persistent bleeding from the external carotid system. Transnasal Endoscopic Sphenopalatine Artery Ligation (TESPAL) : Locate and ligate the Sphenopalatine artery (Artery of Epistaxis) to control refractory posterior bleeding. (Option D) Fourth Line (Embolization) (Option C) Performed by an interventional radiologist through femoral artery catheterisation using absorbable gel foam or coils. It may require bilateral embolisation for unilateral bleeding. Note: The order of ligation is 1. sphenopalatine 2. maxillary 3. ethmoid/ECA Anterior nasal packing (Option A) is a first-line treatment for persistent anterior epistaxis. However, if a specific bleeding point is identified and persists, cauterisation is more effective than packing.

References:

Scott Brown ENT, 8th Edition Page - 1180

Diseases of Ear, Nose, Throat - PL Dhingra, 8th edition, Page - 208,210

↑ *Back to this question in Part A*

@Neet_pg_bot

Q12: A 10-year-old boy presents with recurrent episodes of mild epistaxis. On examination, the bleeding site is found in the anteroinferior part of the nasal septum. What could be the most common cause of epistaxis in this patient? (Q848159)

A. Hypertension

B. Nasal trauma

C. Hereditary hemorrhagic telangiectasia

D. Coagulation disorder

Correct Answer: B. Nasal trauma

■ *Listen (English)*

■ *Listen (Hindi)*

Explanation: In children and young adults, the most common cause of epistaxis is nasal trauma , such as nose-picking or minor injuries. The most common site for this is Kiesselbach's plexus (Little’s area), located in the anteroinferior part of the nasal septum. Causes and Common Sites of Epistaxis in Different Age Groups Age Group Most Common Cause Most Common Site Children/Young Adults Nasal trauma (nose-picking) Kiesselbach's plexus (anterior nasal septum) Older Adults Hypertension Woodruff’s plexus (posterior nasal cavity) All Ages Infections or dryness Kiesselbach's plexus (anterior nasal septum) Hereditary Conditions Hereditary hemorrhagic telangiectasia Multiple sites in the nasal cavity Hypertension (Option A) is a common cause of epistaxis; it is typically seen in older adults, not children. Hereditary Hemorrhagic Telangiectasia (Option C) is a genetic condition that causes recurrent epistaxis due to abnormal blood vessels but is a less common cause in children compared to trauma. Coagulation Disorder (Option D) can lead to epistaxis, but they are not as common as local trauma in children and young adults.

References:

PL Dhingra Diseases of Ear, Nose, Throat, 8th Edition, Page 205, 206.

↑ *Back to this question in Part A*

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Q13: A 65-year-old male with hypertension presents with profuse nasal bleeding from the posterior part of the nasal cavity, unresponsive to pinching and anterior packing. Nasal endoscopy shows bleeding behind the middle turbinate. What is the likely source of bleeding and appropriate management? (Q848158)

A. Greater palatine artery, Cauterization

B. Kiesselbach's plexus, Posterior nasal packing

C. Sphenopalatine artery, Endoscopic intervention

D. Posterior ethmoidal artery, Endoscopic intervention

Correct Answer: C. Sphenopalatine artery, Endoscopic intervention

■ *Listen (English)*

■ *Listen (Hindi)*

Explanation: The sphenopalatine artery is the most common source of posterior epistaxis in hypertensive patients. It supplies the lateral nasal wall and posterior nasal cavity. Endoscopic ligation or cauterization of the sphenopalatine artery is the preferred treatment for severe, uncontrolled posterior nasal bleeding. Classification of Epistaxis: Feature Anterior Epistaxis Posterior Epistaxis Definition Bleeding from the front of the nose Bleeding that flows backwards into the throat Source of bleeding Kiesselbach's plexus (Anterior ethmoidal artery, Septal branch of Superior labial artery, Septal branch of Sphenopalatine artery, Greater palatine artery) Sphenopalatine artery (Most common) Posterior ethmoidal artery Site Little's area (anteroinferior nasal septum) Posterior or superior parts of the nasal cavity (e.g.Woodruff's plexus) Age Group Mostly in children and young adults More common in adults over 40 years old Usual Cause Trauma (e.g., nose picking, injury) Spontaneous, often associated with hypertension and arteriosclerosis Management Local pressure and conservative measures Postnasal pack, more aggressive treatment often required

References:

PL Dhingra Diseases of Ear, Nose, Throat, 8th Edition, Pages 494, 207, 208

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Q14: A 28-year-old patient presents with recurrent episodes of mild anterior epistaxis, mainly from the nasal septum. Upon examination, the source of the bleeding is traced to a venous structure near the anterior septum. Which of the following veins is most likely responsible for the bleeding? (Q848157)

A. Greater palatine vein

B. Sphenopalatine vein

C. Retrocolumellar vein

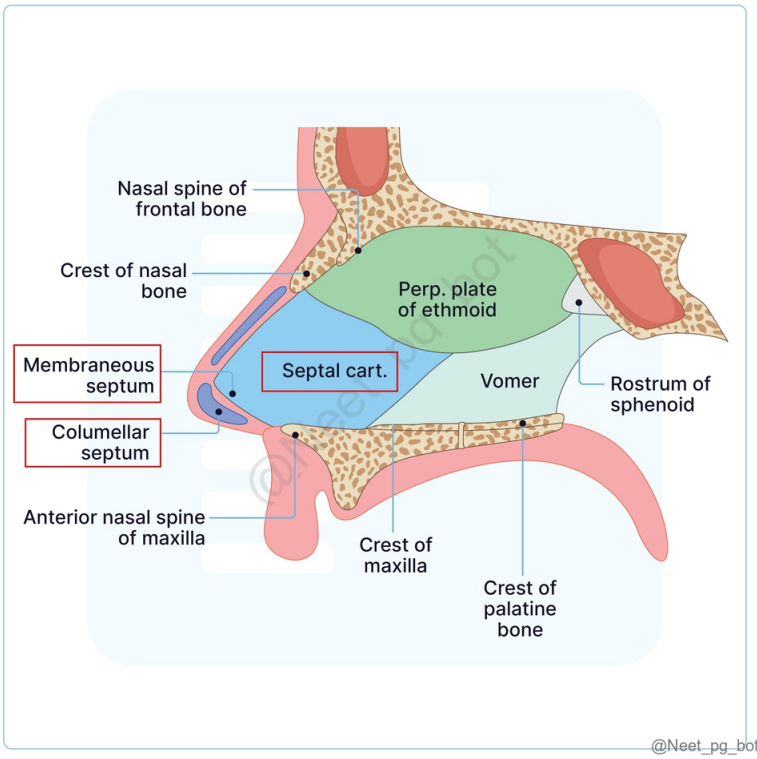
D. Superior ophthalmic vein

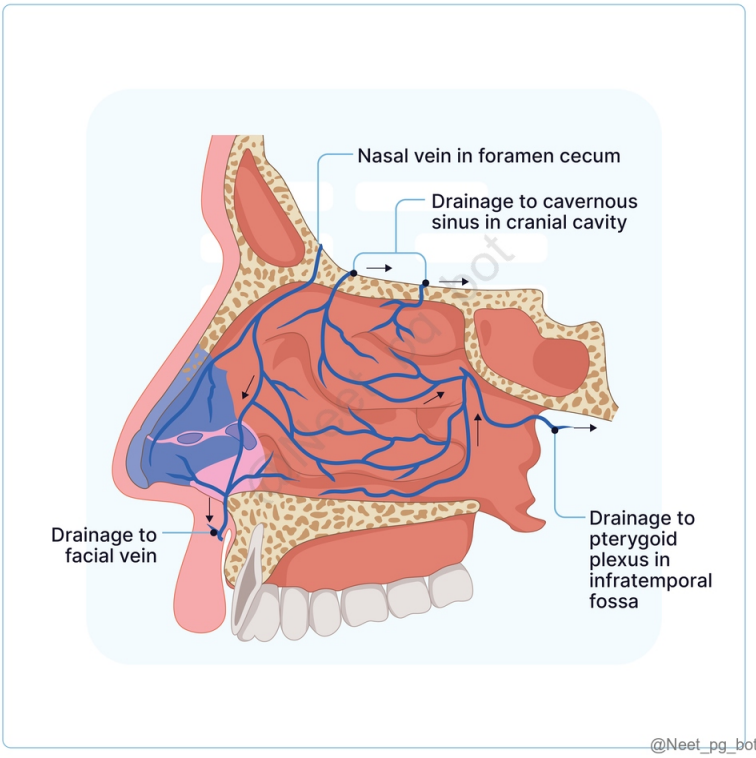
Correct Answer: C. Retrocolumellar vein

■ *Listen (English)*

■ *Listen (Hindi)*

Explanation: The Retrocolumellar vein is located in the anterior septum of the nasal cavity, specifically in the region just behind the columella. It is part of the venous drainage system of the anterior nasal septum, an area prone to anterior epistaxis in young people. Veinous drainage of Nasal cavity The greater palatine vein (Option A) and sphenopalatine vein (Option B) are associated with posterior parts of the nasal cavity and palate and are less likely to be involved in anterior epistaxis. The superior ophthalmic vein (Option D) is located in the orbit and drains structures of the eye, not typically involved in nasal bleeding.





References:

Diseases of Ear, Nose, Throat - PL Dhingra, 8th edition, Page 205

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Q15: A 55-year-old patient presents with recurrent bleeding. Diagnostic imaging reveals that the bleeding is from the posterior nasal cavity. Which artery, derived from the maxillary artery, is most likely responsible for this condition? (Q848155)

A. Anterior ethmoidal artery

B. Posterior ethmoidal artery

C. Sphenopalatine artery

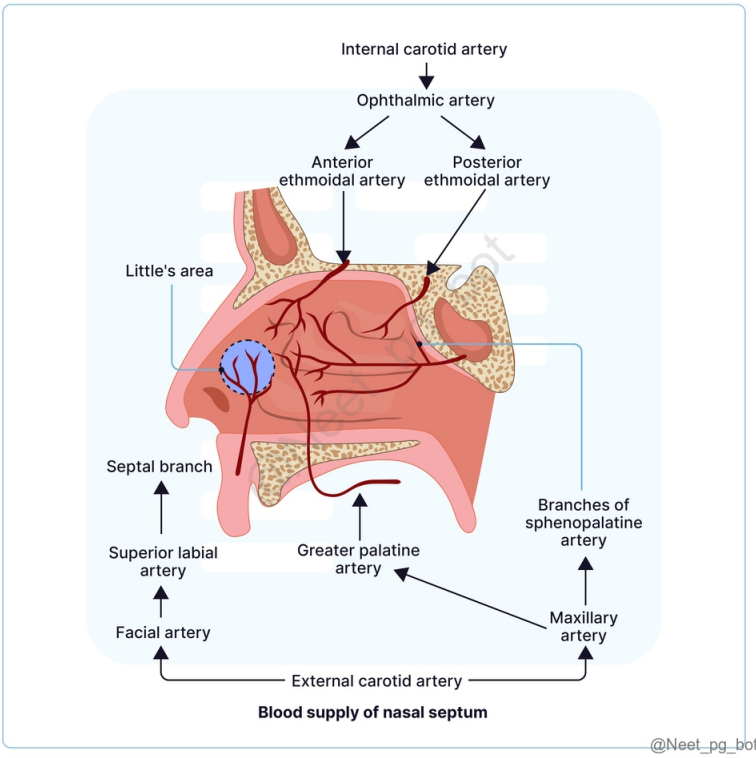
D. Superior labial artery

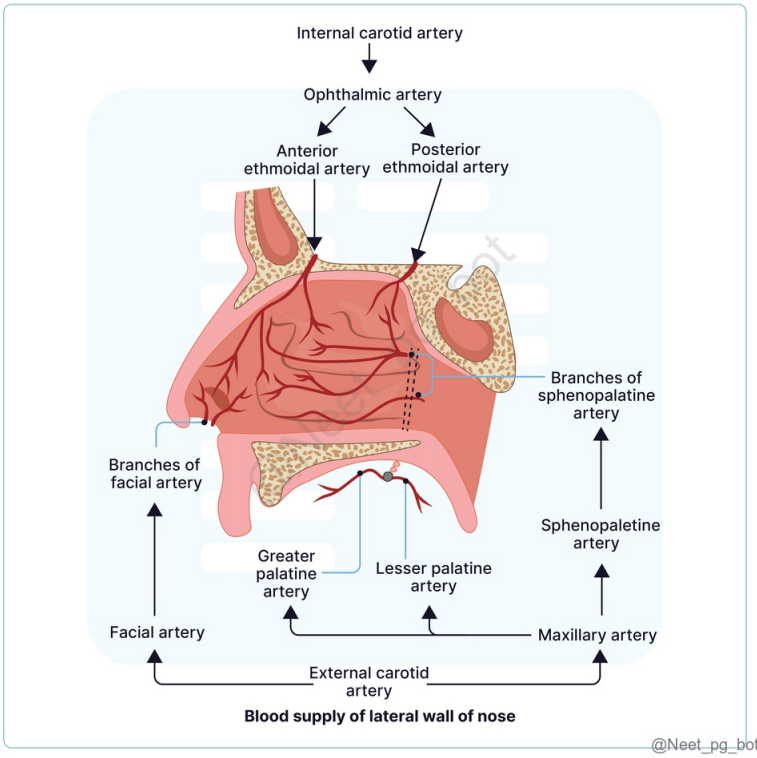
Correct Answer: C. Sphenopalatine artery

■ *Listen (English)*

■ *Listen (Hindi)*

Explanation: The sphenopalatine artery, a terminal branch of the maxillary artery, is commonly involved in posterior nasal bleeding. It supplies the posterior part of the nasal cavity, including the posterior nasal septum and lateral walls. Total Blood Supply to the Nasal Cavity: External Carotid Artery System: Sphenopalatine Artery(AKA artery of Epistaxis) : A terminal branch of the maxillary artery supplying the nasal septum and lateral nasal wall. Greater Palatine Artery : A branch of the maxillary artery contributes to the supply of the hard palate and lower part of the nasal septum. Superior Labial Artery : A branch of the facial artery supplies the anterior nasal septum, particularly Little’s area. Internal Carotid Artery System: Anterior Ethmoidal Artery : A branch of the ophthalmic artery that supplies the anterior and superior nasal cavity. Posterior Ethmoidal Artery is also a branch of the ophthalmic artery; it supplies the upper posterior portion of the nasal cavity.





References:

Diseases of Ear, Nose, Throat - PL Dhingra, 8th edition, Page 205

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Q16: A 25-year-old male presents with recurrent episodes of mild, self-limiting anterior epistaxis. On anterior rhinoscopy, a highly vascular area is noted on the nasal septum. In which anatomical location is this region situated? (Q892062)

A. Anterosuperior part of the septum

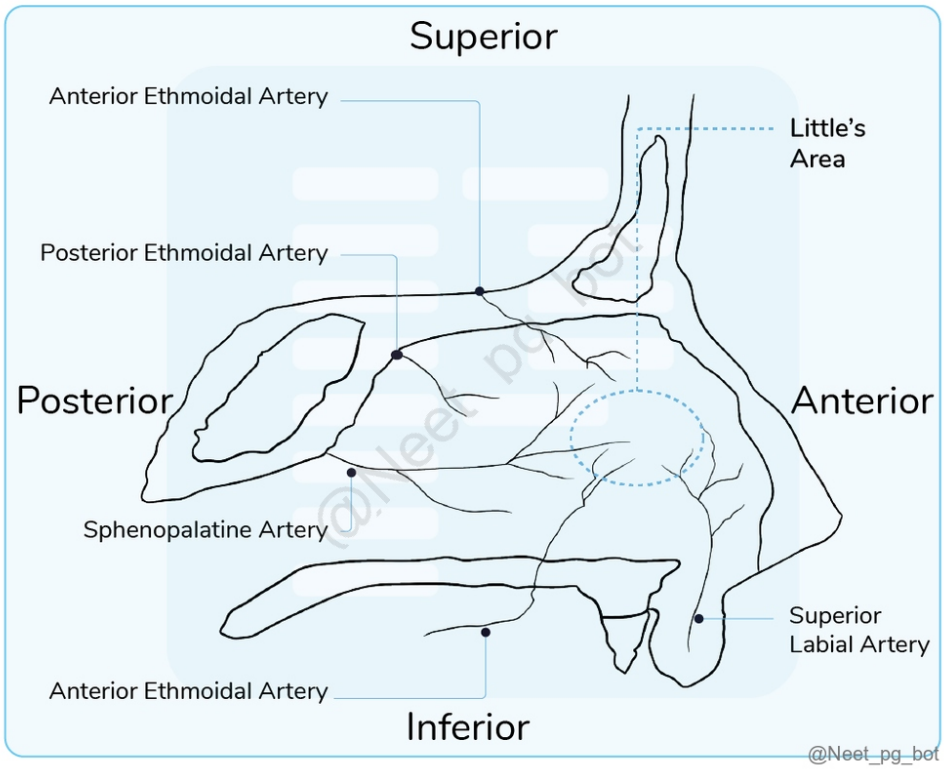
B. Anteroinferior part of the septum

C. Posterosuperior part of the septum

D. Posteroinferior part of the septum

Correct Answer: B. Anteroinferior part of the septum

Explanation: Little’s area is the most common site of anterior epistaxis , especially in children and young adults . It is located in the anteroinferior part of the nasal septum , just above the vestibule, near the mucocutaneous junction. This region overlies the anterior cartilaginous septum and contains Kiesselbach’s plexus , a rich vascular anastomosis formed by septal branches of the anterior ethmoidal, sphenopalatine, greater palatine, and superior labial arteries . Because of its superficial vessels, Little’s area is particularly vulnerable to digital trauma, mucosal drying, upper respiratory infections, and local irritation , making it the usual source of recurrent mild anterior nosebleeds. In contrast, posterior epistaxis is more often seen in older adults and is usually more severe.



References:

PL Dhingra's Diseases of Ear, Nose and Throat and Head and Neck Surgery, 8th Edition, Page 205.

↑ *Back to this question in Part A*

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Q17: Which of the following arteries does not contribute to the formation of Kiesselbach's plexus? (Q892063)

A. Sphenopalatine artery

B. Greater palatine artery

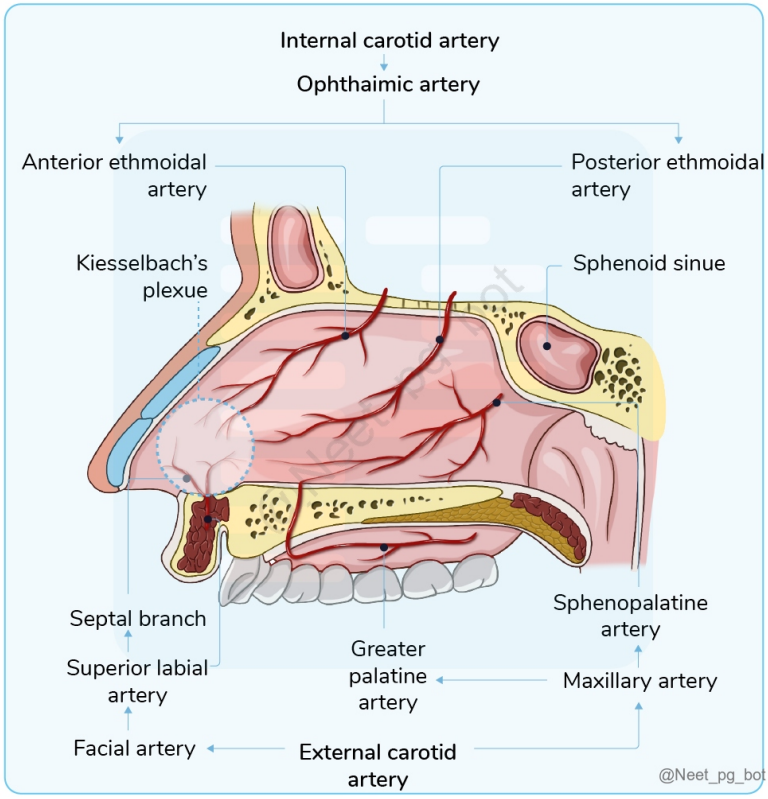
C. Anterior ethmoidal artery

D. Posterior ethmoidal artery

Correct Answer: D. Posterior ethmoidal artery

Explanation: The posterior ethmoidal artery does not contribute to Kiesselbach's plexus Instead, it supplies the superior and posterior parts of the nasal cavity. Kiesselbach's plexus is a rich arterial anastomosis located in

Little’s area on the anteroinferior part of the nasal septum and is the most common site of a nterior epistaxis. It receives contributions from both the internal and external carotid systems. The arterial components included are: Internal Carotid artery: Anterior ethmoidal artery (Option C ruled out) External Carotid Artery Septal branch of the sphenopalatine artery (Option A ruled out) Greater palatine artery (Option B ruled out) Septal branch of the superior labial artery



References:

PL Dhingra’s Diseases of Ear, Nose and Throat and Head and Neck Surgery, 8th Edition, Page 205.

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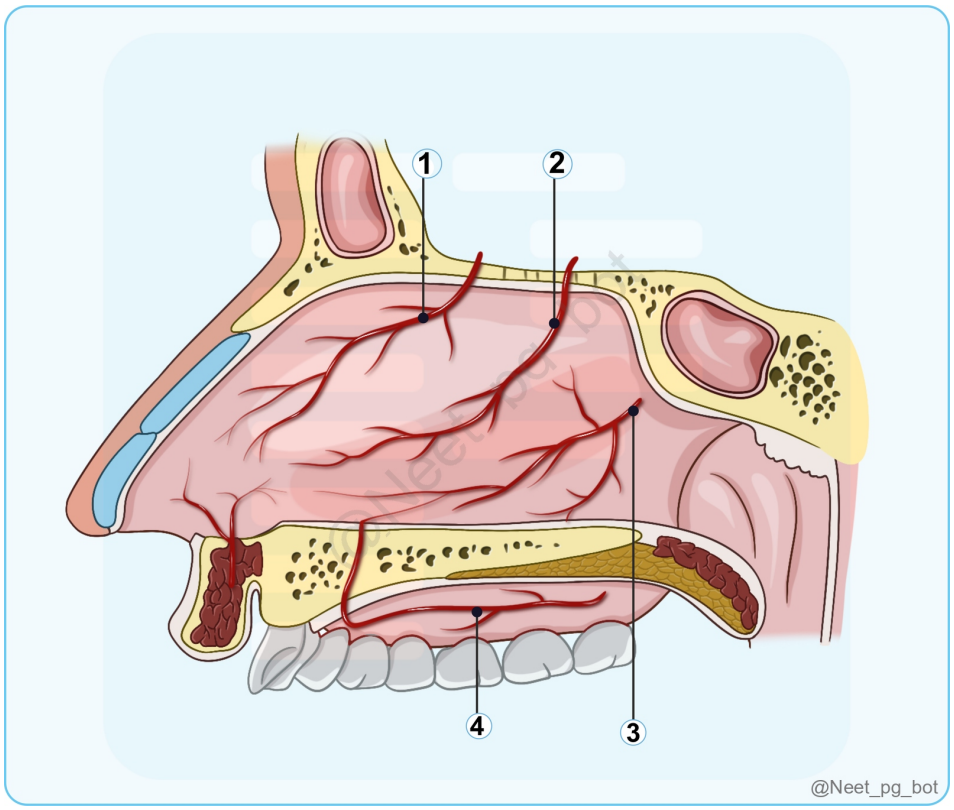
Q18: Identify the artery that is clinically recognised as the artery of epistaxis. (Q892064)

A. 2

B. 1

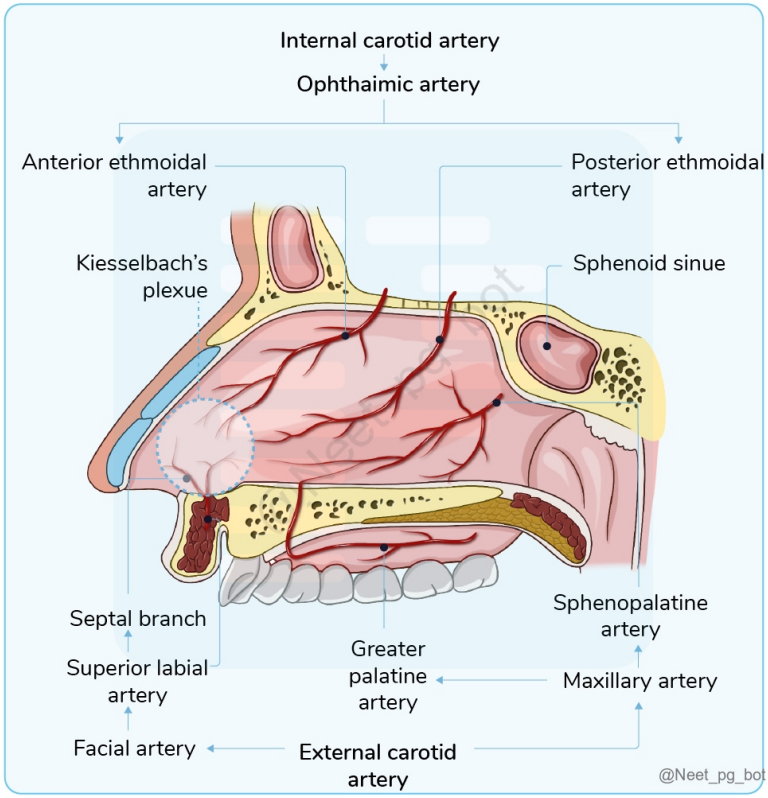
C. 4

D. 3



Correct Answer: D. 3

Explanation: The artery marked as 3 represents the Sphenopalatine artery , the terminal branch of the maxillary artery. It enters the nasal cavity through the sphenopalatine foramen at the posterior end of the middle turbinate. It is designated as the artery of epistaxis because it provides the majority of the blood supply to the nasal mucosa. In cases of intractable posterior epistaxis, endoscopic ligation of this specific vessel (ESPAL) is the definitive surgical management to control the haemorrhage. Other structures marked in the diagram are as follows: 1 - Anterior ethmoidal artery 2 - Posterior ethmoidal artery 4 - Greater palatine artery



References:

https://www.ncbi.nlm.nih.gov/books/NBK539758/

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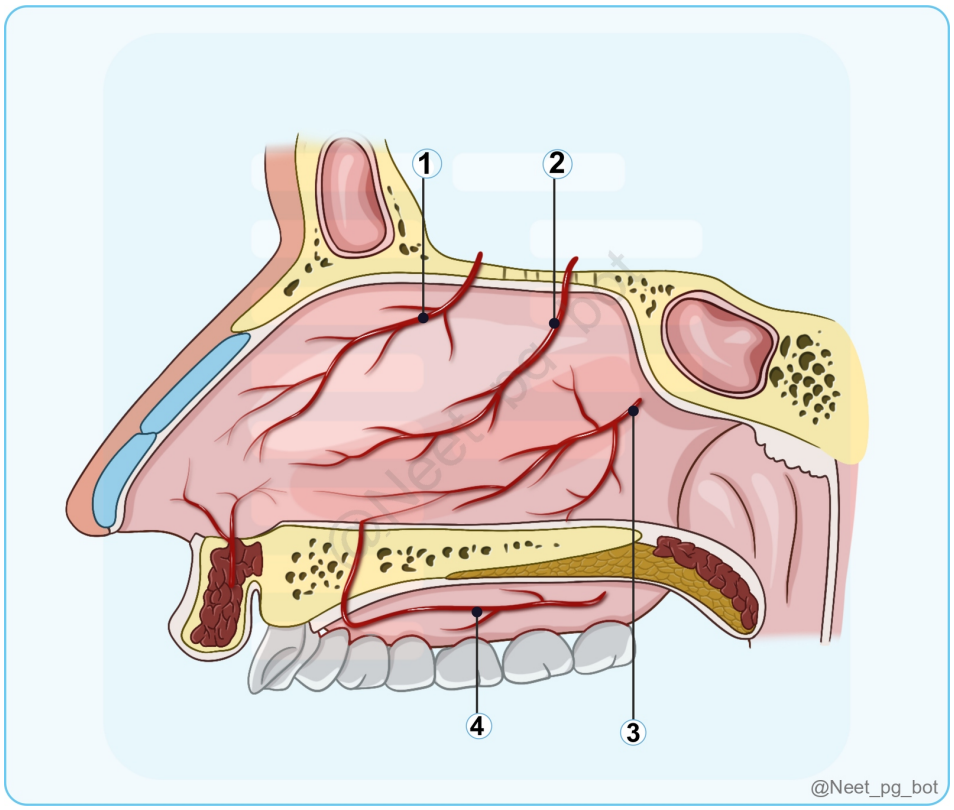
Q19: Which of the marked structures represent branches originating from the Internal Carotid Artery system? (Q892067)

A. 1 and 2 only

B. 3 and 4 only

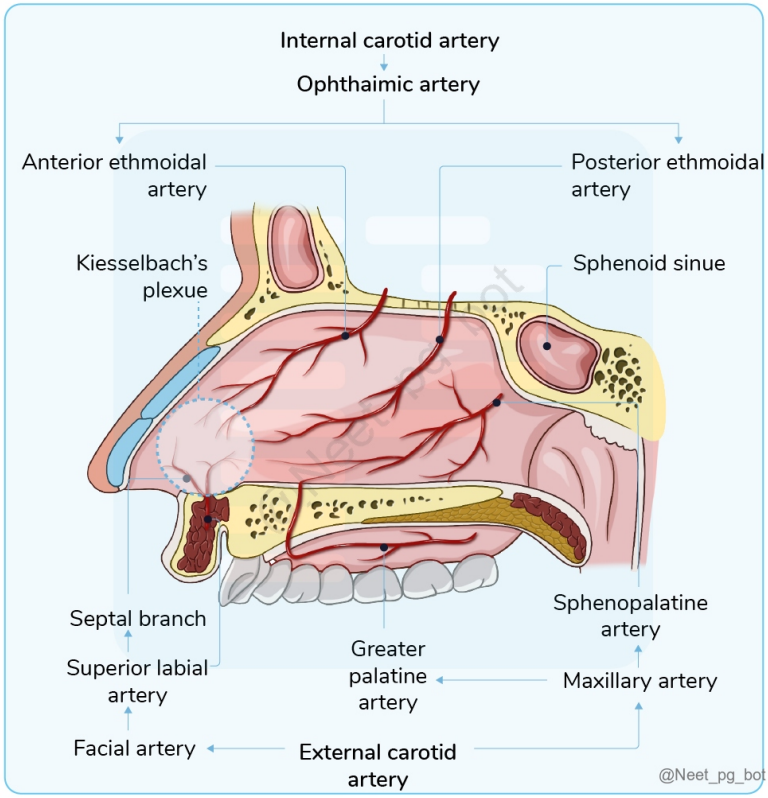
C. 1, 2, and 3 only

D. All of the above



Correct Answer: A. 1 and 2 only

Explanation: The internal carotid artery (ICA) contributes to the nasal vasculature via the ophthalmic artery, which enters the orbit and gives off the anterior ethmoidal (Marker 1) and posterior ethmoidal arteries (Marker 2) . Marker 1 and Marker 2 in the provided image correspond to the anterior ethmoidal and posterior ethmoidal arteries, which are the ICA-derived vessels supplying the superior nasal cavity. These arteries provide essential blood supply to the ethmoid air cells and the superior aspects of the nasal septum and lateral wall. External carotid system: Majority of the blood supply to the respiratory portion of the nasal cavity. Sphenopalatine (Marker 3 ruled out) Greater palatine (Marker 4 ruled out) Superior labial arteries.



References:

PL Dhingra's Diseases of Ear, Nose and Throat and Head and Neck Surgery, 8th Edition, Page 205-206.

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Q20: Which of the following is the most common systemic cause of epistaxis in elderly patients? (Q892069)

A. Medication

B. Carcinoma

C. Idiopathic

D. Hypertension

Correct Answer: D. Hypertension

Explanation: In the elderly population, Hypertension is recognized as the most common systemic cause of epistaxis. Chronic high blood pressure leads to degenerative changes in the arterial walls, such as arteriosclerosis,

which makes the vessels brittle and less capable of contracting. While local factors like a dry mucosa or trauma are frequent, the presence of hypertension often makes the bleeding more profuse, posterior in location, and significantly harder to control, requiring intensive management of both the bleeding and the blood pressure. Medication (Option A) : Use of anticoagulants or antiplatelet agents (e.g., Aspirin, Warfarin) is common in the elderly and can exacerbate bleeding; they are considered a predisposing factor rather than the primary systemic cause. Carcinoma (Option B) : Malignancy of the nose or paranasal sinuses can cause blood-stained discharge or epistaxis, but it is a less common cause compared to cardiovascular associations. Idiopathic (Option C) : Although idiopathic remains a frequent classification when no clear cause is found in the general population, the elderly demographic has a much stronger and specific association with hypertensive vascular disease.

References:

https://pubmed.ncbi.nlm.nih.gov/25558573/

https://www.researchgate.net/publication/270121675_Epistaxis_in_geriatric_patients

↑ *Back to this question in Part A*

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Q21: A 5-year-old child is brought to the clinic with a persistent, malodorous, blood-tinged discharge localized to the left nasal cavity. Physical examination is difficult due to the patient's irritability. What is the most probable diagnosis? (Q892071)

A. Nasal foreign body

B. Atrophic rhinitis

C. Fungal sinusitis

D. Rhinolith

Correct Answer: A. Nasal foreign body

Explanation: Clinical triad of unilateral nasal obstruction, foul-smelling discharge, and blood staining in a young child is highly suggestive of a Nasal Foreign Body . Children often insert small objects like beads, seeds, or foam into the nasal cavity, which triggers an intense mucosal inflammatory response and secondary bacterial infection. The resulting tissue necrosis and suppuration produce the characteristic fetid odor and occasionally lead to mucosal erosions that cause blood-tinged discharge. Atrophic rhinitis (Option B) causes a characteristic foul smell (ozena) and greenish crusting, but it is a bilateral process and more frequently diagnosed in young adults. Fungal sinusitis (Option C) can cause unilateral purulent discharge and sinus pressure, but it is a rare diagnosis in a healthy 4-year-old and presents with thicker, peanut-butter-like mucus. Rhinolith (Option D) occurs when a long-standing, neglected foreign body becomes a nucleus for the deposition of calcium and magnesium salts, forming a hard, stony mass that is more common in older children and adults.

References:

PL Dhingra’s Diseases of Ear, Nose and Throat and Head and Neck Surgery, 8th Edition, Page 189.

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• [02_Nose and Paranasal Sinuses] 018 Disorders Of Paranasal Sinuses

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[02_Nose and Paranasal Sinuses] 018 Disorders Of Paranasal Sinuses — Quick Jump

Q1 (p. 1041)	*Q2 (p. 1042)*	*Q3 (p. 1043)*	*Q4 (p. 1044)*	*Q5 (p. 1046)*	*Q6 (p. 1047)*
Q7 (p. 1048)	*Q8 (p. 1050)*	*Q9 (p. 1052)*	*Q10 (p. 1055)*	*Q11 (p. 1056)*	*Q12 (p. 1057)*
Q13 (p. 1058)	*Q14 (p. 1059)*	*Q15 (p. 1061)*	*Q16 (p. 1061)*	*Q17 (p. 1064)*	*Q18 (p. 1066)*
Q19 (p. 1067)	*Q20 (p. 1068)*	*Q21 (p. 1070)*	*Q22 (p. 1071)*		

Q1: A 12-year-old patient presents with a history of sinusitis and now has swollen, red eyelids, pain with eye movement,proptosis and restricted extraocular motion. There is no proptosis, and CT imaging shows diffuse inflammation of the orbital tissues without abscess formation. According to Chandler's classification, what is the most likely stage of this condition? (Q848139)

A. Preseptal cellulitis

B. Orbital cellulitis

C. Subperiosteal abscess

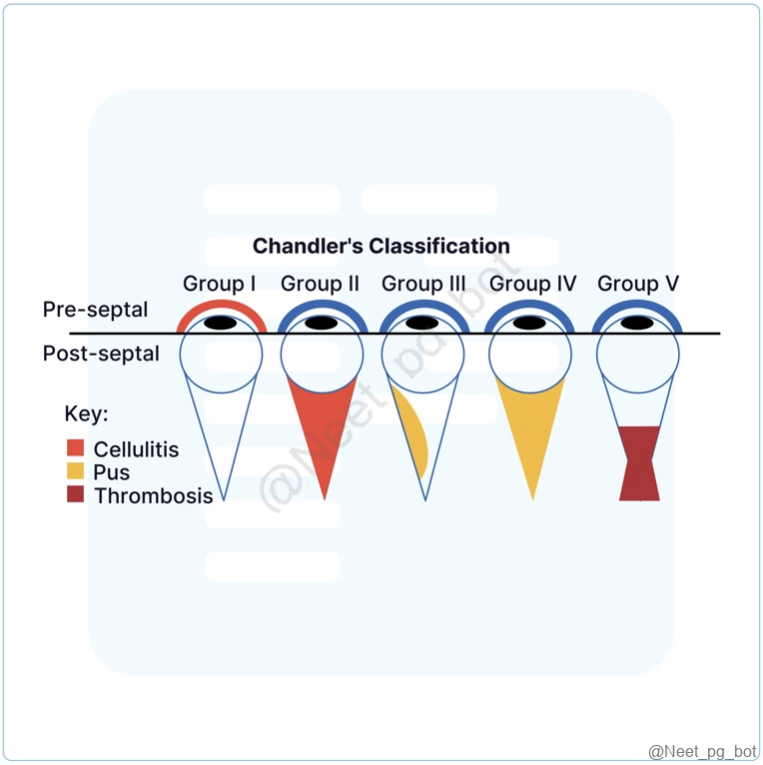
D. Orbital abscess

Correct Answer: B. Orbital cellulitis

■ *Listen (English)*

■ *Listen (Hindi)*

Explanation: Orbital cellulitis involves inflammation of the orbital tissues with pain on eye movement and restricted mobility, but without abscess formation . There is no proptosis or pus collection, which is consistent with Stage II of Chandler’s classification. Chandler’s Classification of Orbital Cellulitis Stage Description Key Features I - Preseptal cellulitis (Option A) Infection confined to the eyelid Eyelid swelling, no ocular involvement II - Orbital cellulitis (Option B) Infection spreads to the orbit Pain with eye movement, restricted mobility, no abscess formation III - Subperiosteal abscess (Option C) Pus collection beneath periosteum Localized pus, proptosis, pain on movement, swelling IV - Orbital abscess (Option D) Pus collection within the orbital tissues Severe proptosis, potential vision loss, risk of optic nerve damage V - Cavernous sinus thrombosis Spread of infection to the cavernous sinus Bilateral eye involvement, headache, cranial nerve palsies



References:

PL Dhingra's Diseases of Ear, Nose & Throat and Head and Neck Surgery, 8th Edition, Page 233

Bailey & Love’s Short Practice of Surgery, 28th Edition, Page 769

↑ *Back to this question in Part A*

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Q2: During a total maxillectomy for an extensive malignant tumor, the surgeon is required to remove several structures to ensure complete resection. Which of the following structures is not typically removed during this procedure? (Q848154)

A. Hard palate

B. Orbital floor

C. Ethmoid sinus

D. Zygomatic arch

Correct Answer: D. Zygomatic arch

■ *Listen (English)*

■ *Listen (Hindi)*

Explanation: During a total maxillectomy, the surgeon typically removes the hard palate and orbital floor and often involves areas around the ethmoid sinus. However, the zygomatic arch is not typically removed unless the tumor is specifically involved. Maxillectomy: Incision: A Weber-Fergusson incision or similar approach is often used to gain access. Type of Maxillectomy Structures Removed Medial Maxillectomy Middle turbinate Inferior turbinate Ethmoid sinus Maxillary sinus. Infrastructural Maxillectomy Extends to include the upper alveolar ridge & adjoining hard palate . Subtotal Maxillectomy Removal of the entire Maxilla. Total Maxillectomy Removal of all the above structures along with the Orbital Floor . Radical Maxillectomy Total maxillectomy plus Orbital exenteration. Bony box resection involves removing the maxilla as a unit containing the tumour to ensure complete excision of cancerous tissues. This approach maintains a clear boundary between the tumour and healthy tissues.

References:

Cumming’s Review of Otorhinolaryngology, Page - 98

Scott Brown ENT, 8th Edition, Pages 83, 85

↑ *Back to this question in Part A*

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Q3: A 65-year-old man presents with nasal obstruction, facial swelling, and proptosis. Imaging reveals a malignancy in the Sinonasal region. According to Lederman’s classification, which of the following tumor locations is categorized as mesostructural? (Q848148)

A. Invasion of the cribriform plate.

B. Extension to the respiratory part of the nasal cavity.

C. Extending to sphenoid sinus and the orbit.

D. Tumor involving the Alveolar process.

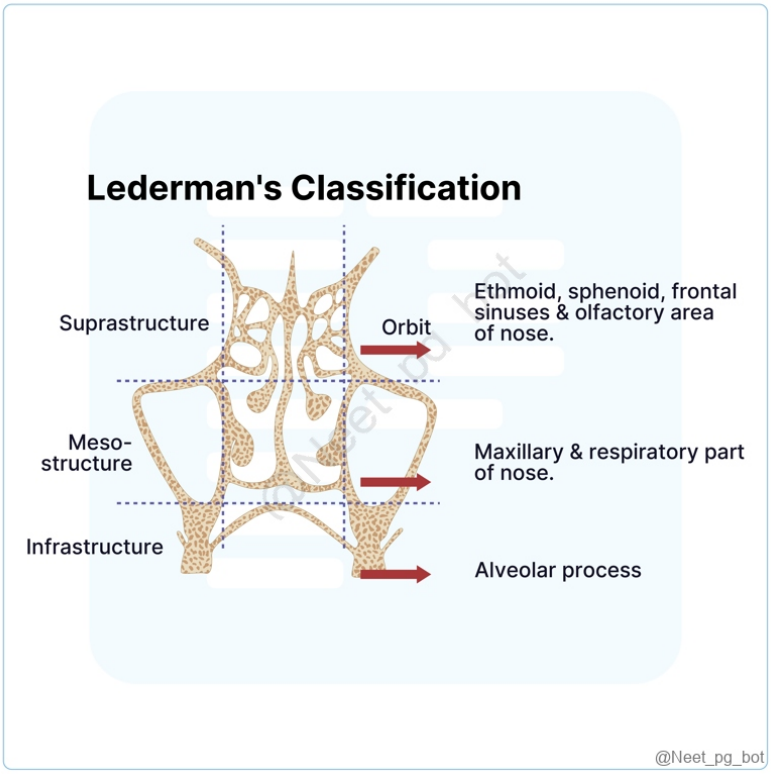
Correct Answer: B. Extension to the respiratory part of the nasal cavity.

■ *Listen (English)*

■ *Listen (Hindi)*

Explanation: Extension to the respiratory part of the nasal cavity is categorised as mesostructural in Lederman’s classification. Lederman's classification divides sinonasal malignancies based on their anatomical location into three categories using two horizontal reference lines: Horizontal Lines of Sebileau: These lines help delineate the categories by passing through the floors of the orbits and the antra. Vertical Lines: Extend down the medial walls of the orbit, separating the ethmoid sinuses and nasal fossa from the maxillary sinuses. Areas Structures Involved

Prognosis Suprastructure Ethmoid Sphenoid (Option C) Frontal sinuses Olfactory area of the nose (Option A) . Poor prognosis Mesostructure Maxillary sinus Respiratory part of the nasal cavity. Better prognosis than suprastructural category. Infrastructure Alveolar process (Option D) of maxilla Better Prognosis



References:

Diseases of Ear, Nose, Throat, PL Dhingra, 8th Edition, Pages 243,244

↑ *Back to this question in Part A*

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Q4: A 62-year-old man presents with nasal obstruction and facial swelling. Imaging shows a malignancy in the maxillary sinus. The oncologist uses Ohngren's line to assess the prognosis. According to Ohngren's line, which tumour location indicates a better prognosis? (Q848147)

A. Above Ohngren's line

B. Below Ohngren's line

C. Along the Ohngren's line

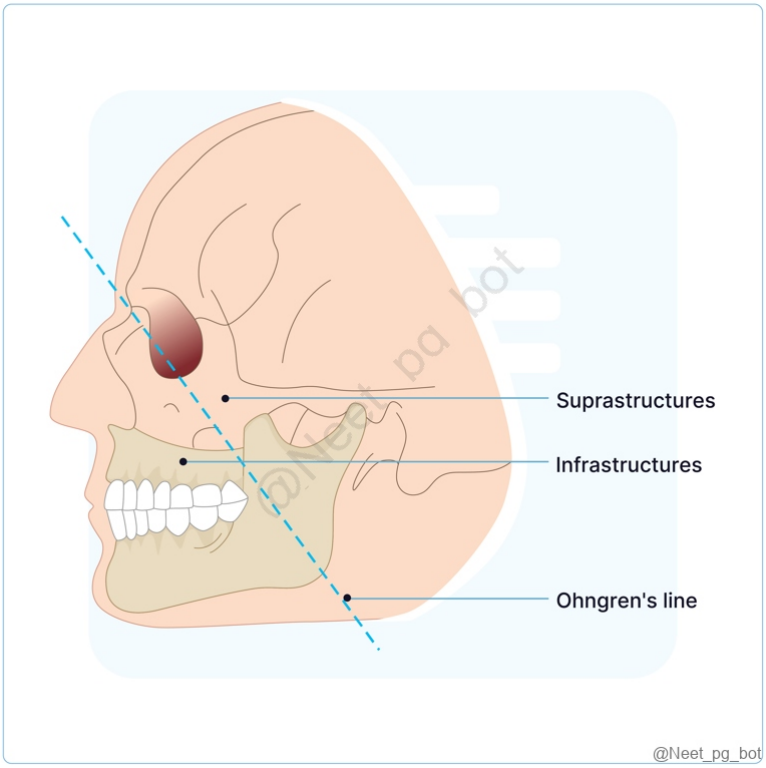
D. Involvement of Frontal sinus

Correct Answer: B. Below Ohngren’s line

■ *Listen (English)*

■ *Listen (Hindi)*

Explanation: Tumours below Ohngren’s line generally have a better prognosis than those above the line. Fig: Diagrammatic representation of Ohngren's line Ohngren's Line is an imaginary anatomical plane used in the assessment of sinonasal malignancies (Maxillary). It extends from the medial canthus of the eye to the angle of the mandible. Helps in classifying the extent and prognosis of sinonasal tumors. Ohngren’s Classification: Suprastructural Tumors (Above Ohngren’s Line): Tumors located above the line, which includes the ethmoid and frontal sinuses . Generally have a poorer prognosis . The involvement of the ethmoid and frontal sinuses often indicates a more advanced disease. Intrastructural Tumors (Below Ohngren’s Line): Tumors located below Ohngren's line, primarily involving the maxillary sinus and nasal cavity. Tumors confined below this line tend to have a better prognosis. They are usually less advanced and less likely to have spread extensively compared to those above the line.



References:

Diseases of Ear, Nose, Throat, PL Dhingra, 8th Edition, Page 242

↑ *Back to this question in Part A*

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Q5: A 55-year-old male carpenter presents with symptoms of persistent nasal congestion, facial swelling, and occasional nasal bleeding. He has a long history of working in the hardwood furniture industry for 30 years. CT scan reveals findings, as shown in the image. Which type of carcinoma is he most at risk for? (Q848146)

A. Squamous Cell Carcinoma

B. Adenocarcinoma

C. Small Cell Carcinoma

D. Basal Cell Carcinoma

Correct Answer: B. Adenocarcinoma

■ *Listen (English)*

■ *Listen (Hindi)*

Explanation: Long-term exposure to hardwood dust has been linked to an increased risk of developing adenocarcinoma , particularly in the sinuses. In contrast, exposure to softwood dust is more specifically associated with an increased risk of squamous cell carcinoma. Malignant Neoplasms of Paranasal Sinuses: Common Sites: Maxillary (M/C), followed by ethmoid, frontal, and sphenoid sinuses. Aetiology: Occupational Risks: Wood dust impairs mucociliary clearance, increasing carcinogenic risk. Hardwoods: Increase risk of adenocarcinoma.

Softwoods: Associated with squamous cell carcinoma (SCC). Nickel Exposure: Increases the risk of sinonasal SCC by 250-fold. Others: Chromium, Polycyclic Hydrocarbons, Aflatoxin, Mustard Gas Squamous Cell Carcinoma (Option A): While SCC is the most common sinonasal malignancy overall, hardwood dust exposure specifically increases the risk for adenocarcinoma, not SCC. Small Cell Carcinoma (Option C): Small cell carcinoma is a rare neuroendocrine tumor in this region and has no established occupational link to hardwood dust exposure. Basal Cell Carcinoma (Option D): Basal cell carcinoma is primarily a skin cancer and is exceedingly rare in the sinonasal mucosa; it has no association with hardwood dust.

References:

PL Dhingra's Diseases of Ear, Nose & Throat and Head and Neck Surgery, 8th Edition, Page 240

Scott-Brown's Otorhinolaryngology and Head & Neck Surgery, 8th Edition, Page 74

↑ *Back to this question in Part A*

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Q6: A 45-year-old patient presents with nasal obstruction, epistaxis, and anosmia. A CT scan reveals an invasive mass in the nasal cavity, and a biopsy confirms the diagnosis of olfactory neuroblastoma. Which classification system is commonly used to stage olfactory neuroblastoma? (Q848145)

A. Kadish Classification

B. Breslow Classification

C. Ann Arbor Staging classification

D. Gleason Classification

Correct Answer: A. Kadish Classification

■ *Listen (English)*

■ *Listen (Hindi)*

Explanation: Kadish Classification is the most widely used system for staging olfactory neuroblastoma. Olfactory Neuroblastoma (Esthesioneuroblastoma): Originates from the Olfactory Epithelium in the upper third of the nasal cavity which is characterised by neuroblastic differentiation and can be locally aggressive with a tendency to invade adjacent structures. Bimodal peaks of incidence (10-20 years & 50-60 years) Symptoms: Early Symptoms: Unilateral nasal obstruction and epistaxis (nosebleeds). Advanced Symptoms: Tumour invades the orbit or surrounding structures, causing proptosis, headache, epiphora, diplopia, and blurred vision. Metastasis: Lymph node metastases in the neck can occur in 10-15% of cases. Diagnosis: Intranasal or Endoscopic Examination: Reveals a friable, cherry-red, polypoidal mass Highly vascular, so biopsy should be preceded by imaging studies. Imaging Studies: CT Scan: Shows tumour extent, and possible erosion of cribriform plate/orbital wall. MRI: Detects orbital or intracranial extension. Biopsy: Confirms the tumour type; it may be low-grade with

pseudorosette formation or high-grade with nuclear pleomorphism but no rosette formation. Treatment: Craniofacial resection, with or without preoperative radiation or chemotherapy, followed by adjuvant radiation for advanced cases. Kadish Staging System (with Morita's Modification) Stage A Tumour limited to the nasal cavity. Stage B Tumour involving the nasal cavity and sinuses. Stage C Tumour extending beyond the nasal and paranasal sinuses. Stage D Tumor with metastasis to cervical nodes or distant sites. Other Staging Systems: Morita's Staging System Dulguerov and Calcaterra Staging System Breslow Classification (Option B) is used for staging melanoma based on the thickness of the tumor. Ann Arbor Staging Classification (Option C) is used for staging lymphomas. Gleason Classification (Option D) is used for grading prostate cancer based on the pattern of tumor cells.

References:

Diseases of Ear, Nose, Throat, PL Dhingra, 8th Edition, Page 239

Scott Brown ENT, 8th Edition, Page - 80

↑ *Back to this question in Part A*

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Q7: A 32-year-old patient presents with a history of frontal headache, noticeable swelling on the forehead, and a recent episode of sinusitis. Physical examination reveals a soft, doughy swelling over the frontal bone, and a CT scan shows a subperiosteal abscess with associated bone erosion. What is the likely diagnosis? (Q848144)

A. Frontal Sinus Mucocele

B. Pott's Puffy Tumour

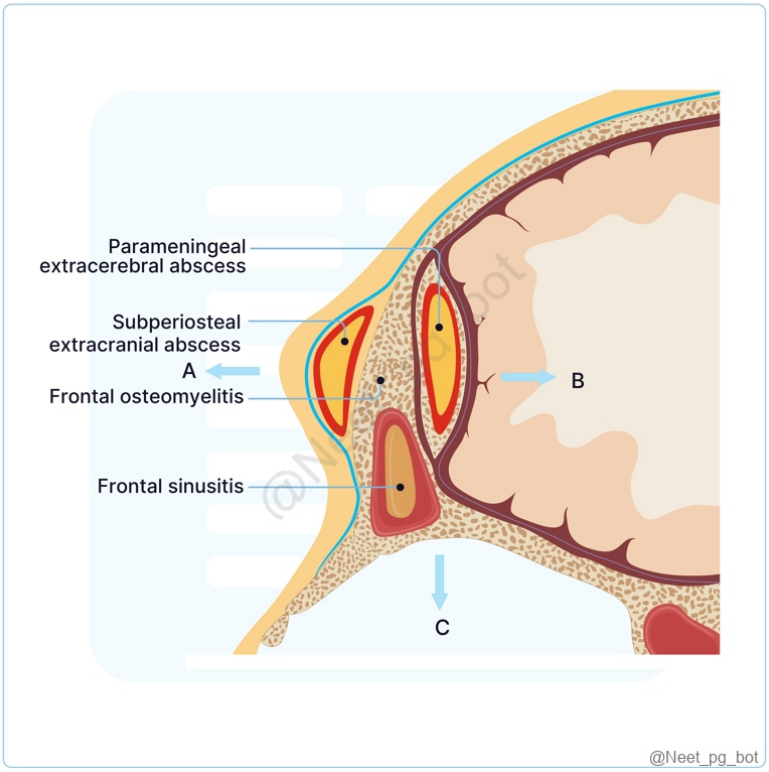
C. Frontal Sinus Abscess

D. Frontal Sinus Osteoma

Correct Answer: B. Pott's Puffy Tumour

- *Listen (English)*
- *Listen (Hindi)*

Explanation: The Patient's acute presentation, doughy swelling , and subperiosteal abscess with bone erosion are classic features of Pott's puffy tumor. Pott's Puffy Tumour: It refers to a subperiosteal abscess or cellulitis of the frontal bone, commonly associated with frontal osteomyelitis. Typically presents with headache, swelling, and sometimes a discharging frontal fistula. Fig: Pott's Puffy Tumour Pus Formation: This can occur externally under the periosteum (resulting in a soft, doughy swelling) or internally as an extradural abscess. Complications: Intracranial Spread : The infection can spread posteriorly, potentially leading to intracranial complications, reported in 30% to 60% of cases. This spread can occur via: Erosion of the posterior table of the frontal bone Septic thrombophlebitis through diploic veins Frontal Sinus Mucocele (Option A) is a cystic lesion caused by obstructed sinus drainage, leading to mucus accumulation. It presents with gradual swelling, unlike the acute, doughy swelling seen in Pott's puffy tumour. Frontal Sinus Abscess (Option C) involves localized pus formation and may cause swelling but lacks the diffuse, soft, subperiosteal characteristics of Pott's puffy tumour. Frontal Sinus Osteoma (Option D) is a benign bone tumour that usually causes localized swelling or obstruction of the sinus and is more often asymptomatic or causes chronic symptoms rather than acute infection.



References:

Diseases of Ear, Nose, Throat, PL Dhingra, 8th Edition, Pages 232,233

Scott Brown ENT, 8th Edition, Page 1122

↑ *Back to this question in Part A*

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Q8: hMatch the following conditions with their most commonly affected sinuses: Conditions Most Commonly Affected Sinus 1. Osteoma a. Maxillary sinus 2. Fibrous Dysplasia b. Ethmoid sinus 3. Chronic Rhinosinusitis with Nasal Polyps c. Frontal sinus (Q848143)

A. 1-a, 2-b, 3-c

B. 1-c, 2-a, 3-b

C. 1-b, 2-c, 3-a

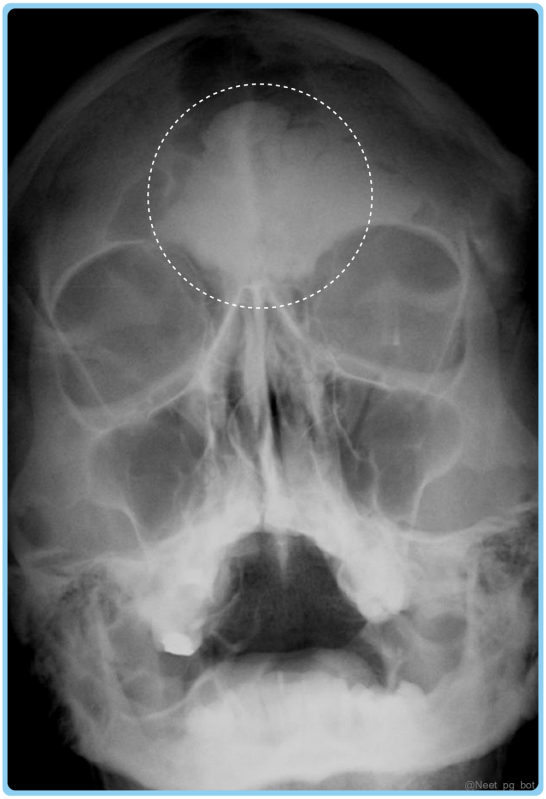
D. 1-a, 2-c, 3-b

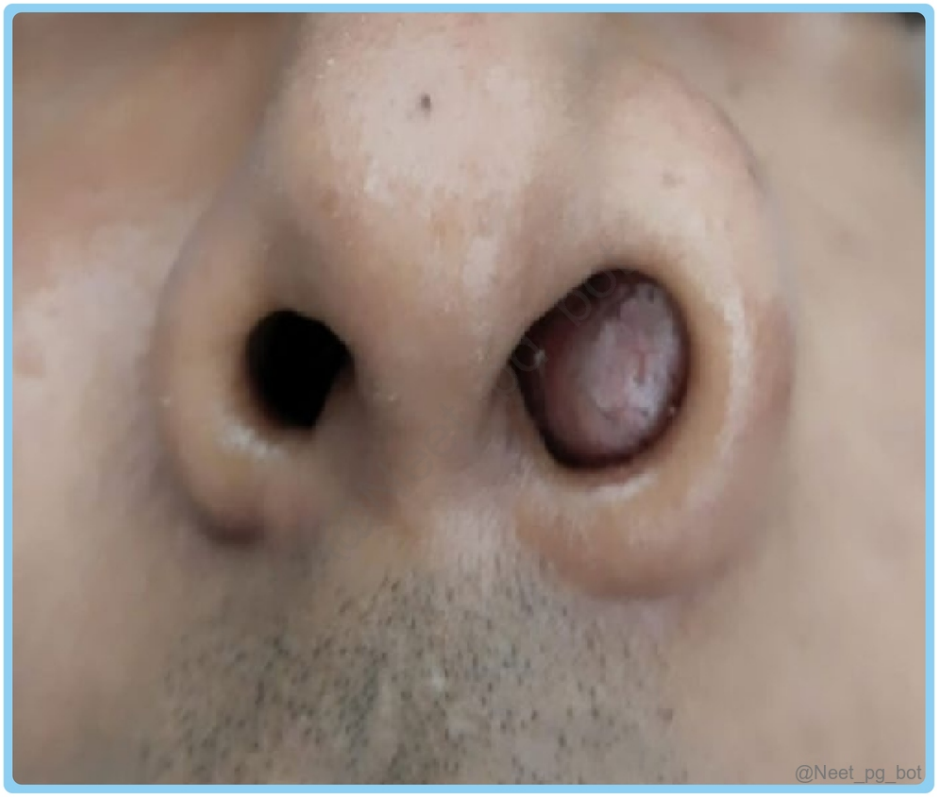
Correct Answer: B. 1-c, 2-a, 3-b

■ *Listen (English)*

■ *Listen (Hindi)*

Explanation: Osteoma: Most common in the frontal sinus. Fig: X-ray showing Osteoma in frontal sinus Fibrous Dysplasia: Most common in the maxillary sinus. Chronic Rhinosinusoitis with Polyps: Most common in the ethmoid sinuses. Condition Definition Most Common Site Clinical Features Management Osteoma Benign, slow-growing bony tumor affecting the paranasal sinuses. Frontal sinus (most common), ethmoid, maxillary Often asymptomatic; may cause sinus obstruction, mucocele formation, pressure symptoms (headache, orbital involvement). Observation for asymptomatic cases; surgical excision for deformity, obstruction, or symptomatic cases. Fibrous Dysplasia Benign fibro-osseous condition where bone is replaced by fibrous tissue, causing structural weakness and deformity. Maxillary sinus (most common), ethmoid, frontal Facial disfigurement, nasal obstruction, eye displacement, facial pain, and swelling. Chronic Rhinosinusitis with Nasal Polyps Chronic inflammatory condition with nasal polyps formation. Ethmoid sinuses (most common) Nasal obstruction, postnasal drip, anosmia/hyposmia, facial pressure, secondary infections, erosion into orbit or brain. Medical management (corticosteroids, antihistamines, nasal irrigations); surgery (FESS) for obstructive polyps.





References:

PL DhingraDiseases of Ear, Nose, Throat, 8th Edition, Page 201,240

↑ *Back to this question in Part A*

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Q9: A 55-year-old male presents with unilateral nasal obstruction, epistaxis, and a mass in the right nasal cavity. Nasal endoscopy reveals a mass arising from the lateral nasal wall with displacement of the middle turbinate. Biopsy confirms the diagnosis of inverted papilloma. All of the following are true regarding inverted papilloma except? (Q848142)

A. It is malignant at presentation.

B. It is associated with Human Papillomavirus type 6 and11.

C. The primary treatment involves endoscopic surgical excision.

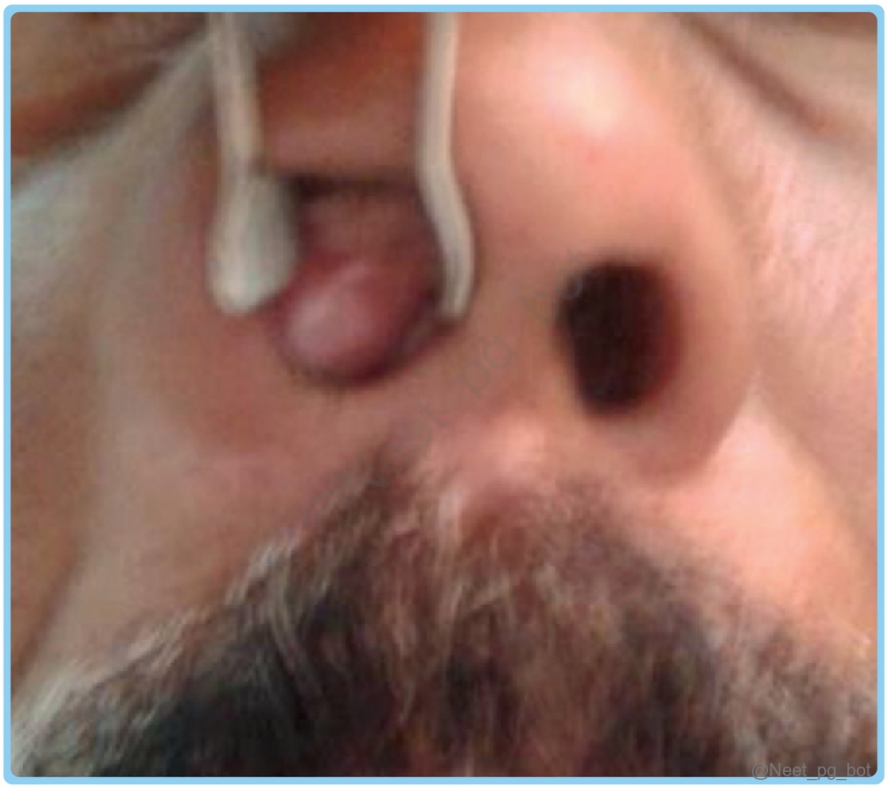
D. It commonly arises from the non-olfactory mucosa.

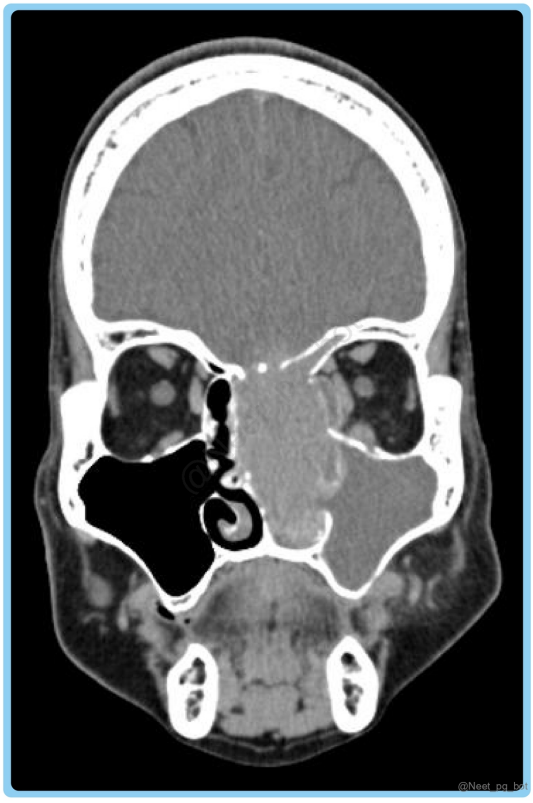
Correct Answer: A. It is malignant at presentation.

■ *Listen (English)*

■ *Listen (Hindi)*

Explanation: Inverted papilloma is benign at presentation but carries a risk of malignant transformation into squamous cell carcinoma in 10-15% of cases. Inverted Papilloma Origin Arises from the non-olfactory mucosa (Schneiderian membrane) of the nasal cavity and paranasal sinuses Other Names Transitional cell papilloma, Ringertz tumor, Schneiderian papilloma Most Common Site Lateral wall of the nose , particularly in the middle meatus. Growth Pattern Inward growth of hyperplastic tissue toward the stroma. Association with HPV Linked to Human Papillomavirus (HPV) infection (particularly types 6 and 11) Risk of Malignancy Associated with squamous cell carcinoma in 10-15% of cases. Symptoms Unilateral nasal obstruction, epistaxis (nosebleeds), and possible recurrent sinus infections. Diagnosis Endoscopic examination and biopsy for histopathological confirmation. Treatment Primary treatment is complete endoscopic surgical excision to minimize the risk of recurrence and malignant transformation.





References:

Diseases of Ear, Nose, Throat - PL Dhingra, 8th edition, Page 236,237.

↑ *Back to this question in Part A*

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Q10: A 45-year-old male with a history of chronic sinusitis presents with worsening frontal headaches, orbital pain, diplopia, and ptosis. Examination reveals limited eye movements, decreased sensation over the forehead, and mild proptosis. Superior Orbital Fissure Syndrome (SOFS) is suspected. Which cranial nerve is not involved in SOFS? (Q848141)

A. CN II

B. CN III

C. CN IV

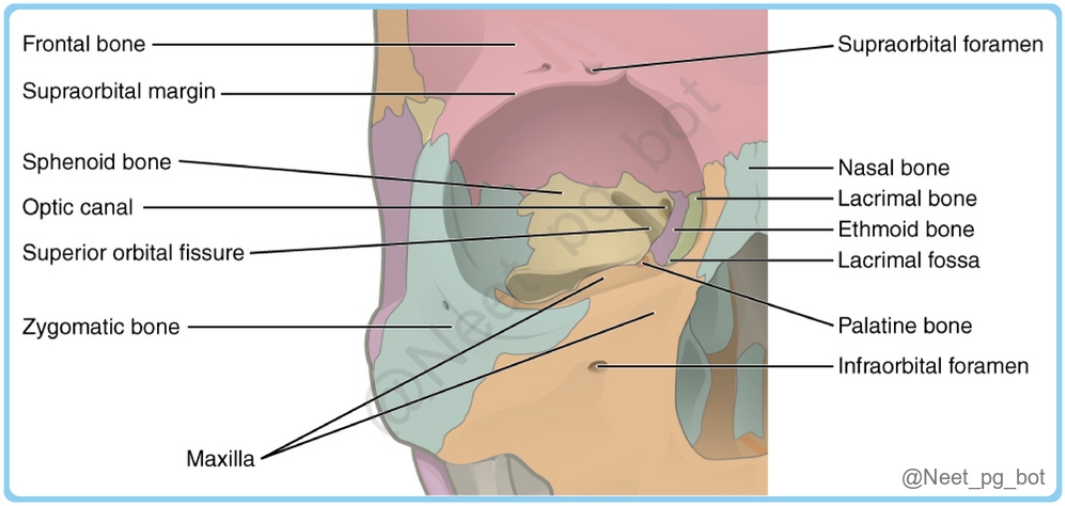
D. CN VI

Correct Answer: A. CN II

■ *Listen (English)*

■ *Listen (Hindi)*

Explanation: Superior Orbital Fissure Syndrome (SOFS) occurs when the structures passing through the superior orbital fissure are compromised, typically due to infection, trauma, or tumors. One of the most common sources of infection is the sphenoid sinus, which lies close to the fissure. Fig: Superior Orbital Fissure Anatomy Feature Superior Orbital Fissure Syndrome (SOFS) Location Superior orbital fissure (between lesser and greater wings of sphenoid bone) Affected Structures Cranial Nerves (CN III, IV, VI,V 1) Common Causes Infections (sphenoid sinusitis, cavernous sinus thrombosis) Tumors (meningioma, nasopharyngeal carcinoma, metastases) Trauma (sphenoid fractures) Symptoms Ophthalmoplegia (eye movement paralysis), ptosis (drooping eyelid), diplopia (double vision), frontal headache. Potential Complications Vision loss, impaired eye movement, facial numbness or pain



References:

Diseases of Ear, Nose, Throat, PL Dhingra, 8th Edition, Pages 233,246

Harrison's Principles of Internal Medicine, 21st edition, Pages 3439,3444

↑ *Back to this question in Part A*

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Q11: A 35-year-old patient presents with a recent history of sinusitis. The patient has sudden-onset high fever, severe headache, eyelid swelling, and restricted eye movements. Examination reveals bilateral proptosis and sequential cranial nerve palsies. What is the most likely diagnosis? (Q848140)

A. Orbital cellulitis

B. Cavernous sinus thrombosis

C. Subperiosteal abscess

D. Preseptal cellulitis

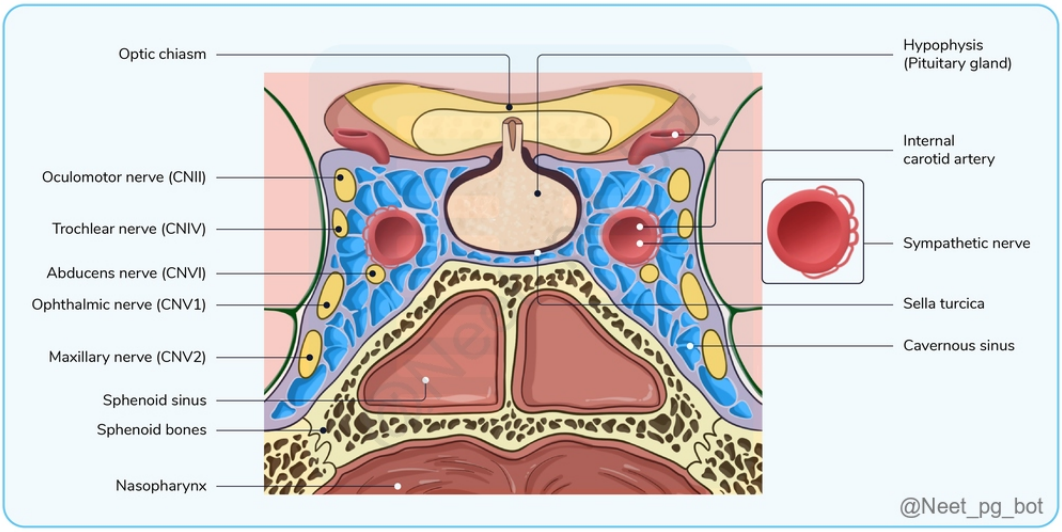
Correct Answer: B. Cavernous sinus thrombosis

■ *Listen (English)*

■ *Listen (Hindi)*

Explanation: Cavernous sinus thrombosis characterized by sudden onset of fever, headache, and bilateral involvement due to the midline location of the cavernous sinus. It commonly presents with sequential cranial nerve palsies (affecting CN III, IV, V, and VI), proptosis, and potentially severe visual disturbances. Fig: Cavernous

sinus Differences Between Cavernous Sinus Thrombosis and Orbital Cellulitis: Feature Cavernous Sinus Thrombosis Orbital Cellulitis (Option A) Onset Sudden, high fever and headache. Gradual, starts with eyelid swelling. Involvement Frequently bilateral Typically unilateral Cranial Nerve Involvement Sequential palsy of CN III, IV, V1, VI It may involve cranial nerves Proptosis Bilateral proptosis common Usually unilateral proptosis Visual Loss More likely to cause severe visual loss It can cause visual impairment but is less severe Source of Infection Broad (sinusitis, pharyngitis, ear, orbit) Typically, it is from ethmoid sinusitis. Subperiosteal abscess (Option C) presents with localised abscess formation and may cause proptosis, but it is not associated with bilateral eye involvement or cranial nerve palsies. Preseptal cellulitis (Option D) is a more superficial infection affecting the tissues anterior to the orbital septum, causing eyelid swelling but without affecting eye movements or cranial nerves.



References:

Diseases of Ear, Nose, Throat, PL Dhingra, 8th Edition, Pages 233-234

↑ *Back to this question in Part A*

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Q12: A 32-year-old patient has been experiencing nasal congestion, facial pain, and nasal discharge for one week. Examination reveals maxillary sinus tenderness and nasal obstruction. The patient reports similar episodes resolving within 10-14 days. What is the most common cause of this condition? (Q848123)

A. Deviated nasal septum

B. Allergic fungal sinusitis

C. Viral infection

D. Aspirin sensitivity

Correct Answer: C. Viral infection

■ *Listen (English)*

■ *Listen (Hindi)*

Explanation: The symptoms suggest acute sinusitis , most commonly caused by a viral infection from upper respiratory viruses like rhinovirus, influenza, or parainfluenza. Allergic fungal sinusitis (Option B) is typically associated with chronic sinusitis, not acute episodes, and is more common in patients with atopy or asthma. Chronic Sinusitis is defined as inflammation of the sinuses and nasal passages lasting more than 12 weeks despite medical treatment. It is characterized by symptoms such as nasal obstruction, facial pain or pressure, nasal discharge, and a reduction in the sense of smell. Causes of Chronic Sinusitis Category Contributing Factors Patient Factors Anatomic structural deformities : Obstruction of sinus ostia (e.g., deviated septum, concha bullosa, anatomical variations) (Option A) Lifestyle factors : Smoking, snuff dipping, prolonged use of intranasal medications Immune Deficiency Primary : IgG deficiency, primary ciliary dyskinesia, cystic fibrosis Acquired : HIV, prolonged steroid use, chemotherapy, immunosuppressants in organ transplant patients, leukaemia Aspirin Sensitivity Sensitivity to aspirin causing chronic airway inflammation. (Option D) Environmental Factors Aeroallergens : Allergic rhinitis, asthma, exposure to allergens (dust, pollen, moulds) Toxins and Chemicals : Exposure to pollution, occupational chemicals, and toxic gases. Pathogens Bacteria (aerobic and anaerobic), fungi, mycobacteria

References:

Diseases of Ear, Nose, Throat, PL Dhingra, 8th Edition, Page 226.

↑ *Back to this question in Part A*

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Q13: A 32-year-old patient presents with sinusitis symptoms, including severe headache, nasal congestion, and fever. Examination reveals proptosis and restricted eye movements. A CT scan shows inflammation of the ethmoid sinuses. Which of the following is not a potential complication of sinusitis with orbital involvement? (Q848138)

A. Orbital Cellulitis

B. Subperiosteal abscess

C. Orbital abscess

D. Sinus mucocele

Correct Answer: D. Sinus mucocele

■ *Listen (English)*

■ *Listen (Hindi)*

Explanation: A sinus mucocele is a chronic cyst filled with mucus, usually due to blocked sinus drainage. It typically results from chronic sinusitis rather than an acute infection and does not involve acute orbital complications like proptosis or restricted eye movement. Orbital Complications of Sinusitis: Inflammatory Oedema of Lids Subperiosteal Abscess (Option B) Orbital Cellulitis (Option A) Orbital Abscess (Option C) Superior Orbital Fissure Syndrome : Affects cranial nerves III, IV, VI and ophthalmic division of cranial nerve V, leading to pain and paralysis. Orbital Apex Syndrome: Includes symptoms of superior orbital fissure syndrome with additional involvement of the optic nerve and maxillary division of the trigeminal nerve.

References:

Diseases of Ear, Nose, Throat, PL Dhingra, 8th Edition, Pages 231-234

↑ *Back to this question in Part A*

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Q14: A 55-year-old diabetic patient presents with facial swelling and necrotic nasal tissue, as shown in the image & visual changes. A diagnosis of acute invasive fungal rhinosinusitis (AIFR) is suspected. Which imaging modality is most appropriate for evaluating the extent of orbital/Intracranial involvement? (Q848132)

A. Non-contrast CT

B. PET Scan

C. CE-MRI

D. CECT

Correct Answer: C. CE-MRI

■ *Listen (English)*

■ *Listen (Hindi)*

Explanation: MRI with contrast is superior for assessing soft tissue involvement, including the extent of orbital and intracranial disease spread. It provides detailed images of the orbit, brain, and soft tissues, making it ideal for complex cases of AIFR with potential intracranial involvement. Mucormycosis Description A severe fungal infection primarily affects the nose and sinuses but can quickly spread to the orbit, cribriform plate, meninges, and brain. The fungus invades arteries, causing endothelial damage, thrombosis, and rapid tissue destruction. Characteristic Findings Black necrotic material in the nasal cavity, eroding the nasal septum, hard palate, and turbinates. Black turbinate sign is seen on contrast enhanced MRI. Diagnosis Endoscopy: Shows pale mucosa early, progressing to black crusts and sloughing. Biopsy: Multiple sites should be sampled for fungal identification; potassium hydroxide preparation is the gold standard for confirming invasive features. Imaging CT : Detects bony destruction and initial assessment of sinus involvement. CECT: CECT provides better delineation of soft tissue structures, allowing for clearer identification of mucosal thickening, sinus opacification, and bony destruction. MRI : Evaluates soft tissue invasion, assesses the extent of extra-sinus disease, and identifies complications, especially in the orbit and brain .

References:

Diseases of Ear, Nose, Throat, PL Dhingra, 8th Edition, Pages 183,184

Scott Brown ENT, 8th Edition, Page - 211

↑ *Back to this question in Part A*

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Q15: A 45-year-old patient is evaluated for suspected allergic fungal rhinosinusitis (AFRS) using the Bent and Kuhn diagnostic criteria. Which of the following is not part of the Bent and Kuhn Major criteria for diagnosing AFRS? (Q848131)

A. Nasal Polyposis

B. Eosinophilic mucin without fungal invasion

C. Positive fungal cultures

D. Positive Fungal stain

Correct Answer: C. Positive fungal cultures

■ *Listen (English)*

■ *Listen (Hindi)*

Explanation: The presence of fungal growth in cultures is a minor criterion, not a major one. Bent and Kuhn Diagnostic Criteria for AFRS Major Criteria (must meet all) Minor Criteria (supportive) Type I hypersensitivity (history, skin test, or in vitro testing) Nasal polyposis (Option A) Characteristic CT findings Eosinophilic mucin without fungal invasion (Option B) Positive fungal stain (Option D) Asthma Unilateral disease Radiological bone erosion Fungal cultures (Option C) Serum eosinophilia Charcot-Leyden crystals

References:

Scott Brown ENT, 8th Edition, Page - 212

↑ *Back to this question in Part A*

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Q16: A 45-year-old patient presents with symptoms such as a persistent headache and pain in the forehead region, indicating possible frontal sinusitis. Which imaging view is most suitable for evaluating the frontal sinuses in this situation? (Q848130)

A. Caldwell’s view

B. Water’s view

C. Lateral view

D. Basal view

Correct Answer: A. Caldwell’s view

■ *Listen (English)*

■ *Listen (Hindi)*

Explanation: Caldwell’s view, also known as the occipitofrontal view, is specifically designed to visualise the frontal sinuses best. Imaging Views of the Paranasal Sinuses: X-Ray View Position Structures Seen Waters’ View (Occipitomental View or Nose-Chin Position): (Option B) The patient's nose and chin touch the film while the X-ray beam is projected. For enhanced visualisation, an open-mouth view is preferred to display the sphenoid sinus (Pierre’s View) Maxillary Sinuses: Best visualised. Frontal Sinuses Sphenoid Sinus: Visible if the mouth is open (Pierre’s View) Zygoma & Zygomatic Arch Nasal Bone Frontal Process of Maxilla Superior Orbital Fissure Infratemporal Fossa Caldwell View (Occipitofrontal View or Nose-Forehead Position): The patient’s nose and forehead touch the film & X-ray beam projected 15-20° caudally. Frontal Sinuses: Best visualised. Ethmoid Sinuses Maxillary Sinuses Frontal Process of Zygoma Zygomatic Process of Frontal Bone Superior Margin of Orbit and Lamina Papyracea Superior Orbital Fissure Lateral View: (Option C) The lateral side of the skull is against the film with the X-ray beam projected perpendicular from the other side. Sphenoid Sinus: Anterior and posterior extent. Frontal Sinus (highest sinus on lateral view) Maxillary Sinus Sella Turcica Zygoma and Zygomatic Arch Mandible: Including coronoid and condyloid processes Submentovertical (Basal) View: (Option D) The X-ray beam is projected from below the chin towards the top of the head. Sphenoid Sinus Posterior Ethmoid Sinuses Maxillary Sinuses Right and Left Oblique Views: To view the posterior ethmoid sinuses and the optic foramen of the corresponding side. Structures Seen: Posterior ethmoid sinuses and optic foramen.

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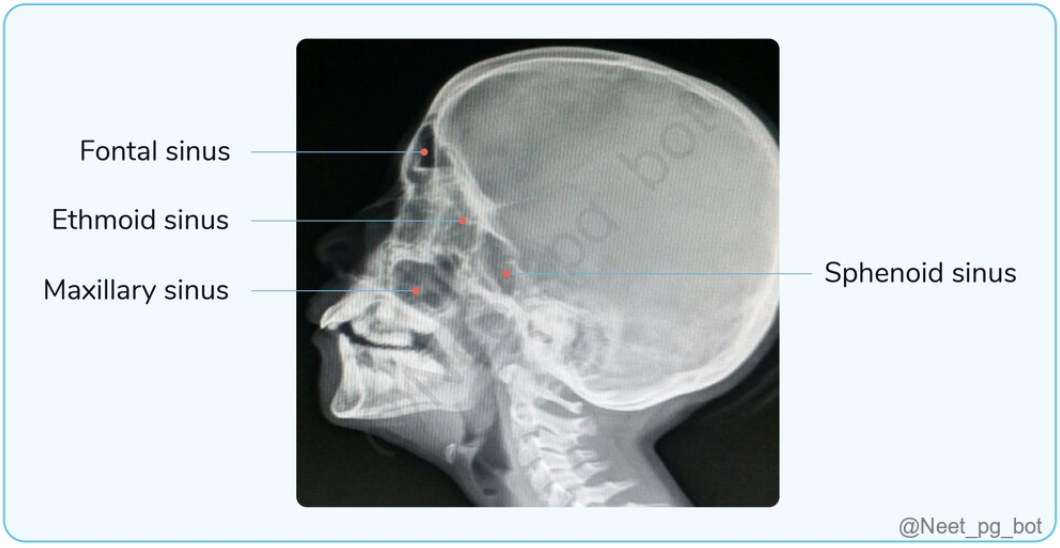
Fontal sinus
Ethmoid sinus
Maxillary sinus
Sphenoid sinus
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References:

PL Dhingra Diseases of Ear, Nose, Throat, 8th Edition, Page 509 - 512

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Q17: A patient who underwent Functional Endoscopic Sinus Surgery (FESS) presents with persistent nasal discharge and facial pain. During the follow-up, the surgeon considers various potential complications. Which of the following is not a common complication of FESS? (Q848129)

A. Orbital injury

B. Optic nerve injury

C. CSF leak

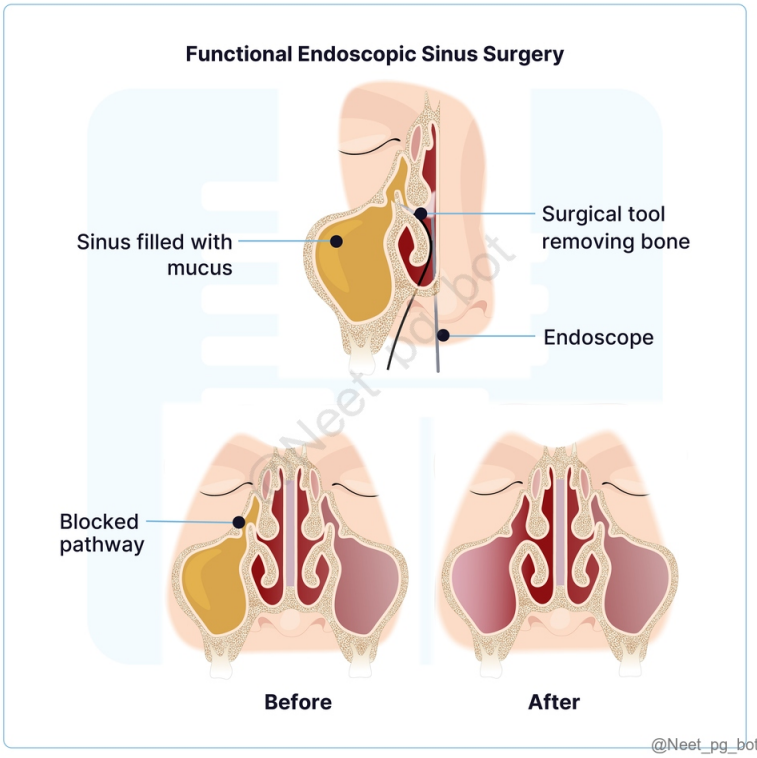
D. Fractured nasal bones

Correct Answer: D. Fractured nasal bones

■ *Listen (English)*

■ *Listen (Hindi)*

Explanation: Fractured nasal bones are not a common complication of Functional Endoscopic Sinus Surgery (FESS). Nasal bone fractures are more related to trauma or external injury than complications directly resulting from FESS. Complications of FESS Hemorrhage It is often associated with injury to the anterior ethmoidal artery or excessive middle turbinate resection. Control bleeding with vasoconstrictors or bipolar diathermy; manage severe cases with topical hemostats or direct repair. Orbital Injury (Option A) First incision or during middle meatal antrostomy. Orbital Hematoma Associated with injury to the anterior ethmoidal artery Risk if orbital fat is exposed; requires immediate management. Optic Nerve Injury (Option B) Possible from intra-orbital hematoma or direct damage. CSF Leak (Option C) Risk around the vertical lamella of the cribriform plate. Immediate repair is usually effective, using fat plugs, artificial materials, or fibrin glue. Carotid Artery Injury It is rare but catastrophic, especially during sphenoid surgery. Immediate hemostatic resuscitation and sphenoid packing are essential; consider endovascular stenting as an alternative to direct repair. Post Surgery Complication Synechiae Formation: Prevented by nasal packing with Mitomycin C in the middle meatal area.



References:

Diseases of Ear, Nose, Throat, PL Dhingra, 8th Edition, Pages 229,230

Scott Brown ENT, 8th Edition, Pages 1073,74,76,77

↑ *Back to this question in Part A*

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Q18: A 45-year-old patient presents with symptoms of sinusitis, including nasal obstruction, facial pain, and thick nasal discharge, persisting for the past 6 months. The patient has failed to respond to a course of antibiotics and nasal corticosteroids. What is the step in management to evaluate the extent of sinus involvement ? (Q848128)

A. Non-Contrast CT

B. Contrast-Enhanced CT

C. X-ray

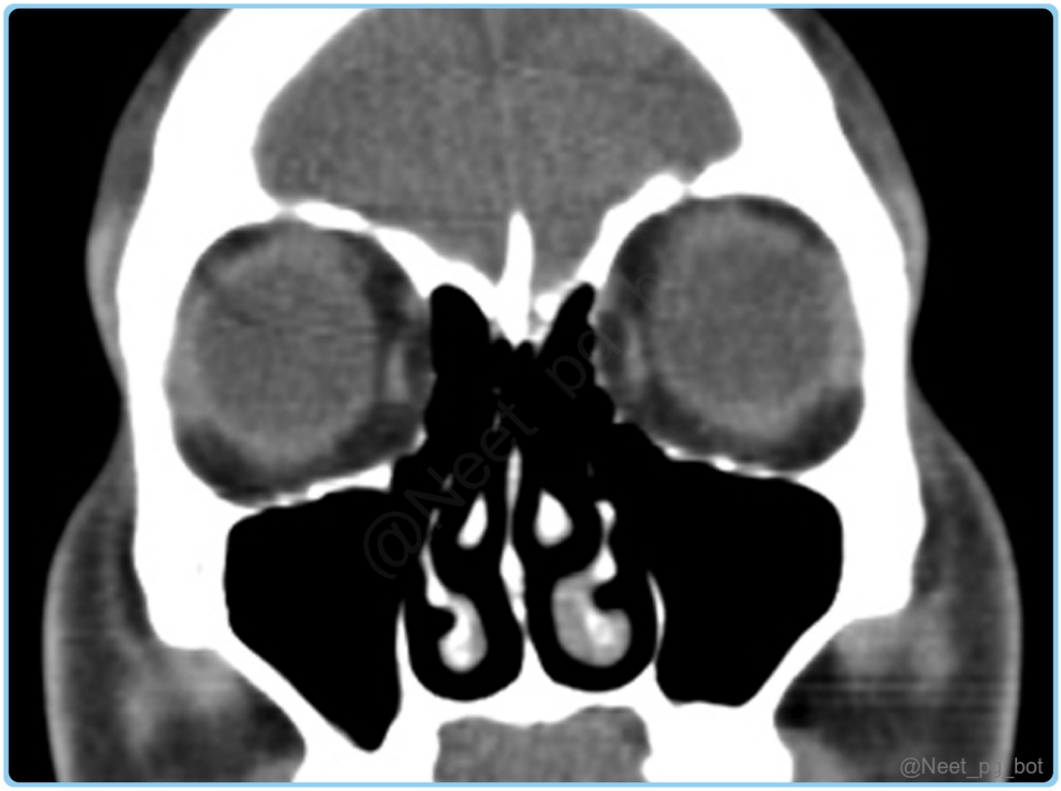
D. HRCT

Correct Answer: A. Non-Contrast CT

■ *Listen (English)*

■ *Listen (Hindi)*

Explanation: Non-Contrast CT of the Sinus is typically used as the initial imaging modality for diagnosing and evaluating chronic sinusitis . It helps in visualising the extent of mucosal thickening, sinus opacification, and anatomical abnormalities such as polyps and structural obstructions. Contrast-enhanced CT (Option B) Used when there is a need to assess for more complex cases or complications, such as the spread of infection to adjacent structures or suspected malignancy. It provides an enhanced visualisation of vascular structures. X-ray (Option C) provides limited detail with poor sensitivity and specificity, making it less effective in evaluating chronic sinusitis and generally not preferred compared to CT. HRCT (Option D) offers detailed imaging of the lungs and temporal bones, making it ideal for evaluating interstitial lung diseases like idiopathic pulmonary fibrosis and sarcoidosis, as well as detecting conditions such as cholesteatoma and otosclerosis in the temporal bone.



References:

Diseases of Ear, Nose, Throat, PL Dhingra, 8th Edition, Page 228

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Q19: A 32-year-old patient with acute sinusitis has had worsening symptoms for ten days. The patient has moderate fever, facial pain, and purulent nasal discharge. What is the most appropriate initial management? (Q848127)

A. Oral Amoxicillin with clavulanic acid

B. Intranasal corticosteroids

C. Topical nasal decongestants

D. Intravenous antibiotics

Correct Answer: A. Oral Amoxicillin with clavulanic acid

■ *Listen (English)*

■ *Listen (Hindi)*

Explanation: Antibiotics are a critical component of treatment for acute bacterial sinusitis, particularly when symptoms have persisted or worsened for more than 7-10 days. Amoxicillin with clavulanic acid is a first-line choice due to its broad-spectrum coverage and effectiveness against common pathogens causing bacterial sinusitis, including Streptococcus pneumoniae and Haemophilus influenzae. Management of Acute Sinusitis Management Aspect Description Indications Antibiotics First-line: Oral Amoxicillin with clavulanic acid Alternatives: Doxycycline, Levofloxacin Duration: Typically 7-14 days Persistent symptoms lasting >7-10 days. Intranasal Corticosteroids Fluticasone, Mometasone (Reduces mucosal inflammation and improves sinus drainage) Adjunctive therapy Significant mucosal swelling Concurrent allergic rhinitis Saline Irrigations Helps in thinning mucus and flushing bacteria. Symptomatic relief and improves mucus clearance. Topical Nasal Decongestants Oxymetazoline, Xylometazoline Provides symptomatic relief. Short-term use only and avoid prolonged use to prevent rebound congestion. Surgical Intervention Endoscopic sinus surgery For chronic or complicated sinusitis Severe cases unresponsive to medical therapy Complications such as orbital cellulitis

References:

Diseases of Ear, Nose, Throat, PL Dhingra, 8th Edition, Page 223

↑ *Back to this question in Part A*

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Q20: A 32-year-old patient presents with complaints of retro-orbital pain and occasional visual disturbances. CT imaging of the sinuses reveals a posterior ethmoid air cell extending superiorly and laterally to the sphenoid sinus, impinging on the optic nerve. What is the most likely anatomical variant responsible for these symptoms? (Q848126)

A. Onodi cell

B. Agger Nasi cell

C. Haller cell

D. Frontal recess cell

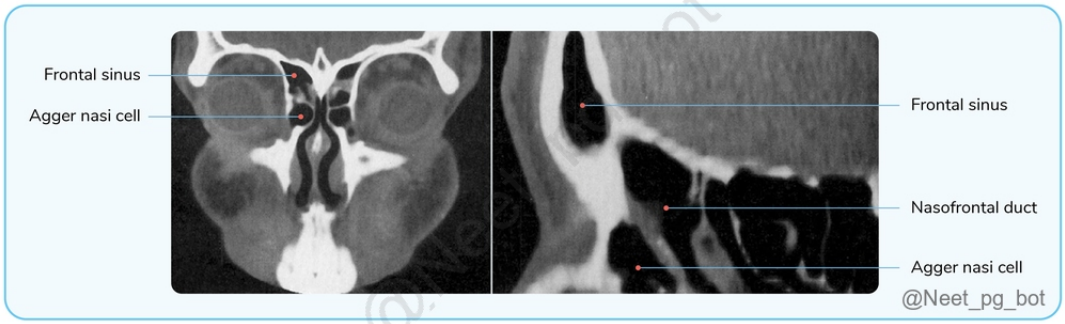
Correct Answer: A. Onodi cell

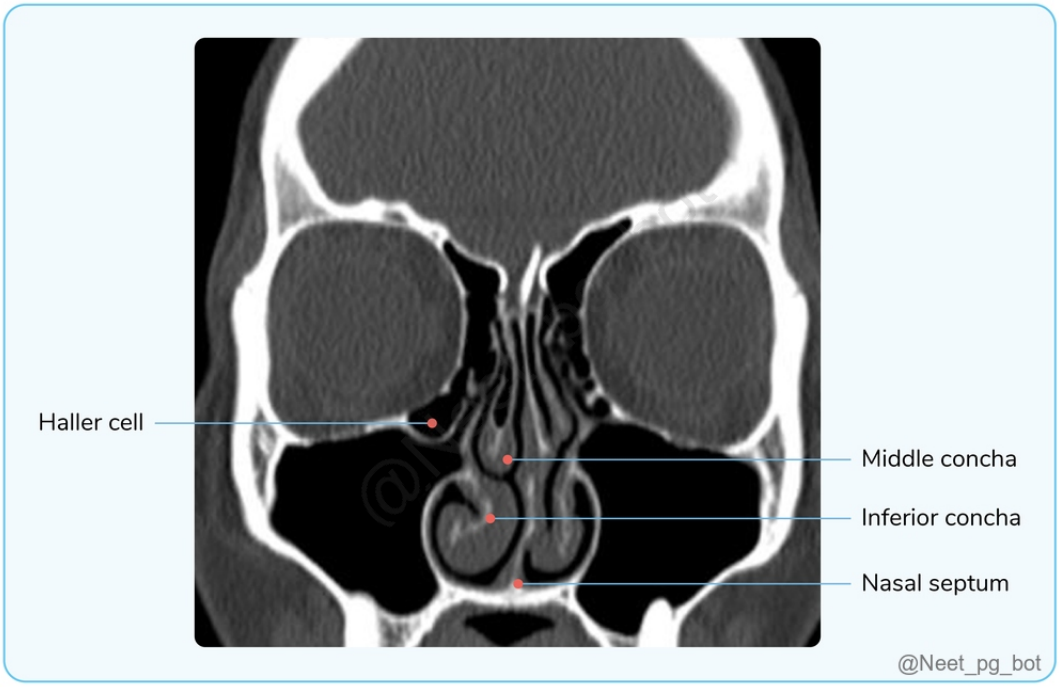
■ *Listen (English)*

■ *Listen (Hindi)*

Explanation: Onodi Cell is a posterior ethmoid air cell that extends superiorly and laterally to the sphenoid sinus, close to the optic nerve. Compression of the optic nerve can lead to retro-orbital pain and visual disturbances. Sinus Cell Location Clinical Significance Agger Nasi Cell Most anterior ethmoid cell, located above the lacrimal sac and below the frontal sinus Often involved in frontal sinus drainage issues Onodi Cell Posterior ethmoid cell

extending superiorly and laterally towards the sphenoid sinus, near the optic nerve . It may cause retro-orbital pain and visual disturbances due to proximity to the optic nerve Haller Cells Infraorbital ethmoid cells extend into the floor of the orbit It can obstruct the maxillary sinus ostium, leading to maxillary sinusitis and occasionally orbital symptoms Frontal Recess Cell Located in the frontal recess area It can affect frontal sinus drainage





References:

PL Dhingra's Diseases of Ear, Nose & Throat and Head and Neck Surgery, 8th Edition, Pages 218,219

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Q21: A 45-year-old patient presents with complaints of a dull headache, post-nasal drip, and retro-orbital pain. On nasal endoscopy, pus is noted draining from the superior meatus. What type of sinusitis is most likely indicated? (Q848125)

A. Maxillary sinusitis

B. Anterior ethmoid sinusitis

C. Posterior ethmoid sinusitis

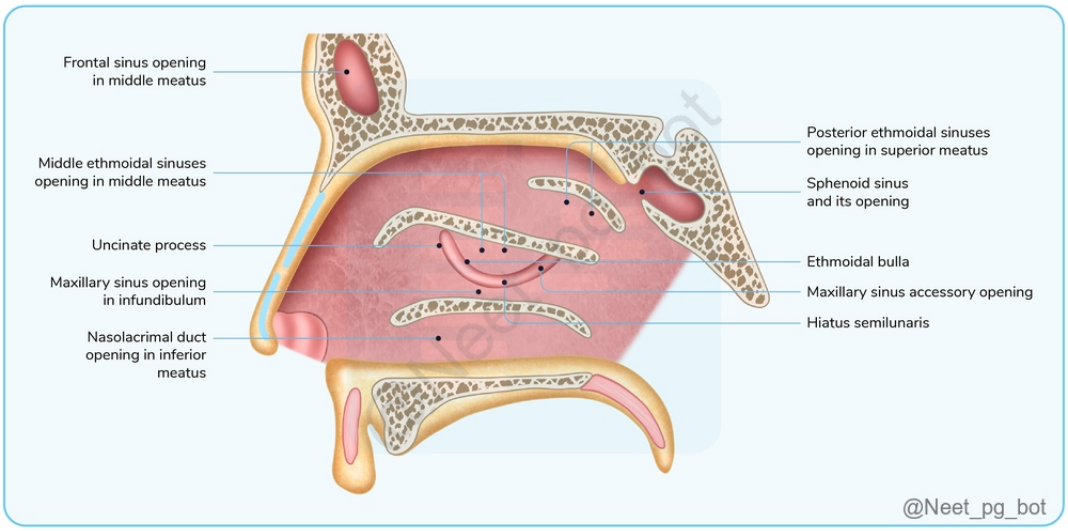
D. Frontal sinusitis

Correct Answer: C. Posterior ethmoid sinusitis

■ *Listen (English)*

■ *Listen (Hindi)*

Explanation: The superior meatus is the drainage site for the posterior ethmoid sinus, so pus in this area indicates sinus involvement. Retro-orbital pain, a dull headache, and post-nasal drip support a diagnosis of posterior ethmoid sinusitis. Sinus Type Drainage Common Symptoms Posterior ethmoid sinusitis Superior meatus Retro-orbital pain, headache Sphenoid sinusitis Sphenoethmoidal recess Occipital headache, generalised dull headache Anterior ethmoid sinusitis Middle meatus Pain between eyes, nasal congestion Maxillary sinusitis Cheek pain, toothache Frontal sinusitis Frontal headache, forehead tenderness



References:

Diseases of Ear, Nose, Throat, PL Dhingra, 8th Edition, Page 222-225

↑ *Back to this question in Part A*

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Q22: A 35-year-old patient presents with facial pain, nasal congestion, and purulent nasal discharge for the past 12 days. Examination reveals tenderness over the maxillary sinuses and fever of 38°C. Which of the following is considered a major criterion for diagnosing acute sinusitis? (Q848124)

A. Facial pain

B. cough

C. Headache

D. Dental pain

Correct Answer: A. Facial pain

■ *Listen (English)*

■ *Listen (Hindi)*

Explanation: Facial pain is a hallmark symptom and one of the major criteria for diagnosis of Acute sinusitis. Major and Minor Criteria for Acute Sinusitis Diagnosis Major Criteria Minor Criteria Facial pain/pressure Nasal obstruction/congestion Purulent nasal discharge Hyposmia/Anosmia Fever Headache Dental pain Ear fullness Cough Halitosis (bad breath) 2 Major or 1 Major and 2 Minor criteria are required to diagnose acute sinusitis.

References:

Diseases of Ear, Nose, Throat, PL Dhingra, 8th Edition, Page 222

Cumming’s review of otolaryngology, Page 65

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Q127 (p. 1233)	*Q128 (p. 1234)*	*Q129 (p. 1235)*	*Q130 (p. 1236)*	*Q131 (p. 1237)*	*Q132 (p. 1237)*

Q1: A patient presents with enophthalmos and periorbital ecchymosis after being hit by a ball. What is the most likely diagnosis? (Q866710)

A. Orbital blowout fracture

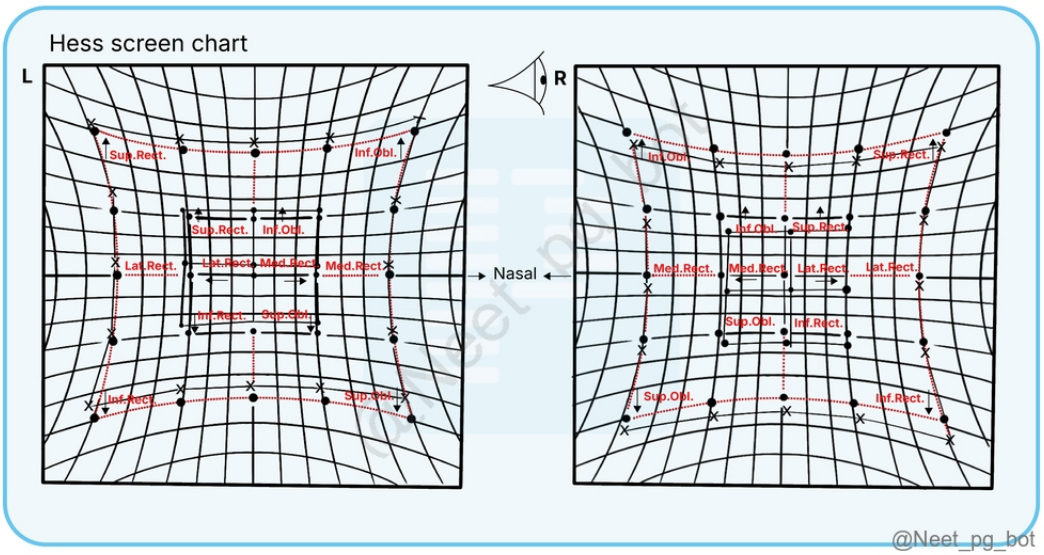
B. Zygomatic fracture

C. Nasal bone fracture

D. Le Fort I fracture

Correct Answer: A. Orbital blowout fracture

Explanation: In this patient, blunt trauma caused orbital floor damage with herniation of orbital contents into the maxillary sinus, explaining the enophthalmos. The periorbital ecchymosis and lack of facial flattening point toward an isolated orbital blowout fracture rather than zygomatic or nasal bone injury. Orbital floor fracture (also known as blow-out fracture): A blow-out fracture usually occurs due to a sudden rise in orbital pressure from an impacting object, like a fist or tennis ball, causing the eyeball to be displaced and transmit, rather than absorb, the impact. Classification : Pure blow-out fractures are isolated to the orbital walls (floor or medial wall) without involving the orbital rim. Impure blow-out fractures involve the orbital walls, the orbital rim, and surrounding facial bones. Clinical features: Periorbital oedema and blood extravasation in and around the orbit (such as subconjunctival ecchymosis) Emphysema (subcutaneous) of the eyelids Paraesthesia and anaesthesia in the distribution of infraorbital nerve (lower lid, cheek, side of nose, upper lip, and upper teeth). Ipsilateral epistaxis (bleeding from maxillary sinus) Proptosis (orbital oedema and haemorrhage). Enophthalmos and mechanical ptosis Diplopia (oedema, haemorrhage, entrapment of muscle (inferior rectus/inferior oblique) at the fracture site. Hess chart testing (map eye movements for assessment and monitoring). Orbital imaging: X-rays: A nose-chin (Water's) view showing ' hanging drop ' opacity of the superior maxillary antrum from orbital contents herniating through the floor. Plain X-ray orbit (AP view) showing herniated orbital contents (arrow) with blow-out fracture of the orbital floor Computerised tomography (CT) scanning and magnetic resonance imaging(MRI): Evaluate the extent of the fracture and herniation of contents into maxillary antrum (hanging drop or tear drop sign). CT scan of coronal section of orbit showing fracture floor with herniation of orbital contents Management: Antibiotics and anti-inflammatory drugs Ice packs and nasal decongestants Surgery (dislodge the muscle and do microplating) Indications for surgery: No improvement in diplopia or enophthalmos even after 10 days (indicates muscle entrapment). Enopthalmos is > 2mm Half of the floor is fractured Incorrect Options: Zygomatic fracture (Option B): Usually causes flattening of the cheek, trismus from masseter involvement, and infraorbital nerve paresthesia rather than isolated enophthalmos. Nasal bone fracture (Option C): Presents with nasal deformity, tenderness, and epistaxis, not enophthalmos. Le Fort I fracture (Option D): Involves a horizontal maxillary fracture above the teeth, causing mobility of the upper jaw; not typically associated with isolated orbital findings.



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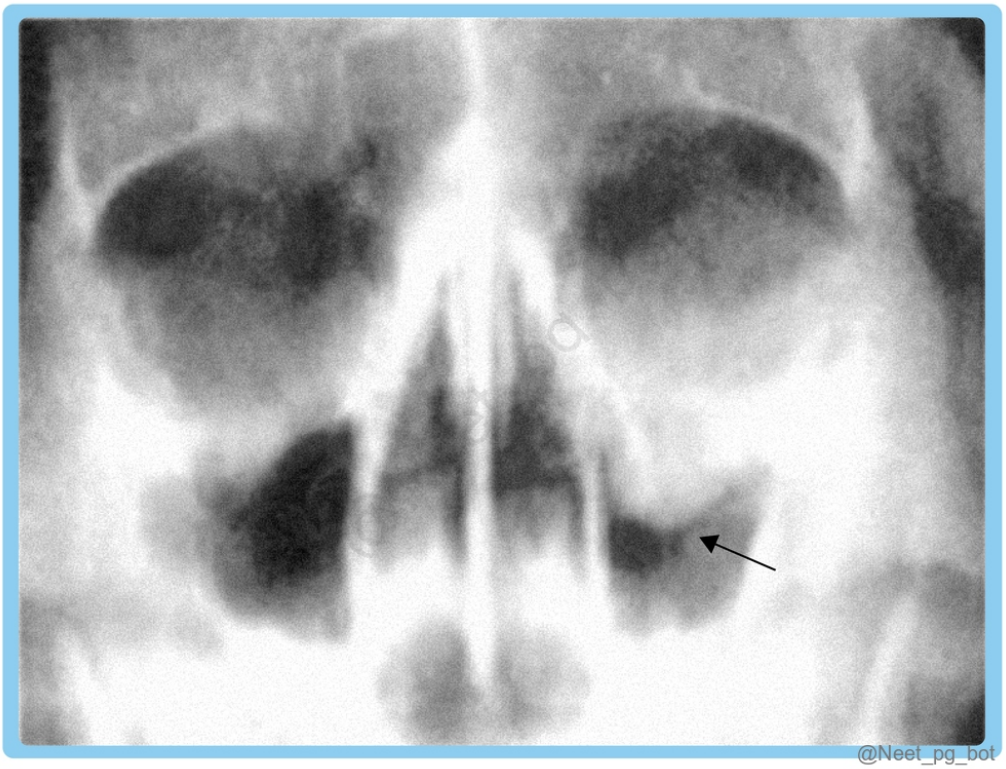
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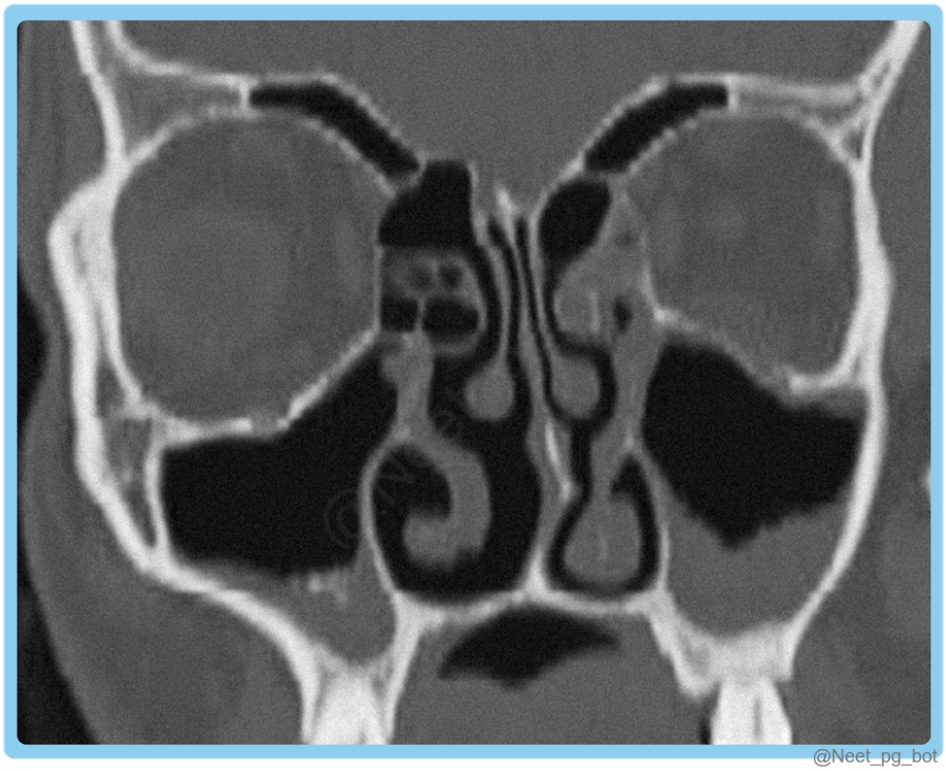
Q2: A diabetic male presents with facial pain and blackish discoloration in the nose. The CT image shows bone erosion and sinus involvement. What is the most likely diagnosis? (Q866713)

A. Acute bacterial sinusitis

B. Allergic fungal sinusitis

C. Nasal polyposis

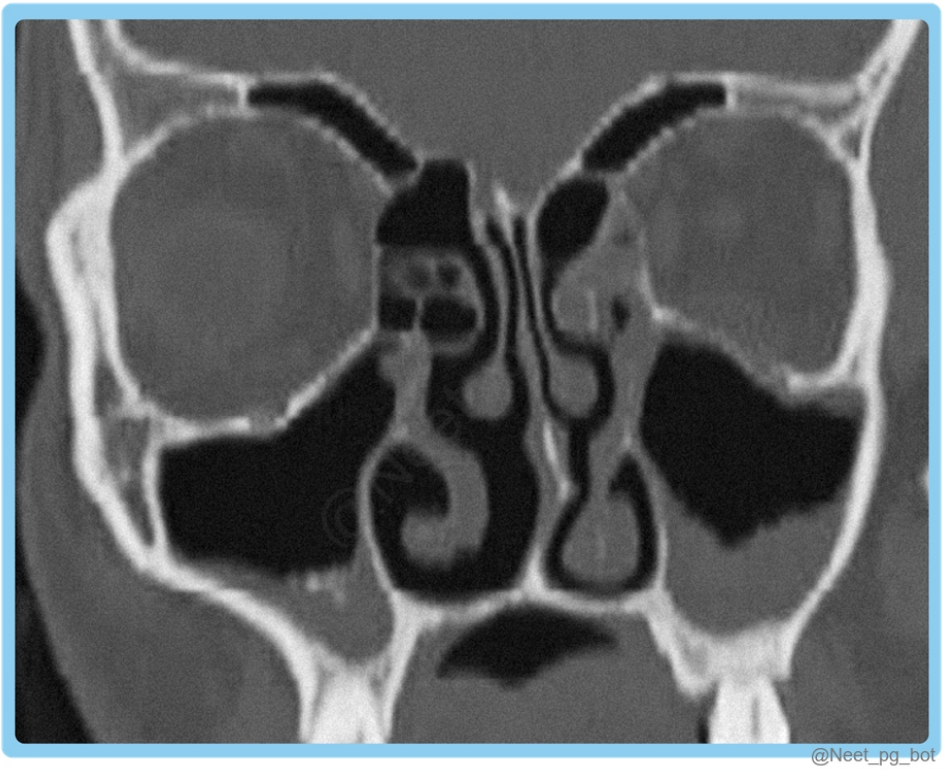
D. Rhino-orbital-cerebral mucormycosis



Correct Answer: D. Rhino-orbital-cerebral mucormycosis

Explanation: This patient's uncontrolled diabetes and presentation with black necrotic tissue in the nasal cavity along with CT evidence of bone destruction strongly suggest mucormycosis. This aggressive fungal infection, usually caused by Rhizopus species, invades blood vessels, causing tissue necrosis and rapid spread to orbit and brain. Rhino-orbital-cerebral mucormycosis Fulminant, angioinvasive fungal infection affecting immunocompromised patients, especially diabetics in ketoacidosis. Causative organisms: Rhizopus, Mucor, Lichtheimia species. Mechanism: Fungal spores → nasal mucosa → blood vessel invasion → thrombosis & tissue necrosis → spread to orbit/brain. Key Features: Facial pain, swelling, nasal congestion. Black eschar on nasal mucosa or palate. Ophthalmoplegia, vision loss if orbital spread occurs. Altered sensorium in advanced cases. Imaging clue: CT/MRI - sinus opacification, bone destruction, orbital involvement Management: Urgent surgical debridement + high-dose IV liposomal amphotericin B + strict glycemic control. Prognosis: High mortality; early diagnosis improves outcomes. Mucormycosis It is an invasive disease caused by zygomycetes (phycomycetes) - Rhizopus, Mucor and Absidia. Rhizopus Arrhizus is the most common pathogen Rhizopus Pathogenesis Begins in the respiratory tract or nasal cavity, where spores germinate and form mycelia → invade adjacent tissues, leading to local destruction. Fungi invade blood vessels, causing thrombosis and infarction in affected areas, which contributes to its high mortality rate (Angio-invasiveness) Common Sites Rhinocerebral Form : Involves the nose, nasal sinuses, and orbit; frequently seen in diabetic patients. Pulmonary Infections : When the lungs are the primary site, the fungi can invade lung arteries, leading to serious complications. Others: Cutaneous mucormycosis, GI mucormycosis, Disseminated mucormycosis Clinical Features Rhinocerebral Zygomycosis : Facial swelling, nasal discharge (often black), fever, and mucosal necrosis . Rapid progression can lead to severe complications, including visual loss and neurological symptoms. Pulmonary Zygomycosis : Symptoms may include cough, fever, and hemoptysis Diagnosis Histological Examination : Diagnosis is confirmed by identifying broad, non-septate (or sparsely septate) hyphae. Culture: After incubation for 3-4 days on Sabouraud agar at 30-37°C, the colonies are grey-white with a thick cottony, fluffy surface. Under the microscope, nonseptate, broad

hyphae with aerial sporangiophores which end in a sporangium (a sac containing spores are seen.) a. b. a. Sabouraud's dextrose agar (SDA) medium showing Rhizopus growth b. Microscopy of LPCB stained preparation demonstrating morphology of Rhizopus spp. (non-septate hyphae, sporangiophore, sporangium and spores) Treatment: Intravenous amphotericin B combined, where appropriate, with surgical drainage is the recommended treatment. Medical control of diabetes is required. Incorrect Options: Acute bacterial sinusitis (Option A): Usually presents with purulent nasal discharge, facial pressure, and fever; lacks black necrotic tissue and bone erosion on imaging. Allergic fungal sinusitis (Option B): Chronic, non-invasive fungal reaction in immunocompetent patients; shows sinus expansion but not tissue necrosis or bone destruction. Nasal polyposis (Option C): Benign, pale, edematous mucosal growths causing nasal obstruction; no pain, necrosis, or invasive bone destruction.



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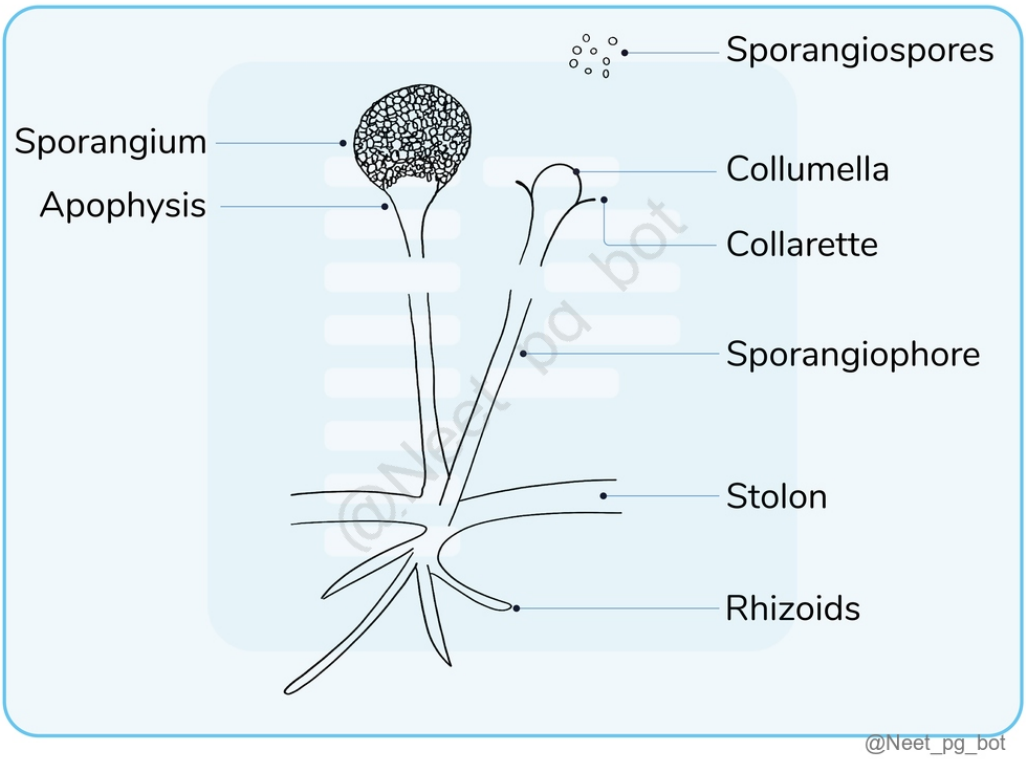

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Absidia

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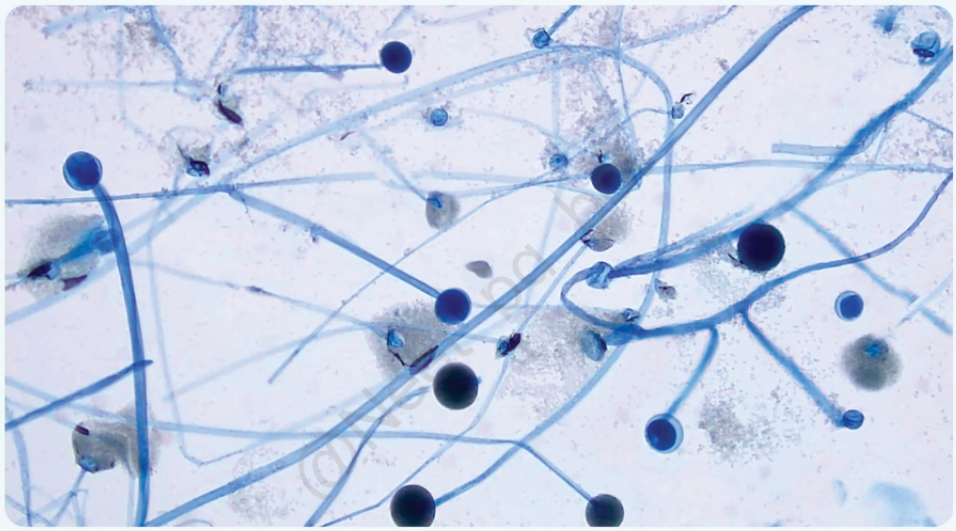

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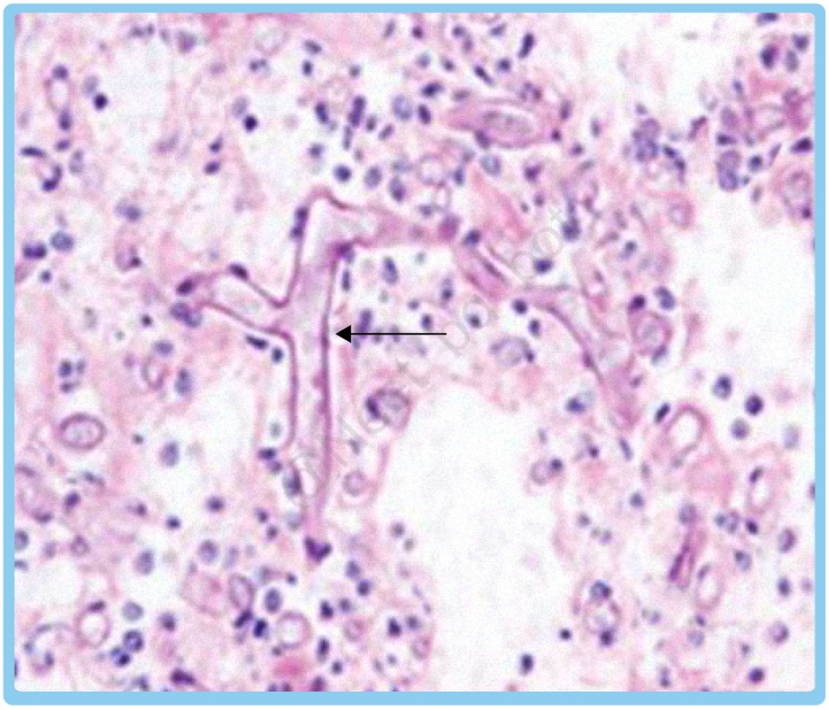

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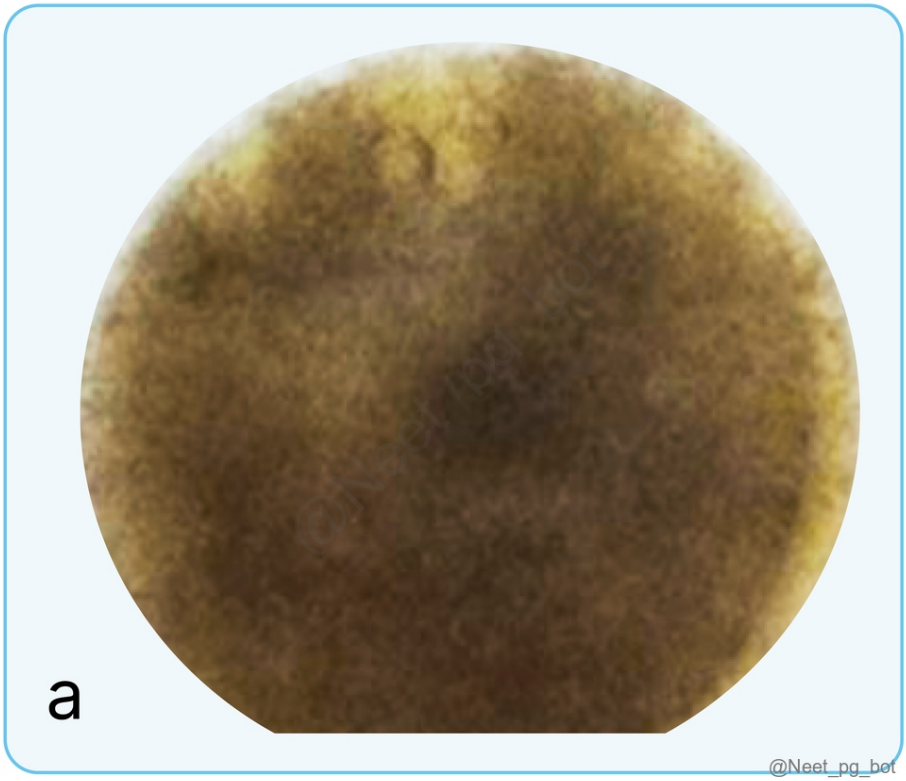

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References:

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Q3: Which of the following is not seen in JNA? (Q865370)

A. Recurrent epistaxis

B. Unilateral nasal obstruction

C. Exclusively to adolescence boys

D. Biopsy under anesthesia to diagnose

Correct Answer: D. Biopsy under anesthesia to diagnose

Explanation: Recurrent epistaxis (Option A ruled out): This is a hallmark symptom of JNA. These tumors are highly vascular, leading to frequent and often heavy nosebleeds. So, this is seen in JNA. Unilateral nasal obstruction (Option B ruled out): This is also a very common symptom as the tumor grows and fills the nasopharynx and nasal cavity. So, this is seen in JNA. Exclusively to adolescent boys (Option C ruled out): JNA

primarily and overwhelmingly affects adolescent boys . While very rare cases in younger children or post-adolescent males (up to early 20s) have been reported, it is virtually unheard of in females and is a defining characteristic of the disease. So, this statement is largely true, implying it's a key feature. Biopsy under anesthesia to diagnose(Option D): This is the correct answer; this is NOT typically done for JNA . JNA is a highly vascular tumor. Performing a biopsy carries a significant risk of severe, life-threatening hemorrhage. Diagnosis is usually made based on characteristic clinical presentation (recurrent epistaxis, unilateral nasal obstruction in an adolescent boy) and, most importantly, characteristic imaging findings (CT and MRI). If a biopsy is considered absolutely necessary for an atypical presentation, it is performed in a controlled environment like an operating room where bleeding can be immediately managed, often after preoperative embolization to reduce blood supply to the tumor.

References:

Dhingra Diseases of Ear, Nose and Throat and Head and Neck Surgery, 8th Edition, Page 292

https://www.ncbi.nlm.nih.gov/books/NBK545240/

↑ *Back to this question in Part A*

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Q4: A 40-year-old patient presents with recurrent and severe nosebleeds from the anterior nasal septum. The bleeding has been refractory to nasal packing and chemical cautery. A decision is made to proceed with surgical ligation to control the bleeding. Which of the following arteries is the primary target for ligation in the management of this patient's anterior epistaxis? (Q866319)

A. Sphenopalatine artery

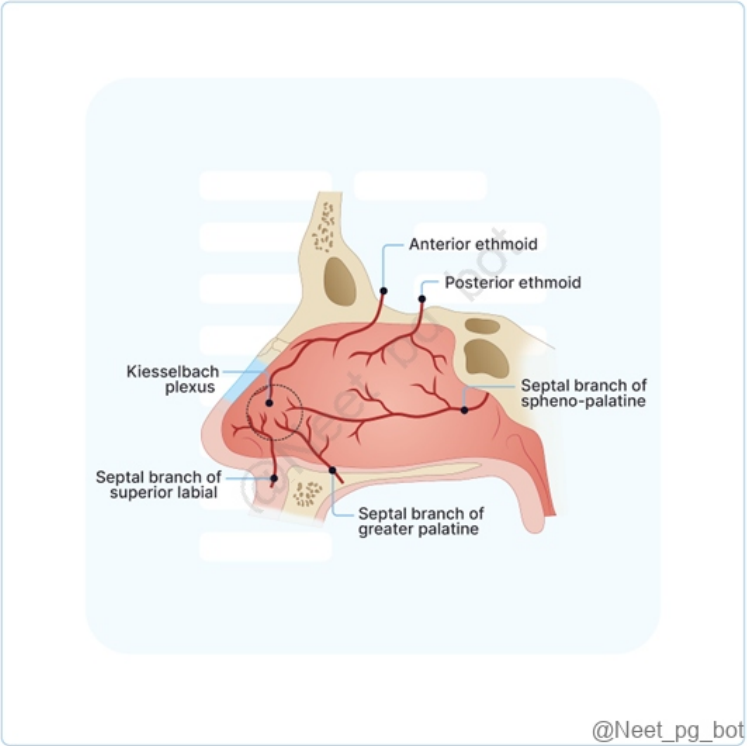
B. Anterior ethmoidal artery

C. Facial artery

D. Internal maxillary artery

Correct Answer: A. Sphenopalatine artery

Explanation: In cases of refractory anterior epistaxis (persistent despite nasal packing and cautery), the first surgical step is endoscopic ligation of the sphenopalatine artery (SPA) . Although anterior bleeds commonly arise from Kiesselbach’s plexus , which is partly supplied by the facial artery , modern surgical protocols prioritize SPA ligation because: The sphenopalatine artery is the major arterial supply to both the posterior and a large portion of the anterior nasal cavity. Endoscopic SPA ligation is minimally invasive , has a high success rate (>90%) , and effectively controls bleeding from multiple nasal regions. Facial or internal maxillary artery ligation (Option C and D) is now reserved as salvage procedures when SPA ligation fails. Anterior ethmoidal artery (Option B) ligation is reserved for persistent bleeding after sphenopalatine artery ligation fails, especially if bleeding originates from the superior nasal cavity (near the cribriform plate).



References:

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↑ *Back to this question in Part A*

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Q5: A 20 year old male with a history of recurrent epistaxis presents with nasal obstruction for the past 1 year. On examination the presence of nasal mass and investigation shows bowing of the posterior wall of maxillary sinus. What is the probable diagnosis? (Q866503)

A. Nasopharyngeal angiofibroma

B. Antrochoanal polyp

C. Rhinoscleroma

D. Rhinosporidiosis

Correct Answer: A. Nasopharyngeal angiofibroma

Explanation: Nasopharyngeal angiofibroma is a benign but vascular tumor seen in young males causing nasal obstruction, recurrent epistaxis, and characteristic imaging findings like bowing of the posterior maxillary sinus wall due to mass effect. Incorrect Options: Antrochoanal polyp (Option B) typically lacks vascularity and epistaxis. Rhinoscleroma (Option C) is a chronic granulomatous infection causing nasal obstruction but not typically epistaxis or bony changes. Rhinosporidiosis (Option D) causes nasal polyps but usually with surface granularity and no bony remodeling.

↑ *Back to this question in Part A*

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Q6: A patient presents to the emergency department with significant nasal trauma after a fall. Examination reveals a deviated nasal pyramid, and palpation confirms crepitus and mobility of the nasal bones. A lateral nasal bone X-ray confirms a displaced nasal bone fracture. Which of the following instruments is specifically designed for the closed reduction of a displaced nasal bone fracture? (Q866532)

A. Tilley's forceps

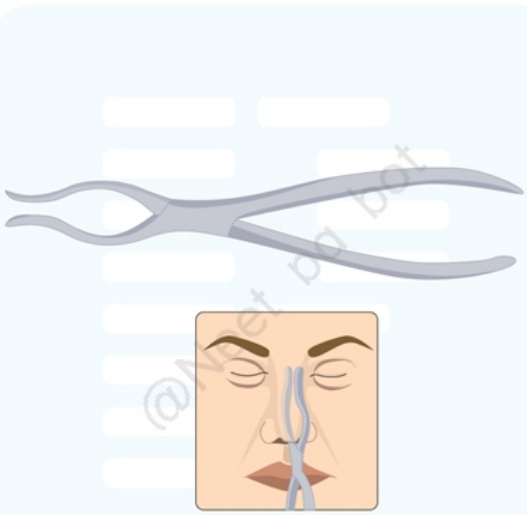
B. Walsham forceps

C. Luc's forceps

D. Bayonet forceps

Correct Answer: B. Walsham forceps

Explanation: In the context of a displaced nasal bone fracture, the instrument specifically designed for closed reduction is the Walsham forceps. Walsham forceps have a blunt, curved blade that fits into the nasal cavity, allowing the surgeon to elevate and reposition the nasal bones without making any incisions. The external part is usually protected with a rubber tubing to prevent trauma to the skin during manipulation. Incorrect Options: Option A - Tilley’s forceps are commonly used in ear, nose, and throat procedures, especially for removal of nasal packs or foreign bodies. They are not used for bone reduction. Option C - Luc’s forceps are angled instruments used primarily for nasal or sinus surgeries, such as removing nasal polyps or tissue during procedures like Caldwell-Luc operations. Not used for nasal bone fracture reduction. Option D - Bayonet forceps are angled forceps used for precise manipulation in deep or narrow spaces, especially during nasal or ear surgeries. Again, not suited for nasal bone reduction.



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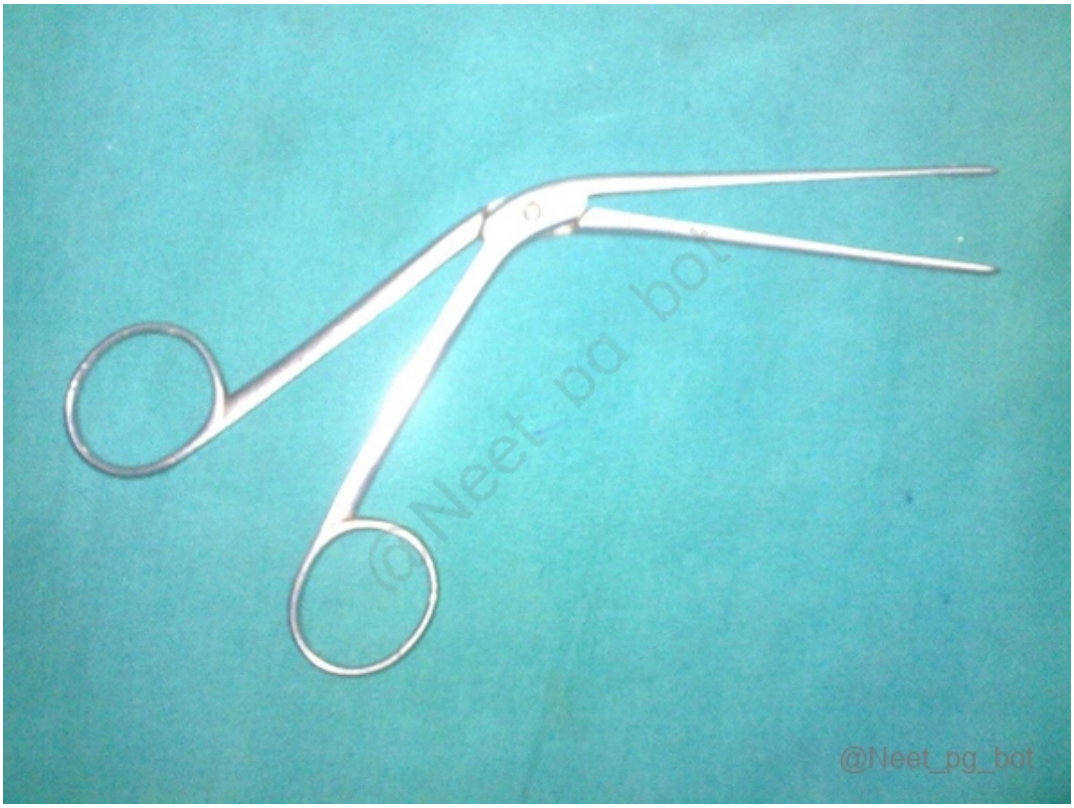

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References:

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↑ *Back to this question in Part A*

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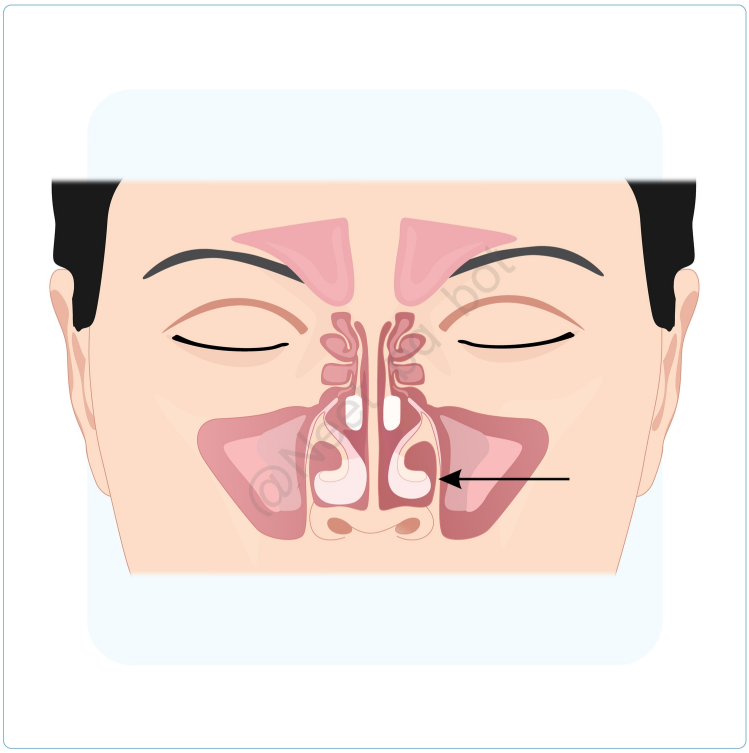
Q7: What lies posterior to the marked structure? (Q853119)

A. Odontoid

B. Eustachian tube

C. Sphenopalatine foramen

D. Agger nasi



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Correct Answer: B. Eustachian tube

Explanation: The marked structure is the inferior turbinate. The structure located approximately 1.25 cm posterior to the inferior turbinate is the opening of the Eustachian tube. Important Structures in the Nasopharynx Related to the Lateral Wall of the Nose: Lateral Wall Continuation: The lateral wall of the nose extends beyond the turbinates into the lateral wall of the nasopharynx. Eustachian Tube (ET): Located 1.25 cm posterior and slightly inferior to the posterior end of the inferior turbinate. Mnemonic: Behind the Inferior turbinate is ET (E for Inferior). Sphenopalatine Foramen: (Option C) Located 1 cm posterior and slightly inferior to the posterior end of the middle turbinate. Connects the nasopharynx laterally with the sphenopalatine (pterygopalatine) fossa. Odontoid (Option A): The odontoid process (dens) is part of the C2 vertebra in the cervical spine and is unrelated to nasal or nasopharyngeal structures. Agger nasi (Option D): The agger nasi is an anterior ethmoidal air cell, located anterior to the middle turbinate, not posterior to the inferior turbinate.

References:

https://pmc.ncbi.nlm.nih.gov/articles/PMC10232923/

↑ *Back to this question in Part A*

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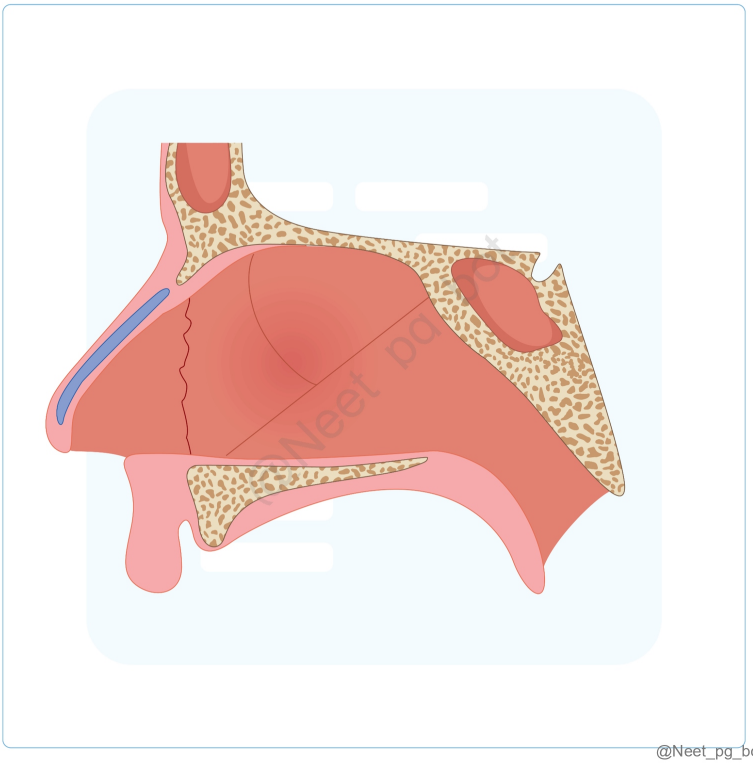
Q8: Identify the fracture in the given diagram: (Q853120)

A. Chevallet fracture

B. Jarjaway fracture

C. Le Fort 1

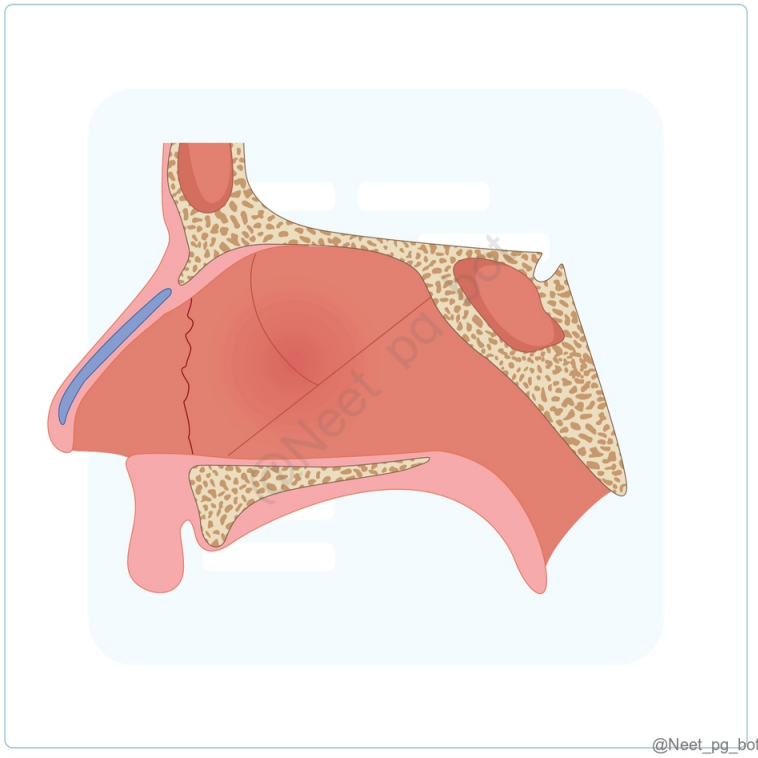
D. Simple fracture

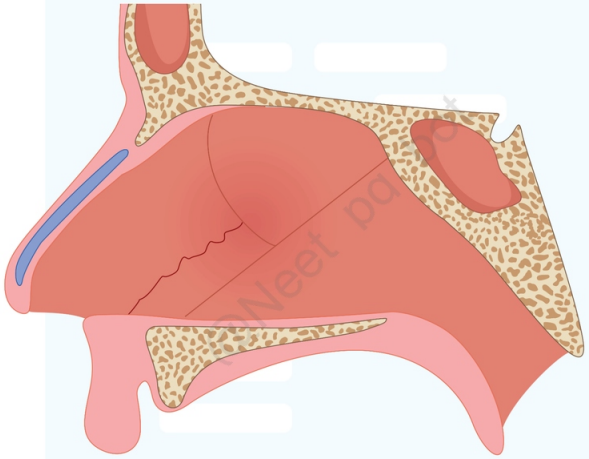


Correct Answer: A. Chevallet fracture

Explanation: A Chevallet fracture runs vertically across the nasal septum. Nasal fractures: Nasal fractures constitute about 40% of all facial fractures and are often accompanied by other facial injuries. Prompt management is crucial to prevent cosmetic and functional deformities. Classification: Nature of Injury: Most fractures result from lateral forces (>66%), with frontal impacts causing fewer injuries. Extent of Deformity: A five-point grading system assesses lateral deviation Grade 0: No deviation Grade 1: Deviation <50% of nose width Grade 2: Deviation 50%-100% of nose width Grade 3: Deviation >100% of nose width Grade 4: Bones almost touching the cheek Pattern of Fracture: Fractures are categorised into three classes based on severity and treatment requirements: Class I (Chevallet Fracture) Class II (Jarjavay Fracture) (Option B) Class III (Naso-orbito-ethmoid fracture) Cause Blows from below Impacts directed from the front High-velocity trauma Fracture Line Vertical fracture from the anterior nasal spine upwards to the junction of the bony and cartilaginous dorsum of the nose. Horizontal fracture starting just above the anterior nasal spine, running backwards just above the junction of septal cartilage and vomer. Involves external buttresses of the nose and ethmoid labyrinth. Pig-like appearance with foreshortened, saddled nose. Clinical Relations: Assess for nasal obstruction and deformity. Significant deformity might only develop later, especially in children. Check for deviation greater than half the width of the nose, which may indicate a septal fracture. Requires reduction of both nasal and septal fractures. Look for signs of more severe injuries, such as CSF leaks , multiple dural tears, and potential cerebral herniation. Evaluate for orbital and skull base involvement. Classification of Fractures of the maxilla: Le Fort I (Option C) Le Fort II Le Fort III Also

known as Guerin’s fracture or Transverse fracture Pyramidal fracture Craniofacial disjunction Fracture line Runs above and parallel to the palate, crossing the lower nasal septum, maxillary antra, and pterygoid plates. Passes through the nasal root, lacrimal bone, orbital floor, upper maxillary sinus, and pterygoid plates Note: can cause infraorbital nerve injury. Traverses the root of the nose, ethmoid-frontal junction, superior orbital fissure, lateral orbital wall, frontozygomatic and temporozygomatic sutures, and the upper pterygoid plates. Characteristic feature Hanging palate and hanging teeth Hanging maxilla Complete detachment of the facial bones from the cranial bones CSF Rhinorrhea Absent May be present High risk of CSF Rhinorrhea Simple fracture (Option D): A simple fracture refers to a non-displaced, closed fracture with minimal soft tissue damage, which does not specifically describe the fracture shown in the diagram.





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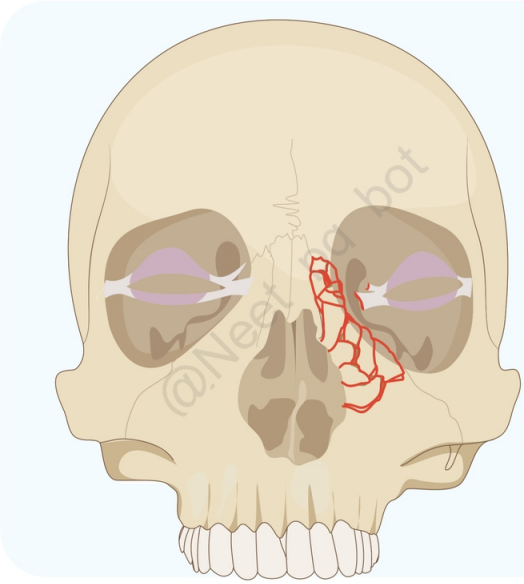

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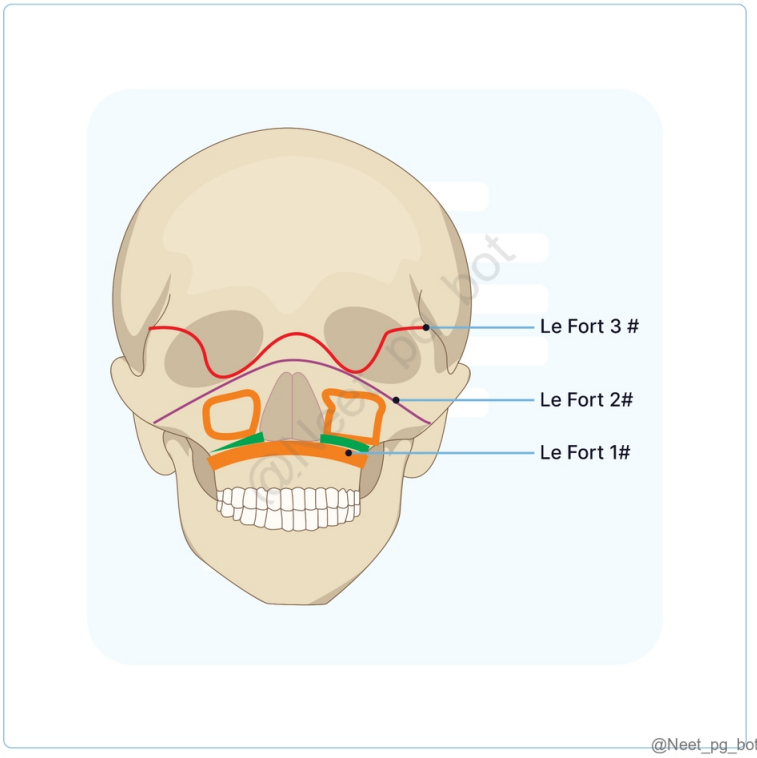

References:

Scott Brown ENT, 8th Edition Pg - 1184,1185 Diseases of Ear, Nose, Throat - PL Dhingra, 8th edition, Pg - 171

↑ *Back to this question in Part A*

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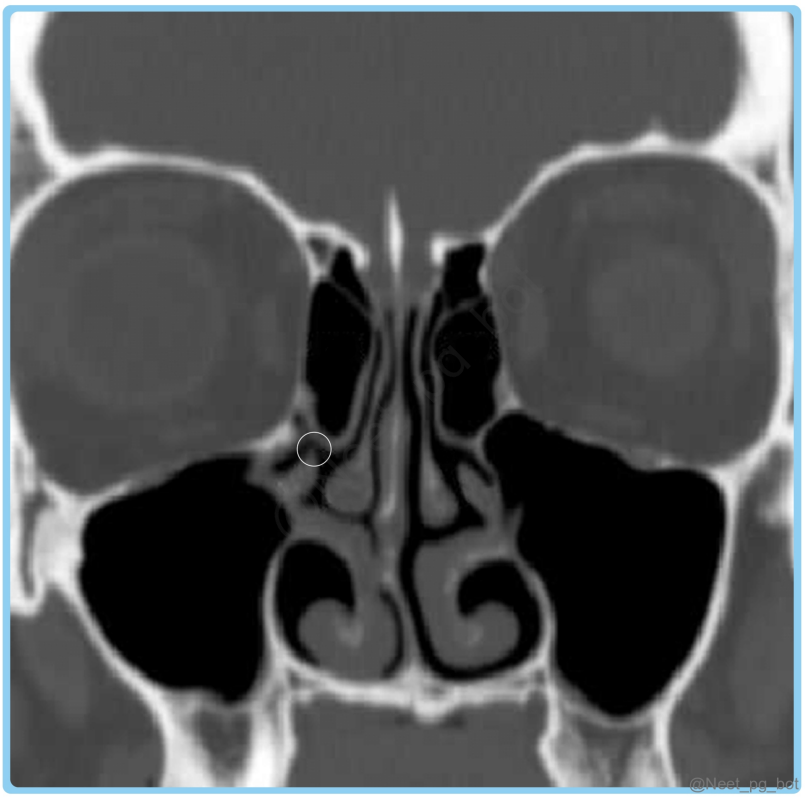
Q9: Which of the following is shown in the image below (circled)? (Q852651)

A. Columella

B. Osteomeatal complex

C. Nasal valve

D. Crest of maxilla



Correct Answer: B. Osteomeatal complex

Explanation: The Osteomeatal Complex (OMC) is a key anatomical region in the lateral wall of the nasal cavity , where the drainage pathways of the frontal, maxillary, and anterior ethmoidal sinuses converge. It plays a crucial role in sinus ventilation and drainage . It is the common drainage pathway for the anterior ethmoid, maxillary, and frontal sinuses into the middle meatus . Obstruction of the OMC can lead to chronic rhinosinusitis . It is an important region in functional endoscopic sinus surgery (FESS) . Other Options: Columella (Option A) : The fleshy, midline structure that separates the nostrils . Nasal Valve (Option C) : The narrowest part of the nasal airway , important for regulating airflow. Crest of Maxilla (Option D) : A bony ridge on the maxilla where the nasal septum attaches .

References:

Diseases of Ear, Nose, Throat - PL Dhingra, 8th edition, Pg 435

↑ *Back to this question in Part A*

@Neet_pg_bot

Q10: A 45-year-old male was admitted with respiratory distress. CT showed a nasal polyp with fluid collection in the sinus. Drainage of which of the following is obstructed? (Q852619)

A. Ethmoidal sinus

B. Sphenoidal sinus

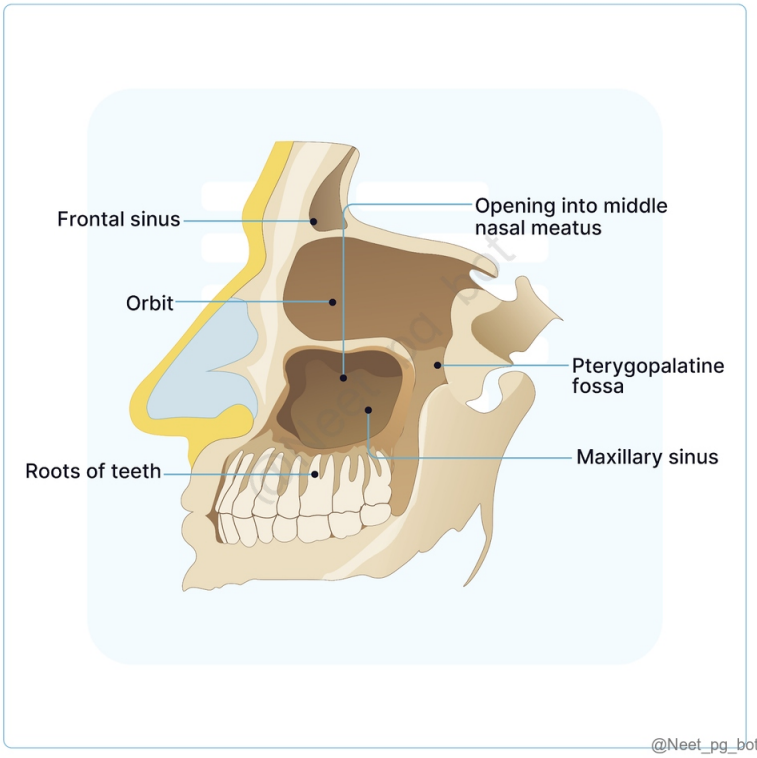
C. Frontal sinus

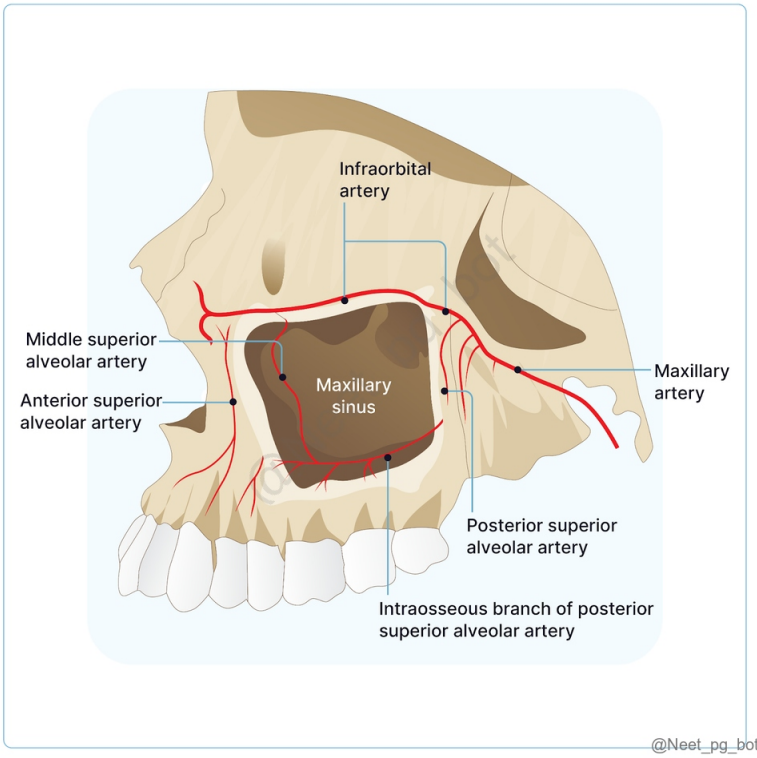
D. Maxillary sinus

Correct Answer: D. Maxillary sinus

Explanation: The maxillary sinus drains into the middle meatus via the ostium located high on its medial wall . When a nasal polyp is present, it can obstruct this drainage pathway, leading to fluid accumulation in the maxillary sinus, as seen on CT. The maxillary sinus or the Antrum of Highmore , is the largest of the paranasal sinuses, occupying the body of the maxilla. Shape - Pyramidal Size - 15mL Base - toward the lateral wall of the nose Apex - extends into the zygomatic process of the maxillary bone Relations: Anterior wall: Formed by the facial surface of the maxilla. Posterior wall: Anterior surface of pterygopalatine fossa. Medial wall: Thin and membranous in some areas, this wall borders the middle and inferior meatuses and separates the maxillary sinus from the nasal cavity. Roof: Formed by the floor of the orbit Floor: Located approximately 1 cm below the floor of the nasal cavity, it is formed by the alveolar and palatine processes of the maxilla. Closely related to the roots of the second premolar and first molar teeth. Cavities in these teeth are associated with oro antral fistula. Arterial supply: Branches of the maxillary artery, specifically the infraorbital artery, greater palatine artery, and the posterior superior alveolar artery. Venous drainage: Pterygoid venous plexus and the facial vein. Lymphatic drainage: Submandibular lymph nodes. Nerve supply: Infraorbital nerve, greater palatine nerve, and the posterior superior alveolar nerve, which are branches of the maxillary division of the trigeminal nerve (CN V2). Other Options: Ethmoidal Sinus (Option A) : Drains into the middle meatus (anterior ethmoids) or superior meatus (posterior ethmoids) ; obstruction causes ethmoid sinusitis. Sphenoidal Sinus (Option B): Drains into the sphenoethmoidal

recess ; obstruction leads to sphenoid sinusitis, often with deep headaches. Frontal Sinus (Option C): Drains into the middle meatus via the frontonasal duct ; obstruction causes frontal sinusitis, often with forehead pain.





References:

Diseases of Ear, Nose, Throat - PL Dhingra, 8th edition, Pg 233

↑ *Back to this question in Part A*

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Q11: A patient was presented to the OPD with complaints of greenish black matter in the nose with merciful smelling. What is the diagnosis? (Q852655)

A. Allergic rhinitis

B. Atrophic rhinitis

C. Rhinitis caseosa

D. Rhinitis sicca

Correct Answer: B. Atrophic rhinitis

Explanation: Atrophic Rhinitis is a chronic nasal condition characterized by the atrophy of the nasal mucosa, turbinates, and underlying bones , leading to the formation of foul-smelling nasal crusts . The patient presents with greenish-black nasal crusts and a merciful (foul) smell , which is characteristic of ozena (a term for atrophic rhinitis with a fetid odor). Primary Atrophic Rhinitis: Aspect Details Causes Heredity Endocrine disturbance Racial factors Nutritional deficiency Infective: Klebsiella ozaenae Autoimmune Clinical Features And Examination findings Primarily affects females, starts around puberty Foul-smelling nasal discharge; patients are usually unaware of it themselves and have anosmia (merciful anosmia). Paradoxical nasal obstruction despite enlarged nasal chambers. Epistaxis from crust removal. Pale nasal mucosa, atrophied turbinates, potential septal perforation, nasal vestibule dermatitis, saddle nose deformity. Possible extension to pharynx and larynx leading to atrophic pharyngitis and laryngitis. Eustachian tube obstruction and middle ear effusion cause hearing impairment. Other Options: Allergic Rhinitis (Option A) : Presents with watery rhinorrhea, sneezing, nasal congestion, and itching but not with foul-smelling crusts . Rhinitis Caseosa (Option C) : Characterized by caseous (cheese-like) nasal secretions , often seen in chronic fungal or bacterial infections , but not typically with greenish-black crusts . Rhinitis Sicca (Option D) : Involves dryness of the nasal mucosa due to environmental factors but lacks foul-smelling crust formation .

References:

Diseases of Ear, Nose, Throat - PL Dhingra, 8th edition, Pg 654

↑ *Back to this question in Part A*

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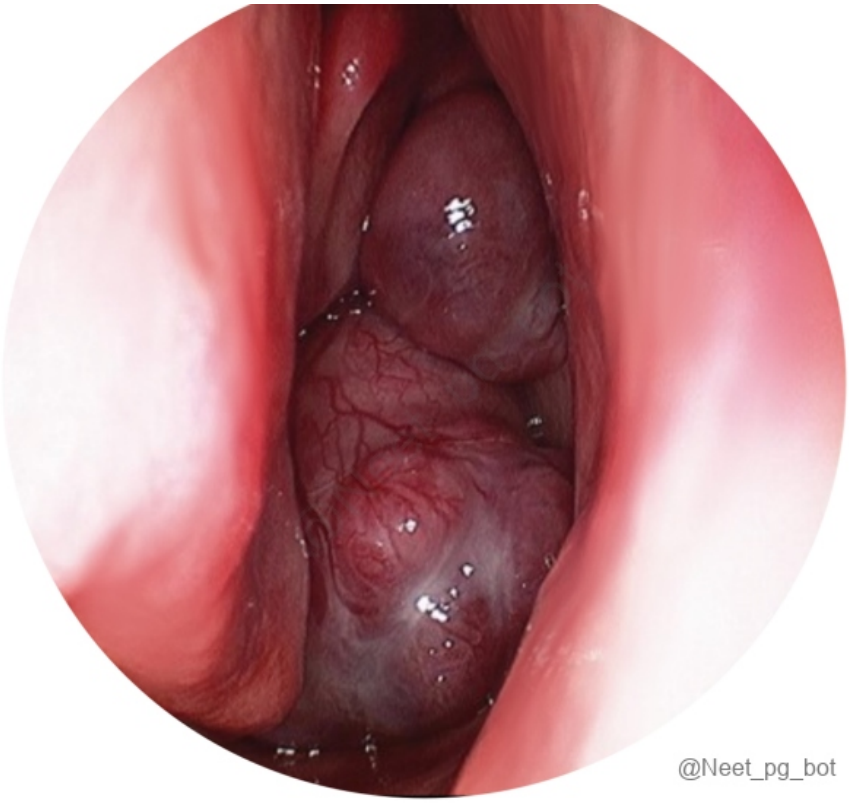
Q12: A 14-year-old child with a history of recurrent bleeding undergoes an endoscopic examination, which is given below. What is the investigation of choice (IOC) for this condition? (Q843940)

A. Contrast-Enhanced CT (CECT)

B. Biopsy

C. X-ray

D. MRI



Correct Answer: A. Contrast-Enhanced CT (CECT)

Explanation: Correct Option A - Contrast-Enhanced CT (CECT): The image shows a globular pink mass in the posterior part of the nasal cavity, and the septum is being pushed to the opposite side. These findings are suggestive of juvenile nasopharyngeal angiofibroma, and the investigation of choice is a CECT scan Options B, C and D are not the IOC for JNAF.

References:

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↑ *Back to this question in Part A*

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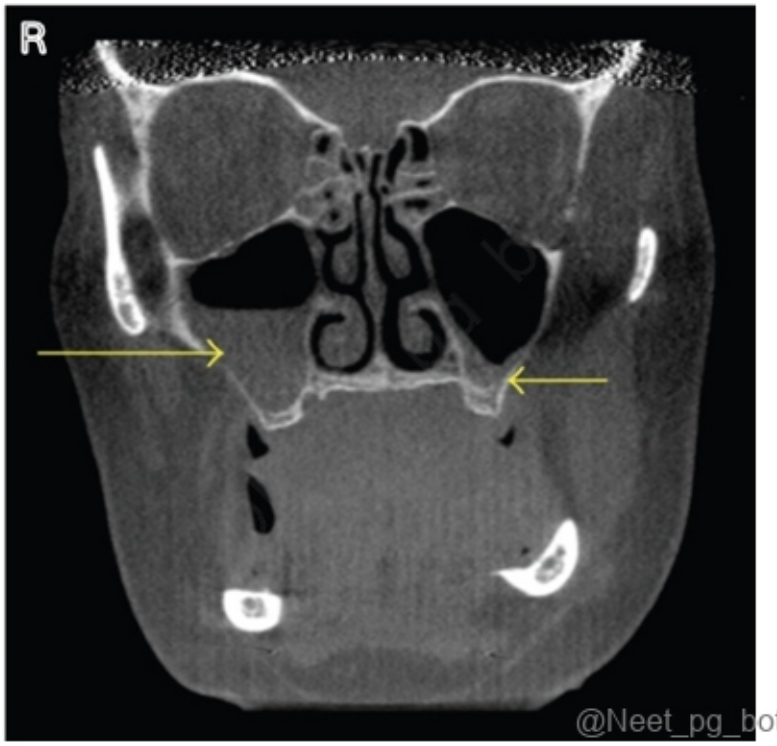
Q13: Which sinus drainage is obstructed in the image provided? (Q843944)

A. Maxillary

B. Ethmoid

C. Sphenoid

D. Frontal



Correct Answer: A. Maxillary

Explanation: Correct Option A - Maxillary: The given radiograph shows blockage in both the maxillary sinuses, predominantly in the right maxillary sinus. Incorrect Options: Options B, C and D are not obstructed in the given X-ray.

References:

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↑ *Back to this question in Part A*

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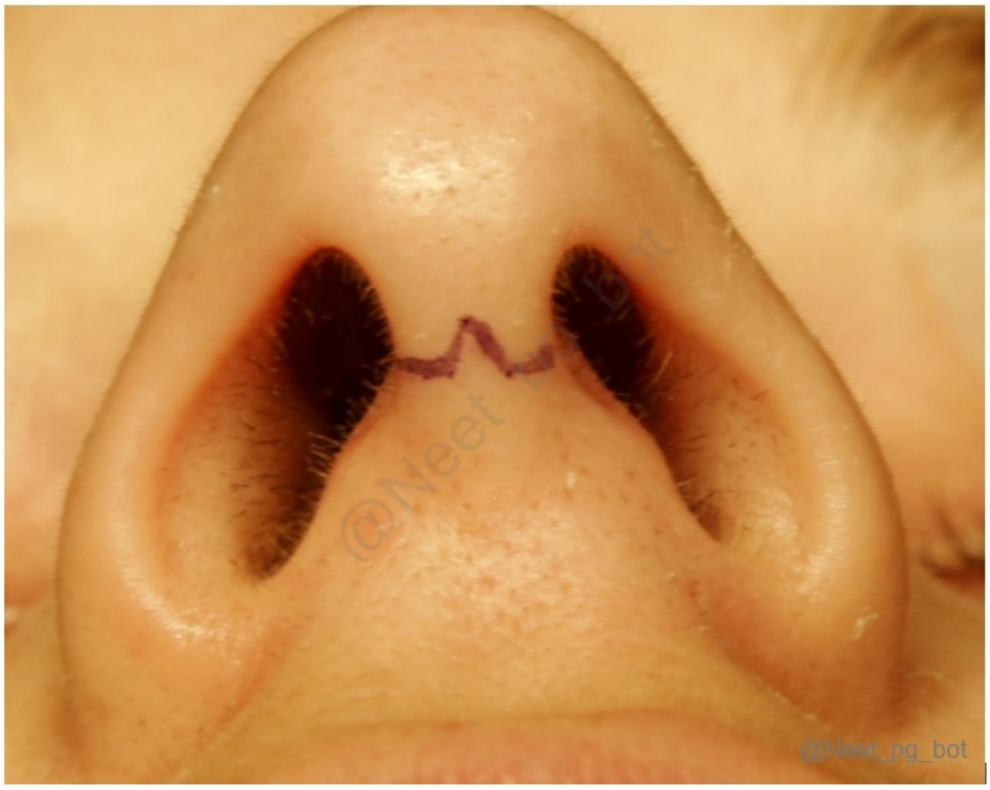
Q14: The incision shown in the given image is typically performed for which of the following surgeries? (Q843972)

A. Open rhinoplasty

B. Caldwell-Luc procedure

C. Septoplasty

D. Sinusotomy



Correct Answer: A. Open rhinoplasty

Explanation: Correct Option A - Open rhinoplasty: During open rhinoplasty, an incision is marked in the narrowest portion of the columella with an inverted-v pattern, which results in better scar formation and less notching than transverse incisions. Incorrect Options: Options B, C, and D: The incision given in the image is not performed in these procedures.

References:

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↑ *Back to this question in Part A*

@Neet_pg_bot

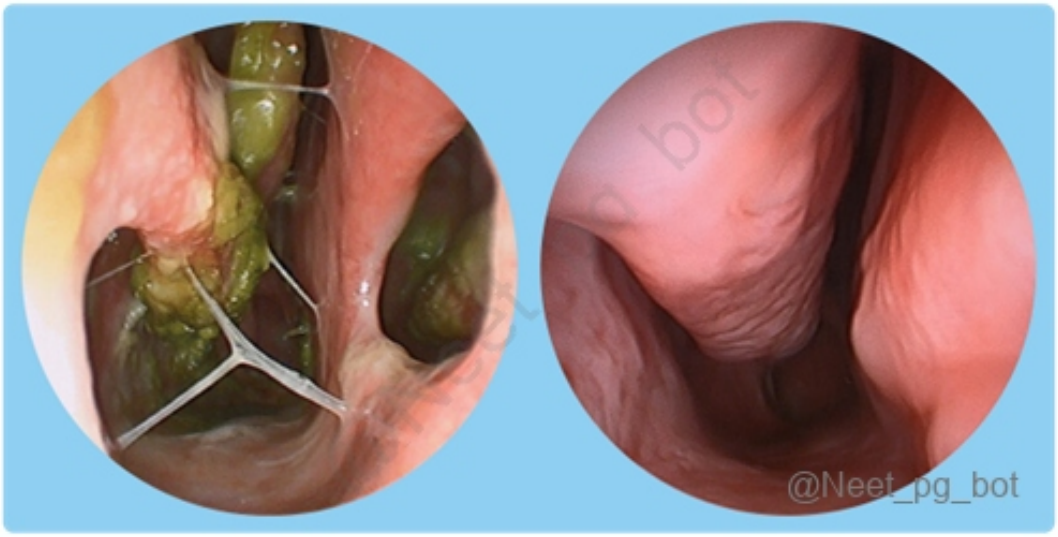
Q15: A patient presents with a foul smell from the nose, anosmia, and nasal obstruction. The following is noted during examination. What is the diagnosis? (Q860429)

A. Atrophic rhinitis

B. Rhinitis sicca

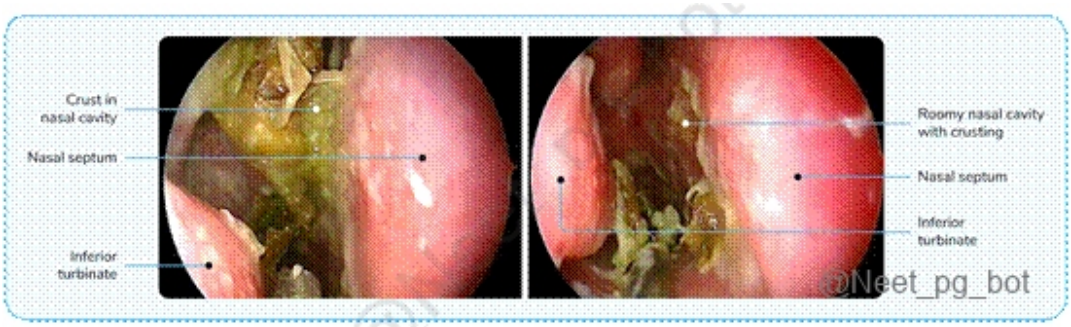
C. Rhinitis medicamentosa

D. Allergic rhinitis



Correct Answer: A. Atrophic rhinitis

Explanation: The image shows crusting and a wide roomy nasal cavity The patient has anosmia beacuse the his olfactory fibres are atrophic-merciful anosmia The people around the patient complain of foul smell where the patient is unaware of this. Hence called as merciful anosmia. All these are features of atrophic rhinitis: Primarily affects females, starts around puberty Foul-smelling nasal discharge; patients are usually unaware of it themselves and have anosmia (merciful anosmia). Paradoxical nasal obstruction despite enlarged nasal chambers. Epistaxis from crust removal. Pale nasal mucosa, atrophied turbinates, potential septal perforation, nasal vestibule dermatitis, saddle nose deformity. Possible extension to pharynx and larynx leading to atrophic pharyngitis and laryngitis. Eustachian tube obstruction and middle ear effusion cause hearing impairment. Incorrect Options: Rhinitis sicca (Option B): Exposure to dry/hot climates (typically seen in people working in bakeries). The crusting is limited to only anterior ■ of the nose and there is no associated anosmia in this case. Rhinitis medicamentosa (Option C): This is due to abuse of alpha adrenergic agonist like xylometazoline which cause nasal obstruction and discharge Allergic rhinitis (Option D): There is serum IgE involved , which causes profuse nasal discharge but not crusting.



References:

Diseases of Ear, Nose and Throat, PL Dhingra, 8th Edition, Page no: 253

↑ *Back to this question in Part A*

@Neet_pg_bot

Q16: Type of voice associated with the hypertrophied adenoids? (Q860432)

A. Rhinolalia clausa

B. Rhinolalia aperta

C. Hot potato voice

D. Hypernasality

Correct Answer: A. Rhinolalia clausa

Explanation: Hypertrophy of the adenoid which causes obstruction to the nasal airway. This further causes nasal twang in the voice which is called Rhinolalia clausa Incorrect Options: Rhinolalia aperta (Option B) : This happens due to elevated resonance in the voice due to increased aeration which occurs in velopharyngeal insufficiency or palatal paralysis. Hot potato voice (Option C) : This feature is seen when there is tonsilar hypertrophy or abscess. Hypernasality (Option D): This is Rhinolalia aperta and can be eliminated by the

References:

Diseases of Ear, Nose and Throat, PL Dhingra, 8th Edition, Page no: 253

↑ *Back to this question in Part A*

@Neet_pg_bot

Q17: A 22-year-old male with recurrent bleeding, presents with bowing of posterior maxillary wall on CECT. All are false except? (Q860434)

A. Outgrown the blood supply

B. Tumor vessels lack contractility

C. Bleeding is from the adjacent invading blood vessels

D. It lacks capsule

Correct Answer: B. Tumor vessels lack contractility

Explanation: The anterior bowing of the posterior wall of the maxillary sinus is called the Holman-Miller Sign This is seen in Juvenile nasal angiofibroma This tumor bleeds excessively because the tumor lacks smooth muscle that can contract. Examination of Juvenile nasopharyngeal angiofibroma (JNA) Anterior Rhinoscopy Reveals a reddish-purple mass obstructing the nasal passages, often with blood-stained discharge. Posterior Rhinoscopy Visualizes a smooth or lobulated mass in the nasopharynx using a small mirror. Oral Examination Assesses for tumor extension into the oral cavity, possibly pushing the soft palate downwards. Neck Palpation Detects any enlarged lymph nodes, especially in the upper cervical region. Neurological Examination Assesses cranial nerve involvement, focusing on eye movements, facial sensation, and hearing. Digital palpation Caution, avoid digital palpation of the nasopharyngeal mass to prevent severe bleeding. Investigations of Juvenile nasopharyngeal angiofibroma (JNA) Contrast-Enhanced CT Scan Investigation of choice ; shows tumor size, location, and bony involvement. Pathognomonic sign: Holman-Miller sign (bowing of maxillary wall). Magnetic Resonance Imaging (MRI) Evaluates soft tissue and intracranial extension, differentiates between extradural and intradural spread. (Option A ruled out) Digital Subtraction Angiography (DSA) Visualizes tumor vascularity, identifies feeding vessels and aids in preoperative embolization to reduce surgical blood loss. Nasopharyngoscopy Provides a direct view of the tumor, but biopsy is generally avoided due to high bleeding risk. (Option C ruled out) Audiometry Assesses hearing loss caused by Eustachian tube obstruction; establishes baseline and monitors post-treatment hearing. Biopsy Biopsy is contraindicated due to risk of profuse bleeding. Incorrect Options: Outgrown the blood supply (Option A): Outgrown the blood supply is a wrong statement because JNA is an extremely vascular tumor. Bleeding is from the adjacent invading vessels (Option C): JNA has its blood supply which is most commonly by the internal maxillary artery. It lacks capsule (Option D): Capsule is associated with the extension of the tumor and not bleeding.

References:

Diseases of Ear, Nose and Throat, PL Dhingra, 8th Edition, Page no: 250

↑ *Back to this question in Part A*

@Neet_pg_bot

Q18: A 50-year-old male presents with right-sided serous otitis media and a history of cervical lymphadenopathy. The probable diagnosis is? (Q860436)

A. Angiofibroma

B. Nasopharyngeal cancer

C. Adenoid hypertrophy

D. Tonsillar abscess

Correct Answer: B. Nasopharyngeal cancer

Explanation: The question clearly hints of the elderly age along with right-sided serous otitis media and cervical lymphadenopathy which helps in the diagnosis of nasopharyngeal carcinoma. Clinical features: Nasal Obstruction Discharge Denasal speech (rhinolalia clausa) Epistaxis Otologic Conductive hearing loss Serous or suppurative otitis media (Unilateral serous otitis media in adults is an important indicator) Tinnitus Dizziness due to Eustachian tube obstruction Ophthalmoneurologic Squint Diplopia (CN VI involvement) Ophthalmoplegia (CN III, IV, VI) Facial pain Reduced corneal reflex (CN V involvement) Exophthalmos Blindness (CN II) Jugular foramen syndrome with CN IX, X, and XI involvement Horner syndrome Cervical Nodal Metastases Lump of nodes between the angle of the jaw and mastoid, or along the spinal accessory in the posterior triangle Distant Metastases Common sites-bone, lung, and liver Common symptoms Cervical lymphadenopathy Hearing loss Nasal obstruction Epistaxis Cranial nerve palsies (CN VI most common) Headache Earache Neck pain Weight loss Incorrect Options: Angiofibroma (Option A): Angiofibroma is seen in the juvenile age group which eliminates the option. Adenoid hypertrophy (Option C): Adenoid hypertrophy is not associated with cervical lymphadenopathy Tonsillar abscess (Option D): This is an infection and not tumor to be associated with cervical lymphadenopathy

References:

Diseases of Ear, Nose and Throat, PL Dhingra, 8th Edition, Page no: 250

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@Neet_pg_bot

Q19: Which nerve is most commonly injured (sensory) during parotid surgery? (Q860488)

A. Facial nerve

B. Auriculo temporal nerve

C. Glossopharyngeal nerve

D. Greater auricular nerve

Correct Answer: D. Greater auricular nerve

Explanation: The greater auricular nerve is the most commonly injured sensory nerve during parotid surgery due to its superficial course over the gland. Injury results in numbness over the angle of the mandible and lower auricle Most commonly injured sensory nerve during parotidectomy. Superficial location over parotid; supplies skin over angle of mandible, lower auricle, and parotid region. Injury causes sensory loss in these areas B) Auriculotemporal nerve (Option B) – deeper course, less exposed. C) Lesser occipital nerve(Option C) – runs posterior to the surgical site. D) Transverse cervical nerve(Option D) – located inferior to parotid area.

References:

Diseases of Ear, Nose and Throat, PL Dhingra, 8th Edition, Page no: 153

↑ *Back to this question in Part A*

@Neet_pg_bot

Q20: Which of the following signs is not typically seen in allergic rhinitis? (Q839956)

A. Allergic shiners

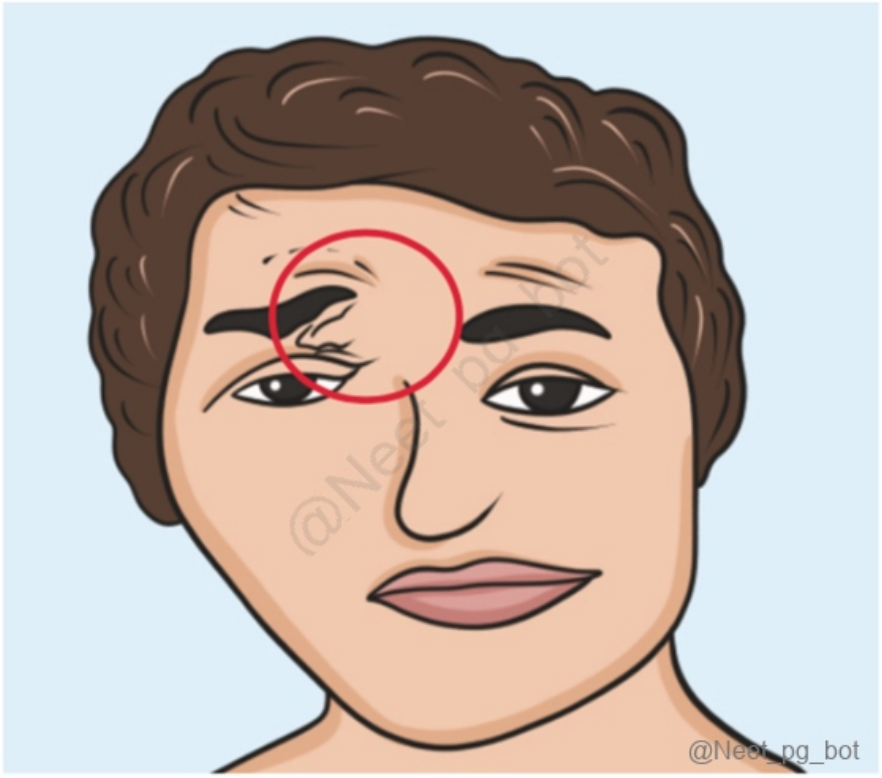
B. Allergic salute

C. Otto vergauth folds

D. Denis morgan lines

Correct Answer: C. Otto vergauth folds

Explanation: Correct Option C - Otto veraguth folds: Otto veraguth folds are seen in the patients with depression. These are triangular folds in the nasal corner of the upper eyelids due to the changes in the tone of the corrugator and zygomatic facial muscles. Incorrect Options: Option A - Allergic shiners: Allergic shiners are dark circles under the eye which is a sign of allergic rhinitis. Option B - Allergic salute: The patient keeps rubbing the nose in an upward direction, resembling a salute which is a sign of allergic rhinitis. Option D - Denis morgan lines: Denis morgan lines is a fold or line in the skin below the lower eyelid which is also a sign of allergic rhinitis



References:

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↑ *Back to this question in Part A*

@Neet_pg_bot

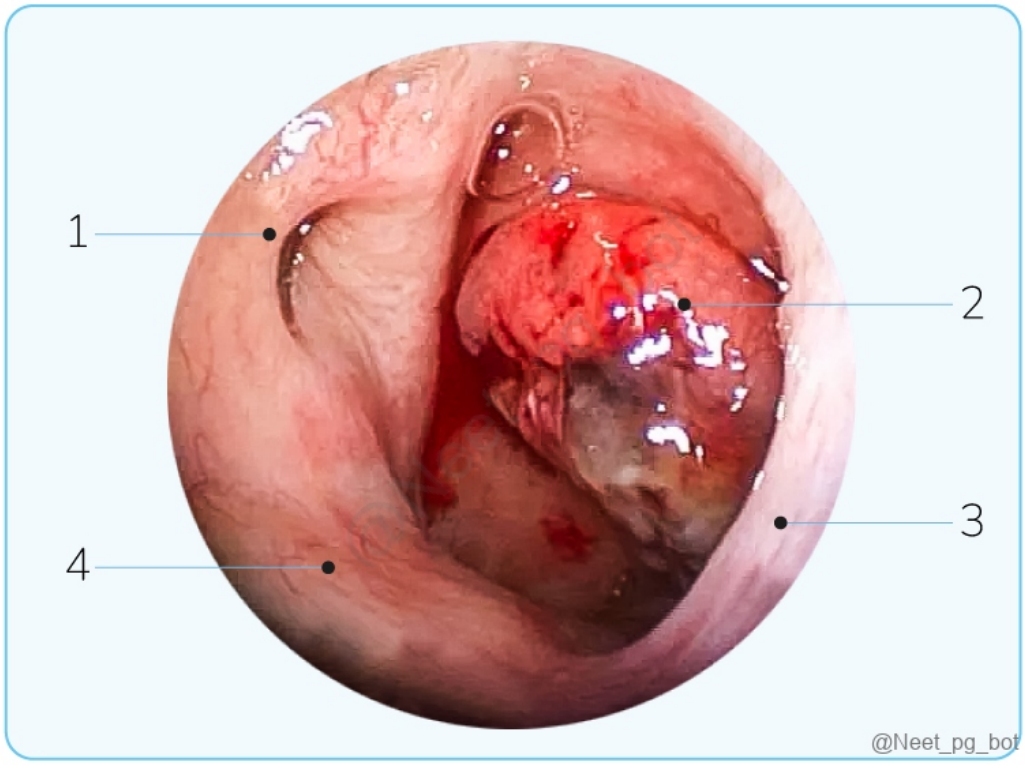
Q21: Identify the most common location of Nasopharyngeal carcinoma: (Q860067)

A. 1

B. 2

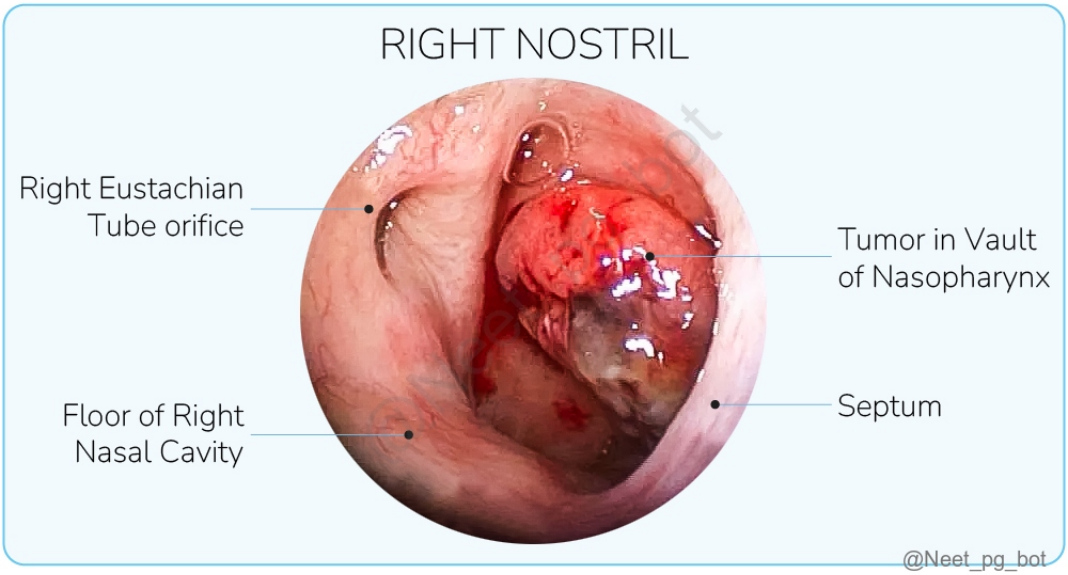
C. 3

D. 4



Correct Answer: B. 2

Explanation: The most common site of origin of nasopharyngeal cancer is the Fossa of Rosenmuller. The area marked as number 2 indicates the Fossa of Rosenmuller. {{caption_text}} Aspect Details Definition • A deep recess located in the nasopharynx , behind the torus tubarius (the cartilaginous opening of the Eustachian tube) Location • Posterolateral wall of the nasopharynx • Just behind the Eustachian tube opening Clinical Importance • Common site for nasopharyngeal carcinoma (NPC) origin • Close to the pharyngeal opening of the Eustachian tube , so tumors here may cause ear symptoms Related Structures • Close to the Eustachian tube , tensor and levator veli palatini muscles , and retropharyngeal lymph nodes Symptoms if Involved • Unilateral ear blockage or hearing loss (due to Eustachian tube obstruction) • Nasal obstruction , epistaxis (nosebleeds) • Neck mass (from lymph node spread) Incorrect Options: Options A) Involvement of the superior nasopharynx (1) is uncommon but may lead to early skull base invasion and cranial nerve involvement . Option C) Posterior nasopharynx (3): This site is less frequently affected compared to the lateral walls but may be involved in advanced cases. Option D) This location is rare, but tumors here may cause early nasal symptoms such as epistaxis, nasal obstruction, and sinus involvement



References:

Diseases of Ear, Nose and Throat, PL Dhingra, 8th Edition, Page no: 154

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@Neet_pg_bot

Q22: What is the preferred initial management for a patient presenting with cerebrospinal fluid (CSF) rhinorrhea? (Q860070)

A. Functional Endoscopic Sinus Surgery (FESS)

B. Administration of steroids

C. Bed rest with head elevation and avoidance of straining activities

D. Immediate surgical repair without initial medical management

Correct Answer: C. Bed rest with head elevation and avoidance of straining activities

Explanation: The initial management for CSF Rhinorrhea is bed rest with head elevation and avoidance of straining activities. It also includes administration of antibiotics and diuretics. Treatment of CSF Rhinorrhea Conservative Management: Bed rest, head elevation Stool softeners, avoidance of nose blowing, sneezing, and straining. Prophylactic antibiotics to prevent meningitis Acetazolamide to decrease CSF formation Lumbar drain if indicated Surgical Repair Approaches: Neurosurgical Intracranial Approach Extradural Approaches (rarely used): External ethmoidectomy (cribriform plate/ethmoid area) Transseptal sphenoidal approach Osteoplastic flap (frontal sinus leaks) Transnasal Endoscopic Approach (preferred for anterior cranial fossa and sphenoid sinus):

Site identification (e.g., cribriform plate, sphenoid, ethmoid roof) Grafting with fascia, and cartilage for large defects (>2 cm), followed by mucosa placement Use of Surgicel and Gelfoam to further strengthen the area. High-antibiotic nasal packing Lumbar drain for high CSF pressure Frontal Sinus Leaks: May require osteoplastic flap and sinus obliteration with fat. Incorrect Options: FESS (Option A): FESS is not used in the initial management for a patient with CSF Rhinorrhoea. Administration of steroids (Option B): Administration of steroids is not preferred in the management of CSF Rhinorrhoea. Immediate surgical repair without initial medical management (Option D): Immediate surgical repair without initial medical management is not preferred in management of CSF Rhinorrhea.

References:

Diseases of Ear, Nose and Throat, PL Dhingra, 8th Edition, Page no: 153

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@Neet_pg_bot

Q23: Which structure is most commonly involved in the compression of the anterior ethmoid nerve, leading to Sluder's neuralgia? (Q860073)

A. Superior turbinate

B. Middle turbinate

C. Inferior turbinate

D. Nasal septum

Correct Answer: B. Middle turbinate

Explanation: Middle turbinate, more than the inferior turbinate, is the most commonly involved structure in the compression of the anterior ethmoid nerve leading to anterior ethmoid neuralgia (Sluder's neuralgia). Incorrect Options: Options A, C & D: Superior turbinate, inferior turbinate, and nasal septum are not the most commonly involved structures in the compression of anterior ethmoid nerve

References:

Diseases of Ear, Nose and Throat, PL Dhingra, 8th Edition, Page no: 154

↑ *Back to this question in Part A*

@Neet_pg_bot

Q24: What is the name of the staging system used for Juvenile Nasopharyngeal Angiofibroma? (Q860093)

A. Radkowski’s

B. TNM Staging

C. Ann Arbor Staging System

D. Dukes criteria

Correct Answer: A. Radkowski’s

Explanation: Radkowski’s classification is used for Juvenile Nasopharyngeal Angiofibroma: I A Involvement limited to the nose or naso-pharynx I B Extension into one or more sinuses II A Minimal extension into pterygopalatine fossa II B Occupies the entire pterygopalatine fossa with or without erosion of the orbital ■■■■ II C Involvement of the infratemporal fossa with or without extension to the cheek or posterior to pterygoid plates III A Erosion of the skull base (the middle cranial fossa/base of the pterygoids), minimal intracranial extension III B Erosion of the skull base, extensive intracranial extension with or without cavernous sinus invasion Incorrect Options: Option B -TNM staging: TNM staging is not used for Juvenile Nasopharyngeal Angiofibroma Option C - Ann Arbor staging system: Ann Arbor staging system is used for Hodgkin's lymphoma. Option D - Dukes criteria: Dukes criteria is used for Infective endocarditis.

References:

Diseases of Ear, Nose and Throat, PL Dhingra, 8th Edition, Page no: 153

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@Neet_pg_bot

Q25: Which structure does the anterior ethmoidal sinus drain into? (Q860101)

A. Middle meatus

B. Inferior meatus

C. Superior meatus

D. Sphenoethmoidal recess

Correct Answer: A. Middle meatus

Explanation: Anterior ethmoidal sinus drains into the middle meatus. Anterior ethmoidal sinus: Aspect Details Definition Air-filled cavities within the ethmoid bone Part of the ethmoidal sinus system Location Between the nasal cavity and the orbit Anterior group of ethmoidal air cells (compared to middle/posterior groups) Drainage Pathway Drains into the middle meatus of the nasal cavity via the infundibulum and hiatus semilunaris Innervation Supplied by the anterior ethmoidal nerve , a branch of the nasociliary nerve (from CN V1 – ophthalmic division) Blood Supply Anterior ethmoidal artery (branch of ophthalmic artery) Clinical Relevance Can be involved in

sinusitis (especially if drainage is blocked) Close to orbit and anterior cranial fossa — risk of orbital cellulitis or intracranial spread if infected Incorrect Options: Options B, C & D: The anterior ethmoidal sinus does not drain in these sinuses.

References:

Diseases of Ear, Nose and Throat, PL Dhingra, 8th Edition, Page no: 279

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Q26: A fracture has occurred at the cribriform plate area of the ethmoid bone. The patient can present with which symptom? (Q860127)

A. Hearing loss

B. Visual loss

C. CSF Rhinorrhoea

D. Diplopia

Correct Answer: C. CSF Rhinorrhoea

Explanation: The most common cause of CSF rhinorrhea is trauma, and the most common site of CSF leak (CSF Rhinorrhoea) is the cribriform plate of the ethmoid bone, which is the weakest part of the bone. Common Sites of CSF Rhinorrhea Anterior cranial fossa Middle cranial fossa Temporal bone fracture Cribriform plate(most common) Roof of ethmoid air cells Frontal sinus Sphenoid sinus(following trauma) CSF reaches the middle ear, escaping through the eustachian tube into the nose(CSF otorhinorrhea) Aetiology Trauma (Most common): Accidental or surgical (e.g., sinus surgery, nasal polypectomy, skull base surgery). Inflammations: Mucocoeles, fungal infections, osteomyelitis, sinus polyposis. Neoplasms: Benign and malignant tumours invading the skull base. Congenital: Meningocele, meningoencephaloceles, gliomas with skull base defects. Idiopathic: Spontaneous leaks with no known cause. Investigations for CSF Rhinorrhea Handkerchief test (Halo sign): Simple bedside test; CSF forms clear halo around blood spot. Beta-2 transferrin: Gold standard biochemical test; highly specific for CSF. High-Resolution CT (HRCT): Identifies bony defects in skull base. CT Cisternography: Contrast-enhanced; precise localization of active CSF leaks. MRI Cisternography: Non-invasive; useful for identifying meningoceles/encephaloceles. Fluorescein Test: Intrathecal dye injection; helps in intraoperative leak localization. Incorrect Options: Options A, B & D: Hearing loss, visual loss, and diplopia are not the symptoms of trauma (fracture) to the cribriform plate of the ethmoid bone.

References:

Diseases of Ear, Nose and Throat, PL Dhingra, 8th Edition, Page no: 153

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@Neet_pg_bot

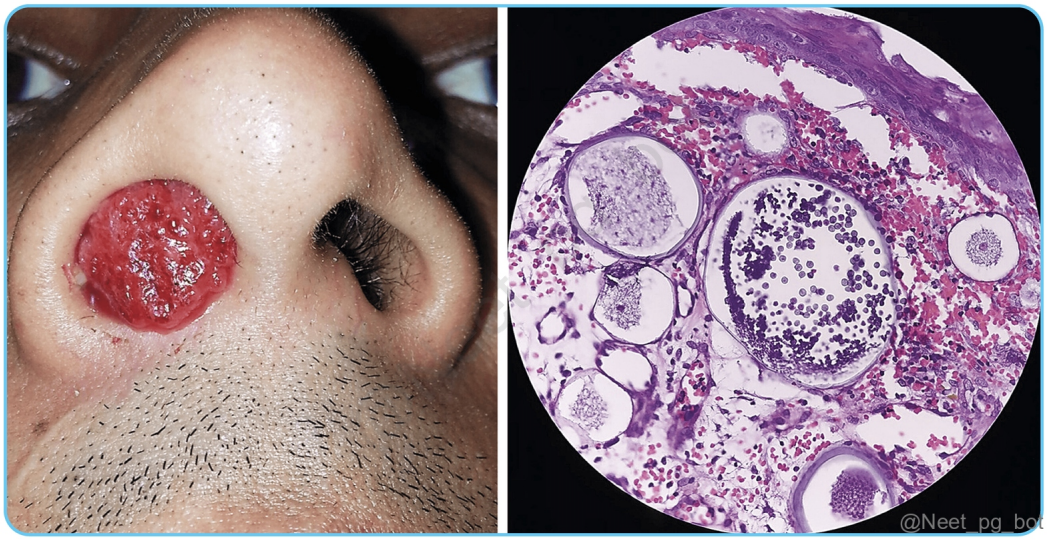
Q27: A South Indian male farmer presents to the ENT OPD with complaints of reddish mass coming out from the nose and histopathology image as given below. What is the likely diagnosis? (Q857365)

A. Rhinosporidiosis

B. Rhinoscleroma

C. Rhinophyma

D. Nasal polyp



Correct Answer: A. Rhinosporidiosis

Explanation: The clinical presentation of rhinosporidiosis includes the presence of reddish or pinkish masses or polyps in the nasal cavity and histopathology shows sporangium with sporangiospores as seen in the images shown. Rhinosporidiosis: It is a chronic granulomatous disease caused by an aquatic protistan protozoa- Rhinosporidium seeberi. It is a water-borne disease- contaminated water of ponds usually with cow dung. Epidemiology: Common in India, Sri Lanka, and Pakistan More common in southern states than in northern India Life cycle: Trophic stage → Development of sporangium → Release of endospores Clinical Features: Blood-tinged nasal discharge Nasal block Epistaxis Leafy, polypoidal, pink to purple colored mass attached to the nasal septum or lateral wall. Very vascular mass and bleeds easily on touch. White dots are studded on its surface representing the sporangia. Incorrect Options: Rhinoscleroma (Option B): Rhinoscleroma is a chronic granulomatous condition caused by the bacterium Klebsiella rhinoscleromatis. It is characterized by the formation of fibrotic nodules in the nose and other respiratory passages as shown below. Histopathology shows Miculicz cells (large foam cells with central nucleus and cytoplasm with the bacilli) and Russell bodies (cells with eccentric nucleus and eosinophilic cytoplasm). Rhinophyma (Option C): Rhinophyma is a condition characterized by progressive enlargement of the nose due to sebaceous gland hyperplasia as shown below. It is typically associated

with acne rosacea. Nasal polyp (Option D): Nasal polyps are non-cancerous growths that develop in the lining of the nose or sinuses. They are usually soft, painless, and non-inflammatory translucent tissue containing mucus unlike the fleshy polyps of rhinosporidiosis.

References:

Diseases of the Ear, Nose, and Throat, PL Dhingra, 8th Edition, Page no: 236

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@Neet_pg_bot

Q28: A infant developed difficulty in breathing. His symptoms improve with crying. In which disease, symptoms get improve with crying? (Q820351)

A. Atrophic rhinitis

B. Acute rhinosinusitis

C. Allergic rhinitis

D. Choanal atresia

Correct Answer: D. Choanal atresia

Explanation: Correct Option D - Choanal atresia: Choanal atresia is a congenital condition where there is a blockage or narrowing of the back of the nasal passage (choanae) that leads from the nasal cavity to the throat. This blockage can make it difficult for an infant to breathe through their nose. Interestingly, infants with choanal atresia often improve their breathing when they cry. When they cry, they open their mouths wider, allowing more air to flow into their lungs through their mouth, bypassing the blocked nasal passages. This temporary improvement in breathing during crying is a characteristic feature of choanal atresia. Incorrect Options: Option A - Atrophic rhinitis: Atrophic rhinitis is a condition characterized by the thinning and inflammation of the nasal mucosa, leading to symptoms like nasal crusting, foul odor, and nasal congestion. Crying is unlikely to significantly improve symptoms in atrophic rhinitis. Option B - Acute rhinosinusitis: Acute rhinosinusitis is an inflammation of the nasal and sinus passages, often caused by infections. While crying might lead to temporary relief of symptoms due to increased nasal secretions, it's not a defining characteristic of this condition. Option C - Allergic rhinitis: Allergic rhinitis is an allergic reaction that leads to symptoms like sneezing, itching, runny or stuffy nose. Crying might temporarily relieve some symptoms, but it's not a specific feature of allergic rhinitis.

↑ *Back to this question in Part A*

@Neet_pg_bot

Q29: A 40-year-old patient presenting with non-caseating granulomas and a saddle nose perforation, what is the most likely diagnosis? (Q820385)

A. TB

B. Leprosy

C. Wegener’s granulomatosis

D. Syphilis

Correct Answer: C. Wegener’s granulomatosis

Explanation: Correct Option C - Wegener's granulomatosis (Granulomatosis with Polyangiitis): The combination of non-caseating granulomas and saddle nose perforation strongly points towards Wegener's granulomatosis (now often referred to as Granulomatosis with Polyangiitis), making option C the most likely diagnosis in this case. Causes necrotizing granulomatous inflammation of the upper airway. Produces rapid septal destruction → septal perforation → saddle nose . Occurs commonly in 30–50 years , matching the patient’s age. TB, leprosy, and syphilis produce saddle nose, but only in late, long-standing disease and have other characteristic findings—none of which are mentioned here. Therefore, GPA is the best single diagnosis for this combination of early aggressive cartilage destruction + granulomas. Incorrect Options: Option A - TB (Tuberculosis): While TB can also cause granulomas, the presentation of saddle nose perforation is not typically associated with TB. TB commonly affects the lungs and can cause symptoms like cough, fever, and weight loss. Option B - Leprosy: Leprosy can cause granulomas as well, saddle nose only in advanced lepromatous leprosy . Leprosy usually affects the skin, nerves, and mucous membranes, leading to skin lesions and nerve damage. Option D - Syphilis: Syphilis can cause granulomas as part of its secondary stage manifestations, Saddle nose occurs mainly in congenital syphilis or in tertiary gummatous syphilis .. Syphilis typically causes a variety of symptoms including skin rash, fever, and mucous membrane lesions.

References:

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↑ *Back to this question in Part A*

@Neet_pg_bot

Q30: A 7-year-old male presented with nasal obstruction. On examination there was an irregular mass protruding from the choanae. What is the possible diagnosis? (Q820403)

A. Thornwaldt cyst

B. Antro-choanal polyp

C. Hypertrophic rhinitis

D. Adenoid hypertrophy

Correct Answer: B. Antro-choanal polyp

Explanation: Correct Option B - Antro-choanal polyp:] An antro-choanal polyp is a benign growth that originates in the maxillary sinus (antrum) and extends into the nasal cavity, passing through the choanae (the openings at the back of the nasal cavity that lead to the throat). These polyps are typically unilateral and can cause nasal obstruction, especially if they protrude significantly into the nasal cavity. Incorrect Options: Option A - Thornwaldt Cyst: A Thornwaldt cyst (also known as nasopharyngeal cyst or pharyngeal bursitis) is a cyst that forms in the nasopharynx. However, it is usually not associated with an irregular mass protruding from the choanae. It might cause nasal symptoms, but it's less likely to present with the specific characteristics described in the scenario. Option C - Hypertrophic Rhinitis: Hypertrophic rhinitis refers to the enlargement of the nasal turbinates due to chronic inflammation. While it can lead to nasal obstruction, it doesn't usually manifest as an irregular mass protruding from the choanae. It's more associated with internal nasal structures rather than external protrusions. Option D - Adenoid Hypertrophy: Adenoid hypertrophy involves the enlargement of the adenoid tissue, which is in the back of the nasal cavity, near the choanae. However, adenoids don't typically present as an irregular mass protruding through the choanae. Instead, they might cause more generalized nasal obstruction and related symptoms.

References:

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↑ *Back to this question in Part A*

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Q31: A 30-year-old women present with upper respiratory tract infection and orbital pain. What is the likely diagnosis? {{caption_text}} (Q854630)

A. Orbital cellulitis

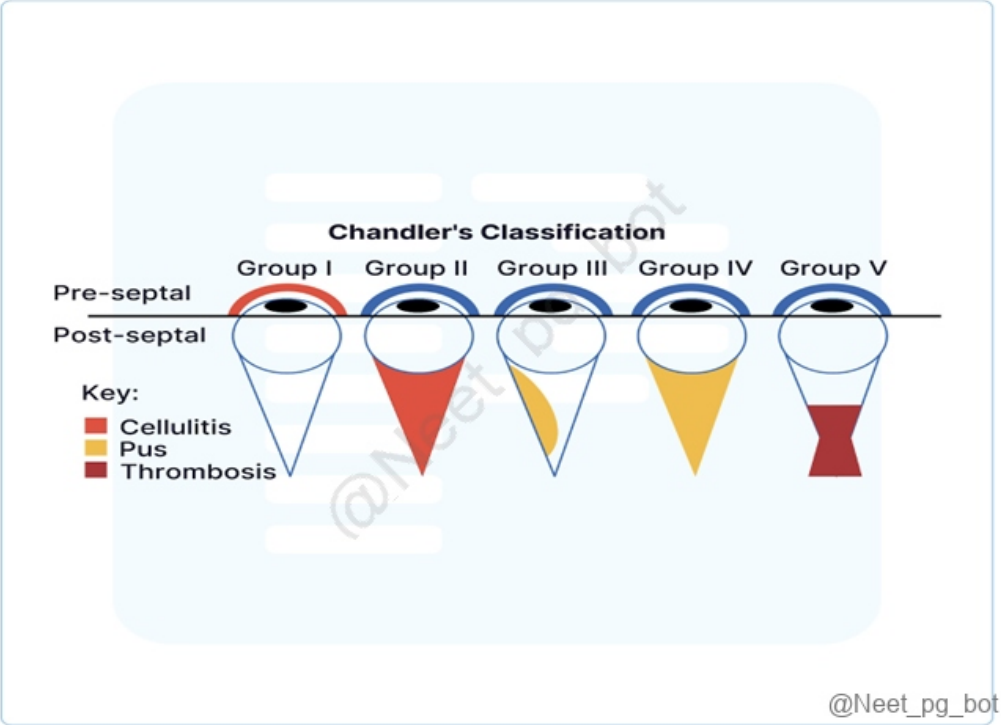
B. Sinusitis

C. Both A and B

D. Subperiosteal abscess

Correct Answer: A. Orbital cellulitis

Explanation: Correct Option: A) Orbital cellulitis The given CT is confirmatory of orbital cellulitis as there is proptosis visible on the CT and the patient is also having orbital pain. Orbital Cellulitis Definition Orbital cellulitis is an acute infection of the soft tissues of the orbit located behind the orbital septum. Etiology Exogenous Infection : Occurs due to penetrating injuries. Example: foreign body retention, surgical procedures like evisceration, enucleation, orbitotomy, dacryocystectomy. Endogenous Infection : From metastatic infections. Example: breast abscess, puerperal sepsis, thrombophlebitis, septicemia Extension from Neighboring Structures (most common) : Paranasal sinuses (most common: ethmoid sinus) , teeth, face, eyelids, intracranial cavity, and intraorbital structures. Clinical Features Symptoms : Swelling and severe pain (worsened by eye movement or pressure). Systemic symptoms: fever, nausea, vomiting, prostration. Vision loss and/or diplopia in moderate to advanced cases. Signs : Swelling of lids with woody hardness and redness. Chemosis (conjunctival swelling), which may lead to necrosis. Axial proptosis. Restricted eye movements. RAPD (Relative Afferent Pupillary Defect) may occur due to optic neuropathy or central retinal artery occlusion. Fundus examination may show retinal vein congestion, papillitis, or papilledema Staging Modified Chandler staging system: Stage I: Preseptal cellulitis/ periorbital cellulitis (limited anterior to orbital septum) Stage II: Inflammatory orbital oedema/ Orbital cellulitis (Posterior to orbital septum) Stage III: Subperiosteal abscess Stage IV: Orbital abscess Stage V: Cavernous sinus thrombosis Investigations Cultures : Nasal, conjunctival, and blood samples for bacterial culture. Complete Blood Count : Leukocytosis. X-ray PNS : To detect sinusitis. Orbital Ultrasonography : To detect orbital abscesses. CT Scan/MRI : Differentiates preseptal from postseptal cellulitis, detects abscesses, intracranial extension, and guides surgical drainage. Incorrect Options: Sinusitis (Option B): This option is incorrect as proptosis is visible on imaging. Both A and B (Option C): This option is also incorrect. Subperiosteal abscess (Option D): This option is incorrect as CT findings of periosteal abscess show abscess behind the orbit.



References:

Diseases of the Ear, Nose, and Throat, PL Dhingra, 8th Edition, Page no: 153

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@Neet_pg_bot

Q32: A patient presents to the OPD with complaints of bleeding from nose, nasal obstruction, and difficulty in breathing. He gave the history of bathing in the local pool near his house. On examination, red polypoidal mass with whitish dots on the surface is observed. Based on the history, examination what will be the diagnosis of the patient? (Q854637)

A. Rhinosporidiosis

B. Basal Cell Carcinoma

C. Rhinoscleroma

D. Lupus Vulgaris

Correct Answer: A. Rhinosporidiosis

Explanation: Correct Option: A) Rhinosporidiosis The given histopathology and clinical scenario (bleeding, nasal obstruction, and red polyploidal mass) is suggestive of Rhinosporidiosis, as on histopathology there are sporangia with spores. Rhinosporidiosis: It is a chronic granulomatous disease caused by an aquatic protistan protozoa- Rhinosporidium seeberi. It is a water-borne disease- contaminated water of ponds usually with cow dung. Epidemiology: Common in India, Sri Lanka, and Pakistan More common in southern states than in northern India Life cycle: Trophic stage → Development of sporangium → Release of endospores Clinical Features: Blood-tinged nasal discharge Nasal block Epistaxis Leafy, polypoidal, pink to purple colored mass attached to the nasal septum or lateral wall. Very vascular mass and bleeds easily on touch. White dots are studded on its surface representing the sporangia. Incorrect Options: Basal Cell Carcinoma (Option B): This option is incorrect as basal cell carcinoma exhibits the findings given below. Rhinoscleroma (Option C) : This is incorrect as Rhinoscleroma presents with nasal obstruction, erythematous granular or nodular swellings, crusts on the swellings, and swelling of the lips and gums. Lupus Vulgaris (Option D): This option is incorrect as Lupus vulgaris (also known as tuberculosis luposa) are painful cutaneous tuberculosis skin lesions with nodular appearance, most often on the face around the nose, eyelids, lips, cheeks, ears, and neck.

References:

Diseases of the Ear, Nose, and Throat, PL Dhingra, 8th Edition, Page no: 153

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@Neet_pg_bot

Q33: What is the probable diagnosis for a 30-year-old male who has nonaxial proptosis in his left eye and a history of a road traffic accident 15 years ago, as suggested by the provided CT image? (Q855201)

A. Frontal mucocele

B. Frontal meningioma

C. Juvenile nasopharyngeal angiofibroma

D. Pseudotumor of orbit

Correct Answer: A. Frontal mucocele

Explanation: Correct Option: A) Frontal mucocele CT image shows the left frontal sinus is completely filled with a homogeneous soft-tissue density.This is typical of a mucocele (mucus-filled, non-enhancing lesion) A mucocele is a cyst-like structure that forms when the lining of a sinus cavity becomes inflamed or blocked. This commonly occurs as a result of obstruction to the frontal ostium due to chronic disease of the frontal recess or due to postsurgical/ traumatic fibrosis causing blockage. Frontal mucoceles can appear 10–20 years after trauma due to scarring and obstruction of frontal recess. Trauma → scarring → frontal recess obstruction → delayed mucocele Frontal mucocele pushes the globe inferolaterally → classic nonaxial proptosis. Symptoms of a frontal mucocele include: Proptosis (bulging) of the eye Headache or facial pain Vision changes or double vision Nasal congestion or discharge Sinus pressure or pain Swelling or tenderness in the forehead Incorrect Options: Frontal meningioma (Option B): A meningioma is a tumor that arises from the lining of the brain or spinal cord. When a meningioma forms in the front of the head, it can cause eye proptosis. However, meningiomas are relatively uncommon in young adults, and a history of trauma may not be associated with developing a meningioma. CT shows sinus expansion rather than intracranial mass → favors mucocele. Juvenile nasopharyngeal angiofibroma (Option C): Juvenile nasopharyngeal angiofibroma is a rare and benign tumor, typically in adolescent males. It arises from the back of the nose or upper throat and can cause eye proptosis as it grows. However, the history of trauma 15 years prior is not usually associated with developing a juvenile nasopharyngeal angiofibroma. Pseudotumor of the orbit (Option D): Pseudotumor of orbit, also known as an idiopathic orbital inflammatory syndrome, is a condition in which the tissues around the eye become inflamed and swollen, causing eye proptosis. The cause of the pseudotumor of the orbit is unknown, but it is thought to be related to an abnormal immune response. While a history of trauma is not typically associated with developing pseudotumor of orbit, the condition can occur at any age. pseudotumor causes painful, acute proptosis, not slowly progressive over years.

References:

Diseases of the Ear, Nose, Throat, 8th Edition, Page no: 279

↑ *Back to this question in Part A*

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Q34: An elderly diabetic female patient is presented, as shown in the image. What is the most probable diagnosis? (Q858046)

A. Aspergillosis

B. Mucormycosis

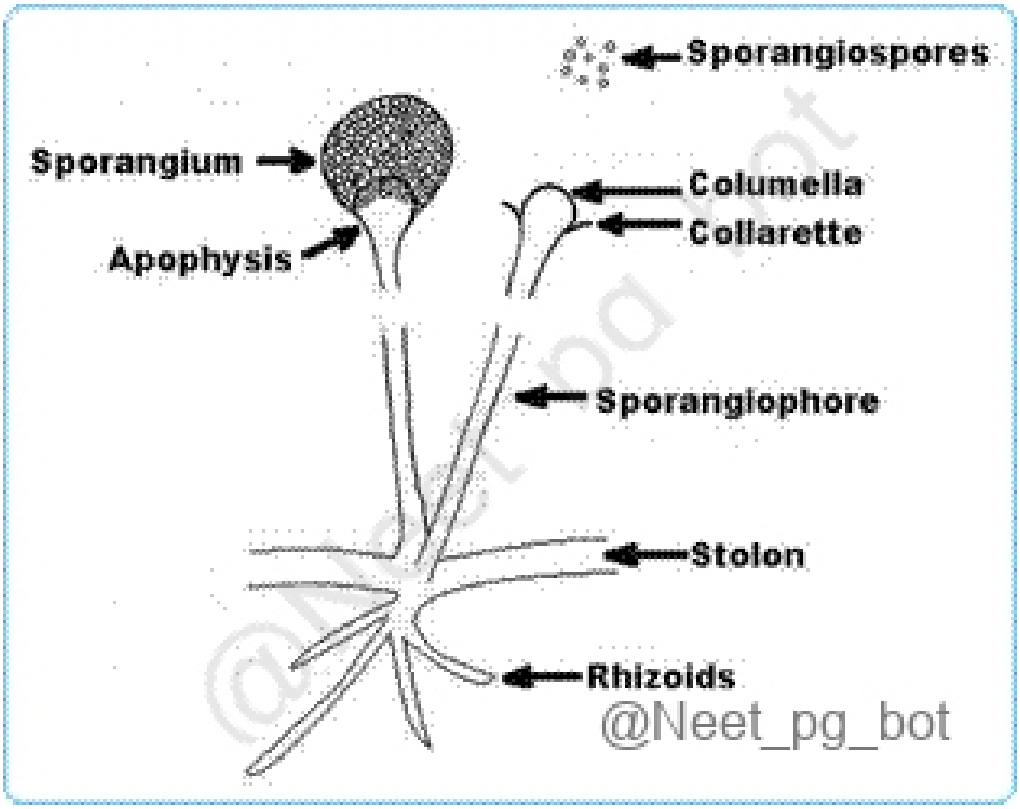
C. Foreign body

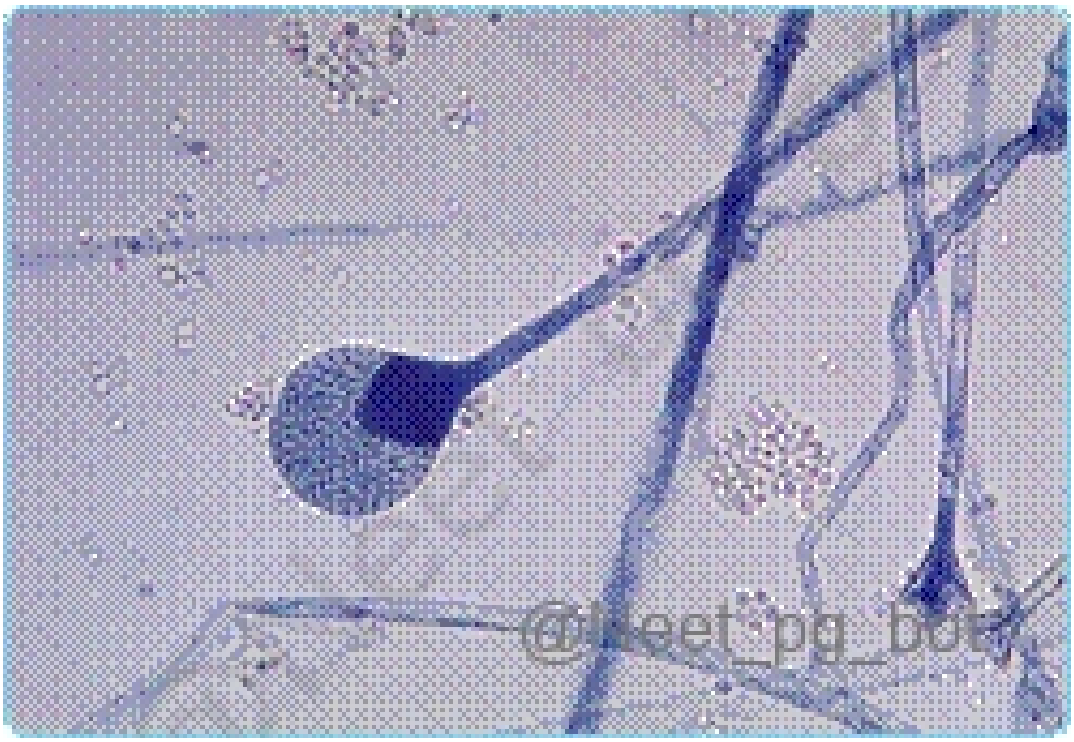
D. Rhinosporidiosis

Correct Answer: B. Mucormycosis

Explanation: The image, coupled with the clinical context of an elderly diabetic female, strongly suggests Mucormycosis as the most probable diagnosis. The image shows black necrotic tissue near the orbit, which is characteristic of rhino-orbital-cerebral mucormycosis . Mucormycosis It is an invasive disease caused by zygomycetes (phycomycetes) - Rhizopus, Mucor and Absidia. Rhizopus Arrhizus is the most common pathogen {{caption_text}} Rhizopus {{caption_text}} Absidia {{caption_text}} Mucor (Lactophenol cotton blue stained)

Pathogenesis Begins in the respiratory tract or nasal cavity, where spores germinate and form mycelia → invade adjacent tissues, leading to local destruction. Fungi invade blood vessels, causing thrombosis and infarction in affected areas, which contributes to its high mortality rate (Angio-invasiveness) Common Sites Rhinocerebral Form : Involves the nose, nasal sinuses, and orbit; frequently seen in diabetic patients. Pulmonary Infections : When the lungs are the primary site, the fungi can invade lung arteries, leading to serious complications. Others: Cutaneous mucormycosis, GI mucormycosis, Disseminated mucormycosis Clinical Features Rhinocerebral Zygomycosis : Facial swelling, nasal discharge (often black), fever, and mucosal necrosis . Rapid progression can lead to severe complications, including visual loss and neurological symptoms. Pulmonary Zygomycosis : Symptoms may include cough, fever, and hemoptysis Diagnosis Histological Examination : Diagnosis is confirmed by identifying broad, non-septate (or sparsely septate) hyphae. {{caption_text}} Culture: After incubation for 3-4 days on Sabouraud agar at 30-37°C, the colonies are grey-white with a thick cottony, fluffy surface. Under the microscope, nonseptate, broad hyphae with aerial sporangiophores which end in a sporangium (a sac containing spores are seen.) a. {{caption_text}} b . {{caption_text}} a. Sabouraud's dextrose agar (SDA) medium showing Rhizopus growth b.Microscopy of LPCB stained preparation demonstrating morphology of Rhizopus spp. (non-septate hyphae, sporangiophore, sporangium and spores) Treatment: Intravenous amphotericin B combined, where appropriate, with surgical drainage is the recommended treatment. Medical control of diabetes is required. Aspergillosis (Option A): is a fungal infection affecting the nasal cavity, sinuses, and lungs. In the nasal cavity, it may appear as a white, fluffy, or mold-like growth on the mucosal lining. In the sinuses, it may cause thick mucus or pus-like discharge in the lungs, it can cause fungal balls in pre-existing cavitary lesions. Foreign body (Option C): A foreign body in the nose may present as unilateral nasal discharge, foul odor, and occasionally epistaxis (nosebleed). On physical examination, the foreign body may be visible in the nasal cavity and appear as small objects or debris. Rhinosporidiosis (Option D): is a chronic granulomatous disease caused by a parasite, Rhinosporidium seeberi. It typically presents as a pedunculated or sessile polypoidal mass arising from the nasal mucosa. The mass is usually pink or red in color and may bleed on manipulation.

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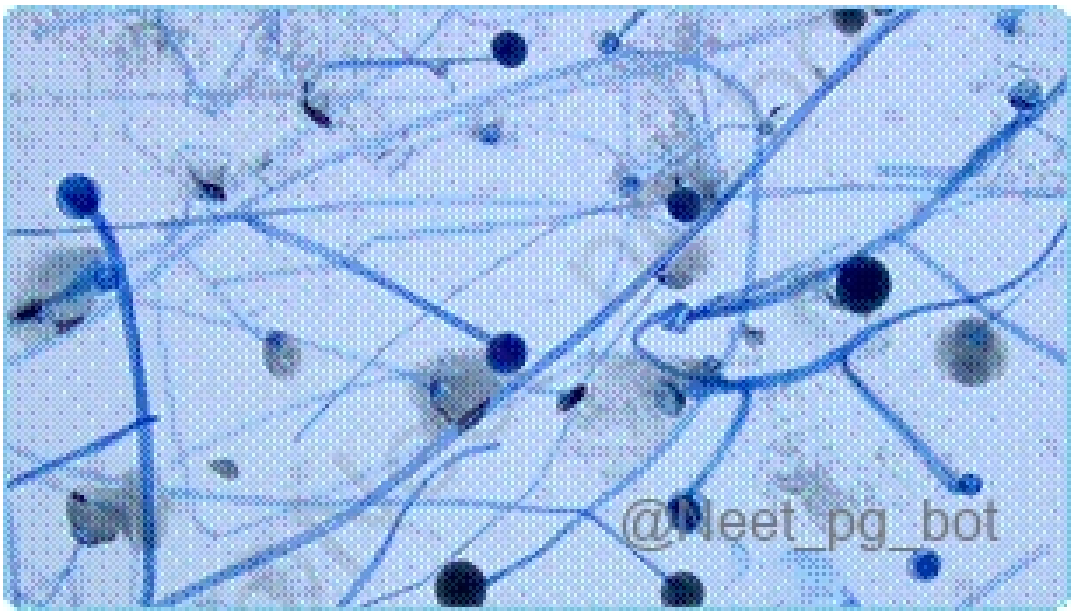
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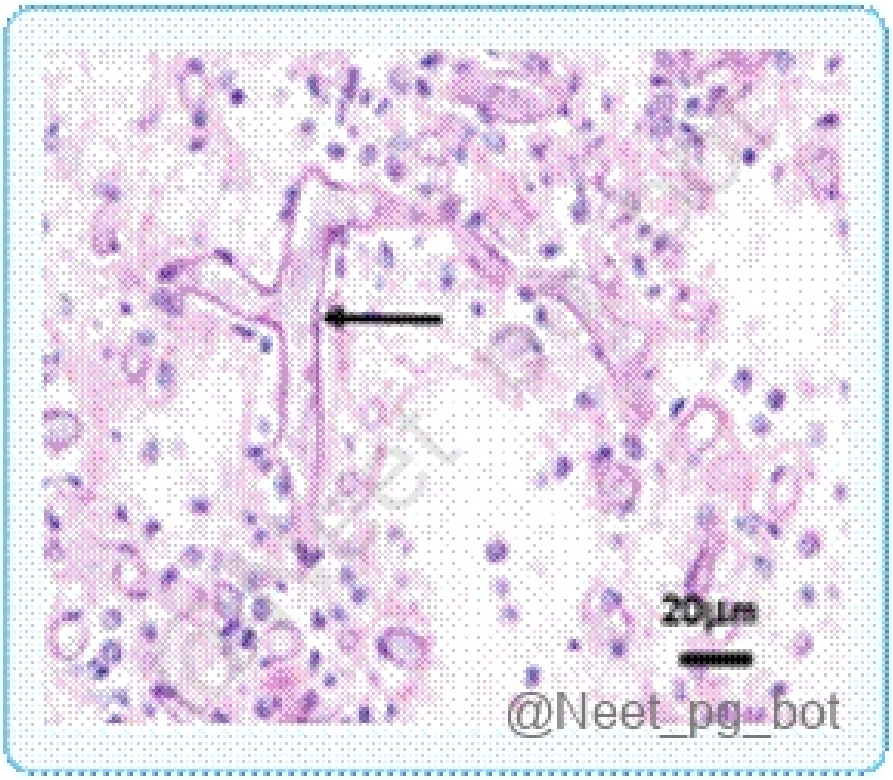
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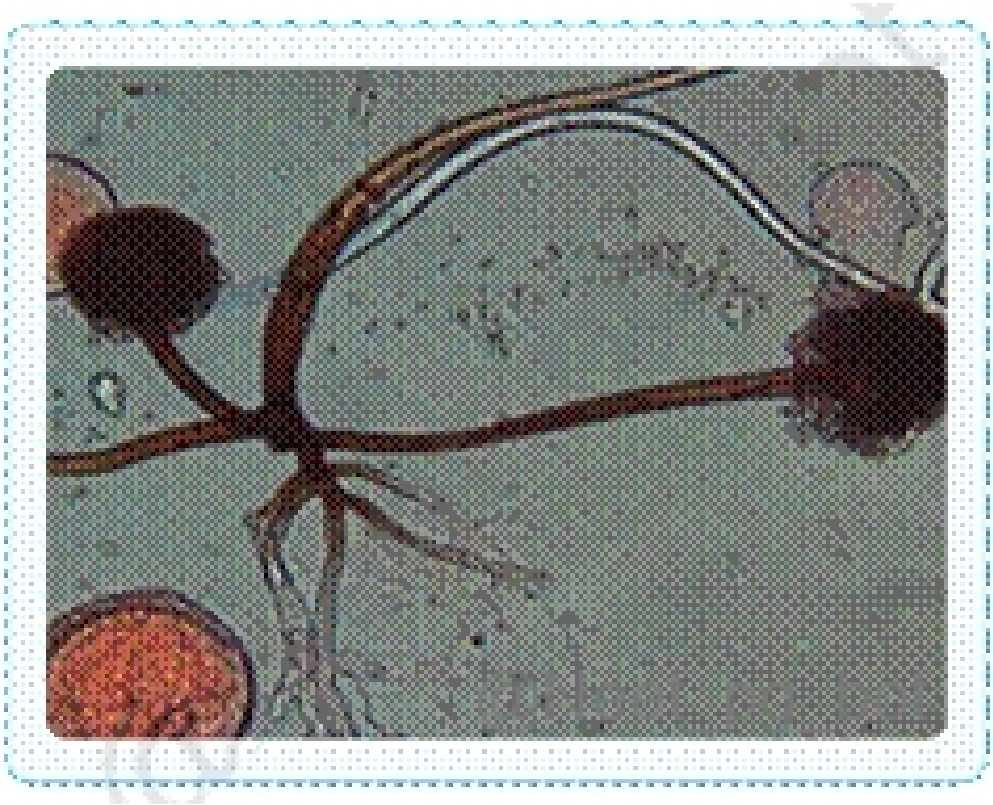

References:

Ananthanarayanan and Paniker's textbook of microbiology, 10th edition, Page 614, 615

↑ *Back to this question in Part A*

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Q35: What is the most likely diagnosis for a patient who presents with a headache and thick nasal discharge, and upon examination, shows hypertrophy of the inferior turbinate with a mulberry appearance? (Q858058)

A. Atrophic rhinitis

B. Common cold

C. Hypertrophic rhinitis

D. Nasal polyp

Correct Answer: C. Hypertrophic rhinitis

Explanation: Hypertrophic rhinitis is a chronic condition characterized by inflammation and thickening of the nasal mucosa, often due to prolonged irritation (e.g., allergies, infection, or pollutants). The mulberry appearance of the inferior turbinate is a hallmark of hypertrophic rhinitis, caused by nodular swellings on the turbinates. Symptoms like headache and thick nasal discharge are common due to nasal obstruction and secondary infections. Hypertrophic Rhinitis Cause : Progression from untreated chronic simple rhinitis, leading to repeated infections and submucosal fibrosis , causing turbinate hypertrophy. Commonly Affected Turbinate : Inferior turbinate – develops a mulberry appearance . Primary Symptom : Nasal obstruction (due to fibrosis). Management : Nasal obstruction due to fibrosis requires turbinate size reduction via partial or total turbinectomy. Turbinectomy (partial or total): To reduce the size of hypertrophied turbinates. Methods include: Laser surgery. Cryosurgery. Diathermy. Radiofrequency ablation. Surgical submucous resection of turbinate. Atrophic rhinitis (Option A): is a condition in which the nasal mucosa thins and dries out, leading to foul-smelling nasal discharge, crusting, and obstruction. The symptoms are not consistent with those seen in the patient. Common cold (Option B): Is a viral infection that affects the upper respiratory tract. It typically presents with symptoms such as cough, runny nose, and sore throat. Nasal polyp (Option D): are benign growths that arise from the lining of the nose or sinuses. They can lead to symptoms such as nasal obstruction, postnasal drip, and reduced sense of smell. While they may cause nasal discharge, the mulberry appearance of the inferior turbinate is not a feature of nasal polyps.

References:

https://www.sciencedirect.com/science/article/pii/S2468548821000345

↑ *Back to this question in Part A*

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Q36: Which of the following is true about inverted papilloma? (Q858086)

A. Malignant and invasive

B. Benign and non-invasive

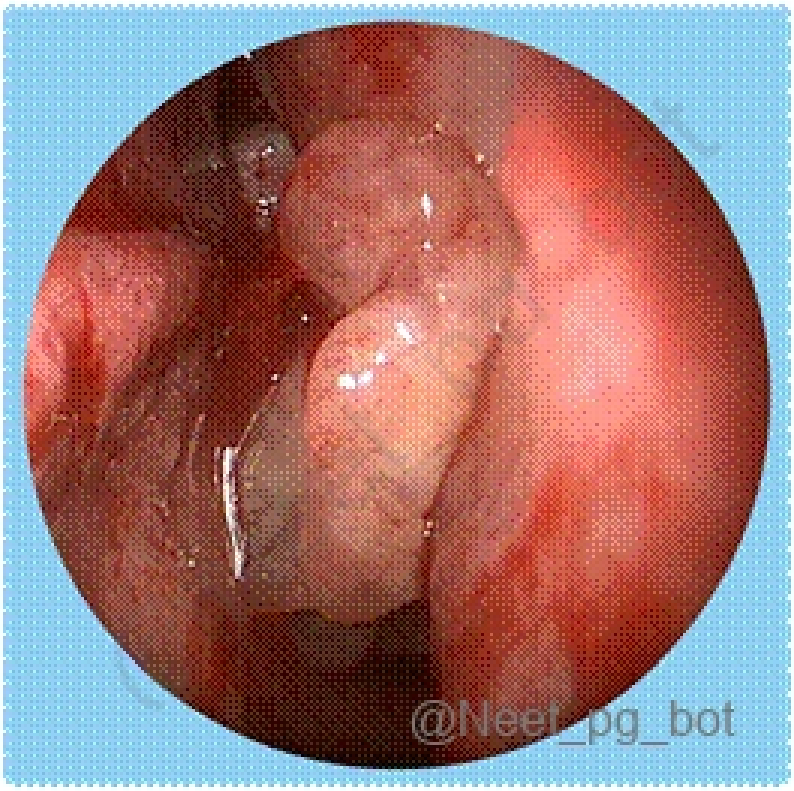
C. Benign and invasive

D. Malignant and non-invasive

Correct Answer: C. Benign and invasive

Explanation: Inverted papilloma is the most common benign tumor of the nasal cavity. Inverted Papilloma (also known as Schneiderian Papilloma or Ringertz Tumor) has a pseudo-malignant clinical behavior. It does not show the cellular features of malignancy (like metastasis). Unlike common nasal polyps, it is locally aggressive . It can erode and destroy surrounding bone (maxilla, ethmoids, orbit, or skull base), making it "invasive" in its growth pattern. Due to its invasive nature, incomplete surgical removal often leads to recurrence. Clinical Presentation: The patient presents with nasal obstruction, epistaxis, and a sensation of pressure, which are common symptoms associated with inverted papilloma. Examination : The presence of a fleshy, lobulated mass on the lateral wall of the nasal cavity is characteristic of inverted papilloma. Histopathology: Invagination of the superficial epithelium into the underlying stroma. The epithelium may be of the keratinized squamous, respiratory or transitional types

which may coexist in varying proportions. {{caption_text}} {{caption_text}}



References:

Dhingra Diseases of Ear, Nose and Throat & Head and Neck Surgery, 8th Edition, Pg No. 166, 167, 211

↑ *Back to this question in Part A*

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Q37: A 35-year-old woman takes aspirin for a headache, later presented with wheezing and breathlessness. Along with these two symptoms, what other clinical findings are likely to be found in this condition? (Q858105)

A. Eosinophilia

B. Nasal polyp

C. Extrinsic asthma

D. Drug interaction

Correct Answer: B. Nasal polyp

Explanation: The woman likely developed aspirin-exacerbated respiratory disease (AERD), which is also known as Samter's triad. Samter's Triad includes asthma, sinusitis with recurrent nasal polyps, and sensitivity to aspirin and other NSAIDs. Aspirin-Exacerbated Respiratory Disease (AERD) : also known as Samter's Triad, is a chronic medical condition characterized by the triad of asthma, chronic rhinosinusitis with nasal polyps, and hypersensitivity reactions to aspirin and other(NSAIDs). Symptoms: The symptoms of AERD can vary in severity and may include: Recurrent episodes of asthma Chronic rhinosinusitis Nasal polyps, which are small growths in the lining of the nose that can obstruct the airway and cause breathing difficulties Hypersensitivity reactions to aspirin and other NSAIDs, which can cause severe respiratory symptoms, hives, swelling, and even anaphylaxis. Eosinophilia (Option A): Eosinophilia is a feature of allergic conditions but is not significantly associated with AERD. Extrinsic asthma (Option C): In Aspirin-Exacerbated Respiratory Disease (AERD), the asthma component is considered a type of non-allergic or intrinsic asthma rather than extrinsic asthma. Drug interaction (Option D): NSAIDs can worsen asthma symptoms in patients with the condition, but there is no drug-drug interaction causing AERD.

References:

https://pmc.ncbi.nlm.nih.gov/articles/PMC5951071/

↑ *Back to this question in Part A*

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Q38: Which of the following is the least probable cause of mucormycosis? (Q858111)

A. Neutropenia

B. Broad spectrum antibiotics

C. Uncontrolled diabetes without DKA

D. Prolonged use of steroid

Correct Answer: B. Broad spectrum antibiotics

Explanation: Mucormycosis is caused by molds, mainly Rhizopus. Neutropenia, uncontrolled diabetes without DKA, and prolonged use of steroids are all risk factors for developing mucormycosis. However, broad-spectrum antibiotics are not directly associated with the development of mucormycosis. Risk Factors for Mucormycosis: Diabetes Mellitus : (Option C) Uncontrolled diabetes. Diabetic ketoacidosis (DKA) – the most significant metabolic risk factor. Immunosuppression : High-dose steroids (e.g., in COVID-19 or autoimmune conditions). (Option D) Organ transplantation (e.g., liver, kidney) and immunosuppressive medications: Azathioprine, mycophenolate mofetil, tacrolimus, cyclosporine . HIV/AIDS – advanced disease with low CD4 count. Neutropenia : (Option A) Absolute neutrophil count (ANC) < 1500 . Common in cancer patients undergoing chemotherapy. Iron Overload : Use of Deferoxamine or other iron-chelating agents. Mechanical Ventilation : Prolonged mechanical ventilation increases the risk of fungal infections. Autoimmune Disorders : Diseases requiring immunosuppressive therapy. Other Causes : Malnutrition. Trauma or burns. Prolonged antibiotic use (disrupts normal flora).

References:

https://www.cdc.gov/murcomycosis/risk-factors/index.html#:~:text=

↑ *Back to this question in Part A*

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Q39: Which of the subsequent tests is not applicable for evaluating nasal mucociliary clearance? (Q855574)

A. Saccharine test

B. Electron microscopy

C. Charcoal powder method

D. Scintigraphy

Correct Answer: B. Electron microscopy

Explanation: Electron microscopy cannot be used to assess nasal mucociliary clearance. Electron microscopy can be used to examine the cilia of the epithelium. Saccharine test (Option A): This test helps in assessing nasal mucociliary clearance. Saccharin is placed around 1 cm behind the anterior end of the inferior turbinate. The

saccharin is swept back into the nasopharynx and perceived as a sweet taste. This suggests an intact/good mucociliary clearance. If the patient perceives the taste after 10-20 minutes, it indicates a delayed mucociliary clearance. Charcoal powder method (Option C): This helps in assessing nasal mucociliary clearance. In this test, 10 micrograms of charcoal are kept 1 cm behind the head of the inferior turbinate. The patient is asked to inhale the charcoal particles. It is seen deposited over the respiratory epithelium. Every 30 seconds, the posterior pharyngeal wall is observed for a blackish discoloration. After 30 minutes to 1 hour, the patient is asked to expectorate. The sputum is then examined for charcoal particles. Scintigraphy (Option D): I t involves the administration of radioactive tracers like technetium-99c DTPA which is instilled into the respiratory tract. A gamma camera is used to visualize the movement of the tracer through the respiratory pathway

References:

https://pmc.ncbi.nlm.nih.gov/articles/PMC8916846/

↑ *Back to this question in Part A*

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Q40: A male patient presents to the OPD with a saddle nose deformity. He gives a history of cough, on-and-off fever, and hemoptysis. On examination, septal perforation is present with granulations in the nose. His chest X-ray showed multiple cavitary lesions, and the biopsy showed granuloma, multinucleated giant cells, and necrosis. What is the probable cause? (Q855782)

A. Wegener's granulomatosis

B. Tuberculosis

C. Syphilis

D. Sarcoidosis

Correct Answer: A. Wegener's granulomatosis

Explanation: The combination of upper respiratory tract involvement (saddle nose, septal perforation), lower respiratory tract involvement (cough, hemoptysis, cavitary lesions), and the biopsy findings (granulomas, multinucleated giant cells, and necrosis) strongly points towards Wegener's granulomatosis (Granulomatosis with Polyangiitis). Granulomatosis with polyangiitis: Previously known as Wegener’s granulomatosis. It is a systemic granulomatous inflammation and necrotizing vasculitis affecting small- to medium-sized vessels. More common in Caucasians (90%). Clinical features: Upper respiratory tract symptoms: Clear or purulent bloody nasal discharge Sinusitis On examination, crusting, granulations, septal perforation, and a saddle nose. Lower respiratory tract symptoms: cough, pleuritic pain, and hemoptysis. kidneys: Hematuria, later renal failure. Oral: ‘strawberry’ gingival hyperplasia is said to be pathognomonic. Skin: ulceration and nodules. Diagnosis: Chest X-ray: Nodules, fixed infiltrates or cavities Urine analysis: Microscopic haematuria with or without red cell casts. Biopsy: Necrosis and ulceration of mucosa, epithelioid granuloma, and necrotizing vasculitis involving small

arteries or veins. c-ANCA (cytoplasmic ANCA): Positive in 90% of the cases. p-ANCA (perinuclear ANCA): Positive in 10% of the cases. CT and MRI: Non-specific mucosal thickening in the nasal cavity or paranasal sinuses, bone destruction, and new bone formation in the walls of the sinus cavities. Treatment: Systemic corticosteroids. Cyclophosphamide, azathioprine, methotrexate and rituximab are used. Tuberculosis (Option B): While TB can cause granulomas, the combination of nasal destruction (septal perforation, saddle nose) with lung cavities is more characteristic of GPA. TB can present with hemoptysis, but it's less commonly associated with the rapid destruction of nasal cartilage leading to saddle nose deformity as seen in GPA. Syphilis (Option C): Congenital syphilis can cause a saddle nose deformity. However, the other symptoms described (cough, hemoptysis, cavitary lung lesions, and the specific biopsy findings) are not typical of syphilis. Also, lung involvement is not a common presentation of syphilis. Sarcoidosis (Option D): Sarcoidosis is a multisystem granulomatous disease that can affect the lungs and upper respiratory tract. While it can cause granulomas on biopsy and lung involvement, it's less likely to cause destructive nasal changes like saddle nose deformity and septal perforation.

References:

Dhingra Diseases of Ear, Nose and Throat & Head and Neck Surgery, 8th Edition- Pg No. 187.

Scott Brown’s Otorhinolaryngology Head and Neck Surgery, 8th Edition- Pg No. 1214-17.

Harrison’s Principle of Internal Medicine, 21st Edition- Pg No. 2738

↑ *Back to this question in Part A*

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Q41: A 35-year-old female presents with nasal obstruction and post-nasal drip. She has a history of FESS following failed conservative management 5 years ago. Post-surgical notes mentioned that uncinectomy and maxillary ostium dilation were done during the previous FESS. DNE currently shows patent ostia and mucosal edema of the maxillary sinus lining. What is the next best step in management? (Q855789)

A. Repeat surgery

B. Macrolides for 4 months

C. Steroid irrigation and antihistamines

D. Biological therapy

Correct Answer: C. Steroid irrigation and antihistamines

Explanation: The patient presents with symptoms suggestive of recurrent or persistent rhinosinusitis despite previous functional endoscopic sinus surgery (FESS). The key finding is mucosal edema of the maxillary sinus lining with patent ostia. This suggests inflammation as the primary issue, not anatomical obstruction. Since the ostia are patent, drainage is not the problem, making further surgery less likely to be beneficial at this stage.

Hence, it requires antihistamines and steroid irrigation. Steroid irrigation reduces mucosal edema and antihistamines help in controlling allergic symptoms and mucosal edema. Non-Allergic Rhinitis: Treatment Non-allergic rhinitis presents with symptoms similar to allergic rhinitis (nasal obstruction, rhinorrhoea, sneezing) but without positive allergy tests. Treatment is categorised into medical and surgical options. Medical Treatment: Treatment Type Details Lifestyle Modifications Avoid triggers such as sudden temperature changes, humidity, air blasts, and dust. Practical changes to minimise symptom triggers Pharmacological Management Antihistamines and Decongestants: Alleviate nasal obstruction, sneezing, and rhinorrhoea. Topical Steroid Sprays: Control Symptoms. Eg. Beclomethasone dipropionate, budesonide, fluticasone Systemic Steroids: Used for severe cases for a short time Ipratropium Bromide Nasal Spray: Effective for Excessive Rhinorrhoea. Psychological Support Address emotional factors; consider counselling and tranquillisers. Repeat surgery (Option A): Repeat surgery is not indicated in this scenario as it could be initially conservatively managed with steroid irrigation and antihistamines. Later, if the symptoms persist, surgical management can be considered . Macrolides for 4 months (Option B): It is prescribed in case of chronic rhinosinusitis. Biological therapy (Option D): Biological therapy is indicated only in severe refractory cases which show symptoms of active inflammation

References:

Diseases of Ear, Nose, Throat - PL Dhingra, 8th edition, Pg 178,198, 223

↑ *Back to this question in Part A*

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Q42: Which is not used for testing olfaction? (Q855792)

A. Smell diskettes

B. Arnold stick test

C. UPSIT

D. CC-SIT

Correct Answer: B. Arnold stick test

Explanation: Arnold stick test, also known as Arnold cough reflex is an involuntary cough reflex due to the stimulation of the external ear. It is mediated by the auricular branch of the vagus nerve (Arnold's nerve). Insertion of a cotton bud or touching the external ear activates the nerve and evokes a forceful cough. Hence, the name 'Arnold stick'. It is not used to assess olfaction. UPSIT Test is University of Pennsylvania Smell Identification Test: (Option C ruled out) It is a subjective test to assess smell perception. Patients are given scratch cards of odorous stimuli to identify. It is used to diagnose olfactory dysfunction associated with certain diseases. Tests done to assess nasal airflow: Subjective Tests: Nasal Airflow Questionnaire Visual Analog Scale (VAS) Objective Tests: Rhinomanometry Acoustic Rhinometry Peak Nasal Inspiratory Flow (PNIF) Tests done for smell perception: University of Pennsylvania Smell Identification Test (UPSIT) Sniffin' Sticks Test CC-SIT (Cross-Cultural Smell Identification Test) (Option D ruled out) Smell diskettes (Option A ruled out) Odor Threshold Test Olfactory Event-Related Potentials (OERP)

References:

Updated Percentiles for the University of Pennsylvania Smell Identification Test

https://www.ncbi.nlm.nih.gov/books/NBK565861/

↑ *Back to this question in Part A*

@Neet_pg_bot

Q43: What is the recommended course of action for managing a 6-year-old boy who fell from a bed and now has swelling in his nose, along with breathing difficulties? During examination, it was observed that there are smooth, rounded swellings on both sides of the septum, visible through both nostrils. On palpation, the swellings were found to be soft and fluctuant. (Q856977)

A. Systemic antibiotics

B. Incision and drainage

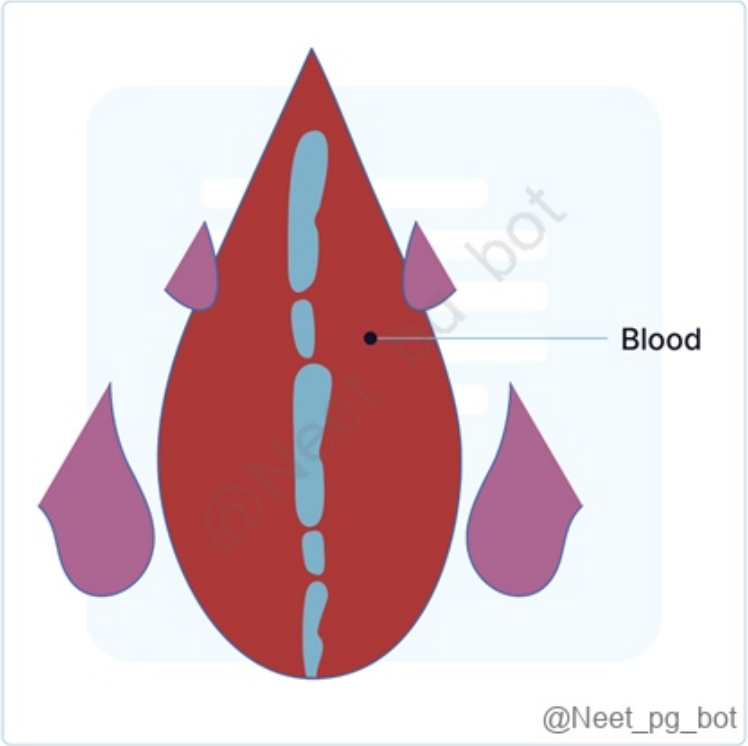
C. High-resolution computerized tomography

D. Submucosal resection

Correct Answer: B. Incision and drainage

Explanation: The clinical presentation of a 6-year-old boy with swelling in the nose, breathing difficulties, smooth and rounded swellings on both sides of the septum, and soft, fluctuant masses suggests the presence of a septal hematoma . Septal hematomas occur due to trauma, such as a fall, and can result in blood collection between the cartilage and mucosa of the nasal septum. The treatment of choice for septal hematomas is incision and drainage . If left untreated, septal hematomas can lead to complications such as abscess formation, nasal deformities, or even septal perforation due to cartilage necrosis. Septal Hematoma Aetiology Collection of blood under the perichondrium or periosteum of the nasal septum. Commonly caused by: Nasal trauma. Septal surgery. Spontaneous occurrence in bleeding disorders. Clinical features Bilateral nasal obstruction (most common symptom). Frontal headache and pressure over the nasal bridge. Smooth, rounded, soft, and fluctuant swelling in both nasal fossae (or sometimes unilateral). Treatment Small hematomas: Aspirated with a wide-bore sterile needle. Larger hematomas: Incision and drainage via a septal incision parallel to the nasal floor, excising a small piece of mucosa for better drainage. Nasal packing on both sides to prevent reaccumulation. Systemic antibiotics to prevent septal abscess. Complications Fibrous tissue formation leads to permanent septal thickening if untreated. Secondary infection may lead to septal abscess, cartilage necrosis, and nasal dorsum depression. Incorrect Options: Systemic antibiotics (Option A) : While systemic antibiotics might be used if there is evidence of infection, antibiotics alone would not address the hematoma or swelling in this case. Drainage is necessary to prevent further complications. High-resolution computerized tomography (Option C) : CT imaging is typically not required for the diagnosis or management of a septal hematoma. A clinical examination is sufficient to make the diagnosis. CT may be considered if there is suspicion of fractures or other complex injuries, but it's not necessary

in this straightforward case. Submucosal resection (Option D) : Submucosal resection is a procedure used in the treatment of nasal obstructions or deformities, often due to structural issues like a deviated septum. It is not appropriate for managing a septal hematoma, which requires drainage rather than resection.



References:

Diseases of Ear, Nose and Throat, PL Dhingra, 8th Edition, Page173,174

Logan Turner's Diseases of Nose, Throat and Ear, 11th Edition, Page.88

↑ *Back to this question in Part A*

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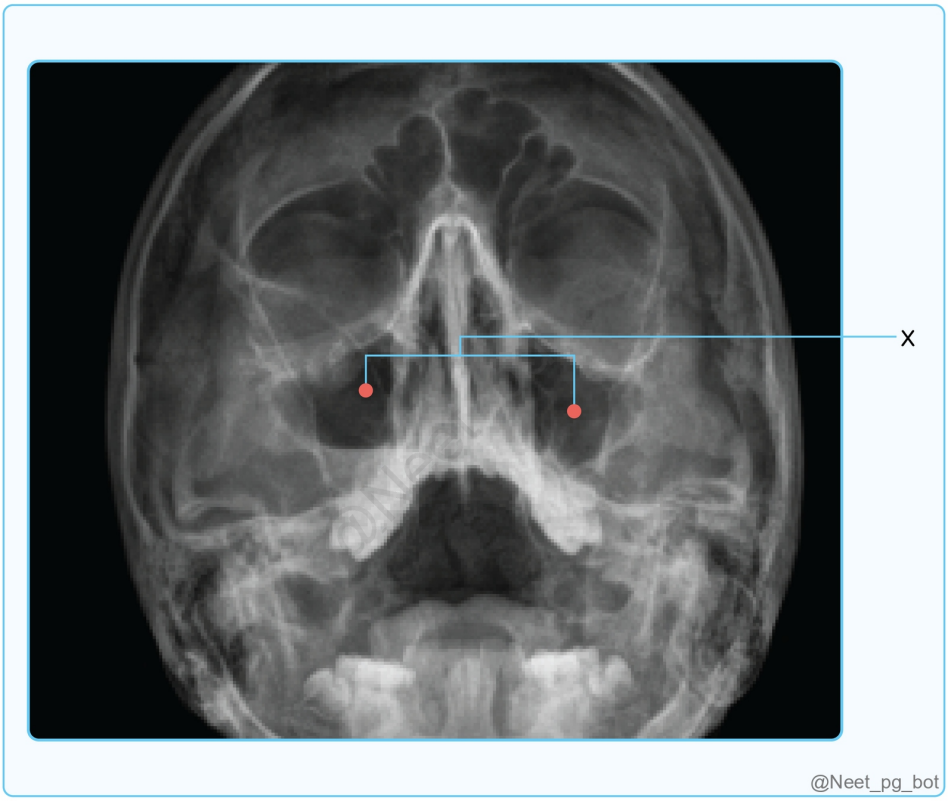
Q44: Identify the sinus marked in the image. (Q857000)

A. Frontal sinus

B. Pyriform sinus

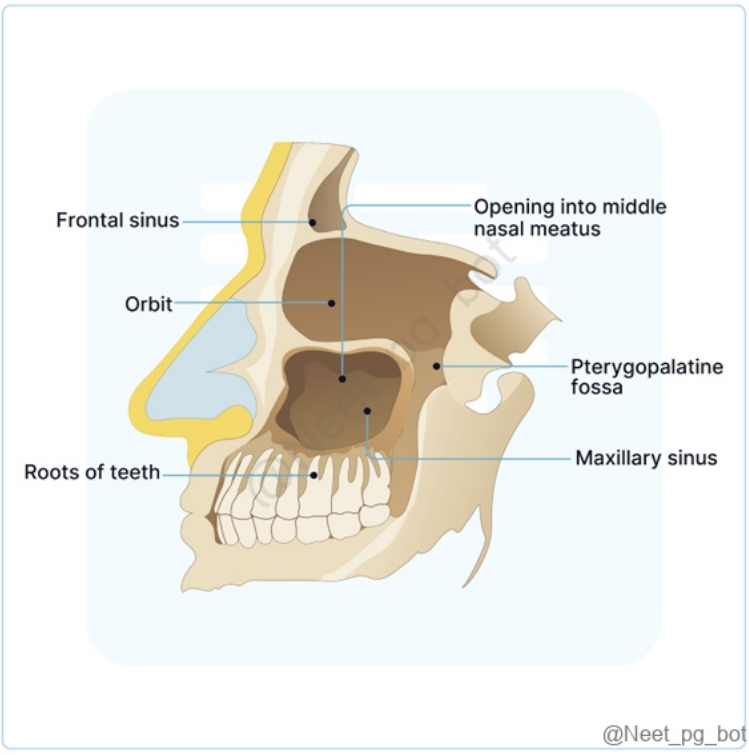
C. Ethmoid sinus

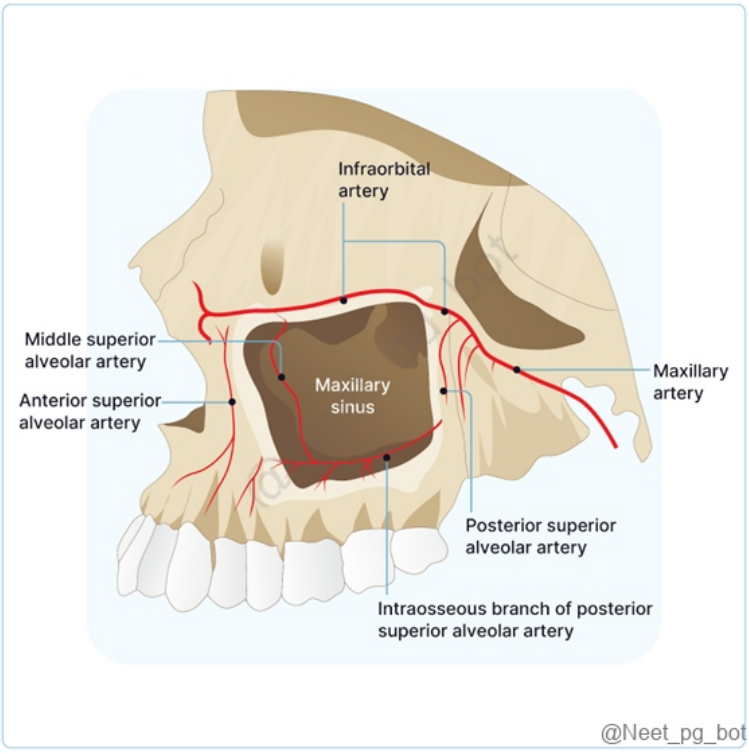
D. Maxillary sinus



Correct Answer: D. Maxillary sinus

Explanation: The maxillary sinus is the largest of the paranasal sinuses, located within the maxilla (upper jaw bone). It is pyramid-shaped and lies lateral to the nasal cavity, with its base forming the lateral wall of the nose and its apex extending towards the zygomatic bone. On radiographic or anatomical images, it appears as a large, air-filled cavity inferior to the orbit and lateral to the nasal cavity. Key features of the maxillary sinus: Largest paranasal sinus. Drains into the middle meatus of the nasal cavity through the semilunar hiatus. Commonly involved in sinusitis due to the high location of its drainage opening. The maxillary sinus or the Antrum of Highmore , is the largest of the paranasal sinuses, occupying the body of the maxilla. Shape - Pyramidal Size - 15mL Base - toward the lateral wall of the nose Apex - extends into the zygomatic process of the maxillary bone Relations: Anterior wall: Formed by the facial surface of the maxilla. Posterior wall: Anterior surface of pterygopalatine fossa. Medial wall: Thin and membranous in some areas, this wall borders the middle and inferior meatuses and separates the maxillary sinus from the nasal cavity. Roof: Formed by the floor of the orbit Floor: Located approximately 1 cm below the floor of the nasal cavity, it is formed by the alveolar and palatine processes of the maxilla. Closely related to the roots of the second premolar and first molar teeth. Cavities in these teeth are associated with oro antral fistula. Arterial supply: Branches of the maxillary artery, specifically the infraorbital artery, greater palatine artery, and the posterior superior alveolar artery. Venous drainage: Pterygoid venous plexus and the facial vein. Lymphatic drainage: Submandibular lymph nodes. Nerve supply: Infraorbital nerve, greater palatine nerve, and the posterior superior alveolar nerve, which are branches of the maxillary division of the trigeminal nerve (CN V2). Incorrect Options: Frontal sinus (Option A) : Located above the orbit in the frontal bone; appears superior to the nasal cavity and orbits in images. Pyriform sinus (Option B) : This is a structure in the hypopharynx, not a paranasal sinus. It is unrelated to the nasal cavity or paranasal sinuses. Ethmoid sinus (Option C) : Consists of multiple small air cells located between the eyes, medial to the orbit, and posterior to the nasal cavity. These appear as smaller clusters on imaging.





References:

Logan Turner’s Diseases of Nose, Throat and Ear; Head and Neck Surgery, 11th Edition, Page 7,8.

Dhingra Diseases of Ear, Nose, and Throat; Head and Neck Surgery, 8th Edition, Page 218

Anatomy, Head and Neck, Nose Paranasal Sinuses - StatPearls - NCBI Bookshelf

↑ *Back to this question in Part A*

@Neet_pg_bot

Q45: What is the most likely diagnosis for an older diabetic woman,who received steroids and remdesivir for COVID, and is now experiencing a malodorous black discharge from her nose? On examination a necrotic black mass, filling the nasal cavity and causing erosion of the septum and hard palate is found. (Q857008)

A. Aspergillosis

B. Mucormycosis

C. Foreign body

D. Rhinosporidiosis

Correct Answer: B. Mucormycosis

Explanation: The most likely diagnosis for an older diabetic woman with a malodorous black discharge from the nose, a necrotic black mass filling the nasal cavity, and erosion of the septum and hard palate is mucormycosis . This is a severe fungal infection caused by molds from the Mucoraceae family, often affecting immunocompromised individuals, such as those with diabetes, receiving steroids, and having viral infections like COVID-19. Mucormycosis commonly presents with: Nasal or sinus involvement (as seen with black, necrotic tissue and discharge). Erosion of surrounding structures, such as the septum and palate. A rapidly progressive course, especially in diabetic and immunocompromised patients. Malodorous discharge due to tissue necrosis. Mucormycosis Description A severe fungal infection primarily affects the nose and sinuses but can quickly spread to the orbit, cribriform plate, meninges, and brain. The fungus invades arteries, causing endothelial damage, thrombosis, and rapid tissue destruction. Characteristic Findings Black necrotic material in the nasal cavity, eroding the nasal septum, hard palate, and turbinates. Black turbinate sign is seen on contrast enhanced MRI. Risk Factors Uncontrolled diabetes, especially with ketoacidosis Prolonged steroid use (common in COVID-19 treatment) Conditions causing immunosuppression: Neutropenia, HIV/AIDS, chemotherapy, organ transplants, and kidney issues. Diagnosis Endoscopy: Shows pale mucosa early, progressing to black crusts and sloughing. Biopsy: Multiple sites should be sampled for fungal identification; potassium hydroxide preparation is the gold standard for confirming invasive features. Imaging CT : Detects bony destruction and initial assessment of sinus involvement. CECT: CECT provides better delineation of soft tissue structures, allowing for clearer identification of mucosal thickening, sinus opacification, and bony destruction. MRI : Evaluates soft tissue invasion, assesses the extent of extra-sinus disease, and identifies complications, especially in the orbit and brain . Treatment Antifungal Therapy : Amphotericin B: 0.6 to 1 mg/kg/day IV or liposomal Amphotericin B: 5 mg/kg/day. Posaconazole: 300 mg twice daily orally on the first day, then 300 mg once daily. Surgical Intervention : Endoscopic debridement of necrotic tissues. Severe cases: Total/Partial maxillectomy or orbital exenteration may be required. Incorrect

Options: Aspergillosis (Option A) : Aspergillosis is another fungal infection, but it typically does not present with black necrotic masses. It is more commonly associated with chronic sinusitis or allergic reactions, not with necrosis and tissue destruction seen here. Foreign body (Option C) : A foreign body might cause a localized obstruction and discharge but would not lead to the extensive necrosis and erosion of the nasal cavity, septum, and palate as described in this case. Rhinosporidiosis (Option D) : Rhinosporidiosis is a chronic infection caused by Rhinosporidium seeberi , typically involving the nasal mucosa. It causes polypoidal growths, not necrotic black masses. It is more common in endemic areas, such as India and Sri Lanka.

References:

Diseases of Ear, Nose and Throat, PL Dhingra, 8th Edition, Page 183, 184

Scott Brown ENT, 8th Edition, Page 211

↑ *Back to this question in Part A*

@Neet_pg_bot

Q46: What is the term used to describe the view that provides the optimal visualization of the maxillary sinus? (Q857010)

A. Water’s view

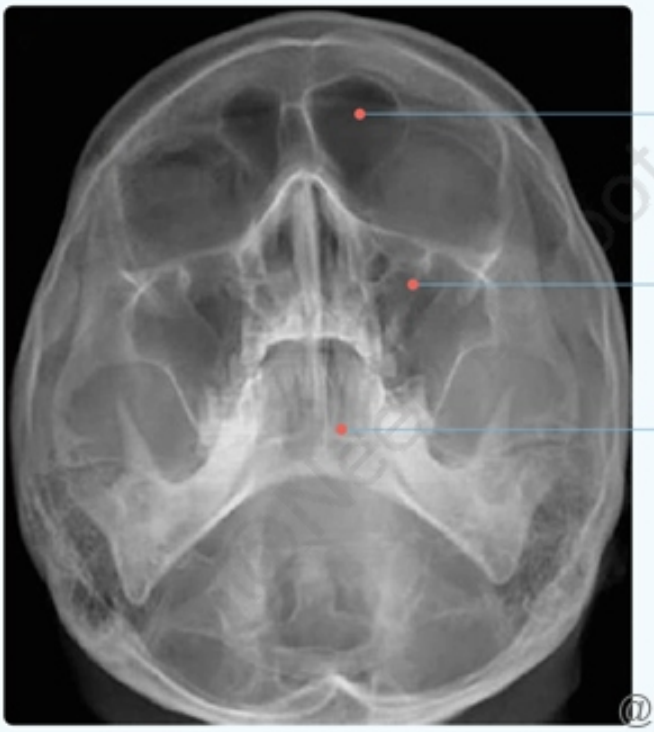
B. Towne’s view

C. Law’s view

D. Stenver’s view

Correct Answer: A. Water’s view

Explanation: Water's view (also known as the occipitomental view) is the radiographic projection that provides the best visualization of the maxillary sinus. This view is obtained by having the patient tilt their head back, with the chin raised and the X-ray beam directed at the patient’s face. It allows optimal imaging of the maxillary sinus, as it projects the sinus clearly and eliminates superimposition of other structures. View Position Purpose Image Waters' View (Occipitomental View) Chin-up position. Best view to visualize the maxillary sinus. {{caption_text}} Pierre’s View Similar to Waters' view but with the mouth open . Best view to visualize the sphenoid sinus. {{caption_text}} Caldwell View (Occipitofrontal View) Chin-down position. Best view to visualize the frontal sinus. {{caption_text}} Lateral View Lateral (as the name indicates) Allows visualization of all sinuses (frontal, maxillary, sphenoid, and ethmoidal). Helps to understand the pneumatization pattern of the sphenoid sinus. {{caption_text}} Incorrect Options: Towne’s view (Option B) : Towne's view is used primarily for imaging the skull, particularly the occipital region, and is not specifically for the maxillary sinus. Law’s view (Option C) : Law's view is used to assess the temporomandibular joint (TMJ) and not for the maxillary sinus. Stenver’s view (Option D) : Stenver’s view is used to image the petrous portion of the temporal bone and is not ideal for visualizing the maxillary sinus.



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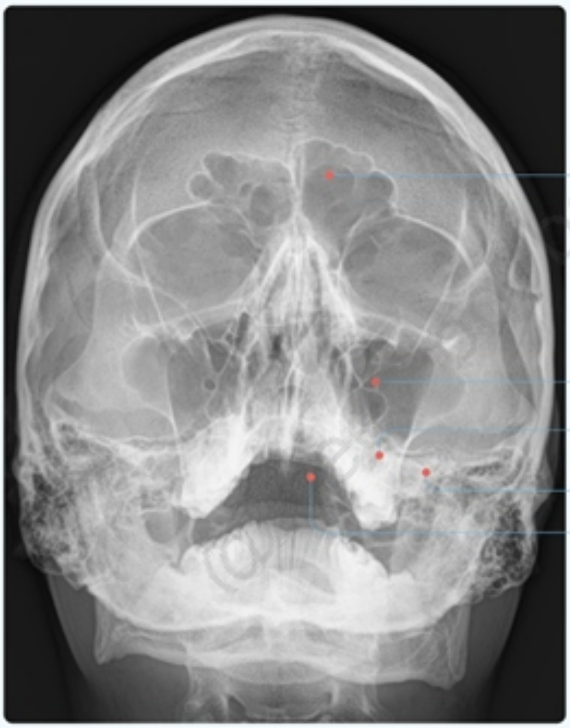

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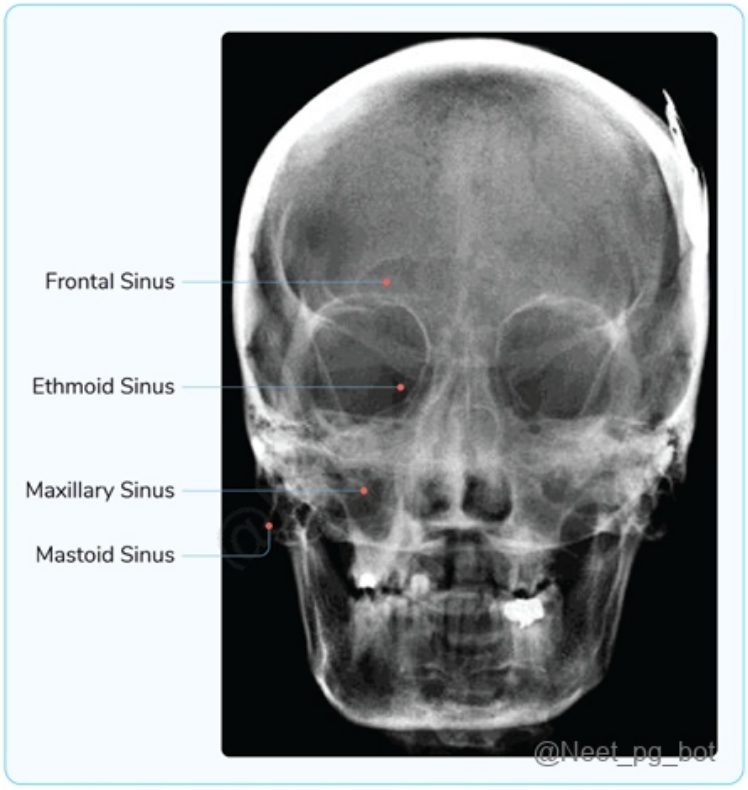
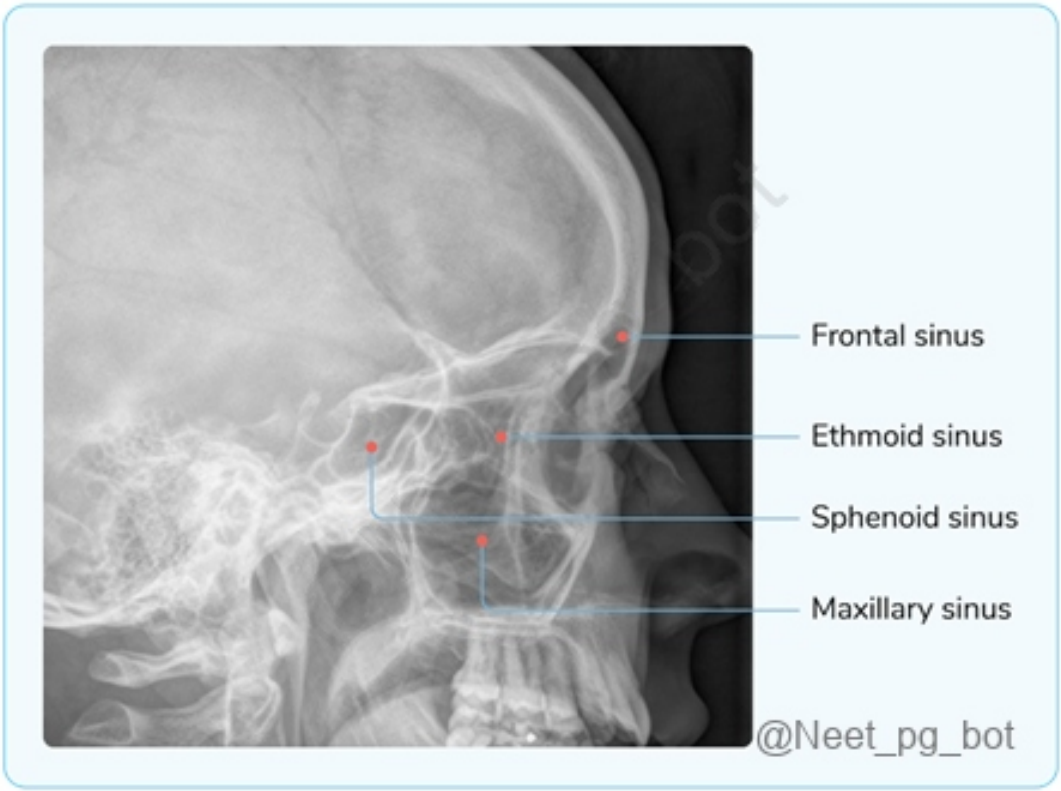




References:

Dhingra Diseases of Ear, Nose and Throat & Head and Neck Surgery, 8th Edition, Page 509, 510, 511

↑ *Back to this question in Part A*

@Neet_pg_bot

Q47: In nasopharyngeal carcinoma, which of the following is a component of trotter's triad? (Q857656)

A. Conductive hearing loss, ipsilateral temporoparietal neuralgia, palatal paralysis

B. Sensorineural hearing loss, contralateral temporoparietal neuralgia, palatal paralysis

C. Sensorineural hearing loss, ipsilateral temporoparietal neuralgia, palatal paralysis

D. Conductive hearing loss, contralateral temporoparietal neuralgia, palatal paralysis

Correct Answer: A. Conductive hearing loss, ipsilateral temporoparietal neuralgia, palatal paralysis

Explanation: Trotter's triad is a classic presentation of nasopharyngeal carcinoma (NPC) involving: Conductive hearing loss : Due to obstruction of the Eustachian tube by the tumour, leading to middle ear effusion. Ipsilateral temporoparietal neuralgia : Caused by tumour infiltration into the base of the skull, affecting branches of the trigeminal nerve. Palatal paralysis : Resulting from involvement of the pharyngeal plexus or cranial nerves IX and X. Sensorineural hearing loss, contralateral temporoparietal neuralgia, palatal paralysis (Option B) : Sensorineural hearing loss is not typically seen in NPC unless there is advanced cranial nerve involvement. Neuralgia and paralysis are ipsilateral to the tumour, not contralateral. Sensorineural hearing loss, ipsilateral temporoparietal neuralgia, palatal paralysis (Option C) : As mentioned, hearing loss in NPC is usually conductive, not sensorineural. Conductive hearing loss, contralateral temporoparietal neuralgia, palatal paralysis (Option D) : While conductive hearing loss and palatal paralysis are consistent with NPC, the neuralgia is ipsilateral to the tumour, not contralateral.

References:

Dhingra Diseases of Ear, Nose and Throat and Head and Neck Surgery 8th edition, Page 297-298

↑ *Back to this question in Part A*

@Neet_pg_bot

Q48: Which is the most common site for head and neck cancer in India? (Q857664)

A. Nasopharynx

B. Oropharynx

C. Oral cavity

D. Hypopharynx

Correct Answer: C. Oral cavity

Explanation: In India, the oral cavity is the most common site for head and neck cancer. This high prevalence is largely attributed to the widespread use of tobacco in various forms (smoking, chewing, betel quid) and alcohol consumption. Poor oral hygiene and HPV infection are also contributory factors. Nasopharynx (Option A) : While nasopharyngeal carcinoma is relatively common in some regions (e.g., Southeast Asia), it is not the most common site of head and neck cancer in India. Oropharynx (Option B) : Oropharyngeal cancers, including those involving the tonsils and base of the tongue, are associated with HPV infection but are less common than oral cavity cancers in India. Hypopharynx (Option D) : Hypopharyngeal cancers are associated with smoking and alcohol use but are less frequent than oral cavity cancers in the Indian population.

References:

Bailey and Love's Short Practice of Surgery, 28th edition, Page 814, 815

↑ *Back to this question in Part A*

@Neet_pg_bot

Q49: What is the most likely diagnosis for a 14-year-old male who has been experiencing repeated nosebleeds, without any history of injury, along with nasal blockage and excessive nasal discharge? During examination, a solid, purplish growth is observed on the back of the nasopharynx. (Q857673)

A. Nasopharyngeal carcinoma

B. Rhabdomyosarcoma

C. Pyogenic granuloma

D. Juvenile nasopharyngeal angiofibroma

Correct Answer: D. Juvenile nasopharyngeal angiofibroma

Explanation: Juvenile nasopharyngeal angiofibroma: This benign but locally aggressive vascular tumour occurs predominantly in adolescent males. It commonly presents with repeated episodes of epistaxis (nosebleeds) , nasal obstruction , and sometimes nasal discharge . Examination often reveals a solid, vascular, purplish mass in the nasopharynx. This is the most probable diagnosis in a 14-year-old male with these symptoms and findings. Juvenile nasopharyngeal angiofibroma (JNA) Site of Origin Posterior nasal cavity, near the superior margin of the sphenopalatine foramen, where the sphenoid and palatine bones meet. Gross Appearance Reddish-purple, lobulated, sessile mass covered by mucosa; lacks a capsule despite being benign. Microscopic Appearance Vascular Tissue: Endothelium-lined spaces with incomplete/absent muscle coats, leading to bleeding; peripheral vessels are thin-walled, central vessels hyperplastic. Stromal Cells: Stellate or spindle-shaped cells that produce

collagen, affecting tumor firmness. Immunohistochemistry Fibroblasts, collagen, myofibroblasts, mast cells, and occasionally giant cells are present. Reactivity to smooth muscle actin and beta-catenin, suggesting beta-catenin's role in growth. Growth Factors JNA development likely results from a combination of hormonal influence, growth factors, and genetic factors. Androgen Receptors: Present in 75% of JNA tumors, indicating male hormone involvement. VEGF: Promotes endothelial and stromal cell growth. IGF-II: Role is less clear. Genetics: C-MYC proto-oncogene found in larger tumors; may interact with androgen receptor and beta-catenin genes. Nasopharyngeal carcinoma (Option A): This malignant tumour usually occurs in older adults and is rare in this age group. It often presents with neck lymphadenopathy, nasal obstruction, or ear symptoms but is unlikely to present with a solid, vascular growth in a young male. Rhabdomyosarcoma (Option B): This is a malignant soft tissue tumour that can occur in the nasopharynx but is rare and less likely to cause repeated epistaxis without systemic signs like weight loss or fatigue. Pyogenic granuloma (Option C): This is a vascular lesion but typically occurs on the nasal septum or oral mucosa, not in the nasopharynx. It is usually smaller, friable, and more superficial.

References:

Dhingra Diseases of Ear, Nose and Throat and Head and Neck Surgery 8th edition, Page 289-291

↑ *Back to this question in Part A*

@Neet_pg_bot

Q50: Which of the following statements accurately describes the Little's area? (Q857680)

A. Keisselbach's plexus is present in the Little's area

B. It is situated at the posteroinferior part of the nasal septum

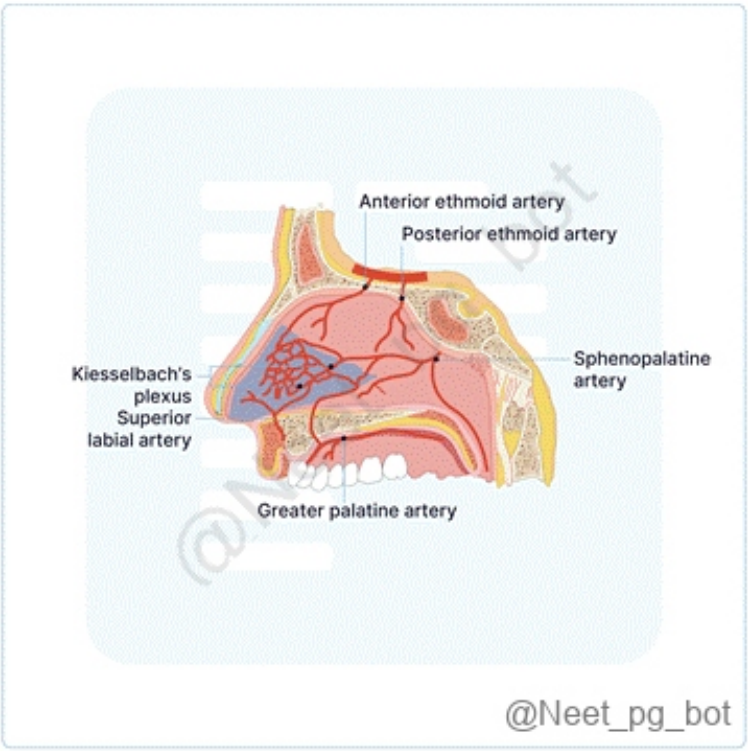
C. Least common site for epistaxis

D. Anastomoses of 7 major arteries occur here

Correct Answer: A. Keisselbach's plexus is present in the Little's area

Explanation: Little's area , also known as Kiesselbach's plexus , is a highly vascular region located in the anterior part of the nasal septum. It is a site of frequent epistaxis (nosebleeds) due to the rich network of blood vessels that anastomose here. Keisselbach's plexus is a network of arteries formed by anastomoses of branches from the internal carotid artery (like the sphenopalatine artery) and the external carotid artery (including the superior labial artery and anterior ethmoidal artery), which supply the nasal septum. Kiesselbach's plexus, also known as Little's area , is a highly vascularised region in the anteroinferior portion of the nasal septum , where multiple arteries converge. It is the most common site of anterior epistaxis , especially in children and young adults. {{caption_text}} Vessels involved in forming the plexus Artery Branch of Sphenopalatine artery Maxillary artery Anterior ethmoidal artery Ophthalmic artery (from internal carotid artery) Greater palatine artery Maxillary artery Superior labial artery Facial artery (from external carotid artery) Note: Posterior ethmoidal artery is not part of this plexus Clinical Significance: Anterior epistaxis occurs most often in children and young adults, usually due to trauma (nose-picking), dry air, infections, or irritants. Epistaxis in this area is typically mild and self-limiting and

can be controlled with local pressure or simple cauterization. It is situated at the posteroinferior part of the nasal septum (Option B) : is incorrect because Little's area is located at the anteroinferior part of the nasal septum, not the posterior. Least common site for epistaxis (Option C) : is incorrect because Little's area is the most common site for epistaxis, not the least. Anastomoses of 7 major arteries occur here (Option D) : is incorrect because the anastomoses of the major arteries involved in Little's area are primarily derived from the internal and external carotid arteries, but not seven arteries. The arteries involved are generally 4-5, not seven.



References:

Diseases of Ear, Nose, Throat - PL Dhingra, 8th edition, Page 205

↑ *Back to this question in Part A*

@Neet_pg_bot

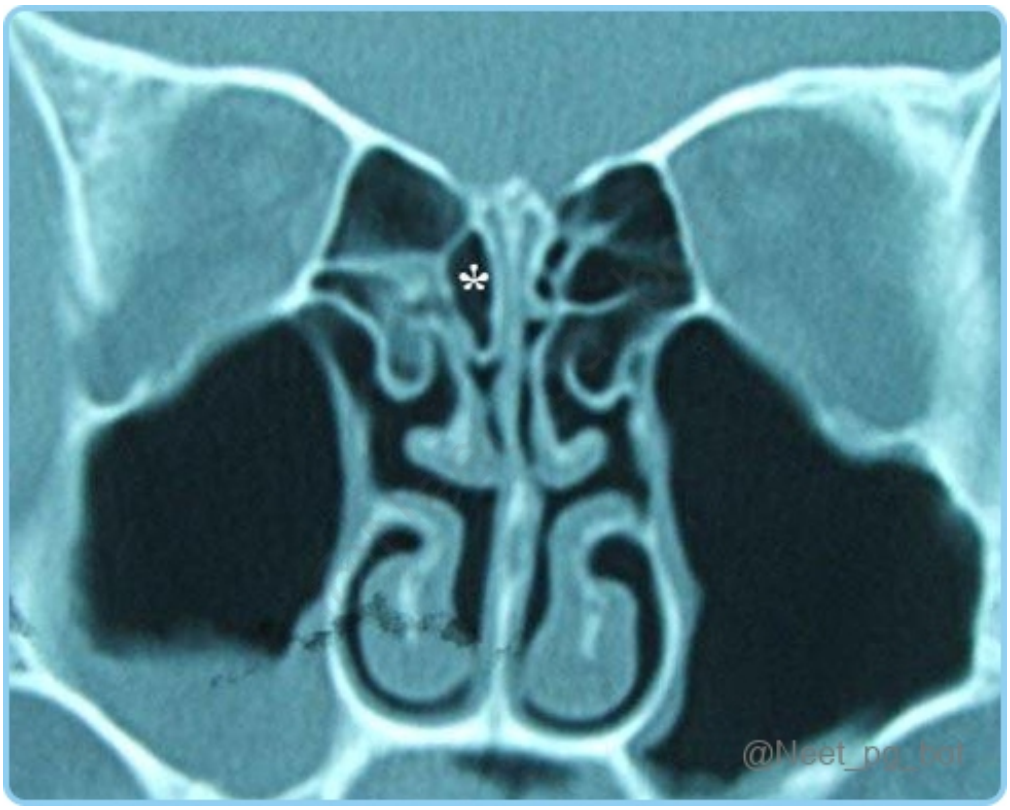
Q51: Choose the best description for the structure marked in the CT given below. (Q856041)

A. Agger nasi cell

B. Pneumatised superior turbinate

C. Onodi cell

D. Haller cell



Correct Answer: B. Pneumatised superior turbinate

Explanation: Pneumatization of the superior turbinate refers to the presence of an air cell within the superior turbinate. Pneumatization of the superior turbinate, also known as superior concha bullosa, is a relatively rare anatomical variation where air cells develop within the superior turbinate. Symptoms In most cases, pneumatization of the superior turbinate is asymptomatic and discovered incidentally during imaging studies for other reasons. Nasal obstruction or congestion Headache Sinusitis Smell disorders Diagnosis Best diagnosed with a computed tomography (CT) scan of the paranasal sinuses. Agger nasi cell (Option A): The agger nasi is an ethmoidal air cell situated in front of the uncinate process. The degree of pneumatization of this cell determines the thickness of the nasofrontal beak and the position of the superior uncinate process. Onodi cell (Option C): An Onodi cell, also known as a sphenoethmoidal or lateral sphenoid sinus cell, is an anatomical variation where the sphenoid sinus extends laterally to involve the posterior ethmoid sinus. Haller cell (Option D): A Haller cell is an anterior ethmoid air cell that extends into the floor of the orbit, near the ethmoidal bulla and frontal recess.

References:

Role of Superior Turbinate Pneumatisation in Chronic Rhinosinusitis - PMC Diseases of Ear, Nose, Throat - PL Dhingra, 8th edition, Page 159

↑ *Back to this question in Part A*

@Neet_pg_bot

Q52: What is the probable diagnosis for a person who has facial swelling and orbital edema on the left side of their face after a minor trauma involving a piece of wood 20 days ago? The CT scan showed no abnormalities in the sinuses but revealed subcutaneous nodules. Microscopic examination of tissue sections showed positivity for PAS stain and Grocott's methenamine silver stain. (Q856638)

A. Phycomycosis

B. Midline lethal granuloma

C. Foreign body granuloma

D. IgG4 granuloma

Correct Answer: A. Phycomycosis

Explanation: Mucormycosis is a specific type of phycomycosis caused by fungi in the Mucorales. It typically affects immunocompromised individuals and can manifest as rhinocerebral, pulmonary, gastrointestinal, or cutaneous infection. The clinical presentation described in the question, with facial swelling, orbital edema, and subcutaneous nodules, along with the histological findings of PAS-positive and Grocott's methenamine silver-positive staining, is suggestive phycomycosis. Mucormycosis Description A severe fungal infection primarily affects the nose and sinuses but can quickly spread to the orbit, cribriform plate, meninges, and brain. The fungus invades arteries, causing endothelial damage, thrombosis, and rapid tissue destruction. Characteristic Findings Black necrotic material in the nasal cavity, eroding the nasal septum, hard palate, and turbinates. Black

turbinate sign is seen on contrast enhanced MRI. Risk Factors Uncontrolled diabetes, especially with ketoacidosis Prolonged steroid use (common in COVID-19 treatment) Conditions causing immunosuppression: Neutropenia, HIV/AIDS, chemotherapy, organ transplants, and kidney issues. Diagnosis Endoscopy: Shows pale mucosa early, progressing to black crusts and sloughing. Biopsy: Multiple sites should be sampled for fungal identification; potassium hydroxide preparation is the gold standard for confirming invasive features. Imaging CT : Detects bony destruction and initial assessment of sinus involvement. CECT: CECT provides better delineation of soft tissue structures, allowing for clearer identification of mucosal thickening, sinus opacification, and bony destruction. MRI : Evaluates soft tissue invasion, assesses the extent of extra-sinus disease, and identifies complications, especially in the orbit and brain . Treatment Antifungal Therapy : Amphotericin B: 0.6 to 1 mg/kg/day IV or liposomal Amphotericin B: 5 mg/kg/day. Posaconazole: 300 mg twice daily orally on the first day, then 300 mg once daily. Surgical Intervention : Endoscopic debridement of necrotic tissues. Severe cases: Total/Partial maxillectomy or orbital exenteration may be required. Incorrect Options: Midline lethal granuloma (Option B): Midline lethal granuloma, also known as polymorphic reticulosis or nasal T-cell lymphoma, is a rare malignant lymphoma that primarily affects the midline facial structures, such as the nasal cavity, paranasal sinuses, and nasopharynx. It typically presents with symptoms of nasal obstruction, facial swelling, and ulceration. The histological examination shows polymorphic lymphoid infiltrates. Foreign body granuloma (Option C): A foreign body granuloma occurs when the body reacts to a foreign object that has been implanted or retained in the tissues. It typically presents as a localized inflammatory reaction with granulation tissue formation. However, the clinical presentation described in the question, with facial swelling, orbital edema, and subcutaneous nodules, is not consistent with a foreign body granuloma. IgG4 granuloma (Option D): I gG4-related disease is a systemic fibro inflammatory condition characterized by the infiltration of affected tissues with IgG4-positive plasma cells. Often presents as tumefactive lesions or mass-like formations. However, the clinical presentation described in the question, along with the histological findings of PAS- positive and Grocott's methenamine silver-positive staining, is not indicative of IgG4 granuloma.

References:

Diseases of Ear, Nose, Throat - PL Dhingra, 8th edition, Pg - 183,184

Scott Brown ENT, 8th Edition, Pg - 211

Lethal midline granuloma - PMC

Diagnostic and treatment workup for IgG4-related disease - PMC

Foreign Body Granulomas - PubMed

↑ *Back to this question in Part A*

@Neet_pg_bot

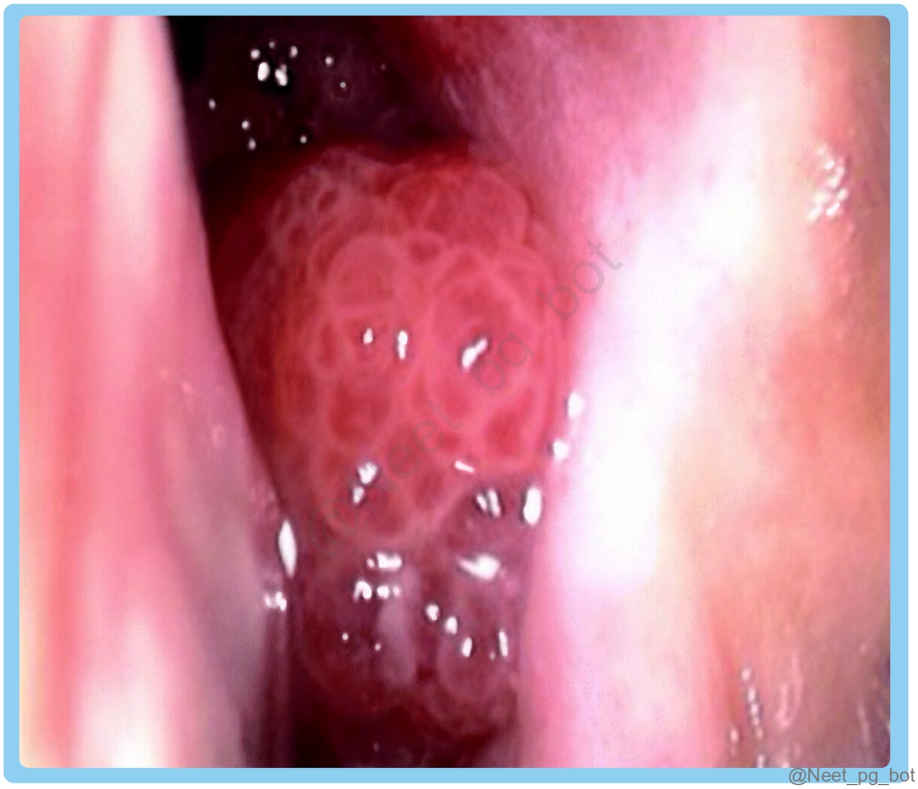
Q53: A 65-year-old patient presents with right-sided nasal obstruction and occasional blood-stained nasal discharge. His CT and endoscopy findings are shown in the below image. What could be the underlying cause? (Q856642)

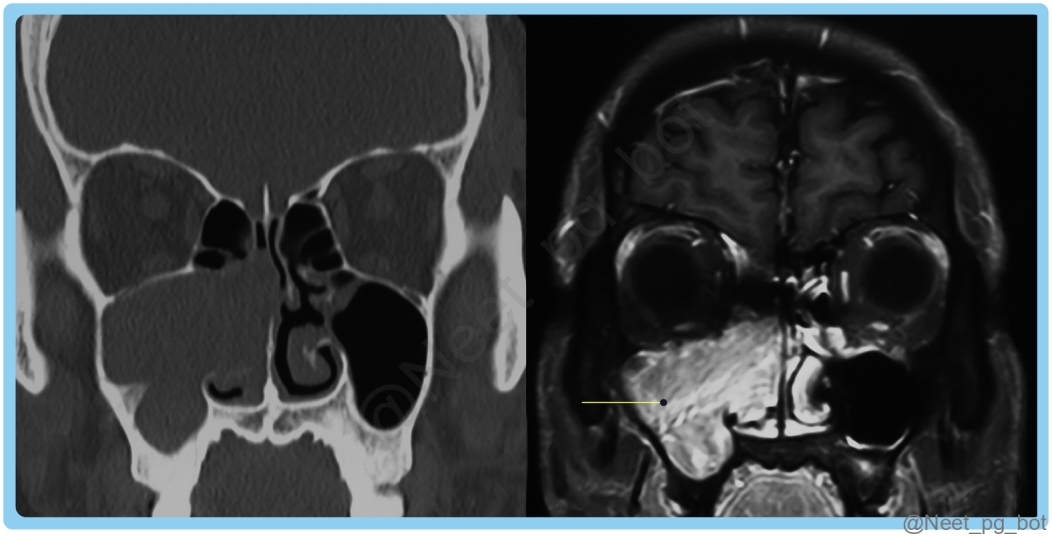
A. Inverted papilloma

B. Carcinoma maxilla

C. Esthesioneuroblastoma

D. Nasopharyngeal angiofibroma

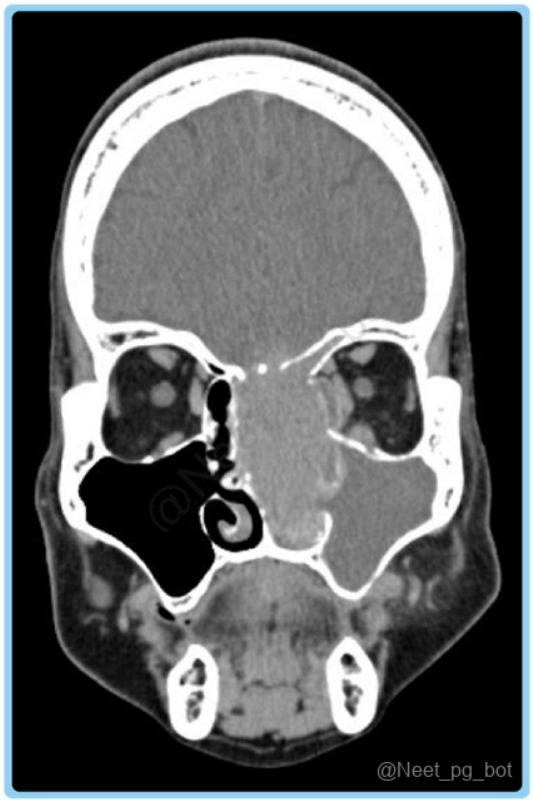




Correct Answer: A. Inverted papilloma

Explanation: The image shows Inverted papilloma causing erosion or remodeling of adjacent bony structures, such as the nasal septum or the walls of the sinuses. Inverted papilloma is a benign sinonasal tumor that arises from the

lining of the nasal cavity or paranasal sinuses. It often presents with unilateral nasal obstruction, recurrent nosebleeds, and the potential for locally aggressive behavior. {{caption_text}} {{caption_text}} Inverted Papilloma Origin Arises from the non-olfactory mucosa (Schneiderian membrane) of the nasal cavity and paranasal sinuses Other Names Transitional cell papilloma, Ringertz tumor, Schneiderian papilloma Most Common Site Lateral wall of the nose , particularly in the middle meatus. Growth Pattern Inward growth of hyperplastic tissue toward the stroma. Association with HPV Linked to Human Papillomavirus (HPV) infection (particularly types 6 and 11) Risk of Malignancy Associated with squamous cell carcinoma in 10-15% of cases. Symptoms Unilateral nasal obstruction, epistaxis (nosebleeds), and possible recurrent sinus infections. Diagnosis Endoscopic examination and biopsy for histopathological confirmation. Treatment Primary treatment is complete endoscopic surgical excision to minimize the risk of recurrence and malignant transformation. Incorrect Options: Carcinoma maxilla (Option B): Carcinoma of the maxillary sinus refers to malignant tumors that arise from the lining of the maxillary sinus. Symptoms may include nasal congestion, nasal discharge (sometimes blood-stained), facial pain, and swelling. Esthesioneuroblastoma (Option C): Esthesioneuroblastoma, also known as olfactory neuroblastoma, is a rare malignant tumor originating from the olfactory epithelium in the upper part of the nasal cavity. It can present with nasal obstruction, epistaxis (nosebleeds), anosmia (loss of smell), and facial pain or swelling. Nasopharyngeal angiofibroma (Option D): Nasopharyngeal angiofibroma is a vascular tumor that primarily affects adolescent males. It arises from the back of the nasal cavity and can cause nasal obstruction, epistaxis, and sometimes facial swelling.



References:

Diseases of Ear, Nose, Throat - PL Dhingra, 8th edition, Pg 236,237, 241-44, 289-93, 431.

↑ *Back to this question in Part A*

@Neet_pg_bot

Q54: Which of the following is not considered a major diagnostic criterion for allergic fungal sinusitis? (Q856722)

A. Fungal culture

B. Presence of Allergic Mucin

C. Characteristic CT findings: Double Density

D. Positive KOH stain

Correct Answer: A. Fungal culture

Explanation: Based on the Bent and Kuhn criteria for diagnosing allergic fungal sinusitis, fungal culture is a minor criterion. Allergic Fungal Rhinosinusitis (AFRS): Non-invasive fungal disease commonly affects younger

individuals, especially those in warm, humid climates and lower socio-economic conditions. Common causative organism: Aspergillus . Atopic individuals are more prone to AFRS. Symptoms: Unilateral or bilateral nasal congestion, post-nasal drip, and thick, dark nasal discharge. CT Scan: Shows pansinusitis, hyper attenuated intrasinus contents (allergic mucin), and potential erosion of sinus walls due to inflammation. Bent and Kuhn Diagnostic Criteria for AFRS: Major Criteria (must meet all) Minor Criteria (supportive) Type I hypersensitivity (history, skin test, or in vitro testing) Nasal polyposis (Option A) Characteristic CT findings (Option C ruled out) Eosinophilic mucin without fungal invasion (Option B ruled out) Positive fungal stain (Option D ruled out) Asthma Unilateral disease Radiological bone erosion Fungal cultures (Option A) Serum eosinophilia Charcot-Leyden crystals

References:

Scott Brown ENT, 8th Edition, Pg - 212

↑ *Back to this question in Part A*

@Neet_pg_bot

Q55: A female patient came with complaints of nasal obstruction, loss of smell and foul smelling nasal discharge. On examination, presence of yellowish-green crusts in the nasal cavity along with merciful anosmia is observed. Which of the following additional findings may be observed in this patient? (Q856222)

A. Roomy nasal cavity

B. Nasal polyps

C. Inferior turbinate hypertrophy

D. Foreign body

Correct Answer: A. Roomy nasal cavity

Explanation: trophic Rhinitis is a chronic nasal condition characterized by: Progressive atrophy of the nasal mucosa and turbinates Formation of thick, foul-smelling nasal crusts Merciful anosmia (patients are unaware of the foul smell) Roomy nasal cavity due to atrophy of nasal structures Nasal polyps (Option B): Incorrect because nasal polyps present with bilateral nasal obstruction , watery rhinorrhea, and no foul smell . They are soft, pale, and non-crusting, unlike the yellowish-green crusts in Atrophic Rhinitis. Inferior turbinate hypertrophy (Option C): Incorrect because Atrophic Rhinitis causes atrophy of the turbinates, not hypertrophy. Hypertrophy occurs in allergic rhinitis or chronic rhinitis , which presents with congestion rather than a foul-smelling discharge. Foreign body (Option D): Incorrect because a foreign body in the nose is more common in children and typically causes unilateral foul-smelling nasal discharge , rather than bilateral atrophic changes seen in Atrophic Rhinitis.

References:

Diseases of Ear, Nose & Throat - PL Dhingra - 8th Edition • Page no: 178, 179, 200

↑ *Back to this question in Part A*

@Neet_pg_bot

Q56: What should be the subsequent course of action in managing a patient who arrives at the emergency department with epistaxis, despite unsuccessful attempts to stop the bleeding by pinching the nostrils and nasal packing? (Q856235)

A. Ligation of external carotid artery

B. Ligation of internal carotid artery

C. Ligation of sphenopalatine artery

D. Ligation of maxillary artery

Correct Answer: C. Ligation of sphenopalatine artery

Explanation: pproach: Initial Management Pinching nostrils (first-line conservative treatment) Nasal packing (anterior and posterior) If Nasal Packing Fails Endoscopic ligation or cauterization of the sphenopalatine artery is the preferred next step. If Epistaxis Persists Ligation of the external carotid artery may be considered as a last resort. Ligation of external carotid artery (Option A): Incorrect because sphenopalatine artery ligation is more effective and less invasive . External carotid artery ligation is reserved for extreme, uncontrolled cases . Ligation of internal carotid artery (Option B): Incorrect because this is very high-risk , associated with stroke and severe complications , and is not required for managing epistaxis. Ligation of maxillary artery (Option D): Incorrect because while the maxillary artery supplies the sphenopalatine artery , directly ligating the sphenopalatine artery is more targeted and less morbid .

References:

Diseases of Ear, Nose & Throat - PL Dhingra - 8th Edition • Page no: 208-210

Scott-Brown's Otorhinolaryngology and Head and Neck Surgery 8th Edition : Volume 1: Basic Sciences, Endocrine Surgery, Rhinology • Page no: 1175-1178

↑ *Back to this question in Part A*

@Neet_pg_bot

Q57: What is the commonly used name for the view shown in the radiograph below, which is used to assess the frontal sinus more effectively? (Q856782)

A. Water’s view

B. Caldwell view

C. Pierre’s view

D. Towne’s view

Correct Answer: B. Caldwell view

Explanation: Caldwell view : The Caldwell view is a type of X-ray used to assess the frontal sinuses and is especially useful for evaluating the anterior and posterior ethmoidal sinuses. In this view, the patient’s head is tilted back with the X-ray beam directed at the forehead at a 15° angle. This positioning helps provide a clear view of the frontal sinuses. Caldwell View: The Caldwell view is commonly used in radiology to evaluate the sinuses , especially the frontal sinuses . This projection is typically used for sinus X-rays to assess conditions like sinusitis, fractures, or other abnormalities of the frontal and ethmoid sinuses. Incorrect Options: Water’s view (Option A): is incorrect because the Water’s view is typically used to visualize the maxillary sinuses and is not particularly aimed at frontal sinus evaluation. Pierre’s view (Option C) is incorrect because Pierre’s view is not a standard or widely used radiological term. Towne’s view (Option D): is incorrect because the Towne’s view is used for imaging the skull , particularly for assessing the occipital region and is not focused on the frontal sinuses.

References:

Diseases of Ear, Nose & Throat - PL Dhingra - 8th Edition • Page no: 509, 510

Textbook of Ear, Nose, Throat and Head and Neck Surgery: Clinical and Practical; 3rd Edition by Hazarika • Page no: 113

↑ *Back to this question in Part A*

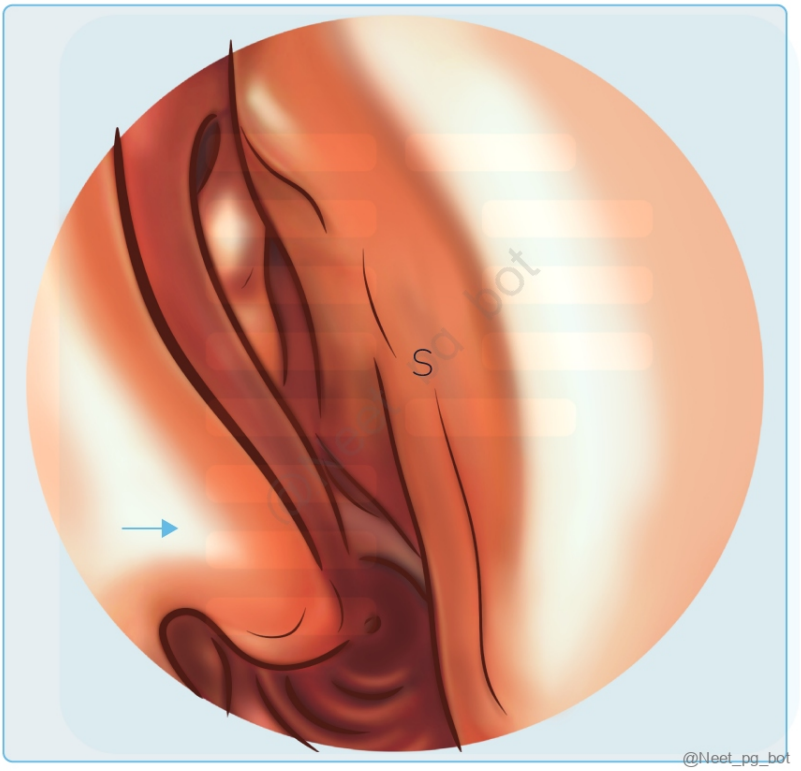
Q58: Please identify the structure indicated in the endoscopic image of the right nasal cavity. (Q856783)

A. Inferior turbinate

B. Middle turbinate

C. Superior turbinate

D. Uncinate process



Correct Answer: A. Inferior turbinate

Explanation: The inferior turbinate is the largest of the three turbinates in the nasal cavity, located along the bottom part of the nasal passages. During endoscopic examination of the right nasal cavity, the inferior turbinate is typically the most prominent structure visible. It plays an important role in conditioning the air we breathe by warming, moistening, and filtering it before it enters the respiratory tract. Inferior Turbinate: The inferior turbinate is composed of bone and covered with mucosa. Its main function is to regulate airflow and humidify the air that enters the nasal passages. It is most commonly involved in conditions like nasal obstruction or rhinitis and may become enlarged due to various inflammatory conditions. Incorrect Options: Middle turbinate (Option B): is incorrect because the middle turbinate is positioned above the inferior turbinate and is typically smaller in size. It

is located in the middle meatus and can be visible in endoscopic examinations, but it's not the structure being referred to here. Superior turbinate (Option C): is incorrect because the superior turbinate is the smallest and located towards the top of the nasal cavity. It is not typically the most prominent structure in routine endoscopic views. Uncinate process (Option D): is incorrect because the uncinate process is part of the ethmoid bone and located near the middle meatus. It is often visible in nasal endoscopy but is not as prominent as the inferior turbinate.

References:

Diseases of Ear, Nose & Throat - PL Dhingra - 8th Edition • Page no: 156-159, 495

↑ *Back to this question in Part A*

@Neet_pg_bot

Q59: What is the first air cell of the anterior ethmoidal sinus called? (Q856304)

A. Bulla ethmoidalis

B. Onodi cell

C. Agger nasi

D. Haller cell

Correct Answer: C. Agger nasi

Explanation: The Agger nasi is the first and most anterior air cell of the anterior ethmoidal sinus. It is located just beneath the frontal sinus and is often visible on CT scans of the paranasal sinuses. It is situated near the middle turbinate and is a key landmark in the anatomy of the anterior ethmoid region. Agger Nasi: The Agger nasi is the anterior-most ethmoidal air cell and forms part of the anterior ethmoid complex. It is typically seen in sinus imaging, and its location is important in surgical procedures such as functional endoscopic sinus surgery (FESS) . The Agger nasi often drains into the middle meatus and may contribute to sinus congestion when obstructed. Incorrect Options: Bulla ethmoidalis (Option A): is incorrect because the bulla ethmoidalis is a larger air cell in the middle part of the ethmoid sinus, not the first one. Onodi cell (Option B): is incorrect because the Onodi cell is a posterior ethmoidal cell that lies near the sphenoid sinus, not the anterior ethmoidal cells. Haller cell (Option D): is incorrect because the Haller cell is a variant air cell located in the floor of the orbit and not part of the anterior ethmoidal sinus system.

References:

Diseases of Ear, Nose & Throat - PL Dhingra - 8th Edition • Page no: 158, 159

↑ *Back to this question in Part A*

@Neet_pg_bot

Q60: Which among the following is not a division of external carotid artery within Kiesselback's plexus? (Q856307)

A. Anterior ethmoidal artery

B. Sphenopalatine artery

C. Greater palatine artery

D. Septal branch of superior labial

Correct Answer: A. Anterior ethmoidal artery

Explanation: The anterior ethmoidal artery is a branch of the ophthalmic artery , which is derived from the internal carotid artery , not the external carotid artery . Kiesselbach’s Plexus: Kiesselbach's plexus is a vascular network located on the anterior part of the nasal septum , composed of arteries from the external carotid artery . The common arteries involved in Kiesselbach's plexus include: Sphenopalatine artery (from the maxillary artery) Greater palatine artery (from the maxillary artery) Septal branch of the superior labial artery (from the facial artery) Anterior ethmoidal artery – from ophthalmic artery (internal carotid) Posterior ethmoidal artery – from ophthalmic artery (internal carotid)These vessels contribute to the blood supply to the nasal septum and are involved in conditions such as epistaxis (nosebleeds) . Incorrect Options: Sphenopalatine artery (Option B): is incorrect because the sphenopalatine artery is a branch of the maxillary artery , a branch of the external carotid, and it contributes to Kiesselbach's plexus. Greater palatine artery (Option C): is incorrect because the greater palatine artery is also a branch of the maxillary artery and contributes to Kiesselbach's plexus. Septal branch of superior labial (Option D): is incorrect because the septal branch of the superior labial artery is a branch of the facial artery , also part of the external carotid, and contributes to Kiesselbach's plexus.

References:

Diseases of Ear, Nose & Throat - PL Dhingra - 8th Edition • Page no: 205

↑ *Back to this question in Part A*

@Neet_pg_bot

Q61: Which of the following views involves an X-ray beam angled at 45° to the orbitomeatal line is also known as? (Q854884)

A. Water’s view

B. Towne’s view

C. Law’s view

D. Stenver’s view

Correct Answer: A. Water’s view

Explanation: – Water’s View: Water’s view is a standard radiological projection used to assess the maxillary sinuses, frontal sinuses, and the nasal cavity. The 45° angulation helps project the sinuses clearly, avoiding superimposition of the surrounding bone structures. This view is often used in diagnosing sinusitis and other sinus-related conditions. Towne’s view (Option B): is incorrect because Towne's view involves a different angulation, typically 30° to the orbitomeatal line, used for visualizing the occipital bone and posterior cranial fossa. Law’s view (Option C): is incorrect because Law’s view is used for temporomandibular joint (TMJ) imaging, where the X-ray beam is angled at 15° to the horizontal plane. Stenver’s view (Option D): is incorrect because Stenver’s view is used for imaging the temporal bone and inner ear, with the X-ray beam directed laterally at an angle to the skull.

References:

P L Dhingra Diseases of Ear Nose and Throat and Head and Neck Surgery - 8th Edition • Page no: 509

↑ *Back to this question in Part A*

@Neet_pg_bot

Q62: Which is the condition where surgery is done to partially or completely occlude one nostril? (Q858488)

A. Vasomotor rhinitis

B. Atrophic rhinitis

C. Invasive aspergillosis

D. Allergic rhinitis

Correct Answer: B. Atrophic rhinitis

Explanation: Atrophic rhinitis: Surgery is sometimes performed in atrophic rhinitis to partially or completely occlude one nostril. In this condition, the nasal mucosa becomes thin and atrophic, leading to dry, crusting nasal passages and an impaired mucociliary clearance. Surgical interventions, such as septal surgery or turbinate reduction, may be necessary to manage the symptoms and help prevent further damage to the nasal structures. Atrophic Rhinitis: Atrophic rhinitis is a chronic condition characterized by the thinning and atrophy of the nasal mucosa and turbinate bones. It results in symptoms like dry nasal passages, crusting, foul-smelling nasal discharge, and in some cases, nasal obstruction. In advanced cases, surgical procedures may be done to improve nasal patency or to occlude the nostril to reduce airflow and symptoms. This procedure aims to decrease the discomfort caused by excessive dryness or other symptoms. Vasomotor rhinitis (Option A): is incorrect because vasomotor rhinitis involves nasal congestion triggered by environmental factors, but it does not require surgery to occlude the nostril. Invasive aspergillosis (Option C): is incorrect because invasive aspergillosis is a fungal infection that affects the sinuses and can cause symptoms like nasal obstruction and discharge, but surgery is not

typically done to occlude a nostril in this case. Allergic rhinitis (Option D): is incorrect because allergic rhinitis is caused by immune reactions to allergens and is primarily managed with medications like antihistamines or intranasal steroids, not surgery to occlude a nostril.

References:

PL Dhingra Diseases of Ear, Nose & Throat - 8th Edition • Page no: 178, 179

↑ *Back to this question in Part A*

@Neet_pg_bot

Q63: What is the preferred diagnostic procedure prior to performing functional endoscopic sinus surgery (FESS)? (Q859407)

A. MRI scan

B. X-ray

C. Antral lavage

D. CT scan

Correct Answer: D. CT scan

Explanation: The preferred diagnostic procedure prior to performing Functional Endoscopic Sinus Surgery (FESS) is a CT scan . A CT scan provides detailed imaging of the sinus anatomy and helps to identify any sinus pathology such as sinusitis , nasal polyps , blockages , or anatomical variations that could affect the surgical approach. It is crucial for planning the procedure and avoiding complications during surgery. Functional Endoscopic Sinus Surgery (FESS): FESS is a minimally invasive surgical procedure used to treat chronic sinusitis, nasal polyps, and other sinus conditions. Before performing this surgery, it is essential to have a clear understanding of the patient's sinus anatomy and any underlying pathology. CT imaging is the gold standard for evaluating the sinuses, as it provides high-resolution, cross-sectional images that allow for precise assessment of sinus structures, mucosal involvement, and any blockages. Incorrect Options: MRI scan (Option A): is incorrect because MRI is typically used for evaluating soft tissue or neurological issues, and it is not as effective as CT for assessing the sinus anatomy and bone structures, which are key for FESS planning. X-ray (Option B): is incorrect because X-ray imaging is less detailed than CT and cannot provide the necessary clarity to evaluate the sinuses thoroughly, especially for complex sinus conditions. Antral lavage (Option C): is incorrect because antral lavage is a diagnostic and therapeutic procedure used to irrigate the maxillary sinus in cases of chronic sinusitis. However, it is not used for detailed preoperative planning for FESS. A CT scan is the more accurate and comprehensive diagnostic tool for this purpose.

References:

Diseases of Ear, Nose & Throat - PL Dhingra - 6th Edition

Page no. 419

Scott-Brown’s Otorhinolaryngology: Head and Neck Surgery; 7th Edition

Pg 1482-1484

↑ *Back to this question in Part A*

@Neet_pg_bot

Q64: What is the most frequent location of obstruction caused by a nasal polyp originating from the maxillary sinus? (Q859411)

A. Inferior meatus

B. Superior meatus

C. Middle meatus

D. Sphenoethmoidal recess

Correct Answer: C. Middle meatus

Explanation: The most common location for an obstruction caused by a nasal polyp originating from the maxillary sinus is the middle meatus . Nasal polyps are benign growths that arise from the mucosa of the nasal cavity or paranasal sinuses. When a polyp forms in the maxillary sinus, it typically expands into the middle meatus, which is the drainage pathway of the maxillary sinus. This can lead to obstruction, sinusitis, or blockage of the sinus drainage. Nasal Polyps : Nasal polyps are non-cancerous growths that develop in the nasal passages or sinuses due to chronic inflammation. They are frequently associated with conditions like chronic rhinosinusitis, asthma, and allergies. The most common location for these polyps is the middle meatus , which is where the maxillary sinuses drain. If the polyps obstruct the drainage system, it can lead to recurrent sinus infections, nasal congestion, and difficulty breathing through the nose. Incorrect Options: Inferior meatus (Option A) : is incorrect because the inferior meatus primarily drains the nasolacrimal duct and not the maxillary sinus, so polyps from the maxillary sinus would not typically obstruct this area. Superior meatus (Option B) : is incorrect because the superior meatus drains the posterior ethmoidal sinuses, not the maxillary sinus, so it would not be the most common site of obstruction for a maxillary sinus polyp. Sphenoethmoidal recess (Option D) : is incorrect because the sphenoethmoidal recess is the drainage site for the sphenoid sinus, not the maxillary sinus, making it an unlikely location for obstruction due to a maxillary sinus polyp.

References:

P L Dhingra Diseases of Ear Nose and Throat and Head and Neck Surgery - 6th Edition Page no: 136,137

P L Dhingra Diseases of Ear Nose and Throat and Head and Neck Surgery - 7th Edition Page no: 1332

↑ *Back to this question in Part A*

@Neet_pg_bot

Q65: Which of the following least likely causes nasal septal perforation? (Q859412)

A. Rhinosporidiosis

B. Seasonal influenza

C. Syphilis

D. Tuberculosis

Correct Answer: B. Seasonal influenza

Explanation: Seasonal influenza is the least likely cause of nasal septal perforation. While influenza can lead to symptoms like nasal congestion, sore throat, and fever, it typically does not result in nasal septal perforation. This condition is more often associated with chronic inflammation, infection, or trauma to the nasal septum, such as in cases of rhinosporidiosis, syphilis, or tuberculosis. Causes of Nasal Septal Perforation : Nasal septal perforation is a hole or rupture in the nasal septum, the cartilage and bone that divides the two nostrils. Several conditions can lead to this, including: Rhinosporidiosis : This is a chronic granulomatous infection caused by the fungus Rhinosporidium seeberi , often affecting the nasal mucosa and leading to the development of polyps or perforations in the nasal septum. Syphilis : A sexually transmitted infection caused by Treponema pallidum , syphilis can cause granulomatous inflammation, particularly in the tertiary stage, leading to nasal septal perforation (a manifestation of gumma). Tuberculosis : This chronic bacterial infection caused by Mycobacterium tuberculosis can result in chronic granulomatous inflammation, leading to nasal septal perforation as part of the disease process, especially in advanced cases. Seasonal influenza (Option B) : is incorrect because while it causes acute viral upper respiratory tract infections, it does not typically result in chronic inflammation or tissue destruction that would lead to septal perforation. Incorrect Options: Rhinosporidiosis (Option A) : is incorrect because this fungal infection is a well-known cause of nasal septal perforation due to chronic inflammation and polyp formation. Syphilis (Option C) : is incorrect because tertiary syphilis can cause granulomatous lesions, including perforation of the nasal septum. Tuberculosis (Option D) : is incorrect because tuberculosis, particularly in its chronic form, can cause nasal septal perforation due to granulomatous inflammation.

References:

Diseases of Ear, Nose & Throat - PL Dhingra - 6th Edition Page no. 174

https://www.archivesofpathology.org/doi/pdf/10.5858/arpa.2015-0165-RA

↑ *Back to this question in Part A*

@Neet_pg_bot

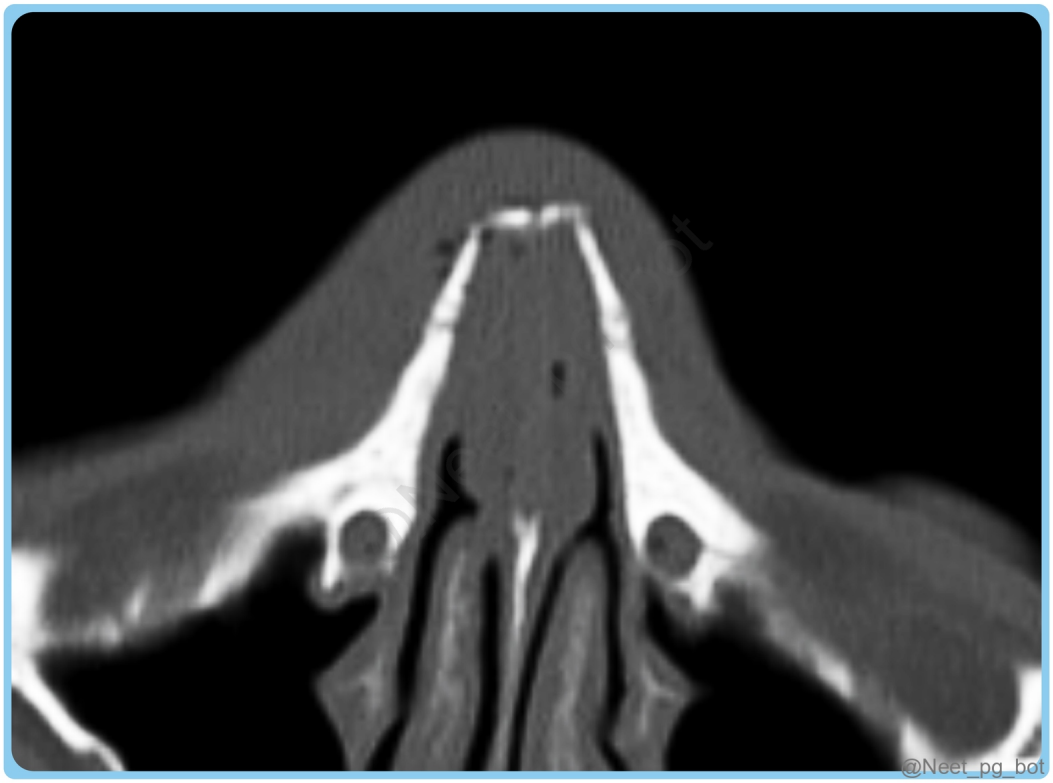
Q66: A boy fell down while playing and presented with deviated nose. The septum however was found to be normal. Following is the CT finding of the patient. What is the next step in management? (Q859861)

A. Septo-rhinoplasty

B. Open reduction

C. Closed reduction after edema subsides in 20 days

D. Closed reduction after swelling decreases automatically



Correct Answer: D. Closed reduction after swelling decreases automatically

Explanation: In the case of a nasal fracture with no involvement of the septum , the most appropriate approach is to wait for the swelling to subside before proceeding with closed reduction . This period typically lasts around 10-14 days after the trauma, which allows for the edema (swelling) to decrease. After the swelling is reduced, closed reduction can be performed to realign the nasal bones without the risk of additional trauma or incorrect positioning. The reason for this approach is that if the closed reduction is performed too early, the swelling can obstruct proper visualization and alignment of the fractured nasal bones, potentially leading to complications or an incomplete reduction. Nasal Fracture Management : Closed reduction is the preferred management for nasal fractures that involve only the nasal bones, not the septum. Waiting for swelling to decrease naturally allows for better visualization during the procedure, reducing the chances of complications or inadequate realignment. Septo-rhinoplasty is typically only necessary for more complex fractures or when there is significant septal involvement that cannot be corrected with closed reduction. Open reduction is used for more complicated fractures where closed reduction isn't feasible. Incorrect Options: Septo-rhinoplasty (Option A) : is incorrect because it's a more invasive procedure used when there are issues with both the nasal bones and septum. Open reduction (Option B) : is incorrect because open reduction is generally only indicated in cases where closed reduction is not successful or in more complicated fractures. Closed reduction after edema subsides in 20 days (Option C) : is also

incorrect because waiting for 20 days is unnecessary. The typical waiting period for swelling to subside is about 10-14 days , not 20 days.

References:

Scott Brown ENT, 8th Edition Pg - 1184,1185

Diseases of Ear, Nose, Throat - PL Dhingra, 8th edition, Pg - 171

↑ *Back to this question in Part A*

@Neet_pg_bot

Q67: A young adult presents with a deformed nose after falling from a ladder. The CT scan shows a displaced nasal fracture. What is the ideal time to reduce the fracture in this patient? (Q859862)

A. Within 12 hours following the injury

B. 5-7 days following injury

C. After 2 weeks of injury

D. After 4 weeks of injury

Correct Answer: B. 5-7 days following injury

Explanation: In the case of a nasal fracture , the ideal time for closed reduction is typically within 5-7 days following the injury. This time frame allows for the initial swelling to subside , providing better visibility and ensuring that the fractured bones can be accurately realigned. Reducing the fracture within this window also minimizes the risk of complications and ensures better cosmetic and functional outcomes. Timing of Nasal Fracture Reduction : Early reduction (within the first 12 hours) may sometimes be appropriate for fractures with significant deformity or in cases where swelling is minimal. However, it's generally not advisable to reduce the fracture within the first few hours because the swelling can obscure proper alignment and make it harder to achieve a precise reduction. After 5-7 days , when swelling decreases, a closed reduction can be safely performed, and the nasal bones can be realigned without much obstruction from edema. If the reduction is done too late (e.g., after 2 weeks or more), bony consolidation begins, making the bones harder to manipulate, and the chances of achieving an optimal result decrease. Incorrect Options: Within 12 hours following the injury (Option A) : is incorrect because early reduction is often difficult due to swelling that can hinder the realignment of the nasal bones. After 2 weeks of injury (Option C) : is incorrect because waiting too long increases the risk of bony consolidation , making it harder to reduce the fracture and improving the chances of a less satisfactory result. After 4 weeks of injury (Option D) : is incorrect for the same reason. At this point, the bones may have healed or begun to heal, which would reduce the success rate of reduction.

References:

Scott-Brown’s Otorhinolaryngology and Head and Neck Surgery 8th Edition - 2018 Page 1612

P L Dhingra Diseases of Ear, Nose, and Throat and Head and Neck Surgery 7th Edition Page 204

P L Dhingra Diseases of Ear, Nose, and Throat and Head and Neck Surgery 8th Edition Page 213

↑ *Back to this question in Part A*

@Neet_pg_bot

Q68: Rhinolalia clausa occurs in all except: (Q859865)

A. Nasopharyngeal polyp

B. Nasopharyngeal carcinoma

C. Cleft palate

D. Nasopharyngeal angiofibroma

Correct Answer: C. Cleft palate

Explanation: Rhinolalia clausa refers to a nasal voice or nasal speech caused by obstruction of the nasal passage . It occurs when there is impaired airflow through the nasal cavity during speech, resulting in a distinctive "blocked" or muffled sound. This condition is typically caused by nasal obstruction or nasopharyngeal pathology . Rhinolalia Clausa : Nasopharyngeal polyp , nasopharyngeal carcinoma (Option B) , and nasopharyngeal angiofibroma are all conditions that can obstruct the nasopharyngeal region , leading to nasal speech (rhinolalia clausa). A cleft palate , however, leads to a different type of speech disorder . It causes velopharyngeal insufficiency , which results in hypernasality (excessive nasal resonance) rather than the nasal blockage seen in rhinolalia clausa. Incorrect Options: Nasopharyngeal polyp (Option A) : is incorrect because it can cause obstruction in the nasal passage, leading to rhinolalia clausa . Nasopharyngeal carcinoma (Option B) : is incorrect because it can obstruct the nasopharynx, leading to nasal voice or rhinolalia clausa . Nasopharyngeal angiofibroma (Option D) : is incorrect because it can obstruct the nasopharynx, leading to nasal speech or rhinolalia clausa .

References:

Diseases of Ear, Nose, Throat - PL Dhingra, 8th Edition, Pg - 286,287

Scott Brown ENT, 8th Edition, Pg - 287

↑ *Back to this question in Part A*

@Neet_pg_bot

Q69: At what age frontal sinuses appear on X ray? (Q859871)

A. 1 years

B. 2 years

C. 3 years

D. 4 years

Correct Answer: D. 4 years

Explanation: The frontal sinuses are usually not visible on X-ray until around 4 years of age . While their development begins earlier, they do not appear clearly on radiographs until this age, as the sinuses are still small and continue to grow throughout childhood. Development of Paranasal Sinuses: Maxillary Sinus : The maxillary sinus is the first to develop and is present at birth as a small cavity. It grows rapidly during the early years of life and reaches full size by 4 years of age . Ethmoid Sinus : The ethmoid sinus is present as a small cluster of cells at birth and becomes more prominent in childhood. Development continues up to 6-8 years , with further changes through adolescence. Sphenoid Sinus : The sphenoid sinus begins to develop around 2 years of age. It is typically visible on imaging after 3-5 years and reaches its adult size by 12 years . Frontal Sinus : The frontal sinuses are not visible on imaging until about 4 years of age , with full development occurring much later, generally by the age of 16-18 years . Their growth continues until late adolescence. Incorrect Options: 1 year (Option A) : is incorrect because frontal sinuses are not present or visible on X-ray at this age. 2 years (Option B) : is incorrect because while they start developing around this time, they aren't visible on X-ray yet. 3 years (Option C) : is incorrect because although they begin developing around 2 years, frontal sinuses generally appear on X-ray by the age of 4 years , not 3 years.

References:

https://news.ncsu.edu/2017/06/05/frontal-sinus-forensic-2017/

https://journal.zums.ac.ir/browse.php?a_id=6215&sid=1&slc_lang=en&html=1

↑ *Back to this question in Part A*

@Neet_pg_bot

Q70: What is the likely diagnosis for a 70-year-old man who has neck nodes and exhibits a dull tympanic membrane, along with symptoms of deafness and tinnitus in the left ear, and a type B graph on tympanometry? (Q859881)

A. Chronic suppurative otitis media

B. Glomus tumor

C. Nasopharyngeal carcinoma

D. Sensorineural hearing loss

Correct Answer: C. Nasopharyngeal carcinoma

Explanation: Nasopharyngeal carcinoma (NPC) commonly presents with cervical lymphadenopathy, which can explain the neck nodes observed in this patient. The patient also exhibits a dull tympanic membrane, which can be associated with eustachian tube dysfunction , a common manifestation in NPC due to obstruction or invasion of the nasopharynx. This dysfunction leads to middle ear effusion and the type B tympanogram seen in this case. The presence of deafness and tinnitus further suggests that the nasopharyngeal carcinoma may be affecting the middle ear or the auditory pathway. Nasopharyngeal Carcinoma (NPC): Nasopharyngeal carcinoma is a malignant tumor arising from the epithelial cells of the nasopharynx. It is more common in certain geographic regions and in older individuals. The disease often presents with: Cervical lymphadenopathy (neck nodes), as seen in this patient. Deafness or tinnitus , due to eustachian tube obstruction , which leads to middle ear effusion, presenting with a dull tympanic membrane. Type B tympanogram , which indicates middle ear effusion or obstruction. Incorrect Options: Chronic suppurative otitis media (Option A) : is incorrect because this condition typically causes a purulent discharge and would not lead to the characteristic lymphadenopathy or dull tympanic membrane associated with NPC. Glomus tumor (Option B) : is incorrect because although it can cause tinnitus and middle ear effusion, it would not typically present with cervical lymphadenopathy or the eustachian tube dysfunction leading to type B tympanogram. Sensorineural hearing loss (Option D): is incorrect because while it can cause hearing loss, the additional findings of cervical lymphadenopathy, a dull tympanic membrane, and type B tympanogram point toward a more localized pathology, such as NPC.

References:

Dhingra Diseases of Ear, Nose and Throat and Head and Neck Surgery 8th edition, pages 296-298

↑ *Back to this question in Part A*

@Neet_pg_bot

Q71: A middle-aged man presents with complaints of a facial deformity, as shown in the image below. His medical records show a history of acne rosacea. What is the likely diagnosis? (Q859885)

A. Rhinophyma

B. Rhinoscleroma

C. Rhinosporidiosis

D. Scleroderma

Correct Answer: A. Rhinophyma

Explanation: Rhinophyma is a severe form of acne rosacea and is characterized by the thickening and enlargement of the nasal skin, often with a bulbous appearance. It is more common in men and typically develops in individuals with a long history of rosacea. The condition causes facial deformity due to the increased sebaceous gland activity and inflammation. The nose becomes enlarged and may appear red and nodular, which is consistent with the image shown. Rhinophyma: Rhinophyma is a subtype of acne rosacea , often associated with long-term rosacea that leads to the hypertrophy of the sebaceous glands on the nose. This condition manifests as: Thickening of the skin , leading to a bulbous or enlarged nose. Redness or telangiectasias (visible blood vessels) on the nose. It typically affects middle-aged to older men and is often triggered or worsened by chronic inflammation from acne rosacea. Treatment may involve laser therapy , surgical excision , or topical treatments to reduce the size and appearance of the nose. Incorrect Options: Rhinoscleroma (Option B) : is incorrect because rhinoscleroma is a chronic bacterial infection (caused by Klebsiella pneumoniae) that leads to granulomatous inflammation and fibrosis, affecting the nasal and upper respiratory tract. It does not present with the same cosmetic deformity seen in rhinophyma. Rhinosporidiosis (Option C) : is incorrect because rhinosporidiosis is a chronic infection caused by the Rhinosporidium seeberi , which leads to the development of polyps, not the thickening and deformity of the nose characteristic of rhinophyma. Scleroderma (Option D): is incorrect because scleroderma primarily causes skin tightening and fibrosis but does not lead to the characteristic redness and bulbous deformity of the nose seen in rhinophyma. Scleroderma can affect the face, but it does not cause the same localized changes in the nose as rhinophyma.

References:

Diseases of Ear, Nose and Throat, PL Dhingra, 8th Edition, Pg.166

Scott-Brown’s Otorhinolaryngology, 8th Edition, Volume 1, Pg.439

Fractionated Carbon Dioxide Laser

↑ *Back to this question in Part A*

@Neet_pg_bot

Q72: What is the term used to describe the sign depicted in the contrast-enhanced CT scan of the head shown below in a 14-year-old football player who presented to the casualty with complaints of epistaxis while playing football, along with a history of recurrent spontaneous nasal bleeding, unilateral nasal obstruction, and denasal speech, without any history of trauma or falls? (Q859890)

A. Aquino Sign

B. Holman Miller sign

C. Teardrop sign

D. Hanging drop sign

Correct Answer: B. Holman Miller sign

Explanation: Holman Miller Sign is associated with juvenile nasopharyngeal angiofibroma (JNA) , a highly vascular benign tumor commonly seen in young males. It appears on imaging, typically on a contrast-enhanced CT scan, as a vascular mass in the nasopharynx or nasal cavity , and is indicative of JNA, which is associated with recurrent epistaxis , unilateral nasal obstruction , and denasal speech . Holman Miller Sign: Holman Miller Sign refers to the contrast-enhanced CT finding that highlights the vascular nature of juvenile nasopharyngeal angiofibroma (JNA) . It is seen as a highly vascular mass in the nasopharyngeal region , often extending into the nasal cavity. Seen as anterior bowing of the posterior wall of the maxillary sinus. JNA presents with recurrent epistaxis , nasal obstruction , denasal speech , and is often diagnosed in adolescent males . JNA is a benign tumor but can cause significant morbidity due to its location and vascularity. Treatment typically involves surgical resection and sometimes preoperative embolization to reduce vascularity. Incorrect Options: Aquino Sign (Option A): is incorrect because it is not associated with juvenile nasopharyngeal angiofibroma but rather describes a different vascular finding. Teardrop Sign (Option C): is incorrect because it refers to a specific radiographic appearance in the case of subdural hematoma , not nasopharyngeal tumors. Hanging Drop Sign (Option D) : is incorrect because it is associated with posterior fossa lesions such as cerebellar or brainstem tumors , not nasal or paranasal sinus conditions.

References:

Dhingra Diseases of Ear, Nose and Throat and Head and Neck Surgery 8th edition, page 292

https://www.ncbi.nlm.nih.gov/books/NBK545240/

https://pmc.ncbi.nlm.nih.gov/articles/PMC5305640/

↑ *Back to this question in Part A*

@Neet_pg_bot

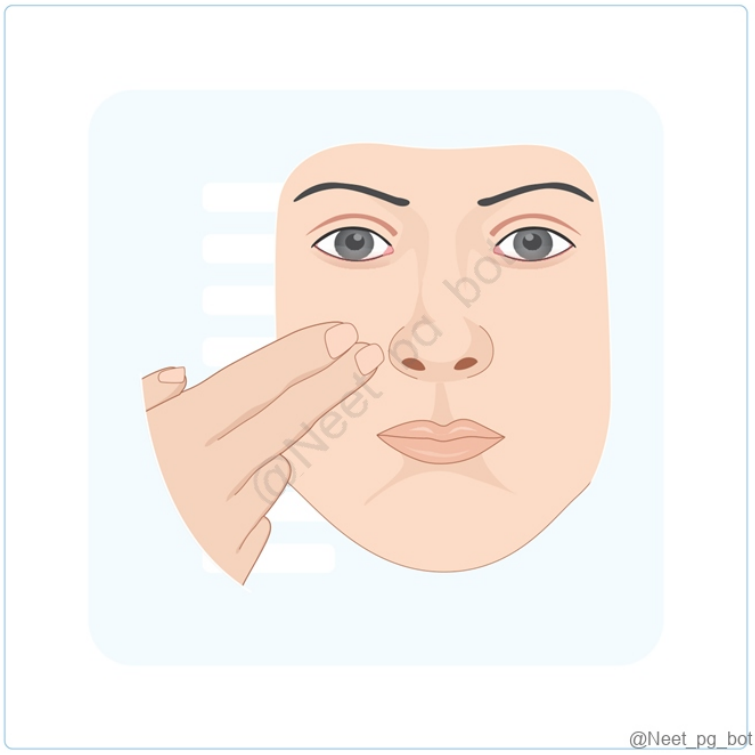
Q73: Which clinical test is being shown in the image? (Q859896)

A. Epley’s maneuver

B. Heimlich maneuver

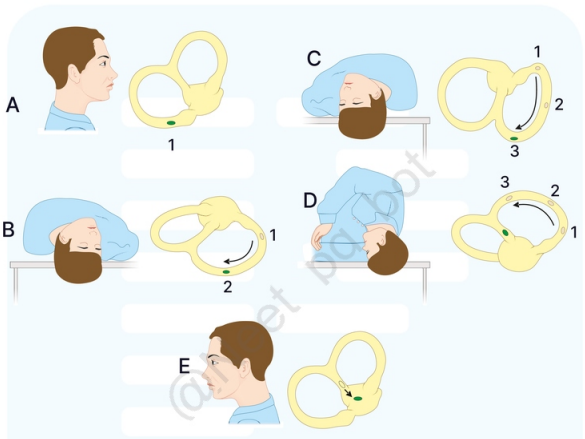
C. Cottle’s test

D. Trotter’s method



Correct Answer: C. Cottle’s test

Explanation: Cottle’s Test is a diagnostic maneuver used to evaluate nasal obstruction, particularly to assess the patency of the nasal passages and nasal valve function . During this test, the examiner applies external pressure to the lateral nasal walls (just below the cheekbone) to temporarily relieve nasal obstruction. If this improves the patient’s airflow, it suggests nasal valve collapse or dysfunction, which is often seen in patients with deviated septum or nasal valve stenosis . Cottle’s Test: Cottle's test involves applying pressure to the lateral nasal wall while the patient is instructed to breathe in. If improvement in nasal airflow is noted when external pressure is applied, it indicates that nasal valve collapse is the cause of the obstruction. This test is frequently used before performing surgical interventions , such as septoplasty or rhinoplasty , to confirm the diagnosis of nasal valve insufficiency . Epley’s maneuver (Option A) : is incorrect because it is used for benign paroxysmal positional vertigo (BPPV) , not for nasal or facial assessments. Heimlich maneuver (Option B) : is incorrect because it is used for airway obstruction due to choking, not for assessing nasal function. Trotter’s method (Option D) : is incorrect because it is a clinical sign of nasopharyngeal carcinoma , characterized by trismus and nasal obstruction but not a diagnostic maneuver like Cottle's test.



Epley's manoeuvre for BPPV of posterior canal showing position of patient and corresponding position of otolith debris in the posterior canal. (A) Patient sitting facing forward. (B) Patient lying down in Dix-Hallpike position with head hanging and turned 45° to right (the affected ear). (C) Head turned to the left Dix-Hallpike position with the affected ear up. (D) Head and body both turned as a unit to the unaffected side so that the face is turned to the ground. (E) Patient is made to sit with head bent forward by 20°.

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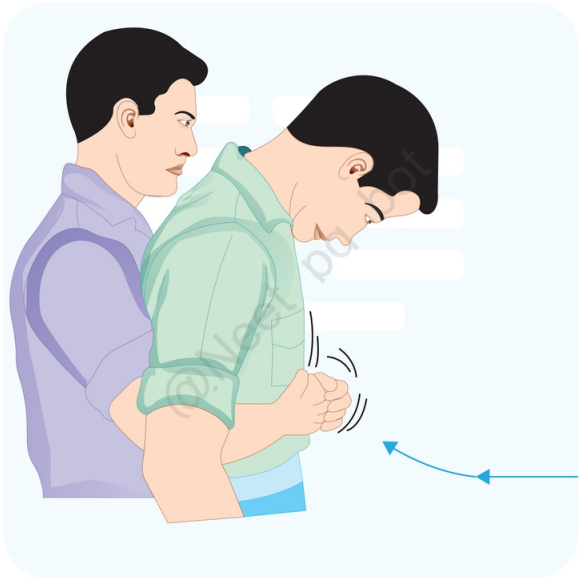

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References:

Diseases of Ear, Nose and Throat, PL Dhingra, 8th Edition, Pg.172,173

Logan Turner’s Diseases of Nose, Throat and Ear, 11th Edition, Pg.65,66

↑ *Back to this question in Part A*

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Q74: A 60-year-old post-COVID male patient came with complaints of one-sided facial swelling, headache, and nasal sinus congestion. He is diabetic and it is uncontrolled. On examination black lesions on the nasal bridge and upper inside of the mouth were observed. Which investigation would you do to confirm the diagnosis of this patient? (Q855586)

A. X-ray

B. Biopsy with histopathologic examination

C. Serum ferritin

D. HbA1c

Correct Answer: B. Biopsy with histopathologic examination

Explanation: Correct Option: B) Biopsy with histopathologic examination The patient presents with one-sided facial pain with nasal and oral black mass, which can be a sign of Mucormycosis. Biopsy with histopathologic examination is gold standard for diagnosis. Mucormycosis Description A severe fungal infection primarily affects the nose and sinuses but can quickly spread to the orbit, cribriform plate, meninges, and brain. The fungus invades arteries, causing endothelial damage, thrombosis, and rapid tissue destruction. Characteristic Findings Black necrotic material in the nasal cavity, eroding the nasal septum, hard palate, and turbinates. Black turbinate sign is seen on contrast enhanced MRI. Risk Factors Uncontrolled diabetes, especially with ketoacidosis Prolonged steroid use (common in COVID-19 treatment) Conditions causing immunosuppression: Neutropenia, HIV/AIDS, chemotherapy, organ transplants, and kidney issues. Diagnosis Endoscopy: Shows pale mucosa early, progressing to black crusts and sloughing. Biopsy: Multiple sites should be sampled for fungal identification; potassium hydroxide preparation is the gold standard for confirming invasive features. Incorrect Options : X-ray (Option A) : X-rays are not the preferred imaging modality for visualizing fungal invasion of the sinuses. Imaging modalities like CT or MRI is preferred. Serum ferritin (Option C) : Though patients with an iron overload are found to be more susceptible to post-COVID mucormycosis, serum ferritin is not an indicative test for Mucormycosis. HbA1c (Option D) : HbA1c is a medical test used to measure long-term blood glucose control, and it is commonly used to screen for diabetes. Although poorly managed diabetes can increase the chances of developing Mucormycosis, HbA1c is not a specific test for Mucormycosis, and it is unlikely to be helpful in confirming the diagnosis.

References:

Diseases of Ear, Nose, Throat - PL Dhingra, 8th edition, Pg - 183,184

Scott Brown ENT, 8th Edition, Pg - 211

↑ *Back to this question in Part A*

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Q75: A patient presents with acute exacerbation of asthma; he gives a history of sinusitis and headaches for which he had self-medicated. Examination reveals nasal polyposis; which of the following drugs is likely implicated in this episode of asthma in this patient? (Q855775)

A. Cotrimoxazole

B. Co-amoxiclav

C. Aspirin

D. Chloramphenicol

Correct Answer: C. Aspirin

Explanation: Correct Option: C) Aspirin The patient is likely suffering from Aspirin-exacerbated respiratory disease (AERD), which was formerly known as Samter's triad , which comprises asthma, nasal polyps, and NSAID Intolerance . Ibuprofen and other nonsteroidal anti-inflammatory drugs (NSAIDs) ought to be avoided in patients with Samter's triad due to the potential for serious allergic responses, such as bronchospasm and anaphylaxis. Hence, the correct answer is C, aspirin. Incorrect Options: Cotrimoxazole (Option A): This medicine is a combination of sulfamethoxazole and trimethoprim and is commonly used to treat bacterial contaminations. It is not contraindicated in patients with Samter's triad. Co-amoxiclav (Option B): This medication is a combination of amoxicillin and clavulanic acid and is commonly utilized to treat bacterial diseases. It is not contraindicated in patients with Samter's triad. Chloramphenicol (Option D): This medicine is an antimicrobial that's not commonly related to unfavorably susceptible responses. It is not contraindicated in patients with Samter's triad.

References:

Diseases of the Ear, Nose, Throat, 8th Edition, Page no: 243

↑ *Back to this question in Part A*

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Q76: A patient presents with a fish bone stuck in the pyriform sinus. During the removal procedure, there is accidental nerve injury. Which nerve is most likely to be damaged? (Q866705)

A. Recurrent laryngeal nerve

B. Glossopharyngeal nerve

C. Internal branch of the superior laryngeal nerve

D. External branch of the superior laryngeal nerve

Correct Answer: C. Internal branch of the superior laryngeal nerve

Explanation: The internal branch of the superior laryngeal nerve pierces the thyrohyoid membrane along with the superior laryngeal artery to supply sensory innervation to the mucosa of the larynx above the vocal cords, the pharynx, and the pyriform sinus . In cases of foreign body removal from the pyriform sinus, this nerve lies in close proximity and is at high risk of injury. Damage results in loss of sensation in the supraglottic larynx and pyriform sinus, predisposing to aspiration because the protective cough reflex is lost. This nerve is a branch of the vagus nerve and has no motor component - purely sensory in this region. Incorrect Options: Recurrent laryngeal nerve (Option A): Supplies motor innervation to all intrinsic laryngeal muscles except cricothyroid and sensory innervation below the vocal cords. It is not exposed during pyriform sinus procedures. Glossopharyngeal nerve (Option B): Provides sensation to the oropharynx, posterior one-third of the tongue, and tonsillar region, not the pyriform sinus. External branch of the superior laryngeal nerve (Option D): Supplies motor innervation to the cricothyroid muscle and is located more superficially, away from the pyriform sinus mucosa, making injury unlikely during this procedure.

↑ *Back to this question in Part A*

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Q77: A professional singer presents with difficulty in raising the pitch of her voice following thyroid surgery. There is no hoarseness, but high-pitched voice production is impaired. Which nerve is most likely injured? (Q866708)

A. External branch of the superior laryngeal nerve (EBSLN)

B. Internal branch of the superior laryngeal nerve (IBSLN)

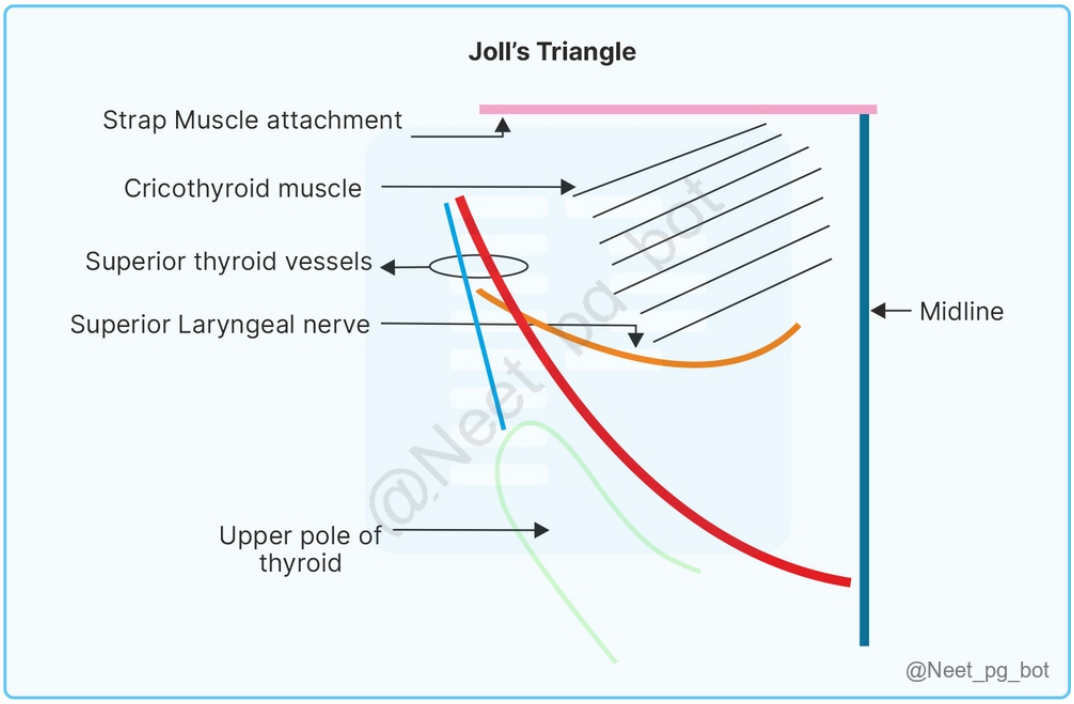
C. Recurrent laryngeal nerve (RLN)

D. Glossopharyngeal nerve

Correct Answer: A. External branch of the superior laryngeal nerve (EBSLN)

Explanation: The EBSLN innervates the cricothyroid muscle , which tenses the vocal cords to produce high-pitched sounds. Injury during thyroid surgery can cause inability to raise pitch without causing hoarseness, since vocal cord mobility is preserved. Professional voice users (singers, actors) often notice this subtle change more than regular speakers. Unilateral SLN Palsy Motor Loss: Cricothyroid muscle - decreased ability to tense the vocal cord. Sensory Loss: Above the vocal cord on the affected side. Vocal Cord Position: The affected vocal cord appears shortened and wavy ; may exhibit flapping due to loss of tension. Other Features: Askew position of the

glottis with the anterior commissure rotated towards the healthy side. Voice changes such as weakness and inability to raise pitch, affecting singing ability. Treatment: Primarily voice therapy to improve vocal function and manage symptoms. Bilateral SLN Palsy Motor Loss: Both cricothyroid muscles - bilateral loss of vocal cord tension. Sensory Loss: Above the vocal cords bilaterally. Vocal Cord Position: Both vocal cords may be shortened and lack tension , potentially leading to difficulties with voice production. Other Features: Inhalation of food and secretions resulting in coughing and choking . The voice is weak and husky . Treatment: Tracheostomy with a cuffed tube and esophageal feeding tube, if aspiration is severe. Epiglottopexy (reversible) - close laryngeal inlet - to protect the lungs from aspiration. Voice pitch improvement through surgical approximation of the thyroid and cricoid cartilages. Joll's Triangle (Sternothyroid-laryngeal triangle) An anatomical landmark used for identifying and preserving the external branch of the superior laryngeal nerve (EBSLN). Superior border by the upper attachment of the strap muscles. Medial border by the midline of the neck. Lateral border by the upper pole of the thyroid gland and the superior thyroid vessels. Floor of the Triangle: The EBSLN is located in the floor of the triangle, which is delineated by the cricothyroid muscle. Incorrect Options: Internal branch of the superior laryngeal nerve (IBSLN) (Option B): Provides sensory supply to the mucosa above the vocal cords; injury leads to loss of laryngeal sensation, not pitch alteration. Recurrent laryngeal nerve (RLN) (Option C): Supplies all intrinsic laryngeal muscles (except cricothyroid); injury causes hoarseness due to vocal cord palsy, not isolated pitch change. Glossopharyngeal nerve (Option D): Provides sensation to the oropharynx and taste to the posterior third of the tongue; unrelated to pitch control.



References:

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↑ *Back to this question in Part A*

@Neet_pg_bot

Q78: Which of the following subunit is associated with inspiratory stridor? (Q866740)

A. Glottic

B. Supraglottic

C. Subglottic

D. Trachea

Correct Answer: B. Supraglottic

Explanation: Stridor is a high-pitched, harsh sound due to turbulent airflow through a partially obstructed upper airway. Inspiratory stridor specifically occurs when obstruction is at or above the level of the vocal cords, because negative intrathoracic pressure during inspiration tends to collapse the upper airway. Supraglottic structures include: Epiglottis Aryepiglottic folds False vocal cords Obstruction here (e.g., epiglottitis, laryngomalacia, tumors) narrows the airway at a point where airflow is very sensitive to pressure changes during inspiration. During inspiration → pressure above the glottis becomes subatmospheric → floppy tissue collapses inward → stridor. Incorrect Options: Glottic (Option A): Glottic obstruction (true vocal cords) can cause biphasic stridor (both inspiratory & expiratory), because the obstruction is fixed at the narrowest part of the larynx. Subglottic (Option C): Subglottic narrowing (e.g., croup, subglottic stenosis) usually produces biphasic stridor as well, due to fixed airway narrowing just below the cords. Trachea (Option D): Tracheal obstruction typically causes expiratory stridor or wheeze if intrathoracic, or biphasic if upper trachea is affected. Inspiratory-only stridor is less typical.

↑ *Back to this question in Part A*

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Q79: Which of the following are the causes of stridor in neonates: a. Laryngomalacia b. Subglottic stenosis c. Recurrent respiratory papillomatosis d. Hemorrhagic polyp (Q865392)

A. b, c

B. a, b

C. a, d

D. b,d

Correct Answer: B. a, b

Explanation: Stridor is a high-pitched, noisy respiration caused by partial obstruction of the airway at the level of the naso- or oropharynx, larynx and trachea . In neonates, it is usually congenital or due to structural abnormalities. Causes Naso- and Oropharyngeal Laryngeal Tracheal Congenital Choanal atresia Choanal stenosis Mid-nasal

stenosis Pyriform aperture stenosis Glioma Encephalocele Meningocele Dermoid/teratoma Craniofacial abnormalities Micrognathia- glossoptosis Lingual thyroid Lymphovascular malformation Laryngomalacia Vocal cord palsy Laryngeal stenosis Laryngeal cysts Webs Laryngeal atresia Vallecular cyst Arytenoid fixation Posterior laryngeal cleft Subglottic stenosis Tracheal atresia Trapped first tracheal ring Complete rings Micro (stovepipe) trachea Haemangioma Primary and secondary tracheomalacia- vascular compression Acquired - Neonates Neonatal rhinitis Intubation trauma Surgical trauma (e.g. laser) Laryngeal stenosis Arytenoid fixation Reflux laryngitis Post-intubation/ instrumentation/ tracheal stenosis Reflux tracheitis Acquired - Children Allergic rhinitis Adenoiditis Adenotonsillar hypertrophy Foreign body Non-allergic rhinitis Retropharyngeal abscess Infectious mononucleosis Ludwig's angina Thermal and caustic burns Intubation trauma Croup Recurrent respiratory papillomatosis Hereditary angioedema Epidermolysis bullosa Foreign body Dislocated arytenoid Epiglottitis Trauma -fracture Caustic and thermal burns Haemangioma Lymphovascular malformation Hemorrhagic polyps Croup Bacterial tracheitis Foreign body Localized malacia secondary to a tracheostomy or TOF repair Thyroid masses Lymphovascular malformation Mediastinal tumors

References:

Scott-Brown’s Otorhinolaryngology Head and Neck Surgery , 8th Edition, 2nd Volume, Page 315

https://www.ncbi.nlm.nih.gov/books/NBK430960/#

↑ *Back to this question in Part A*

@Neet_pg_bot

Q80: Identify the structure on AP barium swallow (Q866314)

A. Pyriform Sinus

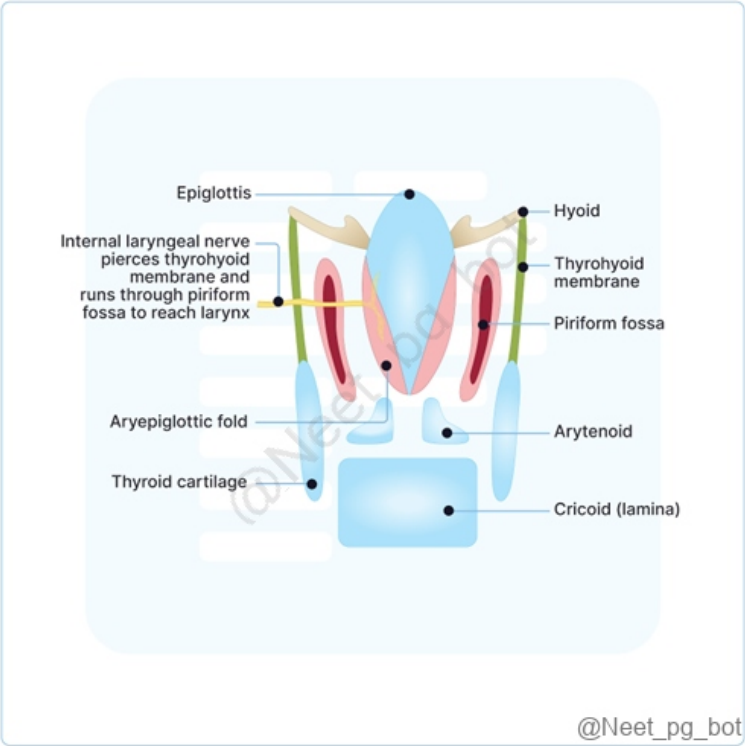
B. Epiglottis

C. Vallecula

D. Thyroid cartilage

Correct Answer: A. Pyriform Sinus

Explanation: Pyriform Sinus The AP barium swallow image shows bilateral contrast-filled recesses lateral to the laryngeal inlet. These are characteristic of the pyriform fossae (also called piriform sinuses), which are pharyngeal recesses on each side of the laryngeal orifice. Pyriform Sinus: Part of the laryngopharynx (hypopharynx). Lies on each side of the laryngeal inlet. Shaped like an inverted tear-drop recess. Bounded by: Medially: Aryepiglottic fold + laryngeal inlet. Laterally: Thyroid cartilage & thyrohyoid membrane. Posteriorly: Pharyngeal wall. Clinical Significance: Foreign body impaction: Fish bones often lodge here → pain & risk of mucosal injury. Cancer: Hypopharyngeal cancers often start in pyriform fossa → late presentation. Surgical importance: Care to avoid injury to internal laryngeal nerve during endoscopic removal. Epiglottis (Option B): Midline structure, not paired; appears as a thin flap, not recesses. Vallecula (Option C): Between base of tongue & epiglottis, higher up than the structures seen here. Thyroid cartilage (Option D): Skeletal framework, not contrast-filled space.



References:

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↑ *Back to this question in Part A*

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Q81: A 72-year-old female smoker presents with a long history of hoarseness and difficulty swallowing. Laryngoscopy and biopsy confirm a large, advanced squamous cell carcinoma that involves both vocal cords and extends into the subglottic region and the thyroid cartilage. The tumor is not amenable to radiation therapy alone. Based on the extent and location of the tumor, which of the following surgical procedures is most appropriate to ensure complete tumor removal with adequate margins and control the disease? (Q866512)

A. Partial laryngectomy

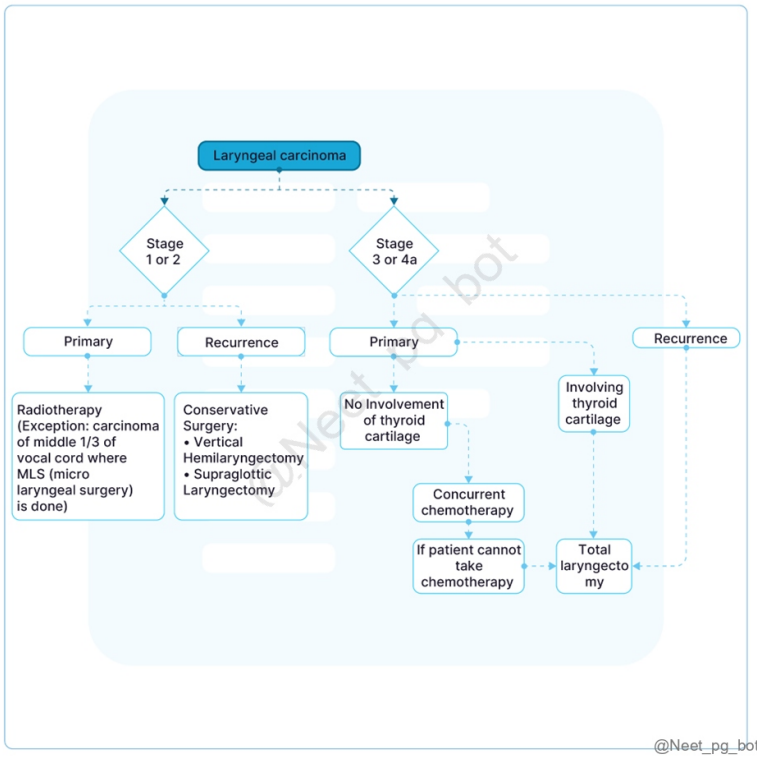
B. Total laryngectomy

C. Emergency tracheostomy

D. Submental tracheostomy

Correct Answer: B. Total laryngectomy

Explanation: The above features point to a T4a laryngeal cancer (invasion through the thyroid cartilage and/or extension beyond the larynx) , which necessitates a total laryngectomy for complete tumor clearance and disease control. A total laryngectomy involves removal of the entire larynx, including the vocal cords , and is the standard surgical treatment for locally advanced laryngeal cancers not suitable for organ-preserving therapy (e.g., radiation or chemoradiation). Incorrect Options: Partial laryngectomy (Option A) is reserved for early-stage tumors with unilateral involvement and without cartilage invasion. It cannot achieve adequate margins in a tumor involving both vocal cords, subglottis, and thyroid cartilage. Tracheostomy-Emergency (Option C) or Submental (Option D) is a temporary airway procedure, not a definitive treatment for carcinoma. While it may be needed in airway obstruction, it does not address tumor clearance.



References:

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↑ *Back to this question in Part A*

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Q82: Which of the following is a life-threatening nerve injury? (Q853125)

A. Bilateral Complete RLN Palsy

B. Bilateral Partial RLN palsy

C. Unilateral complete RLN palsy

D. Unilateral partial RLN palsy

Correct Answer: A. Bilateral Complete RLN Palsy

Explanation: This condition leads to both vocal cords being fixed in a median or paramedian position, causing severe airway obstruction. Patients experience stridor and dyspnea, making this the most life-threatening form of recurrent laryngeal nerve (RLN) injury. Emergency management often requires tracheostomy or vocal cord lateralization surgery.

Type of palsy	Position of VC	Speech	Aspiration	Respiration	Management
U/L RLN	Mostly median, sometimes paramedian	Normal, Sometimes mild hoarseness initially	None	Normal	Conservative (Therefore this is the palsy with least consequences)
B/L RLN	Mostly median	Largely normal Sometimes mild hoarseness	None	Stridor and dyspnoea on exertion (therefore the most life threatening palsy	Usually one sided VC lateralisation (by Cordectomy or type II thyroplasty
U/L SLN	Normally moving curved VC	Weak Voice, voice fatigue, loss of timber and inability to raise pitch	Occasional	Normal	Conservative
B/L SLN	Normally moving VC but Both are curved	Husky voice	Present	Normal	Tracheostomy and epiglottopexy (To prevent aspiration)
U/L complete	Cadaveric	Initial dysphonia or aphonia subsequently hoarseness	Sometimes	Normal	Teflon/fat injection or Medialisation of VC (type I thyroplasty)
B/L complete	Both VC in cadaveric position	Aphonia	Severe aspiration episodes	Normal	Tracheoesophageal diversion (gold standard)/ Epiglottopexy or VC plication with tracheostomy

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References:

Dhingra's Diseases Of Ear, Nose And Throat, & Head and Neck Surgery, 8th edition, Pages 348, 349.

↑ *Back to this question in Part A*

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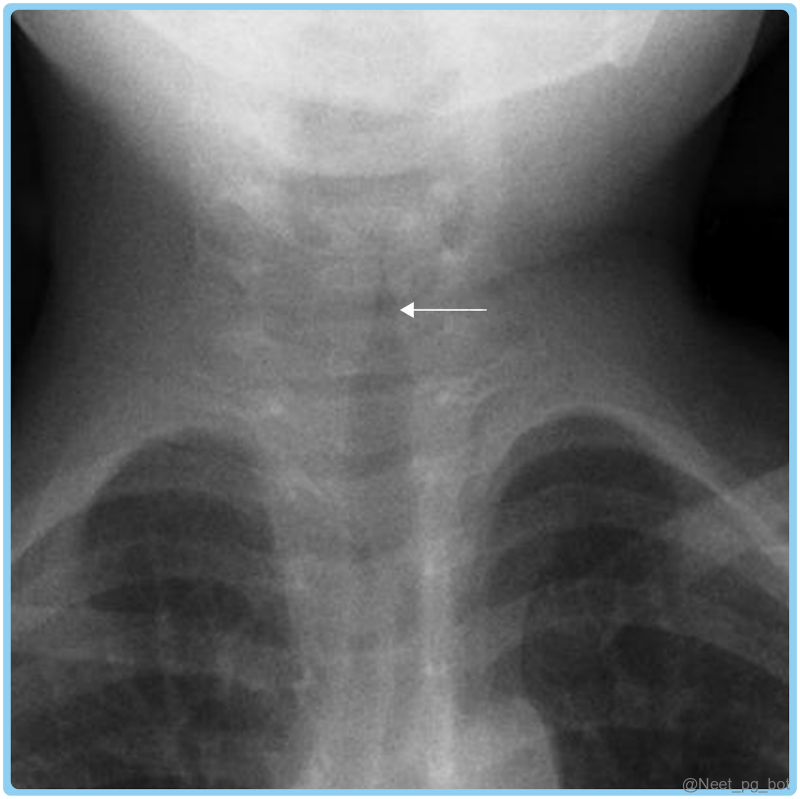
Q83: A patient was presented to the OPD with a sudden onset of shortness of breath. Identify the condition with the radiological image given below. (Q852642)

A. Epiglottitis

B. Laryngotracheobronchitis

C. Bronchitis

D. Laryngomalacia



Correct Answer: B. Laryngotracheobronchitis

Explanation: The patient presents with sudden onset of shortness of breath , which is a common symptom of respiratory distress in children or adults. The radiological image shows the "Steeple Sign" or a narrowing of the subglottic airway , which is characteristic of Laryngotracheobronchitis (commonly referred to as Croup). Other Options: Epiglottitis (Option A) : Characterized by supraglottic narrowing , often with a thumbprint sign on imaging, and presents with severe respiratory distress and drooling . Laryngomalacia (Option D) : A congenital condition causing floppy epiglottis , leading to stridor but typically diagnosed clinically, not with acute symptoms and not showing "steeple sign." Bronchitis (Option C) : Does not typically cause subglottic narrowing ; it involves inflammation of the bronchi and is usually seen in older children/adults with productive cough .

References:

Diseases of Ear, Nose, Throat - PL Dhingra, 8th edition, Pg 456

↑ *Back to this question in Part A*

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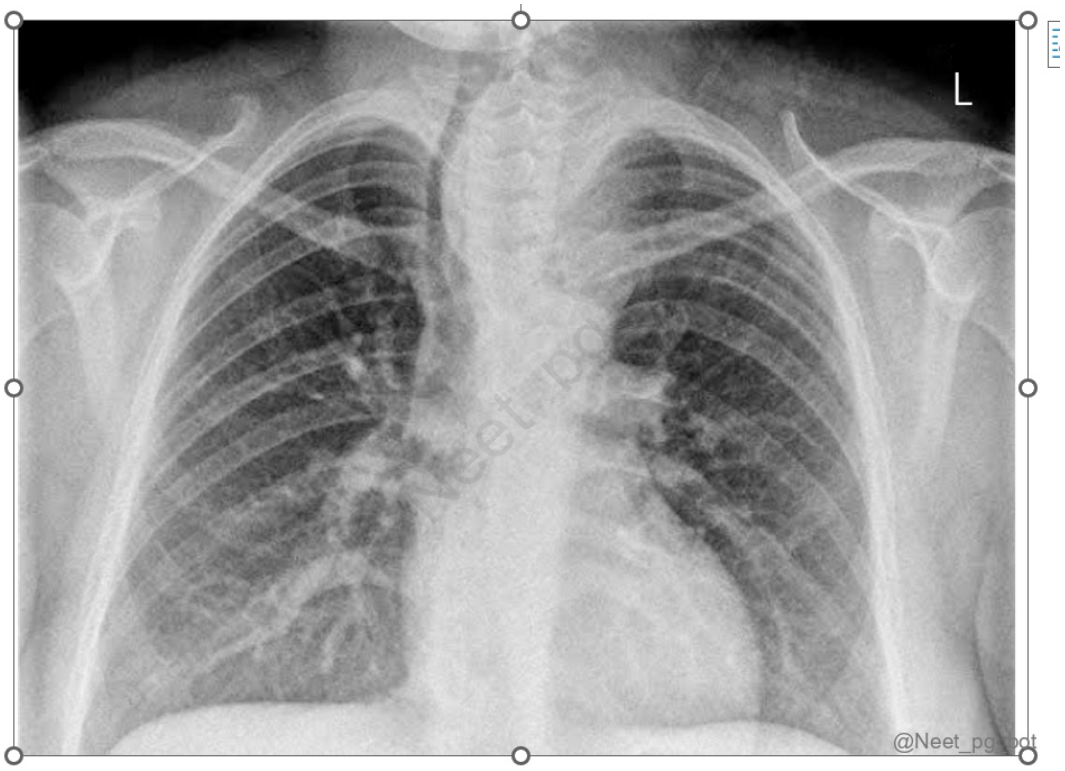
Q84: Based on the provided chest X-ray, which of the following procedures would be most challenging to perform? (Q843924)

A. Tracheostomy

B. Laryngeal Mask Airway (LMA) insertion

C. Ryle’s Tube (RT) insertion

D. Indirect laryngoscopy



Correct Answer: A. Tracheostomy

Explanation: Tracheostomy is a surgical procedure that requires precise midline access to the trachea. On the X-ray, the trachea is markedly deviated to the right. This deviation alters normal anatomical landmarks, making identification of the trachea difficult. There is an increased risk of injuring nearby structures such as major blood vessels or the esophagus. Therefore, tracheostomy in this patient is technically challenging and carries higher complication risk. Proper imaging and careful surgical planning are essential before attempting the procedure. Incorrect Options: Option B) Laryngeal Mask Airway (LMA) insertion : LMA sits above the glottis and does not require tracheal midline access. Tracheal deviation generally does not affect its placement. Option C) Ryle’s Tube (RT) insertion : Nasogastric tube passes through the esophagus into the stomach. Minor tracheal deviation may slightly alter esophageal orientation but usually does not make insertion difficult. Option D) Indirect laryngoscopy : Visualization of vocal cords via mirror is mostly unaffected by tracheal deviation. Unless there is a large neck mass, glottic view is not significantly altered.

References:

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↑ *Back to this question in Part A*

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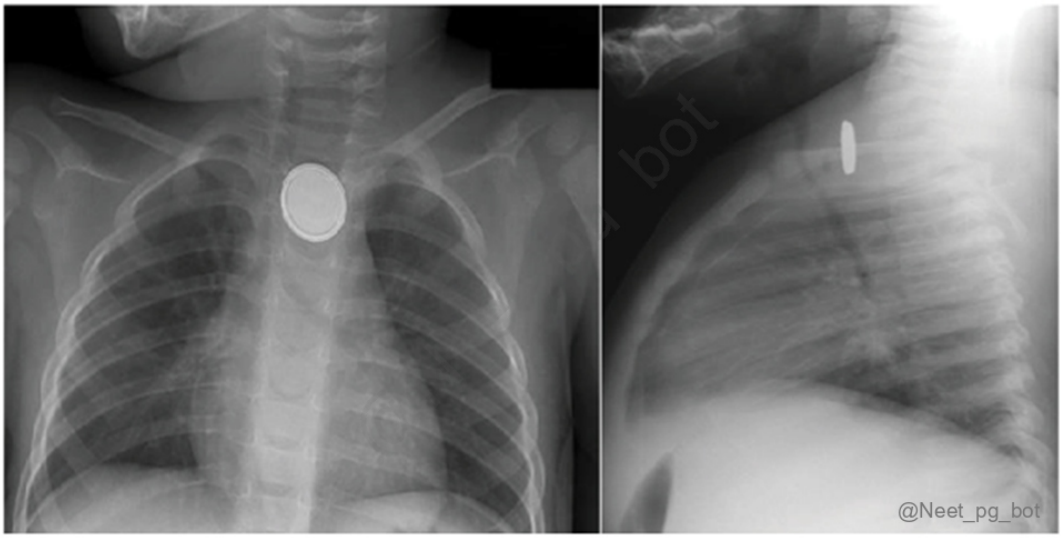
Q85: Which of the following signs can be appreciated in the given X-ray? (Q843926)

A. Steeple sign

B. String sign

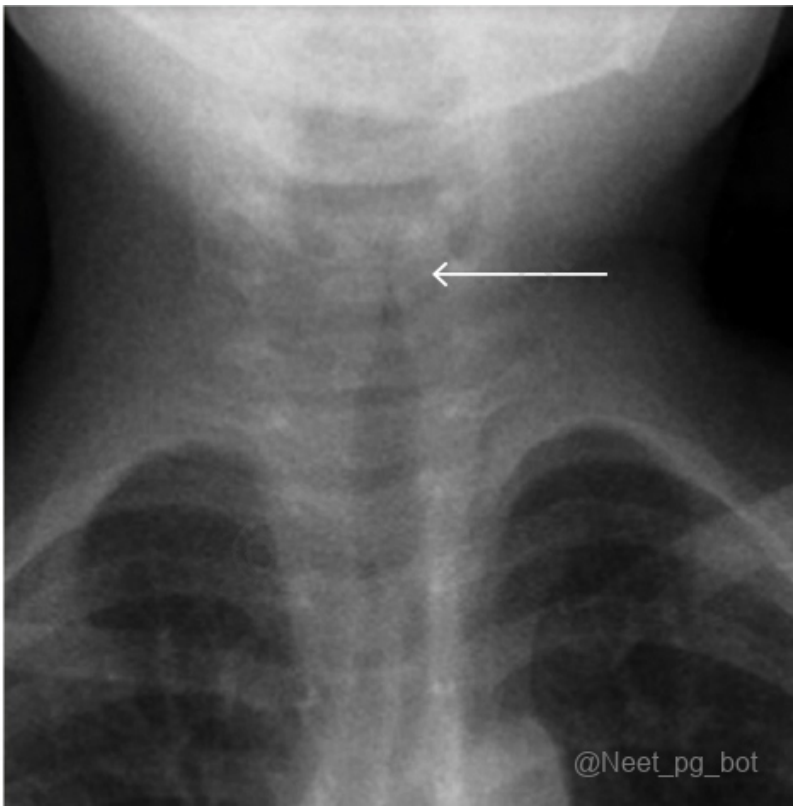
C. Thumb sign

D. Double ring sign



Correct Answer: D. Double ring sign

Explanation: Correct Option D - Double ring sign: A double Ring sign is observed on the given X-ray and is characteristic of a button battery aspiration. The double ring appearance is due to the unique structure of a button battery, where the edge of the battery gives a double contour. Incorrect Options: Option A - Steeple Sign: The steeple sign is associated with croup (laryngotracheobronchitis). Option B - String Sign: The string sign is observed in pyloric stenosis. Option C - Thumb Sign: The thumb sign is associated with epiglottitis.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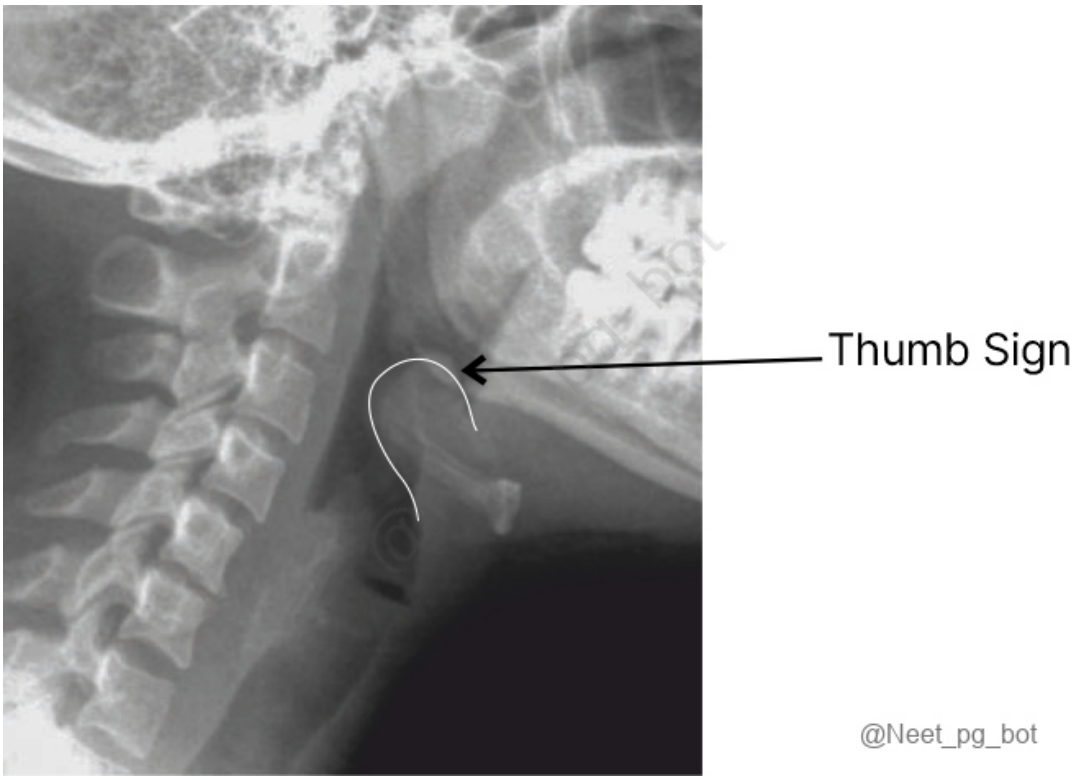

References:

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↑ *Back to this question in Part A*

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Q86: A patient with prolonged intubation complained of respiratory distress. Which of the following staging systems is used to stage the condition shown in the image? (Q843977)

A. Cottom-Meyer classification

B. Radkowski classification

C. TNM classification

D. AJCC classification

Correct Answer: A. Cottom-Meyer classification

Explanation: Correct Option A - Cotton-Meyer classification: The Cottom-Meyer classification is specifically designed to stage laryngotracheal stenosis, particularly the narrowing of the airway after intubation or tracheostomy. It grades the stenosis based on the percentage of the lumen that is narrowed. Incorrect Options: Options B, C, and D are not used to classify subglottic stenosis.

References:

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↑ *Back to this question in Part A*

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Q87: A singer is finding difficulty in raising the pitch of her voice. On examination, her vocal cords were depressed and bowing. Which of the following muscles is involved? (Q844011)

A. Cricothyroid

B. Interarytenoid

C. Posterior cricoarytenoid

D. Lateral arytenoid

Correct Answer: A. Cricothyroid

Explanation: Correct Option A - Cricothyroid: The cricothyroid muscle is crucial for raising the pitch of the voice. It is a tensor muscle of the vocal cords. When there is dysfunction or paralysis of the cricothyroid muscle, the vocal cords are not properly tensed, leading to difficulty in raising the pitch. Incorrect Options: Option B and D - Interarytenoid and Lateral arytenoid are adductors of the vocal cord. Option C - The posterior cricoarytenoid is an abductor of the vocal cords.

References:

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↑ *Back to this question in Part A*

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Q88: Which of the following stains can be used to identify a laryngeal mass during laryngeal examination? (Q844018)

A. Congo red

B. Supravital stain

C. Silver nitrate

D. H and E

Correct Answer: B. Supravital stain

Explanation: Correct Option B - Supravital stain: The use of toluidine blue as a supravital stain during direct laryngoscopy is a reliable adjunct to the early and precise diagnosis of carcinoma of the larynx. Incorrect Options: Options A, C, and D are not used to identify a laryngeal mass during laryngeal examination.

↑ *Back to this question in Part A*

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Q89: Which of the statement is true regarding laryngomalacia? (Q860440)

A. Expiratory stridor

B. Breathing Improves in supine position

C. Most common congenital abnormality in infants

D. Surgical management is required in most children

Correct Answer: C. Most common congenital abnormality in infants

Explanation: Laryngomalacia is characterised by excessive flaccidity of epiglottis or supraglottis (Malacia: Weakness/ flaccidity of tissue). Laryngomalacia or congenital laryngeal stridor Most common congenital abnormality of the larynx. During inspiration, an excessively flaccid supraglottic larynx gets sucked in and causes the symptoms. Clinical features: Presents at birth or immediately after Stridor: Increases on crying (increased negative intrathoracic pressure pulls the epiglottis inward, covering the laryngeal inlet) Stridor present in supine position (as the epiglottis covers the laryngeal inlet) Subsides in prone position (as the epiglottis falls away from the larynx) Cyanosis seen sometimes Normal cry Usually disappears by 2 years of age Investigations: Direct laryngoscopy: Elongated epiglottis, curled upon itself giving an “omega-shaped” appearance . Floppy aryepiglottic folds Prominent aretynoids Flexible laryngoscopy is the most preferred Management: Conservative treatment in most cases Tracheostomy: If severe respiratory obstruction Supraglottoplasty: If severe laryngomalacia Incorrect Options: Expiratory stridor (Option A) : This is a wrong statement as laryngomalacia is associated with Inspiratory stridor Improve in supine position (Option B): This condition worsens in supine position. Surgical management is required in most children (Option D): Laryngomalacia usually resolves by 1-2 years of age and can be managed conservatively.Surgical management plays a role if conservative management fails to resolve.

References:

Diseases of Ear, Nose and Throat, PL Dhingra, 8th Edition, Page no: 331

↑ *Back to this question in Part A*

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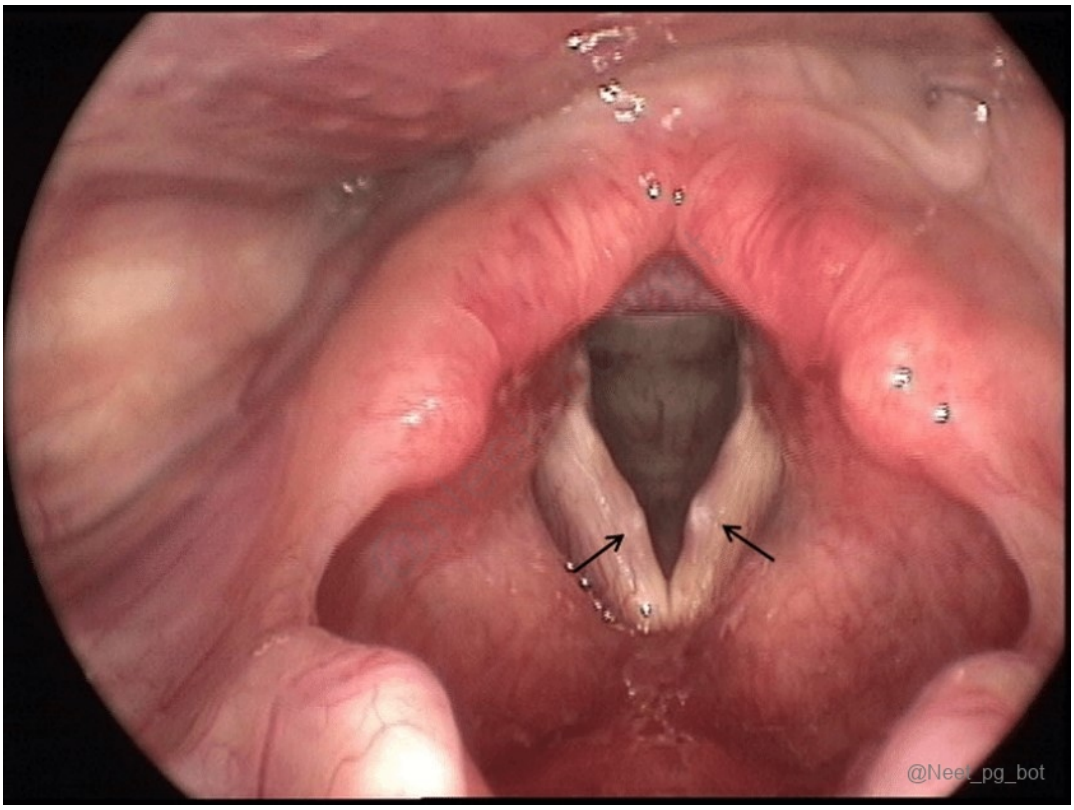
Q90: A 45-year-old teacher presents to the physician with complaints of hoarseness and voice fatigue. She reports that these symptoms have been gradually worsening over the past few months, especially towards the end of the school day. She denies any history of smoking or excessive alcohol consumption. Flexible laryngoscopy image is given below. what is the diagnosis? (Q860469)

A. Vocal nodule

B. Reinkes edema

C. Vocal polyp

D. Keratosis larynx



Correct Answer: A. Vocal nodule

Explanation: Vocal nodule is a bilateral sessile swelling at the region of junction of anterior and middle 1/3rd of vocal cords It is mostly seen in teachers, singers, etc Vocal Nodule (Singer or screamer's nodule) Cause Chronic vocal abuse (teachers, actors, vendors or pop singers.) Laterality Bilateral or symmetrical Location Free edge of vocal cord at the junction of anterior 1/3rd and posterior 2/3rd. This is the area of maximum vibration of the vocal cord. Appearance Sessile , Reddish in the early stage and white in the chronic stage Symptoms Hoarseness, vocal fatigue and neck pain on prolonged phonation. Treatment Initially, voice rest. If it fails - microscopic excision without injuring the vocal ligament Speech therapy Reinkes edema (Option B): This is an accumulation of the oedematous tissue or the myxomatous tissue in Reinke's space. It involves the anterior ■ rd which is the membranous portion of the vocal cord. It has a Bag with a water-like appearance due to bilateral symmetrical swellings of the vocal cord Vocal polyp (Option C): This is a unilateral pedunculated lesion present at the junction of anterior and middle ■ rd of vocal chords. Keratosis larynx (Option D): Caused due to chronic irritation by smoking, tobacco chewing, excessive voice abuse, and reflux; Can be treated by Stripping of the vocal cord.

References:

Diseases of Ear, Nose and Throat, PL Dhingra, 8th Edition, Page no: 331

↑ *Back to this question in Part A*

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Q91: A 2-year-old child presents to the emergency department with a barking cough and noisy breathing. An anteroposterior view of x ray of the neck shows a steeple sign. What type of stridor is most commonly associated with this presentation? (Q860482)

A. Inspiratory

B. Expiratory

C. Biphasic

D. Uniphasic

Correct Answer: Unknown

Explanation: Croup (acute laryngotracheobronchitis), with subglottic narrowing (steeple sign), typically causes inspiratory stridor due to partial upper airway obstruction at the level of the subglottis. Croup mainly affects subglottic region (below the vocal cords). Subglottic narrowing increases airway resistance during inspiration , causing inspiratory stridor. Biphasic stridor suggests fixed obstruction (e.g., subglottic stenosis, tumors). Expiratory stridor is usually seen in lower airway obstruction (e.g., bronchiolitis). Biphasic stridor (C) : Suggestive of fixed obstruction at the glottic or subglottic level (e.g., stenosis), not typical in croup. Expiratory stridor (B) : Seen in lower airway obstruction (bronchi/bronchioles). Uniphasic stridor (D) : Not a standard classification; stridor is referred to by respiratory phase.

References:

Diseases of Ear, Nose and Throat, PL Dhingra, 8th Edition, Page no: 267

↑ *Back to this question in Part A*

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Q92: Which structures pass between structures passing between the superior and middle pharyngeal constrictor muscles.? (Q839978)

A. Stylopharyngeus muscle and glossopharyngeal nerve

B. Internal laryngeal nerve and superior laryngeal artery

C. Recurrent laryngeal nerve

D. Ascending palatine artery

Correct Answer: A. Stylopharyngeus muscle and glossopharyngeal nerve

Explanation: Correct Option A - Stylopharyngeus muscle and glossopharyngeal nerve: Stylopharyngeus muscle and glossopharyngeal nerve are the two structures passing between the superior and middle pharyngeal constrictor

muscles. The contents are derived from the 3 rd pharyngeal arch. Incorrect Options: Option B - Internal laryngeal nerve and superior laryngeal artery: Internal laryngeal nerve and superior laryngeal artery passes in the space between the middle and inferior constrictor muscles. Option C - Recurrent laryngeal nerve: Recurrent laryngeal nerve passes in the space below the inferior constrictor muscles. Option D - Ascending palatine artery: Ascending palatine artery passes through the sinus of Morgagni (space between the base of the skull and superior constrictor muscles)

References:

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↑ *Back to this question in Part A*

@Neet_pg_bot

Q93: Which vitamin deficiency leads to Laryngismus stridulus? (Q860085)

A. Vitamin K

B. Vitamin E

C. Vitamin D

D. Vitamin A

Correct Answer: C. Vitamin D

Explanation: Vitamin D deficiency is responsible for Laryngismus stridulus Laryngismus stridulus: Aspect Details Etiology Hypocalcemia (rickets, hypoparathyroidism) GERD Viral infections Allergies Stress/emotions Cold air, smoke Rare: neurological issues Symptoms Sudden stridor Breath-holding Cough/choke Cyanosis Anxiety Normal between attacks No fever (unless infection) Investigations Serum calcium, phosphate, vitamin D Chest X-ray Laryngoscopy (if needed) pH probe (for GERD) Allergy tests Treatment Acute: Calm child Humidified air Oxygen if needed Upright position Underlying cause: Correct calcium/vitamin D Treat GERD Avoid allergens Supportive care for infections Psychological support Prevention Adequate nutrition (vitamin D, calcium) Manage triggers Parental education Incorrect Options: Options A, B & D: Vitamin K, E and A deficiencies do not lead to Laryngismus stridulus.

References:

Diseases of Ear, Nose and Throat, PL Dhingra, 8th Edition, Page no: 279

↑ *Back to this question in Part A*

@Neet_pg_bot

Q94: Which of the following symptoms is a 27-year-old female patient presenting with thyroid swelling is unlikely to experience due to compression of adjacent structures? (Q857376)

A. Hoarseness of voice due to recurrent laryngeal nerve compression

B. Dysphagia due to oesophagus compression

C. Superior vena cava syndrome

D. None of the above

Correct Answer: Unknown

Explanation: Thyroid swelling can compress adjacent structures in the neck, leading to symptoms like hoarseness and dysphagia. However, involvement of the superior vena cava is unlikely due to its location in the superior mediastinum. Hoarseness of voice due to recurrent laryngeal nerve involvement Dysphagia due to esophageal compression Dyspnea due to tracheal compression Neck discomfort or pain from local inflammation or stretch The superior vena cava is not anatomically adjacent to the thyroid gland. Compression typically occurs due to intrathoracic masses, not cervical thyroid enlargement

References:

Diseases of the Ear, Nose, and Throat, PL Dhingra, 8th Edition, Page no: 329

↑ *Back to this question in Part A*

@Neet_pg_bot

Q95: A 55-year-old patient comes with hoarseness of voice and difficulty swallowing. The patient was diagnosed with laryngeal carcinoma, and surgical management was done. The post-operative image of the patient is given below. Which of the following surgery was done on this patient? (Q855206)

A. Partial laryngectomy

B. Percutaneous tracheostomy

C. Standard tracheostomy

D. Total laryngectomy

Correct Answer: D. Total laryngectomy

Explanation: Correct Option: D) Total laryngectomy A total laryngectomy is a surgical procedure in which the entire larynx is removed. This procedure is typically performed in advanced laryngeal cancer cases that have not responded to other treatments, such as radiation therapy or chemotherapy. During a total laryngectomy, the trachea is re-routed to the front of the neck to create an opening called a stoma, which serves as the new airway. This procedure has significant implications for speech and swallowing, and patients typically require extensive rehabilitation to learn new communication and eating methods Indications for total laryngectomy: T4a with thyroid cartilage invasion. Stage 3 and 4a who cannot tolerate chemotherapy. Stage 3 and 4 recurrent tumours Bilateral arytenoid involvement. Incorrect Options: Partial laryngectomy (Option A): A partial laryngectomy is a surgical procedure in which only a part of the larynx is removed, leaving the rest of the organ intact. Percutaneous tracheostomy (Option B): Percutaneous tracheostomy is a minimally invasive procedure where a tube is inserted into the trachea via a small neck incision. It's commonly used for temporary or permanent airway support in conditions like obstructive sleep apnea or chronic respiratory failure, but it's not suitable for treating laryngeal cancer. Standard tracheostomy (Option C): A standard tracheostomy involves creating a neck incision to access the trachea, commonly used for temporary or permanent airway support in breathing difficulties. However, it's typically avoided in laryngeal cancer cases as it doesn't address the cancerous tissue in the larynx

References:

Diseases of the Ear, Nose, Throat, 8th Edition, Page no: 379

↑ *Back to this question in Part A*

@Neet_pg_bot

Q96: Which of the following symptoms does a patient with Reinke's edema classically present with? (Q858052)

A. Diplophonia

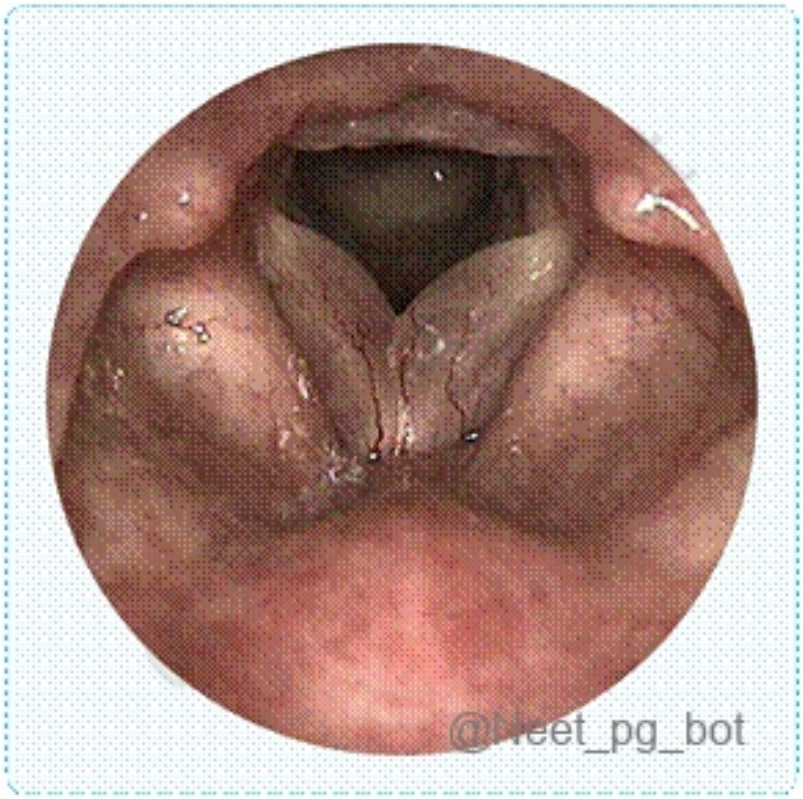
B. Dysphonia

C. Dysphagia of liquids more than solids

D. Dysphagia of solids more than liquids

Correct Answer: B. Dysphonia

Explanation: Dysphonia (altered voice quality) is the hallmark presentation of Reinke's edema Patients often have a deep, husky, or rough voice due to the edema affecting the vibration of the vocal cords. Reinke's Edema {{caption_text}} Causes : Chronic vocal cord irritation (voice misuse, heavy smoking). Aka smokers larynx Chronic sinusitis, laryngopharyngeal reflux. Myxoedema More common in middle-aged men and women. Clinical Features : Hoarseness or husky voice. Use of false vocal cords for voice production, leading to a low-pitched, rough voice. Examination : Laryngoscopy: Fusiform swelling of vocal cords with a pale, translucent appearance. Ventricular bands may be hyperaemic and hypertrophic, obscuring true cords. Treatment : Decortication of vocal cords : Removal of a strip of epithelium, first on one side, then the other after 3-4 weeks. Voice rest Speech therapy : To improve proper voice production. Diplophonia (Option A): A condition where two different pitches are heard simultaneously during phonation. It's more specific to vocal fold lesions but not classically seen in Reinke's edema. Dysphagia of liquids or solids (Option C): is not a symptom associated with Reinke's edema, Dysphagia of liquids or solids (Option D): is not a symptom associated with Reinke's edema



References:

Dhingra's Diseases Of Ear, Nose And Throat, & Head and Neck Surgery, Ed 8, Pg 342

Scott Brown ENT 8th edition. 3rd volume. Pg. 951,952

↑ *Back to this question in Part A*

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Q97: A patient who is a teacher by profession presents to the clinic with hoarseness of voice. What is the most likely diagnosis for this patient? (Q858098)

A. Vocal polyp

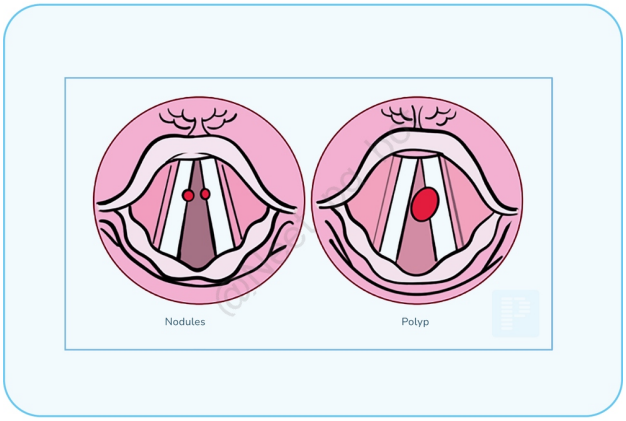
B. Vocal cyst

C. Vocal nodule

D. Reinke's oedema

Correct Answer: C. Vocal nodule

Explanation: The most likely diagnosis in a patient who is a teacher and presents with hoarseness of voice is vocal nodule. This is because vocal nodules are the most common benign vocal fold lesions in individuals who use their voice extensively, such as teachers, singers, and actors. Vocal nodules are caused by vocal abuse or misuse, resulting in repeated trauma to the vocal folds, leading to the formation of small, benign growths. Symptoms of vocal nodules include hoarseness, voice fatigue, and difficulty hitting high notes. Vocal nodule and Vocal polyp Vocal Nodule (Singer or screamer's nodule) Vocal Polyp (Option A) Cause Chronic vocal abuse (teachers, actors, vendors or pop singers.) Sudden Vocal abuse like shouting (Men in the age group of 30-50 years). Heavy smoking Laterality Bilateral or symmetrical Unilateral Location Free edge of vocal cord at the junction of anterior 1/3rd and posterior 2/3rd. This is the area of maximum vibration of the vocal cord. Same as vocal nodules. Appearance Sessile , Reddish in the early stage and white in the chronic stage Smooth and pedunculated. Symptoms Hoarseness, vocal fatigue and neck pain on prolonged phonation. Hoarseness of voice and diplophonia (double voice due to different vibrating frequencies of two vocal cords) Large polyps- dyspnea, stridor, choking. Treatment Initially, voice rest. If it fails - microscopic excision without injuring the vocal ligament Speech therapy Microscopic excision Speech therapy Vocal cysts (Option B): are fluid-filled sacs that can form on the vocal folds and are usually caused by a blocked mucous gland. Reinke's oedema (Option D): is a condition in which the vocal folds become swollen and fluid-filled due to chronic exposure to irritants such as smoking or gastroesophageal reflux disease (GERD). Although Reinke's oedema can cause hoarseness, it is less likely to be the cause in a patient who is a teacher and presents with hoarseness of voice.



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References:

Dhingra's Diseases Of Ear, Nose And Throat, & Head and Neck Surgery, Ed 8, Pg 352,353

Scott Brown ENT 8th edition. 3rd volume. Pg. 950,951

↑ *Back to this question in Part A*

Q98: Which of the following is true about laryngeal cancer stage T1bNOMO? (Q858110)

A. Both vocal cords involved and fixed

B. Both vocal cords involved, and no metastasis

C. One vocal cord involved and metastasis

D. One vocal cord involved, and mobile

Correct Answer: B. Both vocal cords involved, and no metastasis

Explanation: The T1bN0M0 stage of laryngeal cancer indicates that the tumor is confined to both vocal cords, and is not metastatized Laryngeal ca-TNM classification: Supraglottis T1 Tumor is limited to one subsite of supraglottis with normal vocal cord mobility. T2 Tumor invades mucosa of more than one adjacent subsites of supraglottis or glottis or region outside the supraglottis (e.g. mucosa of base of tongue, vallecula, medial wall of pyriform sinus) without fixation of the larynx. T3 Tumor is limited to the larynx with vocal cord fixation and/or invades any of the following: postcricoid area, pre-epiglottic tissues, paraglottic space and/or minor thyroid cartilage invasion. T4a Tumor invades through the thyroid cartilage and/or invades tissues beyond the larynx (e.g. trachea, soft tissues of neck including deep extrinsic muscle of tongue, strap muscles, thyroid or esophagus). T4b Tumor invades prevertebral space, encases carotid artery or invades mediastinal structures Glottis T1 Tumor limited to vocal cord(s) (may involve anterior or posterior commissures) with normal mobility. T1a Tumor is limited to one vocal cord. T1b Tumor involves both vocal cords. T2 Tumor extends to supraglottis and/or subglottis, and/or with impaired vocal cord mobility. T3 Tumor is limited to the larynx with vocal cord fixation and/or invades paraglottic space and/or minor thyroid cartilage erosion. T4a Tumor invades through thyroid cartilage and/or invades tissues beyond the larynx (e.g. trachea, soft tissues of neck including deep extrinsic muscles of the tongue, strap muscles, thyroid, or esophagus). T4b Tumor invades prevertebral space, encases the carotid artery or invades mediastinal structures. Subglottis T1 Tumor is limited to the subglottis. T2 Tumor extends to the vocal cord(s) with normal or impaired mobility. T3 Tumor limited to larynx with vocal cord fixation. T4a Tumor invades cricoid or thyroid cartilage and/or invades tissues beyond the larynx (e.g. trachea, soft tissues of neck including deep extrinsic muscle of tongue, strap muscles, thyroid or esophagus). T4b Tumor invades prevertebral space, encases the carotid artery or invades mediastinal structures. Regional lymph nodes (N) Nx Regional lymph nodes cannot be assessed. N0 No regional lymph node metastasis. N1 Metastasis in a single ipsilateral lymph node, 3 cm or less in greatest dimension. N2 Metastasis in a single ipsilateral lymph node, more than 3 cm but not more than 6 cm in greatest dimension, or multiple ipsilateral lymph nodes, none more than 6 cm in greatest dimension, or bilateral or contralateral lymph nodes, none more than 6 cm in the greatest dimension. N2a Metastasis in a single ipsilateral lymph node more than 3 cm but not more than 6 cm in greatest dimension. N2b Metastasis in multiple ipsilateral lymph nodes, none more than 6 cm in greatest dimension. N2c Metastasis in bilateral or contralateral lymph nodes, none more than 6 cm in greatest dimension Na Metastasis in a lymph node more than 6 cm in the greatest dimension Distant metastasis Mx Distant metastasis cannot be assessed M0 No Distant metastasis M1 Distant metastasis

References:

Diseases of Ear, Nose and Throat Dhingra 8th Edition Pg. 359, 360

↑ *Back to this question in Part A*

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Q99: What nerve is most likely to be damaged when the cough reflex is impaired due to alcohol ingestion and other conditions, resulting in the prevention of foreign body entry into the laryngeal inlet? (Q855570)

A. Internal laryngeal nerve

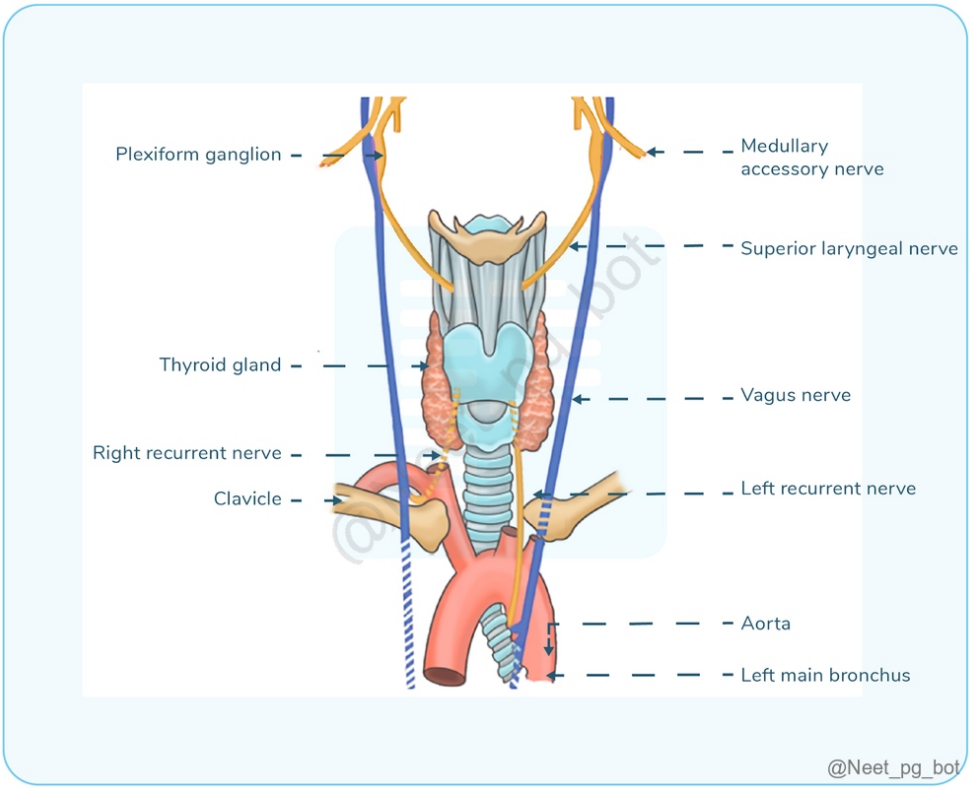
B. Glossopharyngeal nerve

C. External laryngeal nerve

D. Recurrent laryngeal nerve

Correct Answer: A. Internal laryngeal nerve

Explanation: The internal laryngeal nerve is a branch of the superior laryngeal nerve, which is, in turn, a branch of the vagus nerve. It supplies the laryngeal mucosa above the vocal cords and prevents aspiration of any foreign substances by protective cough reflex. Alcohol ingestion can cause alcohol-induced inhibition of the Central Nervous System, which can affect the internal laryngeal nerve, resulting in reduced laryngeal sensations and masked laryngeal reflexes. The larynx receives both motor and sensory nerve supply from branches of the vagus nerve. Motor innervation : Recurrent laryngeal nerve - All muscles that move the vocal cords, including abductors, adductors, and tensors. Except the cricothyroid muscle. External branch of the superior laryngeal nerve - cricothyroid muscle. (Option C ruled out) Sensory innervation : The internal branch of the superior laryngeal nerve - above the vocal cords. (Option A) Recurrent laryngeal nerve - below the vocal cords. Recurrent laryngeal nerve anatomy : (Option D ruled out) The right recurrent laryngeal nerve branches from the vagus at the level of the subclavian artery, looping around it before ascending between the trachea and esophagus. The left recurrent laryngeal nerve arises at the arch of the aorta, loops around it, and ascends along the tracheoesophageal groove, giving it a longer course compared to the right nerve, making it more prone to injury. Superior laryngeal nerve : Origin - from the inferior ganglion of the vagus nerve; courses behind the internal carotid artery; divides into external and internal branches at the level of the greater cornua of the hyoid bone. The external branch innervates the cricothyroid muscle. The internal branch provides sensory innervation to the larynx and hypopharynx after piercing through the thyrohyoid membrane. Glossopharyngeal nerve (CN IX): This nerve provides sensory innervation to the posterior third of the tongue, pharynx, and tonsils. While it contributes to the gag reflex and has some role in swallowing, it's not the primary nerve responsible for sensation in the supraglottic larynx that triggers the cough reflex.



References:

Dhingra's Diseases of Ear, Nose and Throat & Head and Neck Surgery 8th Edition, Pg. 347

↑ *Back to this question in Part A*

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Q100: CT scan of a patient with laryngeal carcinoma is shown below. What is the staging? (Q855759)

A. T1NOMO

B. T4N1MO

C. T2N1MO

D. T3NOMO

Correct Answer: B. T4N1MO

Explanation: The TNM staging of this patient with laryngeal carcinoma is T4N1M0 since there is an invasion of the tumor into the cricoid and thyroid cartilage, and there is an extension of the tumor into adjacent soft tissues of the neck, which includes the strap muscles, thyroid, and deep extrinsic muscles of the tongue. There is single, ipsilateral lymph node involvement measuring less than 3cm in size with no distant metastasis. Subglottis T1 Tumor is limited to the subglottis. (Option A ruled out) T2 Tumor extends to the vocal cord(s) with normal or impaired mobility. (Option C ruled out) T3 Tumor limited to larynx with vocal cord fixation. (Option D ruled out) T4a Tumor invades cricoid or thyroid cartilage and/or invades tissues beyond the larynx (e.g. trachea, soft tissues of neck including deep extrinsic muscle of tongue, strap muscles, thyroid or esophagus). (Option B) T4b Tumor invades prevertebral space, encases the carotid artery or invades mediastinal structures. Regional lymph nodes (N) Nx Regional lymph nodes cannot be assessed. N0 No regional lymph node metastasis. N1 Metastasis in a single ipsilateral lymph node, 3 cm or less in greatest dimension. N2 Metastasis in a single ipsilateral lymph node, more than 3 cm but not more than 6 cm in greatest dimension, or multiple ipsilateral lymph nodes, none more than 6 cm in greatest dimension, or bilateral or contralateral lymph nodes, none more than 6 cm in the greatest dimension. N2a Metastasis in a single ipsilateral lymph node more than 3 cm but not more than 6 cm in greatest dimension. N2b Metastasis in multiple ipsilateral lymph nodes, none more than 6 cm in greatest dimension. N2c Metastasis in bilateral or contralateral lymph nodes, none more than 6 cm in greatest dimension Na Metastasis in a lymph node more than 6 cm in the greatest dimension Distant metastasis Mx Distant metastasis cannot be assessed M0 No Distant metastasis M1 Distant metastasis

References:

Diseases of Ear, Nose and Throat Dhingra 8th Edition Pg. 359, 360

↑ *Back to this question in Part A*

@Neet_pg_bot

Q101: How should a patient with diphtheria and right vocal fold palsy be treated? (Q856974)

A. Wait and watch

B. Gelfoam injection

C. Thyroplasty type 1

D. Fat injection

Correct Answer: A. Wait and watch

Explanation: n cases of vocal fold palsy caused by diphtheria , the condition is often due to neuropathy from toxin effects , which may be temporary and reversible . Therefore, the standard initial management is “wait and watch” for potential spontaneous recovery of nerve function. Thyroplasty Type I(Option C): or medialization procedures are typically reserved for persistent or long-standing paralysis where no improvement is seen after an observation period (usually 6 months or more). Gelfoam injection (Option B) : Gelfoam injection is sometimes used in laryngeal procedures for temporary volume augmentation, but it is not the definitive treatment for vocal fold paralysis. It may not provide long-term results compared to thyroplasty. Fat injection (Option D) : Fat injection, similar to Gelfoam, is another method for increasing vocal fold bulk and improving closure, but it is less commonly used for permanent correction compared to thyroplasty. Fat injections can lead to resorption over time, reducing their long-term efficacy.

References:

Diseases of Ear, Nose, Throat - PL Dhingra, 8th edition, Page 350, 351

↑ *Back to this question in Part A*

@Neet_pg_bot

Q102: Which of the subsequent laryngeal cartilages is least prone to calcification? (Q857660)

A. Thyroid

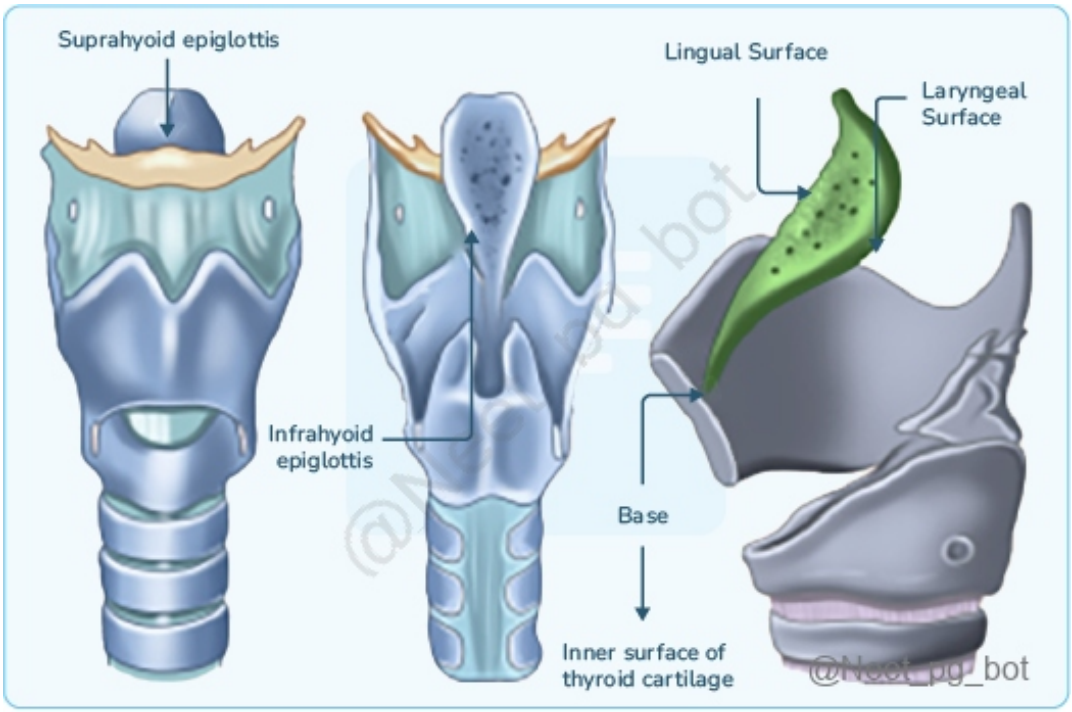
B. Cricoid

C. Arytenoid

D. Epiglottis

Correct Answer: D. Epiglottis

Explanation: Epiglottis is least prone to calcification because it is composed of elastic cartilage , which resists calcification compared to hyaline cartilage. Elastic cartilage maintains its flexibility and does not undergo the age-related ossification seen in other laryngeal cartilages. Type of Cartilage Paired Cartilage Unpaired Cartilage Hyaline Cartilage (Calcifies with age) Arytenoid Thyroid, Cricoid Elastic Cartilage Corniculate, Cuneiform Epiglottis Epiglottis Unpaired Elastic Cartilage Shape: Leaf-shaped yellow elastic cartilage. Location: Forms the anterior wall of the laryngeal inlet. Attachments: Connected to the hyoid bone by the hyoepiglottic ligament , dividing it into suprahyoid and infrahyoid portions. The petiole attaches it to the thyroid cartilage just above the vocal cords. Anterior Surface: Preepiglottic Space: Located in front of the epiglottis, between the anterior surface and the thyrohyoid membrane/upper thyroid cartilage. Filled with fat, it may be involved in supraglottic cancers or the base of tongue carcinomas. Posterior Surface: Tubercle of Epiglottis: A bulge that may obstruct the view of the anterior commissure during indirect laryngoscopy. Contains pits for mucous glands and occasional perforations, which may facilitate cancer spread to the preepiglottic space. Clinical Significance: Cancer Spread: Supraglottic cancers can invade the pre-epiglottic space through epiglottic perforations. Non-Essential for Swallowing: The epiglottis can be safely amputated in cases of cancer or trauma without significant risk of aspiration. {{caption_text}} Thyroid (Option A) : The thyroid cartilage is made of hyaline cartilage , which tends to calcify with age, especially after the third decade of life. Cricoid (Option B) : Like the thyroid cartilage, the cricoid cartilage is also composed of hyaline cartilage and is prone to calcification as part of the normal ageing process. Arytenoid (Option C) : The arytenoid cartilage consists of hyaline cartilage in its base and elastic cartilage in its apex, but the hyaline portion is susceptible to calcification over time.



References:

Dhingra ENT 8th edition. Page 331

Scott Brown ENT, 3rd Volume, 8th edition, Page. 884, 885 (PDF Pg. 3858, 3859)

Logan Turner ENT 11th edition. Page 149, 150

↑ *Back to this question in Part A*

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Q103: Which of the following is not employed in post-laryngectomy rehabilitation? (Q856051)

A. Tracheoesophageal prosthesis

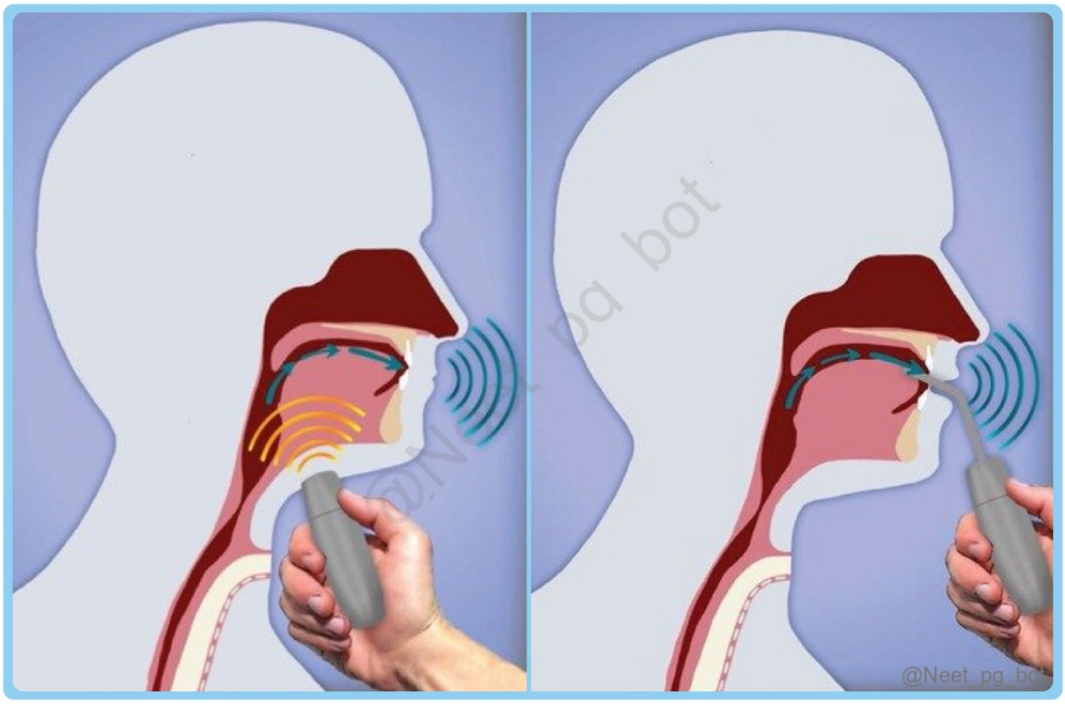
B. Esophageal speech

C. Super supraglottic swallow

D. Polite yawning

Correct Answer: C. Super supraglottic swallow

Explanation: The super supraglottic swallow is not employed in post-laryngectomy rehabilitation because the anatomical structures it targets (vocal folds) are no longer present. Vocal rehabilitation-methods: After laryngectomy, the patient loses his speech completely. The various methods by which communication can be established are given below: Oesophageal Speech (Option B ruled out) In this, the patient is taught to swallow air and hold it in the upper esophagus and then slowly eject it from the esophagus into the pharynx. The patient can speak 6-10 words before re-swallowing air. The voice is rough but loud and understandable. Artificial Larynx It is used in those who fail to learn oesophageal speech. 1. Electrolarynx: Its vibrating disc is held against the soft tissues of the neck and a low-pitched sound is produced in the hypopharynx which is further modulated into speech by the tongue, lips, teeth, and palate. 2. Transoral pneumatic device It is a transoral device. Here vibrations produced in a rubber diaphragm are carried by a plastic tube into the back of the oral cavity where sound is converted into speech by modulators. This is a pneumatic type of device and uses expired air from the tracheostome to vibrate the diaphragm. Tracheo-Oesophageal Speech (Option A ruled out) Here an attempt is made to carry air from the trachea to the esophagus or hypopharynx by the creation of a skin-lined fistula or by placement of an artificial prosthesis. The vibrating column of air entering the pharynx is then modulated into speech. This technique has the disadvantage of food entering the trachea. These days prostheses (Blom-Singer or Panje) are being used to shunt air from the trachea to the esophagus They have inbuilt valves which work only in one direction thus preventing problems of aspiration. Olfactory Rehabilitation: (Option D ruled out) After laryngectomy, smell is lost because air no longer passes through the nose. This also means patients can't detect dangerous environmental odours like smoke or gas. To address this, a technique called "polite yawning" can be taught. This involves: Lowering the jaw, floor of mouth, and tongue while keeping lips closed. This creates negative pressure in the mouth and throat, drawing air through the nose. Repeating this maneuver several times can help restore some sense of smell and allow detection of environmental hazards.



References:

Diseases of Ear, Nose and Throat, Dhingra, 8th Edition, Page 365

↑ *Back to this question in Part A*

@Neet_pg_bot

Q104: What is a drug called Mitomycin-C used for in medical treatment? (Q856216)

A. Subglottic stenosis

B. Rhinocerebral mucormycosis

C. Adenoidectomy

D. Tympanoplasty

Correct Answer: A. Subglottic stenosis

Explanation: : Incorrect because the treatment of rhinocerebral mucormycosis primarily involves amphotericin B and surgical debridement , not Mitomycin-C. Adenoidectomy (Option C): Incorrect because Mitomycin-C is not used in routine adenoidectomy . The procedure involves surgical removal of hypertrophied adenoid tissue without the need for an antifibrotic agent. Tympanoplasty (Option D): Incorrect because Mitomycin-C is not used in tympanoplasty . This procedure aims to repair the tympanic membrane and ossicular chain, and there is no role for an antifibrotic agent.

References:

Scott-Brown's Otorhinolaryngology and Head and Neck Surgery 8th Edition - 2018 • Page no: 1088, 1083

↑ *Back to this question in Part A*

@Neet_pg_bot

Q105: What is the most likely reason for a patient experiencing breathing difficulties and unsuccessful extubation after undergoing a total thyroidectomy? (Q856219)

A. Superior laryngeal nerve injury

B. Unilateral recurrent laryngeal nerve injury

C. Bilateral recurrent laryngeal nerve injury

D. Hematoma

Correct Answer: C. Bilateral recurrent laryngeal nerve injury

Explanation: : Incorrect because this nerve supplies the cricothyroid muscle , affecting voice modulation and pitch , but does not cause airway obstruction . Unilateral recurrent laryngeal nerve injury (Option B): Incorrect because unilateral RLN injury leads to hoarseness , not significant respiratory distress or extubation failure . The contralateral vocal cord compensates , allowing adequate breathing. Hematoma (Option D): Incorrect because while a postoperative neck hematoma can cause airway compression , it typically presents with swelling, bruising, and respiratory distress within a few hours postoperatively. Immediate surgical evacuation would relieve symptoms, unlike bilateral RLN injury , which persists despite hematoma evacuation.

References:

Diseases of Ear, Nose & Throat - PL Dhingra - 8th Edition, Page no: 348, 349

↑ *Back to this question in Part A*

@Neet_pg_bot

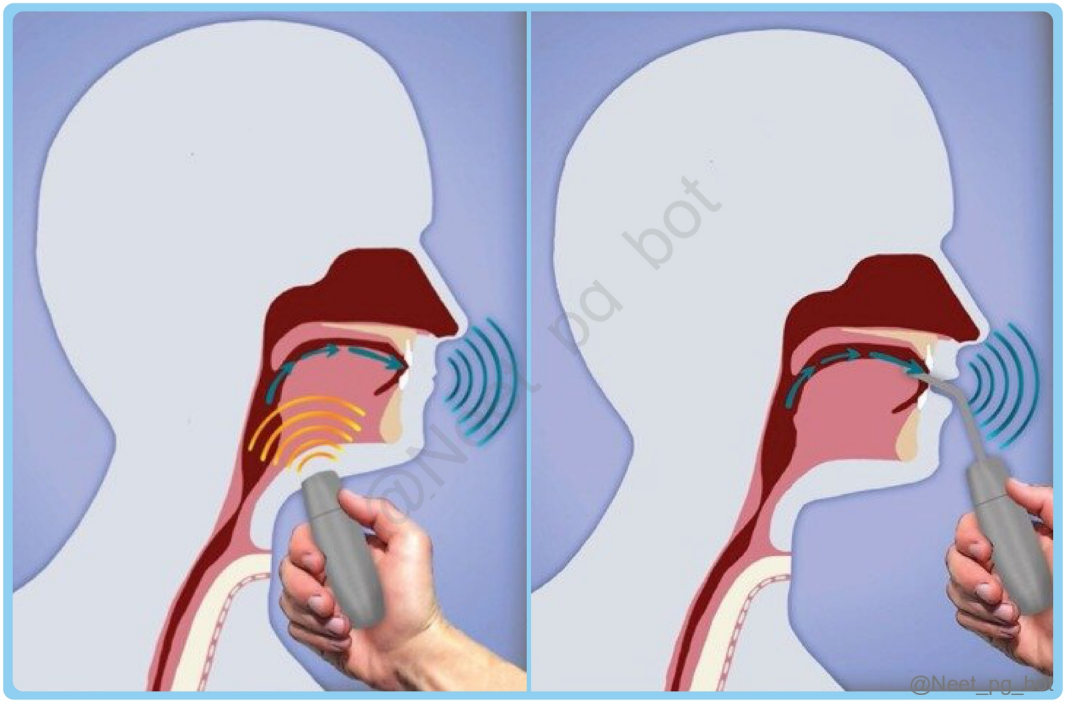
Q106: In a patient with laryngeal cancer who has undergone a total laryngectomy, determine the mode of voice production depicted in the provided image. (Q856778)

A. Tracheoesophageal prosthesis

B. Chicago implant

C. Electro larynx

D. Esophageal speech



Correct Answer: C. Electro larynx

Explanation: Electro larynx : After a total laryngectomy, patients can use an electro larynx for voice production. It is a handheld device that vibrates to generate sound, which the patient then shapes into speech by moving their mouth. The electro larynx is an effective alternative for patients who cannot use a tracheoesophageal prosthesis and provides a mechanical, yet functional, voice. Electro Larynx: The electro larynx is commonly used in patients who have undergone a total laryngectomy , a procedure that removes the larynx and disrupts normal voice production. The device works by emitting vibrations, which the patient can articulate to form words. Although it can be mechanical-sounding, it remains a popular and accessible method for speech restoration. Incorrect Options: Tracheoesophageal prosthesis (Option A): is incorrect because it involves the use of a small valve between the trachea and esophagus to produce speech, not a mechanical device. Chicago implant (Option B): is incorrect because the Chicago implant is a type of prosthesis used for tracheoesophageal speech but does not directly generate sound like the electro larynx. Esophageal speech (Option D): is incorrect because this method involves swallowing air and releasing it from the esophagus to produce speech, which is different from using a mechanical device like the electro larynx.

References:

Diseases of Ear, Nose & Throat - PL Dhingra - 8th Edition • Page no: 365

↑ *Back to this question in Part A*

@Neet_pg_bot

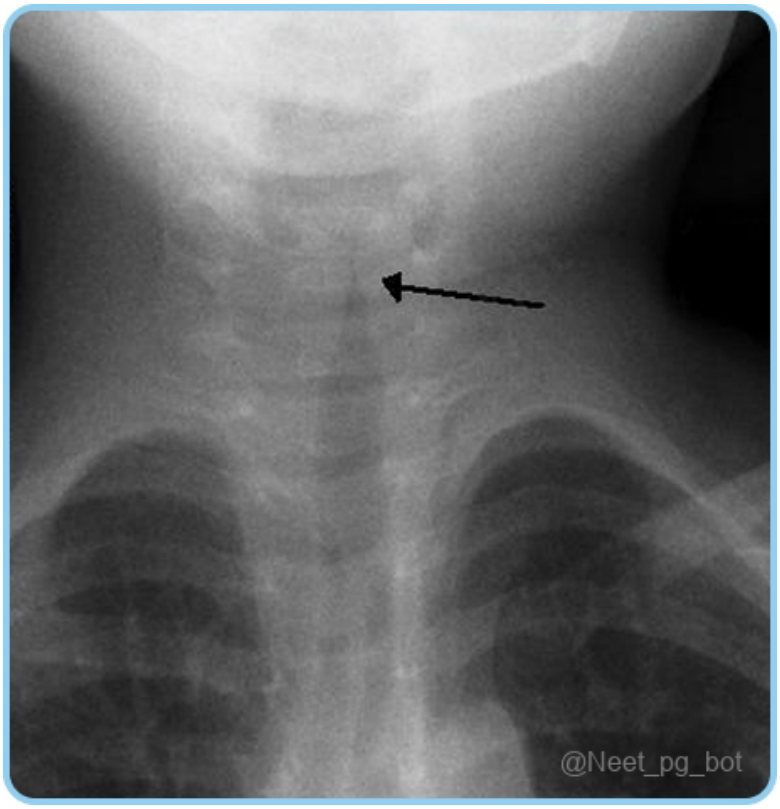
Q107: A 2-year-old child presented with the following X-ray finding. What is the most likely diagnosis? (Q854886)

A. Acute laryngotracheobronchitis

B. Acute epiglottitis

C. Acute pharyngitis

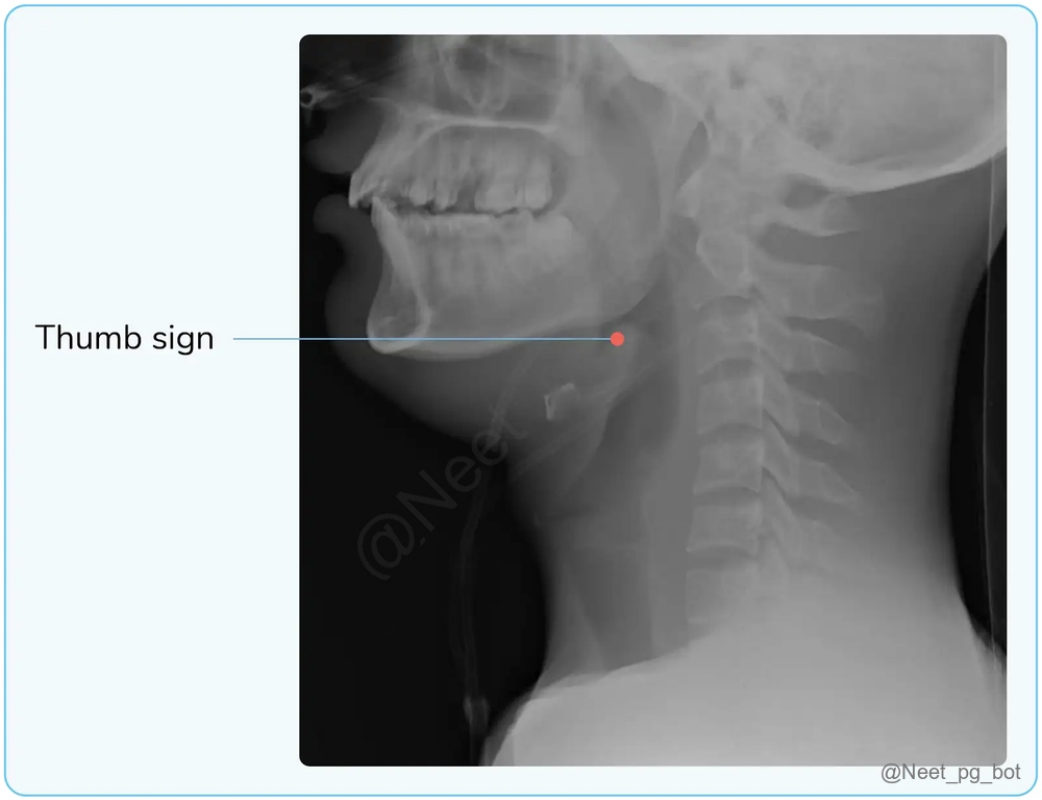
D. Parapharyngeal abscess

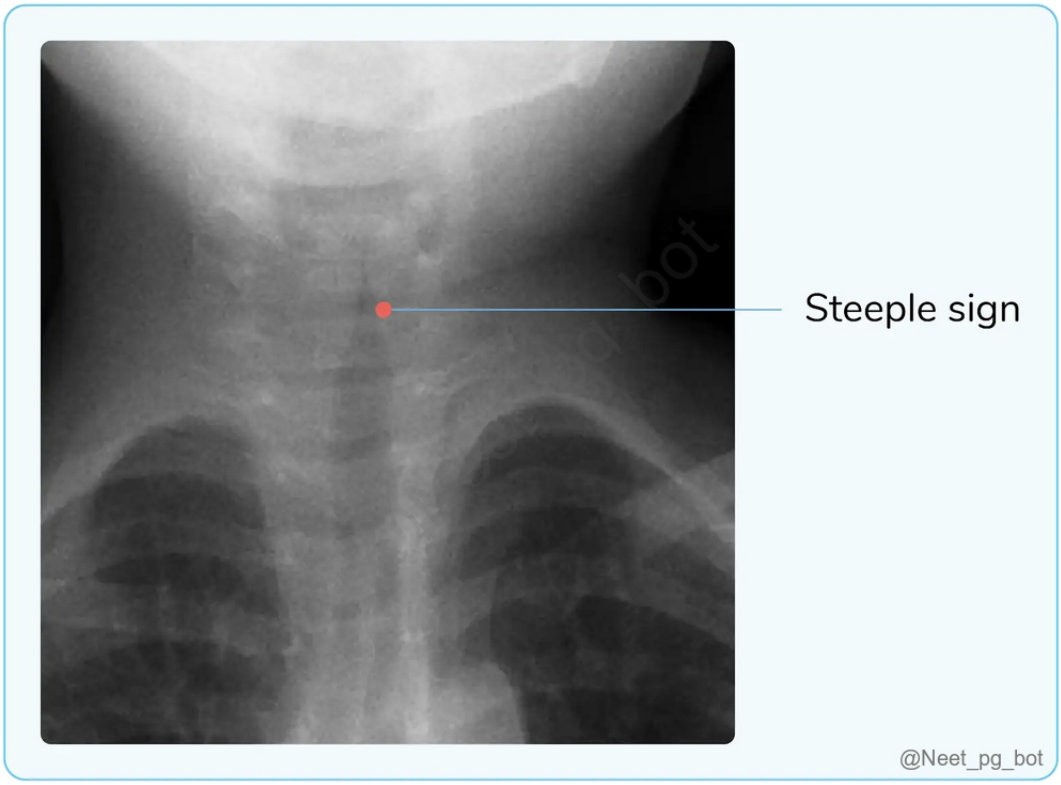


Correct Answer: A. Acute laryngotracheobronchitis

Explanation: cute laryngotracheobronchitis (Croup): The "steeple sign" seen on the X-ray is characteristic of acute laryngotracheobronchitis, commonly known as croup. This sign refers to the narrowing of the subglottic airway, which appears as a "steeple" or "church steeple" shape on the frontal view of the X-ray. Croup typically presents with symptoms such as a barking cough, stridor, and respiratory distress in children. Acute Laryngotracheobronchitis (Croup): Acute laryngotracheobronchitis, or croup, is a viral infection most commonly caused by parainfluenza viruses, although other viruses like RSV can also cause it. It leads to inflammation and swelling of the larynx, trachea, and bronchi, which results in airway narrowing and the characteristic "barking" cough. The "steeple sign" seen on X-ray is a diagnostic clue, reflecting subglottic narrowing, which is a hallmark of the disease. Diagnosis and Treatment of Acute Epiglottitis vs. Croup Aspect Acute Epiglottitis Croup (Acute Laryngotracheobronchitis) Diagnosis Visualisation: Red and swollen epiglottis (avoid indirect laryngoscopy to prevent airway obstruction). Lateral Neck X-ray: "Thumb sign" indicating swollen epiglottis. Differentiated based on clinical features (e.g., absence of drooling, voice quality). The "steeple sign" on an X-ray AP view shows a

narrowing of the upper airway, often seen in croup. X-Ray Imaging {{caption_text}} {{caption_text}} Hospitalisation Required due to the high risk of airway obstruction. Often necessary due to potential breathing difficulties. Treatment Antibiotics: Parenteral administration (e.g., ampicillin, third-generation cephalosporins). Steroids: Hydrocortisone or dexamethasone to reduce oedema. Hydration: IV fluids if needed. Humidified Oxygen: Via mist tent or croupette. Intubation or Tracheostomy: In cases of severe respiratory obstruction. Antibiotics: Ampicillin 50 mg/kg/day against the H. influenza virus. Humidification: Helps clear crusts and thick secretions that block the tracheobronchial tree. Steroids: to reduce oedema. Racemic Epinephrine: Used as a bronchodilator. Intubation or Tracheostomy: Considered if obstruction worsens or lasts beyond 72 hours. Acute epiglottitis (Option B)- is incorrect because while epiglottitis causes airway obstruction, it is typically associated with a "thumbprint sign" on X-ray, not the "steeple sign." This condition presents more acutely with drooling, difficulty swallowing, and a high fever. Acute pharyngitis (Option C)- is incorrect because acute pharyngitis does not cause a narrowing of the airway as seen in croup, and it does not present with the characteristic X-ray findings like the "steeple sign." Parapharyngeal abscess (Option D)- is incorrect because a parapharyngeal abscess would present with different symptoms, such as fever, neck swelling, and difficulty swallowing, but it does not typically cause the "steeple sign" on X-ray.





References:

Dhingra's Diseases Of Ear, Nose And Throat, & Head and Neck Surgery, 8th edition, Pages 339, 340

↑ *Back to this question in Part A*

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Q108: Laryngeal crepitus is absent in which of the following conditions? (Q859356)

A. Post-cricoid malignancy

B. Hypopharyngeal abscess

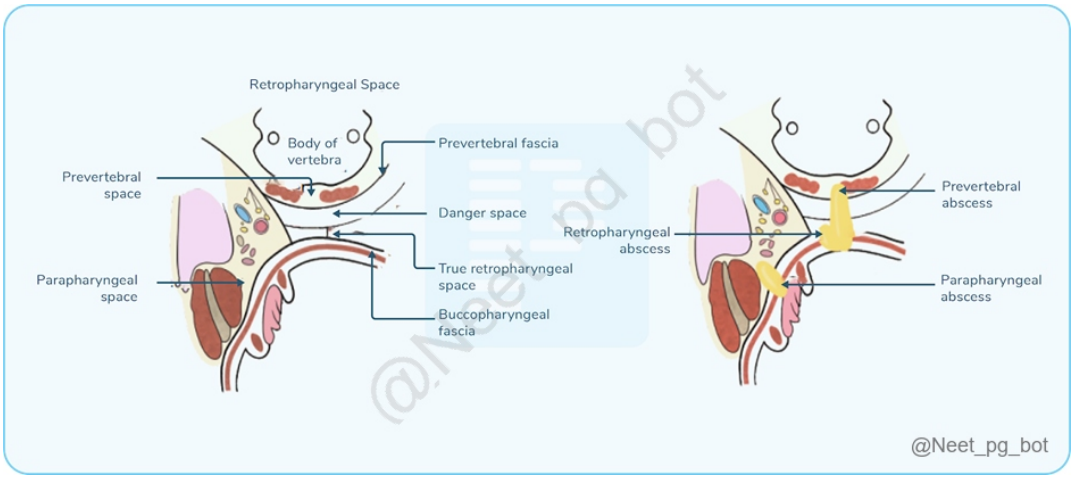
C. Parapharyngeal abscess

D. Prevertebral abscess

Correct Answer: D. Prevertebral abscess

Explanation: Laryngeal crepitus refers to the movement of the larynx over the cervical spine during swallowing. It is absent when the larynx is fixed due to an underlying pathology. In a prevertebral abscess , infection spreads in the prevertebral space , restricting the mobility of the larynx, thus abolishing crepitus. {{caption_text}} Laryngeal Crepitus and Its Absence Condition Laryngeal Crepitus Presence Reason Post-cricoid malignancy Present (unless

advanced) Tumors in this area usually do not fix the larynx early Hypopharyngeal abscess Present or reduced May affect laryngeal movement but not always abolish crepitus Parapharyngeal abscess Present or reduced Can restrict lateral movement but does not fix larynx completely Prevertebral abscess Absent Fixes the larynx to the spine, preventing movement Incorrect Options: Post-cricoid malignancy (Option A): is incorrect because early-stage malignancies do not fix the larynx. Crepitus is lost only in advanced cases where the tumor invades deeper tissues. Hypopharyngeal abscess (Option B): is incorrect because while it can partially restrict laryngeal movement, crepitus is not always completely absent unless the abscess is large. Parapharyngeal abscess (Option C): is incorrect because this abscess is lateral to the larynx and does not always cause fixation. However, extensive cases may restrict movement.



References:

Dhingra Diseases of Ear, Nose and Throat and Head and Neck Surgery 8th edition, pages 313-315

↑ *Back to this question in Part A*

@Neet_pg_bot

Q109: Which of the following organisms does not cause croup? (Q859367)

A. Parainfluenza 1

B. Parainfluenza 2

C. Rhinovirus

D. RSV

Correct Answer: C. Rhinovirus

Explanation: Croup (laryngotracheobronchitis) is a viral infection that causes subglottic airway inflammation , leading to barking cough, stridor, and hoarseness . It is most commonly caused by Parainfluenza viruses (types 1 and 2) , followed by RSV and influenza . Rhinovirus , however, is primarily associated with the common cold and

does not typically cause croup. Croup (Laryngotracheobronchitis) Feature Description Cause Parainfluenza virus (Types 1, 2, 3) - most common , RSV, Influenza, Adenovirus Age Group 6 months - 3 years (most common) Symptoms 1. Barking cough 2. Inspiratory stridor 3. Hoarseness 4. Respiratory distress Steeple Sign on X-ray Subglottic narrowing on AP neck X-ray Treatment Mild: Supportive care, humidified air Moderate-Severe: Dexamethasone + Nebulized Epinephrine Incorrect Options: Parainfluenza 1 (Option A): is incorrect because Parainfluenza virus type 1 is the most common cause of croup . Parainfluenza 2 (Option B): is incorrect because Parainfluenza type 2 also causes croup, though less frequently than type 1 . RSV (Option D): is incorrect because Respiratory Syncytial Virus (RSV) can cause croup, though it is more commonly associated with bronchiolitis .

References:

Nelson Textbook of Pediatrics Edition 21 page no: 2202-2205

OP Ghai Essential Pediatrics Edition 10 page no:391, 392

https://www.ncbi.nlm.nih.gov/books/NBK441873/

https://www.ncbi.nlm.nih.gov/books/NBK431070/

https://pmc.ncbi.nlm.nih.gov/articles/PMC7173542/

↑ *Back to this question in Part A*

@Neet_pg_bot

Q110: A 65 year old male presented with history of dysphagia, halitosis and aspiration pneumonia. A barium swallow was done and is given below. What is the diagnosis? (Q859372)

A. Diffuse oesophageal spasm

B. Achalasia cardia

C. Zenker’s diverticulum

D. Esophageal cancer

Correct Answer: C. Zenker’s diverticulum

Explanation: The patient presents with dysphagia, halitosis, and aspiration pneumonia , which are classical symptoms of Zenker’s diverticulum . Barium swallow typically shows a posterior pharyngeal pouch originating from Killian’s dehiscence . Zenker’s Diverticulum Feature Description Definition A false diverticulum formed due to herniation of pharyngeal mucosa through Killian’s dehiscence Cause Cricopharyngeal muscle dysfunction leading to increased pressure and pouch formation Symptoms 1. Dysphagia (difficulty swallowing) 2. Regurgitation of undigested food 3. Halitosis (bad breath) 4. Aspiration pneumonia Diagnosis Barium swallow X-ray (shows a posterior pharyngeal pouch) Treatment Endoscopic diverticulotomy (Dohlman’s procedure) or open diverticulectomy in large cases Incorrect Options: Diffuse esophageal spasm (Option A): is incorrect because diffuse esophageal spasm presents with intermittent chest pain and dysphagia , and barium swallow shows a "corkscrew esophagus" , not a diverticulum. Achalasia cardia (Option B): is incorrect because achalasia presents with progressive dysphagia to solids and liquids, with regurgitation . Barium swallow shows a "bird’s beak" appearance , not a pharyngeal pouch. Esophageal cancer (Option D): is incorrect because esophageal cancer presents with progressive dysphagia, weight loss, and possible hematemesis . Barium swallow shows an irregular stricture with mucosal destruction , not a diverticulum.

References:

Sutton’s Radiology and Imaging for Medical Students 7th edition Page no 547

Dhingra Diseases of Ear, Nose and Throat and Head and Neck Surgery 8th edition, page 323&324.

https://www.ncbi.nlm.nih.gov/pmc/articles/PMC1742115/#:~:text=Pharyngeal%20pouches%20occur%20most%20commonly,physiological%20abnormality%20of%20the%20cricopharyngeus.

↑ *Back to this question in Part A*

@Neet_pg_bot

Q111: What is the TNM staging for a patient with carcinoma in the pyriform fossa, presenting with a 5 cm lesion on laryngoscopy, non-mobile right vocal folds, no lymph node involvement, and no distant metastasis? (Q859378)

A. T2N0M0

B. T3N0M0

C. T4aN0M0

D. T4bN0M0

Correct Answer: B. T3N0M0

Explanation: The TNM staging for pyriform fossa carcinoma follows the AJCC (American Joint Committee on Cancer) classification. T3 : Tumor >4 cm or with vocal cord fixation N0 : No regional lymph node involvement M0 : No distant metastasis Since the patient has a 5 cm lesion (T3 criterion) and non-mobile vocal cords (vocal cord fixation), the correct stage is T3N0M0 . TNM Staging of Hypopharyngeal Cancer (Including Pyriform Fossa) Stage Tumor Size/Extent Vocal Cord Mobility Lymph Node Involvement Metastasis T1 Tumor confined to one subsite of hypopharynx Normal No nodes (N0) No (M0) T2 Tumor extends to more than one subsite or adjacent areas Normal N0 M0 T3 Tumor >4 cm or vocal cord fixation Fixed N0 M0 T4a Tumor invades adjacent structures (e.g., thyroid/cricoid cartilage, hyoid, thyroid gland, esophagus) Fixed N0/N+ M0 T4b Tumor invades prevertebral fascia, encases carotid artery, or involves mediastinal structures Fixed N0/N+ M0 Incorrect Options: T2N0M0 (Option A): is incorrect because T2 is for tumors extending to multiple subsites but <4 cm and without vocal cord fixation . T4aN0M0 (Option C): is incorrect because T4a requires invasion into adjacent structures (e.g., cartilage, esophagus), which is not mentioned in this case . T4bN0M0 (Option D): is incorrect because T4b involves invasion of prevertebral fascia, carotid artery, or mediastinum, none of which are present in this case .

References:

Scott-Brown’s Otorhinolaryngology: Head and Neck Surgery; 7th EditionPg 2645,2646

↑ *Back to this question in Part A*

@Neet_pg_bot

Q112: A 3-month-old infant is brought in with persistent noisy breathing since birth, which worsens when crying or lying supine. On flexible laryngoscopy, an omega-shaped epiglottis, floppy aryepiglottic folds, and prominent arytenoid cartilages that collapse inward during inspiration are noted. What is the most likely

diagnosis? (Q859381)

A. Vocal cord paralysis

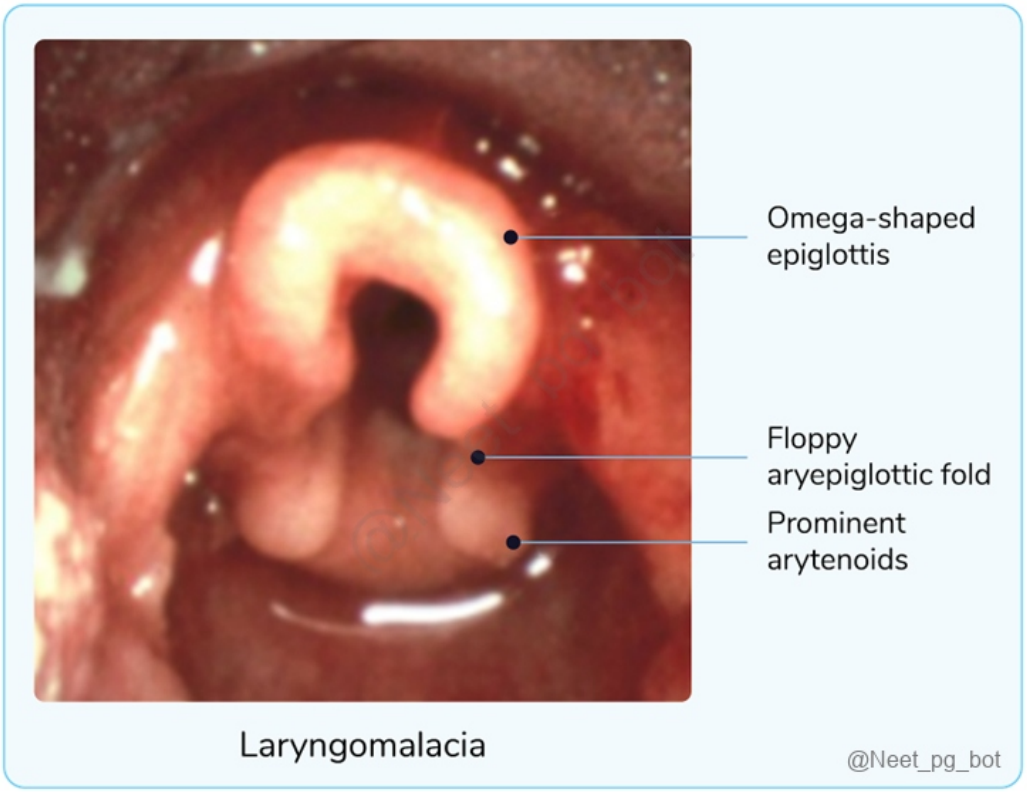
B. Subglottic stenosis

C. Laryngeal papilloma

D. Laryngomalacia

Correct Answer: D. Laryngomalacia

Explanation: Laryngomalacia is the most common cause of congenital stridor , presenting in infants with inspiratory stridor that worsens when supine or feeding . Laryngeal examination typically shows an omega-shaped epiglottis and redundant arytenoid mucosa , which collapse during inspiration. Laryngomalacia Feature Description Cause Congenital floppy laryngeal cartilage , especially affecting the epiglottis and arytenoids Symptoms Inspiratory stridor (worse when supine, feeding, or crying) Onset At birth or within the first few weeks of life , peaks at 4–8 months , resolves by 12–24 months Diagnosis Flexible laryngoscopy → shows omega-shaped epiglottis , redundant arytenoid mucosa Treatment Observation in mild cases, surgical intervention (supraglottoplasty) in severe cases {{caption_text}} Vocal cord paralysis (Option A): is incorrect because it causes biphasic stridor (both inspiratory and expiratory) and weak cry , unlike the isolated inspiratory stridor seen in laryngomalacia. Subglottic stenosis (Option B): is incorrect because it causes biphasic stridor and is often associated with prolonged intubation history . Laryngeal papilloma (Option C): is incorrect because it causes progressive hoarseness and voice changes , whereas laryngomalacia primarily causes stridor without voice involvement.



References:

Dhingra's Diseases Of Ear, Nose And Throat, & Head and Neck Surgery, 8th edition, Page 344.

↑ *Back to this question in Part A*

@Neet_pg_bot

Q113: A patient presents with hoarseness of voice. On examination an ulceroproliferative mass is seen on the right vocal cord; the cord was however mobile. There is no lymph node involvement and no metastasis. Which of the following is the best treatment modality for this patient? (Q859402)

A. Total laryngectomy

B. Radiotherapy

C. Conservative laryngectomy

D. Chemotherapy

Correct Answer: B. Radiotherapy

Explanation: In this case, the patient presents with an ulceroproliferative mass on the right vocal cord with mobile vocal cords , no lymph node involvement , and no metastasis . This suggests an early-stage laryngeal carcinoma (likely T1 or T2), where the tumor is confined to the vocal cord without spread to adjacent tissues or lymph nodes. For early-stage tumors of the larynx, radiotherapy is the treatment of choice. It is effective in treating such localized tumors, helps preserve voice function, and avoids the need for more invasive procedures like surgery. Laryngeal Cancer Treatment: Laryngeal cancer typically presents with hoarseness , which may be the initial symptom. When a tumor is localized to the vocal cords (as in this case), and there is no evidence of regional lymph node involvement or distant metastasis , radiotherapy offers an effective non-surgical option. It preserves the vocal cords and the patient's voice function, making it the preferred treatment modality for early-stage cancers. In advanced laryngeal cancers (involving surrounding structures or metastasis), more radical treatments like total laryngectomy or chemotherapy may be necessary, but this is not the case here. Incorrect Options: Total laryngectomy (Option A): is incorrect because the tumor appears to be in an early, localized stage, and radiotherapy should be preferred for such cases to preserve the larynx and voice. Conservative laryngectomy (Option C): is incorrect because while partial laryngectomy may be considered for certain cases, radiotherapy is typically the first-line treatment for early-stage vocal cord cancer with no spread. Chemotherapy (Option D): is incorrect because chemotherapy is generally reserved for advanced or metastatic cancers , which is not the case in this patient, as there is no evidence of metastasis or lymph node involvement.

References:

P L Dhingra Diseases of Ear Nose and Throat and Head and Neck Surgery - 7th Edition • Page no: 351

↑ *Back to this question in Part A*

@Neet_pg_bot

Q114: A young male who is a professional trumpet blower presented with a swelling on the left side of the neck. On examination, there is a gurgling sound when compressing the swelling. As the X-ray neck was inconclusive a CT neck was taken which is shown below. What is the most likely diagnosis? (Q859409)

A. Pharyngeal pouch

B. Laryngocele

C. Trachea-oesophageal fistula

D. Tonsillar

Correct Answer: B. Laryngocele

Explanation: The most likely diagnosis is Laryngocele . A laryngocele is an air-filled dilation of the saccule of the larynx, which can communicate with the laryngeal lumen. The gurgling sound when compressing the swelling suggests the presence of air or fluid within the sac. This condition is often associated with activities that increase intra-abdominal or intrathoracic pressure, such as blowing a trumpet or playing other wind instruments. The CT

scan would reveal a characteristic air-filled structure adjacent to the larynx, confirming the diagnosis. Laryngocele: A laryngocele is a condition where a portion of the laryngeal mucosa becomes dilated, typically due to increased pressure, causing an air-filled sac to form. It can be classified into internal (confined within the larynx) or external (extending outside the larynx into the neck). Laryngoceles are commonly seen in individuals who perform activities that involve frequent increases in intrathoracic or abdominal pressure, such as trumpet players or other wind instrument musicians. The clinical presentation may include a neck mass, hoarseness, or, as in this case, a gurgling sound when the mass is compressed. Incorrect Options: Pharyngeal pouch (Option A): is incorrect because a pharyngeal pouch (or Zenker's diverticulum) would present with dysphagia, regurgitation of food, and aspiration, but it is not associated with a gurgling sound on compression. Additionally, it would be located in the posterior aspect of the pharynx, not adjacent to the larynx. Tracheoesophageal fistula (Option C): is incorrect because a tracheoesophageal fistula is a congenital abnormal connection between the trachea and esophagus, typically diagnosed in infancy. It may present with choking or aspiration but would not present as a swelling with a gurgling sound in the neck of an adult, and a CT scan would show a connection between the trachea and esophagus, not a laryngeal dilation. Tonsillar (Option D): is incorrect because tonsillar swelling is typically associated with infections or tumors of the tonsils and would not produce a gurgling sound or the findings seen on CT imaging.

References:

Diseases of Ear, Nose & Throat - PL Dhingra - 6th Edition Page no 305

P L Dhingra Diseases of Ear Nose and Throat and Head and Neck Surgery - 8th Edition Page no 333, 345

↑ *Back to this question in Part A*

@Neet_pg_bot

Q115: The instrument shown in the image is not used for which of the following? (Q855220)

A. Airway toileting

B. Upper airway examination

C. Acute nasopharyngeal obstruction

D. Prolonged mechanical ventilation

Correct Answer: B. Upper airway examination

Explanation: Correct Option: B) Upper airway examination The image shown is tracheostomy tube, and it is not used for upper airway examination. Uses of tracheostomy: Airway toileting (Option A) Prolonged mechanical ventilation (Option D) Acute nasopharyngeal obstruction (Option C) Securing airway in facial injuries

References:

Diseases of the Ear, Nose, Throat, 8th Edition, Page no: 276

↑ *Back to this question in Part A*

@Neet_pg_bot

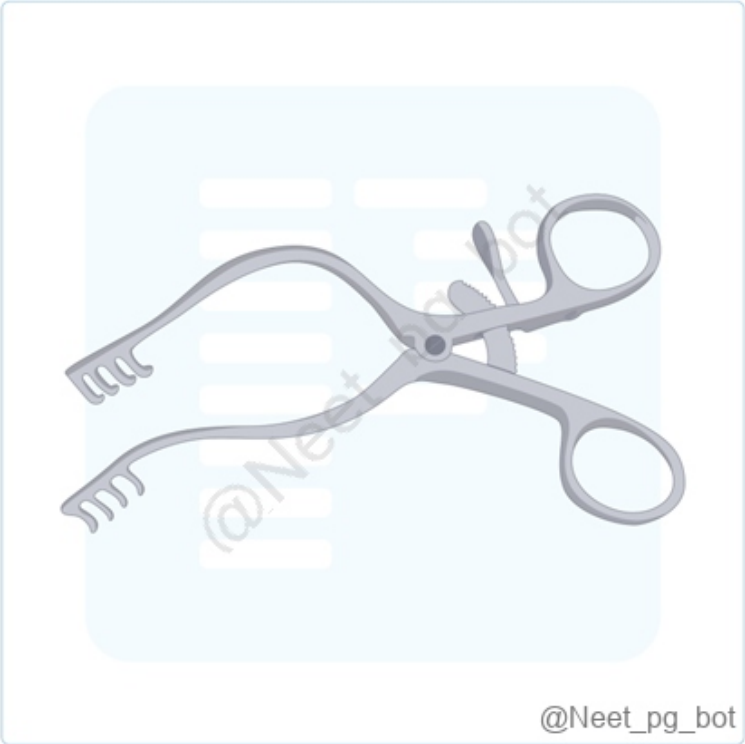
Q116: Identify the retractor shown in the below image. (Q856319)

A. Plester's Retractor

B. Wietlaner’s Retractor

C. Mollison retractor

D. Jansens Retractor



Correct Answer: C. Mollison retractor

Explanation: The Mollison retractor is a surgical instrument used primarily in ear surgery (otology). It is designed to retract soft tissues such as skin or mucosa in the ear during procedures, providing better visibility and access to the surgical site. Types of Mastoid Retractors Mollison’s Mastoid Retractor: Self-retaining Hemostatic (stops bleeding) (Mnemonic: Mollison has 8 letters , so it has 4*4 teeth for identification) Jansen’s Mastoid Retractor: Self-retaining Similar to Mollison’s Use: Both retractors are used after incision and flap elevation to retract soft tissues. (Mnemonic: Jansen has 6 letters, so it has 3*3 teeth for identification) Lempert’s endaural retractor: Endaural approach during ear surgery. Lempert’s endaural speculum: Opens the meatus for endaural incision or local injections. Perkin’s mastoid retractor: Self retaining Hemostatic Use : For retraction of soft tissue during mastoidectomy. Incorrect Options: Plester's Retractor (Option A) : This is a type of retractor used in various surgical fields, particularly in orthopedic procedures, to retract tissues and provide better exposure during surgery. Wietlaner’s Retractor (Option B) : This is a self-retaining retractor used in surgery to retract tissue and maintain an open wound or incision. It is commonly used in ENT and general surgery. Jansens Retractor (Option D) : This is a type of retractor used in ear and nasal surgeries for retracting soft tissues and providing better surgical access.

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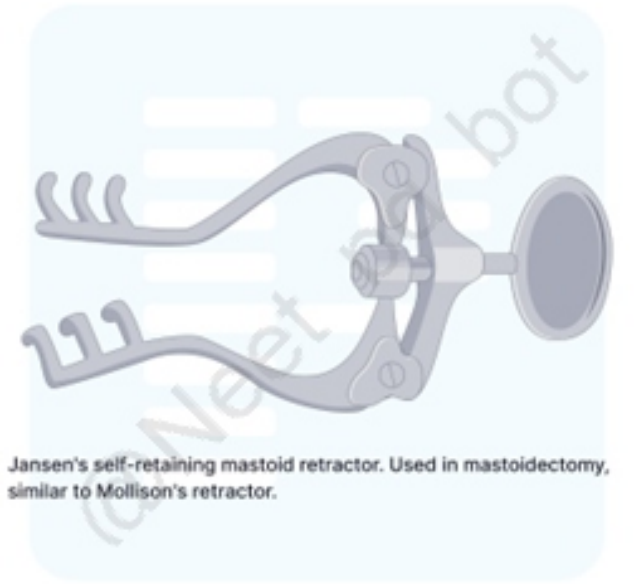

Jansen's self-retaining mastoid retractor. Used in mastoidectomy, similar to Mollison's retractor.

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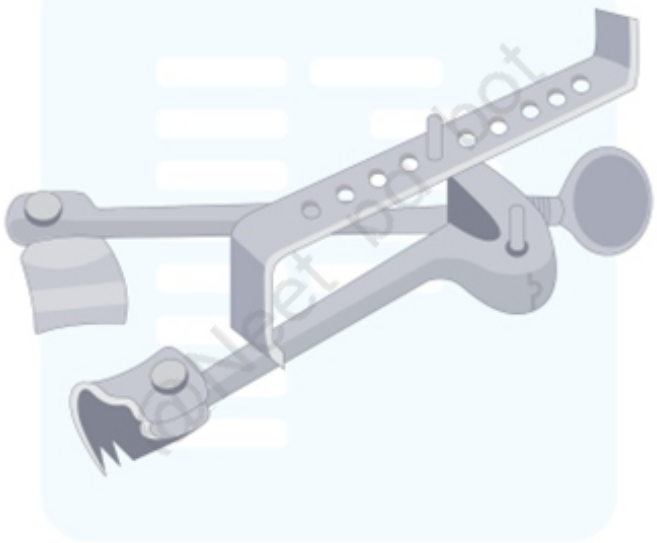

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References:

P L Dhingra Diseases of Ear Nose and Throat and Head and Neck Surgery - 8th Edition • Page no 551

↑ *Back to this question in Part A*

@Neet_pg_bot

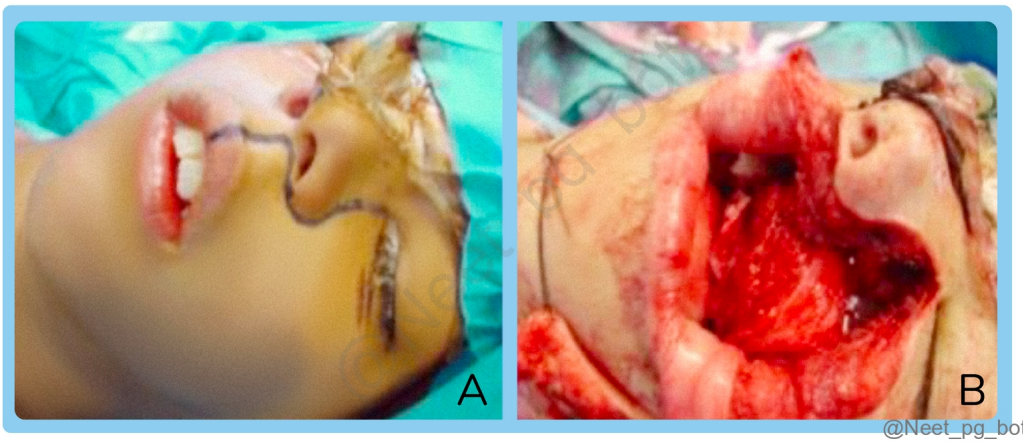
Q117: What surgery is being performed in the image shown? (Q866706)

A. Total ethmoidectomy

B. Partial ethmoidectomy

C. Total maxillectomy

D. Partial maxillectomy



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Correct Answer: C. Total maxillectomy

Explanation: The Weber–Ferguson incision is a classical surgical approach for accessing the maxilla and paranasal sinuses , providing wide exposure. The image shows an exposed maxillary cavity with removal of anterior and medial walls , which is characteristic of a total maxillectomy . Total maxillectomy involves removal of the entire maxilla, including anterior, medial, posterior, and inferior walls, usually performed for malignant tumors of the maxilla or advanced sinonasal malignancies. In the given scenario, the surgical field and the incision markings confirm the diagnosis of total maxillectomy . Incorrect Options: Total ethmoidectomy (Option A): Complete removal of the ethmoid air cells, done for extensive ethmoid sinus disease, not for lesions requiring maxillary bone removal. Partial ethmoidectomy (Option B): Involves selective removal of diseased ethmoid cells while preserving healthy mucosa, unrelated to the maxillary walls. Partial maxillectomy (Option D): Involves removal of only part of the maxilla (e.g., medial wall in medial maxillectomy) while sparing other bony walls; in the image, multiple walls are removed indicating a total, not partial, procedure.

References:

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↑ *Back to this question in Part A*

@Neet_pg_bot

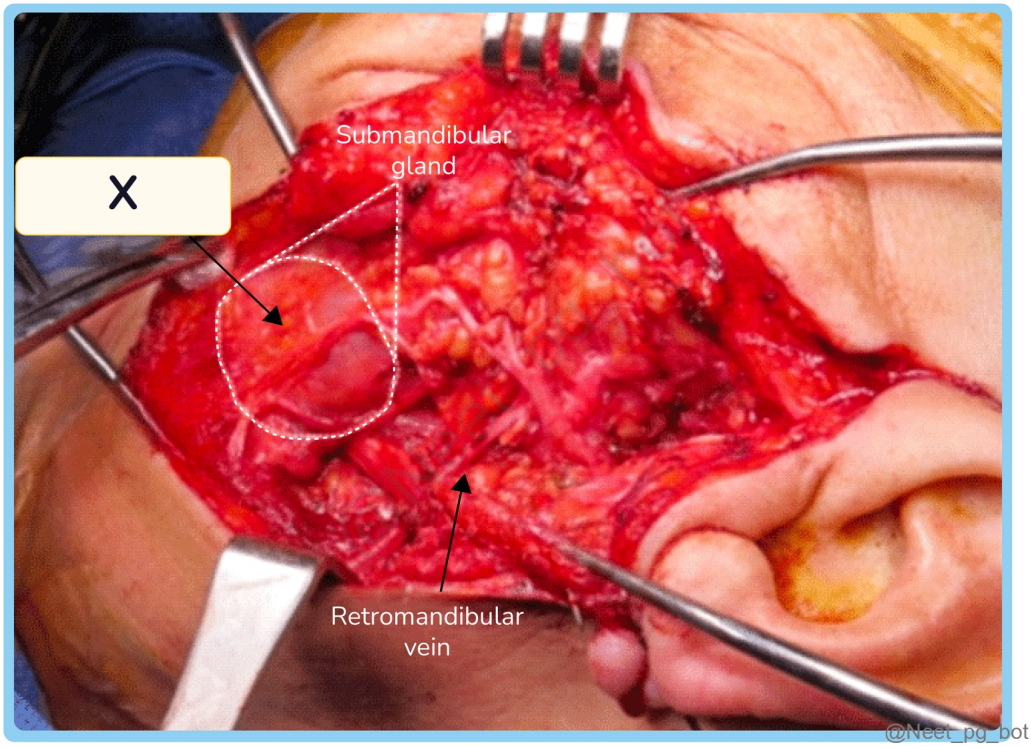
Q118: A structure passing deep to the submandibular gland and curving around the inferior border of the mandible during submandibular gland excision surgery. Identify the structure labeled ‘X’ in the following image. (Q866568)

A. Facial nerve

B. Marginal mandibular nerve

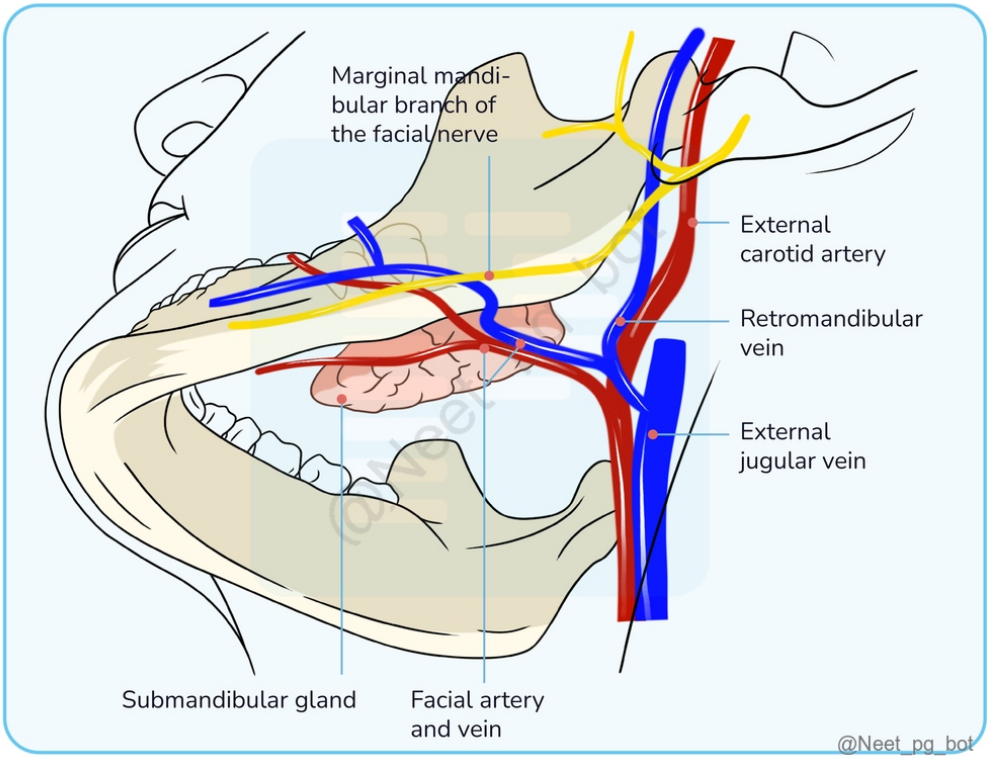
C. Facial artery

D. Trigeminal nerve



Correct Answer: C. Facial artery

Explanation: The structure marked ‘X’ is identified as the facial artery. In this image: The submandibular gland is clearly exposed. The vessel marked is coursing through or very close to the gland, which is a characteristic feature of the facial artery. It needs to be ligated and divided during submandibular gland removal. The facial artery is a key anatomical landmark during submandibular gland excision. It typically runs deep to or within the submandibular gland and is often seen as a prominent vessel in this surgical field. It originates from the external carotid artery , passes deep to the posterior belly of digastric and stylohyoid, and then enters the submandibular gland before looping over the mandible to supply the face. Incorrect Options: The facial nerve (Option A) does not run through the submandibular region. It enters the parotid gland and branches within it. Th e marginal mandibular nerve (Option B) is closely related to the submandibular gland and is at risk during surgery, it is a thin, delicate nerve running superficial to the gland, not a thick, pulsatile structure like in the image. The trigeminal nerve (Option D) and its major branches are not present in this surgical plane. It does not pass through or near the submandibular gland.



↑ *Back to this question in Part A*

@Neet_pg_bot

Q119: What is the appropriate approach to treat a child who is attending school and has a repeated occurrence of infections in the upper respiratory tract, difficulty in breathing through the nose, and hearing problems, along with the observation of a palate that is significantly raised in shape? (Q857645)

A. Tonsillectomy

B. Adenoidectomy

C. Adenoidectomy with grommet insertion

D. Myringotomy with grommet insertion

Correct Answer: C. Adenoidectomy with grommet insertion

Explanation: Adenoidectomy with grommet insertion is the preferred approach for a child presenting with recurrent upper respiratory tract infections, nasal breathing difficulty, hearing problems, and a high-arched palate. These symptoms suggest adenoid hypertrophy causing upper airway obstruction and Eustachian tube dysfunction,

leading to otitis media with effusion (OME). Adenoidectomy relieves nasal obstruction and reduces recurrent infections. Grommet insertion helps in draining middle ear fluid, improving hearing. Tonsillectomy (Option A) : Tonsillectomy alone is not indicated as the child primarily has symptoms related to adenoid hypertrophy and Eustachian tube dysfunction, not recurrent tonsillitis. Adenoidectomy (Option B) : While adenoidectomy addresses the nasal obstruction and infections, it does not directly manage the hearing problems caused by OME. Grommet insertion is essential for addressing middle ear fluid. Myringotomy with grommet insertion (Option D) : While this resolves middle ear fluid, it does not address the underlying issue of adenoid hypertrophy causing nasal obstruction and recurrent infections.

References:

Diseases of Ear, Nose, Throat - PL Dhingra, 8th Edition, Pg 76, 77, 507 , 508

↑ *Back to this question in Part A*

@Neet_pg_bot

Q120: Which nerve is accountable for causing ear pain following a tonsillectomy procedure among the options provided? (Q857663)

A. Glossopharyngeal nerve

B. Facial nerve

C. Trigeminal nerve

D. Vagus nerve

Correct Answer: A. Glossopharyngeal nerve

Explanation: Glossopharyngeal nerve: The glossopharyngeal nerve (cranial nerve IX) provides sensory innervation to the oropharynx and tonsillar region. It also has referred sensory pathways to the ear through its tympanic branch (Jacobson's nerve). This referral pathway explains the ear pain commonly experienced after a tonsillectomy. Facial nerve (Option B) : The facial nerve (cranial nerve VII) is primarily involved in motor innervation to the muscles of facial expression and does not provide sensory innervation to the tonsillar or pharyngeal region. Trigeminal nerve (Option C) : The trigeminal nerve (cranial nerve V) provides sensory innervation to the face, including the external ear via its auriculotemporal branch, but it is not directly involved in tonsillar pain. Vagus nerve (Option D) : The vagus nerve (cranial nerve X) provides sensory innervation to parts of the larynx and pharynx, but it is less commonly associated with referred ear pain in tonsillectomy cases.

References:

Diseases of Ear, Nose, Throat - PL Dhingra, 8th edition, Page 303, 304

↑ *Back to this question in Part A*

@Neet_pg_bot

Q121: Dohlman’s procedure is for: (Q859369)

A. Meckel’s diverticulum

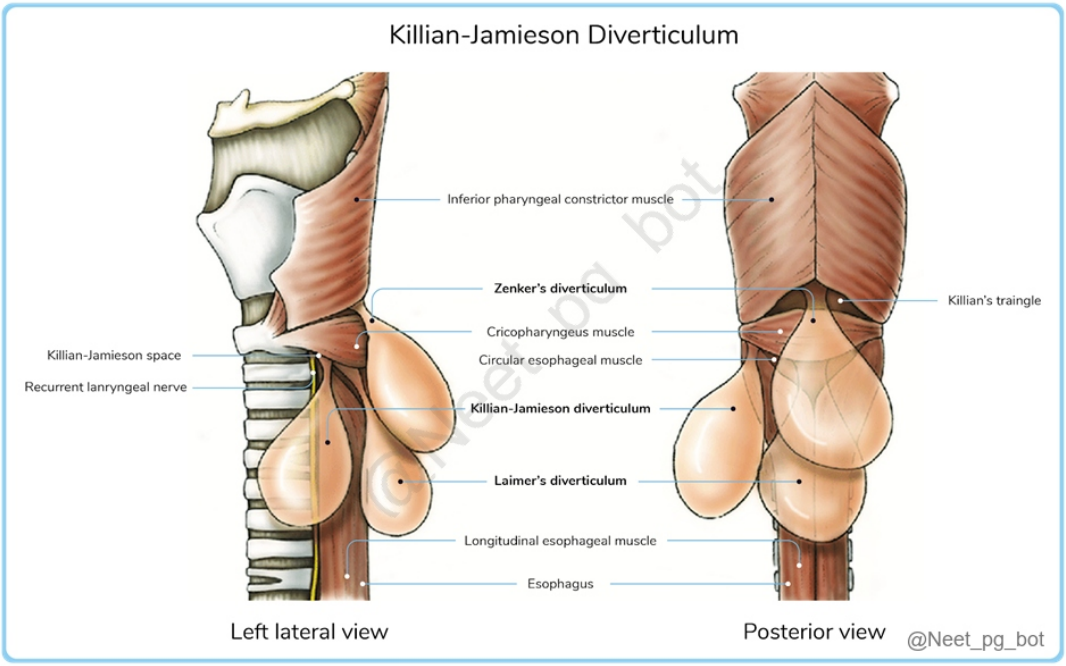
B. Zenker’s diverticulum

C. Bochadlek hernia

D. Menetrier’s disease

Correct Answer: B. Zenker’s diverticulum

Explanation: Dohlman’s procedure is a minimally invasive endoscopic technique used to treat Zenker’s diverticulum , a pharyngoesophageal pouch that forms due to cricopharyngeal muscle dysfunction . The procedure involves endoscopic diverticulotomy , which divides the cricopharyngeal bar , allowing food to pass freely into the esophagus. Zenker’s Diverticulum & Dohlman’s Procedure Feature Description Definition Outpouching of mucosa through Killian’s dehiscence (weak area in the posterior pharynx) Cause Cricopharyngeal dysfunction leading to high pressure and diverticulum formation Symptoms 1. Dysphagia 2. Regurgitation of undigested food 3. Halitosis (bad breath) 4. Aspiration pneumonia Diagnosis Barium swallow X-ray (shows a posterior pharyngeal pouch) Treatment Dohlman’s procedure (endoscopic diverticulotomy) Open surgery if large {{caption_text}} Incorrect Options: Meckel’s diverticulum (Option A): is incorrect because Meckel’s diverticulum is a congenital remnant of the vitelline duct in the small intestine and is managed surgically by Meckel’s diverticulectomy , not Dohlman’s procedure. Bochdalek hernia (Option C): is incorrect because Bochdalek hernia is a congenital diaphragmatic hernia due to failure of the pleuroperitoneal membrane to close and is repaired via surgical closure of the diaphragm defect . Menetrier’s disease (Option D): is incorrect because Menetrier’s disease is a rare gastric hypertrophic condition with protein loss and increased mucus secretion , treated with medical therapy or gastrectomy in severe cases , not Dohlman’s procedure.



References:

Dhingra Diseases of Ear, Nose and Throat and Head and Neck Surgery 8th edition, page 323&324.

https://www.ncbi.nlm.nih.gov/pmc/articles/PMC1742115/#:~:text=Pharyngeal%20pouches%20occur%20most%20commonly,physiological%20abnormality%20of%20the%20cricopharyngeus.

↑ *Back to this question in Part A*

@Neet_pg_bot

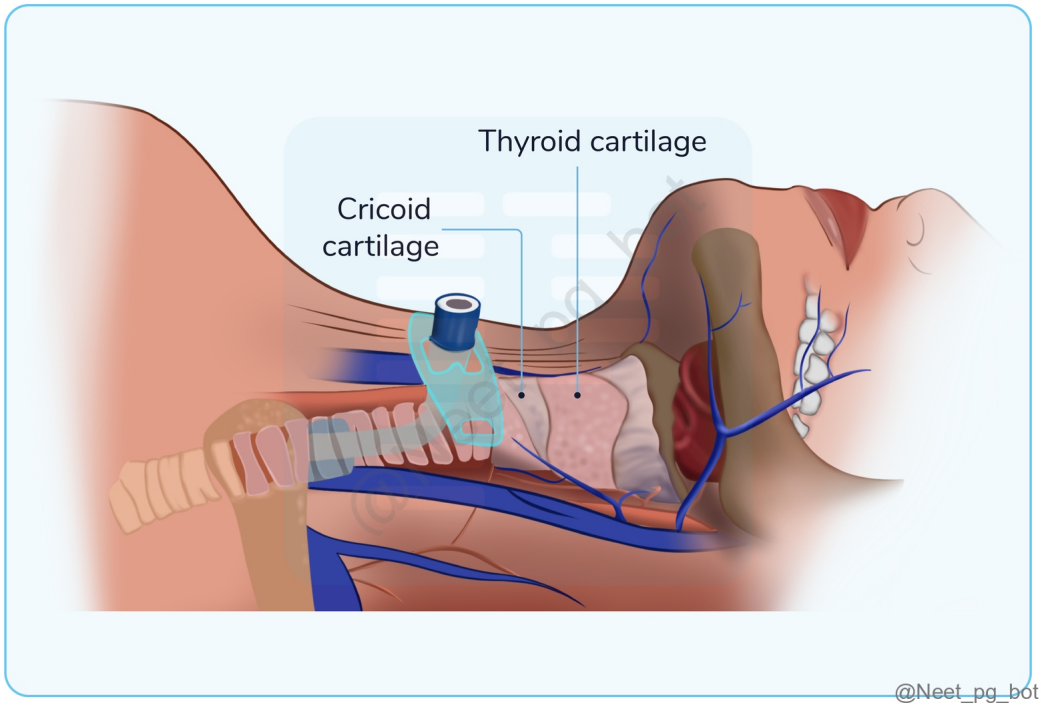
Q122: The image below shows a procedure that was done on the patient. What is the procedure? (Q859878)

A. Endotracheal intubation

B. Needle cricothyroidotomy

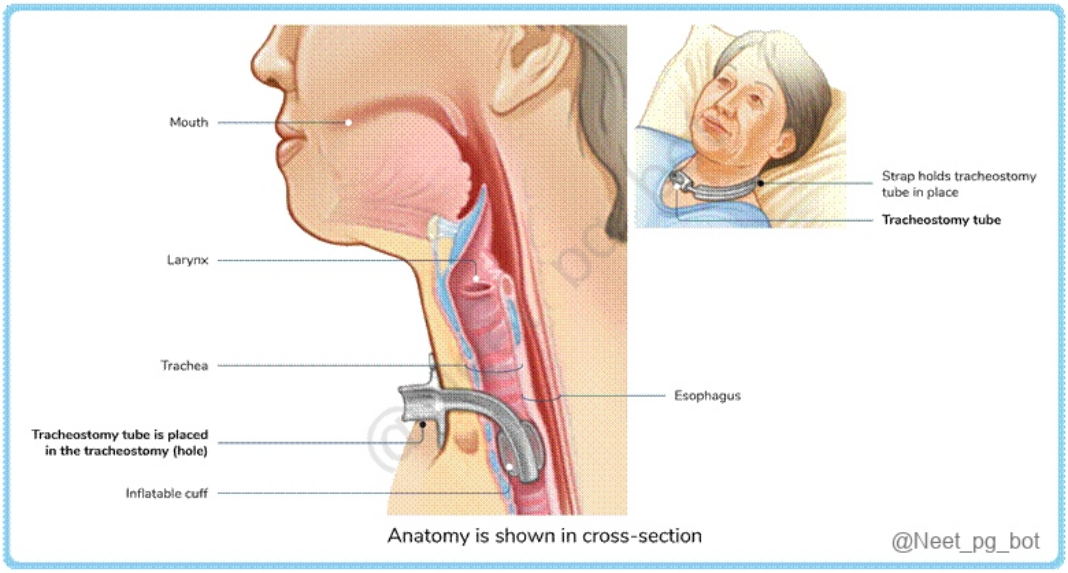
C. Tracheostomy

D. Oropharyngeal airway



Correct Answer: C. Tracheostomy

Explanation: A tracheostomy is a surgical procedure where an opening is created in the neck, directly into the trachea (windpipe), to provide an airway and to allow for breathing when the upper airway is blocked or compromised. This is usually performed in cases of long-term mechanical ventilation needs, upper airway obstruction, or trauma to the neck. Tracheostomy : Aspect Details Indications Upper airway obstruction (tumors, foreign body) Prolonged mechanical ventilation Neurological conditions (e.g., spinal cord injury) Procedure Incision made below vocal cords, tube inserted into trachea. Tube Types Cuffed: for ventilation support. Uncuffed: for stable airway or weaning. Complications Infection, bleeding, tracheal stenosis, accidental dislodgement, swallowing difficulty. Care Regular cleaning, monitoring for infection, and tube changes. Advantages Comfortable for long-term ventilation, lower risk of airway damage compared to intubation. {{caption_text}} Incorrect Options: Endotracheal intubation (Option A): is incorrect because it involves the insertion of a tube into the trachea via the mouth or nose, not through a neck incision. Needle cricothyroidotomy (Option B): is incorrect because this emergency procedure involves inserting a needle through the cricothyroid membrane in the neck to secure an airway in life-threatening situations, but does not involve creating a permanent opening as in a tracheostomy. Oropharyngeal airway (Option D): is incorrect because this is a device inserted into the mouth to maintain an open airway, typically in unconscious patients, and does not involve a surgical incision or permanent airway opening.



References:

Dhingra's Diseases Of Ear, Nose And Throat, & Head and Neck Surgery, 8th edition, Pages 369, 370

↑ *Back to this question in Part A*

@Neet_pg_bot

Q123: A female homemaker arrives with symptoms of nasal congestion, reduced sense of smell, and a dry discharge from the nose that is greenish and crusty. Upon examination, the nasal passages appear spacious, and the turbinates are found to be shriveled. Which surgical procedure would be suitable for this patient? (Q859902)

A. Submucous resection

B. Young’s operation

C. Septoplasty

D. Vidian neurectomy

Correct Answer: B. Young’s operation

Explanation: Young's operation is a surgical procedure used to treat atrophic rhinitis (also known as "ozena"), which is characterized by dryness of the nasal mucosa , crusting , and sometimes foul-smelling discharge . This condition can cause nasal congestion and a reduced sense of smell, which aligns with the symptoms described in this patient. Young’s operation involves removing the affected mucosa and sometimes involves creating a more functional nasal environment. Young’s Operation: Indication : Young’s operation is commonly used in cases of atrophic rhinitis where there is dry, crusty discharge from the nasal passages along with a reduced sense of smell

and nasal obstruction. Procedure : The surgery typically involves removing the affected, atrophic mucosa and possibly re-establishing the function of the nasal passages to improve breathing and reduce symptoms like dryness and crusting. Incorrect Options: Submucous resection (Option A) : is incorrect because it is performed to treat nasal septal deviation , not for conditions with excessive dryness or crusting, such as atrophic rhinitis. Vidian neurectomy (Option D) : is incorrect because Vidian neurectomy is used to reduce excessive nasal secretion in chronic rhinitis or other conditions with excessive nasal discharge, but not for atrophic rhinitis. Septoplasty (Option C) : is incorrect as it is performed for nasal septal deviation to correct airflow, but the patient in question is dealing with dryness and crusting, rather than a structural issue like septal deviation.

References:

Diseases of Ear, Nose, Throat - PL Dhingra, 8th edition, Pg - 210

Scott Brown ENT, 8th Edition Pg - 1180

↑ *Back to this question in Part A*

@Neet_pg_bot

Q124: Arrange the following steps of FESS in the correct order: Visualisation of maxillary sinus ostium Bullectomy Uncinectomy Removal of posterior ethmoidal cells Penetration of the basal lamella (Q879173)

A. 3 → 1 → 2 → 5 → 4

B. 1 → 3 → 2 → 5 → 4

C. 3 → 2 → 1 → 4 → 5

D. 1 → 2 → 3 → 5 → 4

Correct Answer: A. 3 → 1 → 2 → 5 → 4

Explanation: Correct Order: Uncinectomy → Visualisation of maxillary ostium → Bullectomy → Penetration of basal lamella → Removal of posterior ethmoidal cells. 1. Uncinectomy The uncinate process is removed to open the infundibulum This is the gateway step in FESS because it allows: Access to the middle meatus Visualisation of the natural maxillary ostium 2. Visualisation of the maxillary sinus ostium: Once the uncinate is removed, the natural maxillary sinus ostium becomes visible. Identification of the natural ostium is crucial to avoid creating false passages or iatrogenic openings. 3. Bullectomy (removal of ethmoidal bulla): The ethmoidal bulla is the largest anterior ethmoidal air cell. It opens the anterior ethmoid region Allows access to the basal lamella 4. Penetration of the basal lamella: The basal lamella divides the ethmoid sinus into: Anterior ethmoids Posterior ethmoids Penetrating it correctly allows controlled entry into the posterior ethmoidal compartment. 5. Removal of posterior ethmoidal cells: Once the basal lamella is traversed, the surgeon can safely: Remove posterior ethmoidal cells Proceed toward the sphenoid sinus, if needed

References:

Dhingra Diseases of Ear, Nose and Throat and Head and Neck Surgery, 8th Edition, Page 495.

↑ *Back to this question in Part A*

@Neet_pg_bot

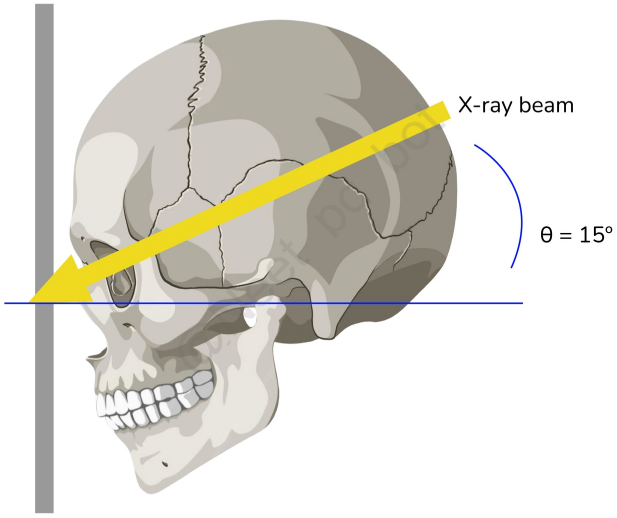
Q125: The frontal sinus can be viewed by taking an X-ray at a specific angle, which is depicted in the image below. What is the name of the view depicted? (Q793460)

A. Caldwell’s view

B. Towne’s view

C. Law’s view

D. Stenvers view



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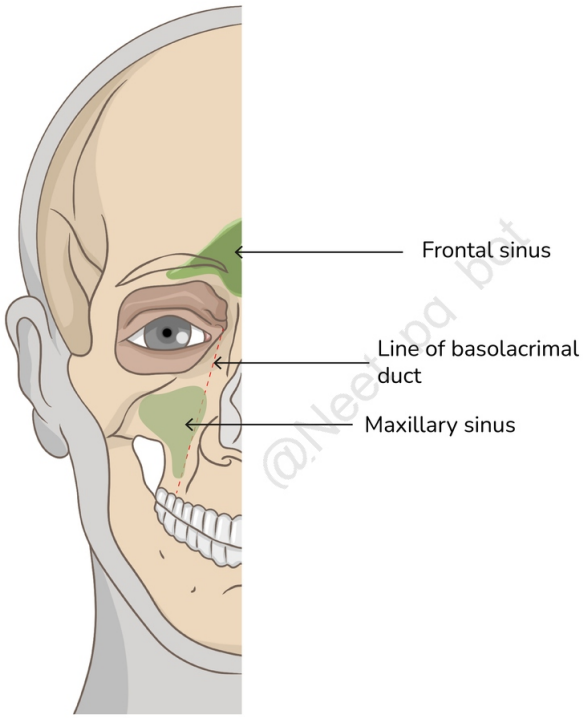
Correct Answer: A. Caldwell’s view

Explanation: Correct Option A - Caldwell's view: The image depicts the head in a chin-down position , and the X-ray beam passing from behind the head at an angle of 15° to the radiographic plate. This description aligns with Caldwell's view, which is primarily used for assessing the frontal and ethmoidal sinuses as well as the nasal septum. Incorrect Options: Option B - Towne’s view: In this view X-ray beam is passed from above in front at an angle of 30° to the radiographic plate. It is mainly used to visualize the petrous part of the temporal bone and the

posterior part of sella turcica. It is used to assess any fracture to the floor of the cranium, acoustic neuroma, and apical petrositis Option C - Law's view: It is a lateral oblique view of the mastoid. The patient lies in such a way that the sagittal plane of the skull is parallel to the film, and the X-ray beam is projected 15°cephalocaudal. Structures seen are (a) External auditory canal superimposed on the internal auditory canal. (b) Mastoid air cells. (c) Tegmen. (d) Lateral sinus plate. (e) Temporomandibular joint. "Key area" of the mastoid, i.e., attic, aditus, and antrum, is not well seen. Option D - Stenver's view: This view is taken in such a way that the long axis of the petrous bone lies parallel to the film. Structures seen are: (a) Entire petrous pyramid. (b) Arcuate eminence. (c) Internal auditory meatus. (d) Labyrinth with its vestibule. (e) Cochlea. (f) Mastoid antrum



References:

Prepladder Notes

↑ *Back to this question in Part A*

@Neet_pg_bot

Q126: An elderly diabetic female patient presented with a black, foul-smelling discharge from the nose. On examination, a blackish necrotic mass has filled the nasal cavity and eroded the septum and hard palate. What is the most probable diagnosis? (Q793472)

A. Aspergillosis

B. Mucormycosis

C. Foreign body

D. Rhinosporidiosis

Correct Answer: B. Mucormycosis

Explanation: Correct Option B - Mucormycosis: An elderly female diabetic patient with a black, foul-smelling nasal discharge, a black necrotic mass filling the nasal cavity, eroding the septum, and a hard palate is most likely suffering from mucormycosis. A class of molds known as mucormycetes is the source of mucormycosis. Mucormycosis is rapid growing disease involving the arteries and causing endothelial damage and thrombosis. Immunocompromised people are more likely to develop mucormycosis, such as those with uncontrolled diabetes. Incorrect Options: Option A - Aspergillosis: Aspergillus species can produce similar symptoms. Rather than black necrotic mass fungal ball containing cheesy-white or blackish material is usually observed. Option C - Foreign body: Neither a black necrotic mass nor a foul-smelling discharge would be caused by a foreign body. Option D - Rhinosporidiosis: Rhinosporidiosis is a very uncommon chronic illness brought on by Rhinosporidium seeberi, and it usually manifests as a painless, slowly expanding nasal polyp, which is inconsistent with the symptoms that are being reported.

References:

Tuli's Textook of Ear, Nose and Throat

↑ *Back to this question in Part A*

@Neet_pg_bot

Q127: A 60-year-old male presents with painless cervical lymphadenopathy and right ear pain. On examination, the right ear reveals conductive hearing loss with a dull tympanic membrane. Moreover, decreased mobility of the soft palate was also noted. What is the probable diagnosis? (Q793567)

A. Nasopharyngeal carcinoma

B. Adenoid cystic cancer

C. Juvenile nasopharyngeal angiofibroma

D. Quinsy

Correct Answer: A. Nasopharyngeal carcinoma

Explanation: Correct Option A - Nasopharyngeal Carcinoma: The given symptoms are consistent with Trotter's Triad, which is associated with malignant nasopharyngeal carcinoma invading the lateral wall. Trotter's Triad : Conductive deafness due to block of eustachian tube · Ipsilateral temporoparietal neuralgia due to V th nerve involvement. Palatal paralysis (10 nerve involvement) It is diagnostic of nasopharyngeal carcinoma Incorrect Options: Option B - Adenoid cystic cancer: Typically, adenoid cystic cancer develops in the salivary glands without showing any symptoms like conductive hearing loss or restricted soft palate movement. Option C - Juvenile nasopharyngeal angiofibroma: Adolescent males are typically affected by juvenile nasopharyngeal angiofibroma, a rare non-cancerous tumor that seldom results in symptoms like conductive hearing loss or restricted soft palate mobility. Option D - Quinsy: Quinsy, also known as peritonsillar abscess, is a complication of tonsillitis that results in a severe sore throat, fever, and trouble swallowing but does not frequently cause symptoms like conductive hearing loss or constrained soft palate movement.

References:

Prepladder Notes

↑ *Back to this question in Part A*

@Neet_pg_bot

Q128: Which fungal infection is frequently observed in the maxillary sinus? (Q793572)

A. Blastomycosis

B. Aspergillosis

C. Candidiasis

D. Histoplasmosis

Correct Answer: B. Aspergillosis

Explanation: Correct Option B - Aspergillosis: Aspergillosis is the most common fungal infection of the maxillary sinus, caused by Aspergillus fumigatus. Incorrect Options: Option A - Blastomycosis: It is caused by Blastomyces dermatitidis. In immunocompetent, it primarily causes pulmonary infections and skin lesions, and in immunocompromised, it causes CNS infections. Option C - Candidiasis : It mainly causes opportunistic infections, with diabetes mellitus being the most common predisposing factor. It is often implicated in cutaneous, mucosal, intestinal, bronchopulmonary, and systemic infections. Option D - Histoplasmosis: Histoplasma capsulatum is a species of fungus that causes histoplasmosis. It is primarily a pulmonary infection but can also cause cutaneous and disseminated disease. It can cause infection in both immunocompetent and compromised patients. Histoplasma-causing sinusitis is uncommon.

References:

Prepladder Notes

↑ *Back to this question in Part A*

@Neet_pg_bot

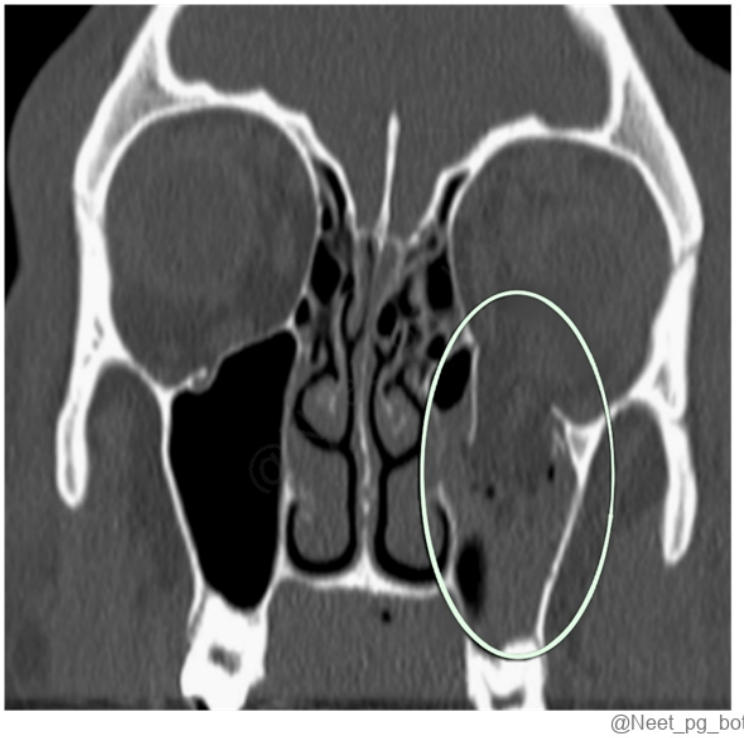
Q129: What would be your diagnosis for a patient who has a prior history of trauma and is currently experiencing symptoms such as double vision, nosebleeds, and limited eye movements, based on the provided CT image? (Q793613)

A. Le-fort fracture

B. Fracture maxilla

C. Fracture zygomatic

D. Blow out fracture



Correct Answer: D. Blow out fracture

Explanation: Correct Option D - Blow-out fracture: The CT shows a fracture of the floor of the orbit, with the contents of the orbit herniating down (teardrop sign) and a hematoma in the maxillary sinus; of the given options, the most likely option that fits the description of this injury is a blow-out fracture. Incorrect Options: Option A - Le-fort fracture: Le-fort I would show a trans maxillary fracture. Le-fort II and III involve fractures of the floor of the orbit, but in addition to this, teeth and the nasal bone are involved in Le-fort II, and an extensive mid-facial

discontinuity between the midface and base of the cranium is seen in Le-fort III. Option B - Fracture maxilla: A fracture of the maxilla is a break in the top jawbone. Option C - Fracture zygomatic: This would show a defect/dip in the lateral orbital wall and may or may not involve the floor of the orbit.

References:

Prepladder Notes

↑ *Back to this question in Part A*

@Neet_pg_bot

Q130: What investigation is carried out immediately after a child is suspected of having inhaled a foreign body? (Q820363)

A. Rigid bronchoscopy

B. Chest X-ray

C. Direct laryngoscopy

D. Flexible endoscopy

Correct Answer: B. Chest X-ray

Explanation: Correct Option B - Chest X-ray: After a child inhales or ingests a foreign body, a chest X-ray is often the initial investigation carried out. A chest X-ray can help identify the location and potential presence of a foreign body in the lungs or airways. It provides a quick and non-invasive way to assess the situation and determine the appropriate course of action. Incorrect Options: Option A - Rigid bronchoscopy : Rigid bronchoscopy is a procedure in which a rigid tube is inserted into the airways to visualize and remove foreign bodies or other obstructions. While this is indeed a procedure that may be carried out to remove a foreign body from a child's lung, it is not typically the immediate investigation performed right after a child ingests or inhales a foreign body. Option C - Direct laryngoscopy: Direct laryngoscopy is a procedure that involves examining the larynx (voice box) and adjacent structures using a laryngoscope. While this procedure might be used to examine the upper airway and larynx, it is not typically the first investigation performed when a foreign body is suspected in the lower airways or lungs. Option D - Flexible endoscopy: Flexible endoscopy involves using a flexible tube with a camera on the end to visualize internal structures. While this procedure can be used to examine the airways and remove foreign bodies, it might not be the immediate investigation performed right after a child inhales or ingests a foreign body.

References:

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↑ *Back to this question in Part A*

@Neet_pg_bot

Q131: Which of the following treatment options is not recommended for a 4-year-old boy presenting with low-grade fever, inspiratory stridor, and barking cough for the past 5 days? The examination shows a hoarse voice, a moderately inflamed pharynx, and a slightly increased respiratory rate. The chest x-ray reveals subglottic narrowing resembling a steeple. (Q793588)

A. Nebulized racemic epinephrine

B. Parenteral cefotaxime

C. Helium oxygen mixture

D. Intramuscular dexamethasone

Correct Answer: B. Parenteral cefotaxime

Explanation: Option B. Parenteral cefotaxime: Indication : Cefotaxime is an antibiotic used to treat bacterial infections. Mechanism : It is a third-generation cephalosporin antibiotic effective against a broad spectrum of bacteria. Recommendation : Not recommended for croup, which is typically caused by a viral infection. Antibiotics like cefotaxime are not effective against viruses and therefore are not used in the treatment of viral croup unless there is a secondary bacterial infection, which is not indicated in this case. Other Options Option A. Nebulized racemic epinephrine: Indication : Used for moderate to severe croup to reduce airway swelling and relieve symptoms of stridor. Mechanism : Acts as a vasoconstrictor to reduce edema in the subglottic space. Recommendation : Appropriate for the treatment of croup. Option C. Helium oxygen mixture (Heliox): Indication : Used in severe cases of upper airway obstruction to improve airflow and reduce the work of breathing. Mechanism : Heliox is a mixture of helium and oxygen that is less dense than air, allowing it to flow more easily through narrowed airways. Recommendation : Appropriate as an adjunctive treatment in severe cases of croup to reduce respiratory distress. OptionD. Intramuscular dexamethasone: Indication : Used to reduce inflammation and edema in the airway. Mechanism : Dexamethasone is a corticosteroid that decreases inflammation and swelling in the subglottic area. Recommendation : Appropriate for the treatment of croup. It has been shown to reduce the severity and duration of symptoms.

References:

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↑ *Back to this question in Part A*

@Neet_pg_bot

Q132: What is the probable cause of surgical emphysema in a patient following an emergency tracheostomy? (Q793619)

A. High tracheostomy

B. Tear in posterior tracheal wall

C. Block in tracheostomy

D. Tight suture around tracheostomy site

Correct Answer: D. Tight suture around tracheostomy site

Explanation: Correct Option: Option D: Tight suture around tracheostomy site (Correct Answer) Tight suturing around the tracheostomy site can obstruct the normal passage of air, causing air to escape into the surrounding subcutaneous tissues. This can lead to the accumulation of air under the skin, resulting in surgical emphysema. The tight suture creates a seal that prevents air from escaping through the tracheostomy tube, forcing it into the surrounding tissues instead. Incorrect Options: Option A. High tracheostomy: A high tracheostomy refers to a tracheostomy performed above the second or third tracheal cartilage. While a high tracheostomy can cause complications, such as injury to blood vessels or the thyroid gland, it is not directly associated with surgical emphysema. Option B: Tear in posterior tracheal wall A tear in the posterior tracheal wall can lead to air escaping into the mediastinum and potentially causing pneumomediastinum rather than subcutaneous emphysema. Option C. Block in tracheostomy: A block in the tracheostomy tube can lead to respiratory distress and the buildup of secretions. While it requires immediate attention, it is not directly related to surgical emphysema.

References:

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↑ *Back to this question in Part A*

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• [03_Pharynx] 020 Anatomy Of Pharynx And Pharyngeal Spaces

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[03_Pharynx] 020 Anatomy Of Pharynx And Pharyngeal Spaces — Quick Jump

Q1 (p. 1239) *Q2 (p. 1240)* *Q3 (p. 1241)* *Q4 (p. 1243)* *Q5 (p. 1244)* *Q6 (p. 1247)*
Q7 (p. 1249) *Q8 (p. 1252)* *Q9 (p. 1255)* *Q10 (p. 1257)* *Q11 (p. 1259)* *Q12 (p. 1261)*
Q13 (p. 1263) *Q14 (p. 1265)* *Q15 (p. 1266)*

Q1: A 57-year-old patient presents with otalgia and dysphagia. A CT scan reveals bilateral calcification of the stylohyoid ligaments, consistent with Eagle syndrome. During surgical repair of this condition, which pharyngeal arch-derived nerve is most likely to be affected due to its proximity? (Q847955)

A. First pharyngeal arch nerve

B. Second pharyngeal arch nerve

C. Third pharyngeal arch nerve

D. Fourth pharyngeal arch nerve

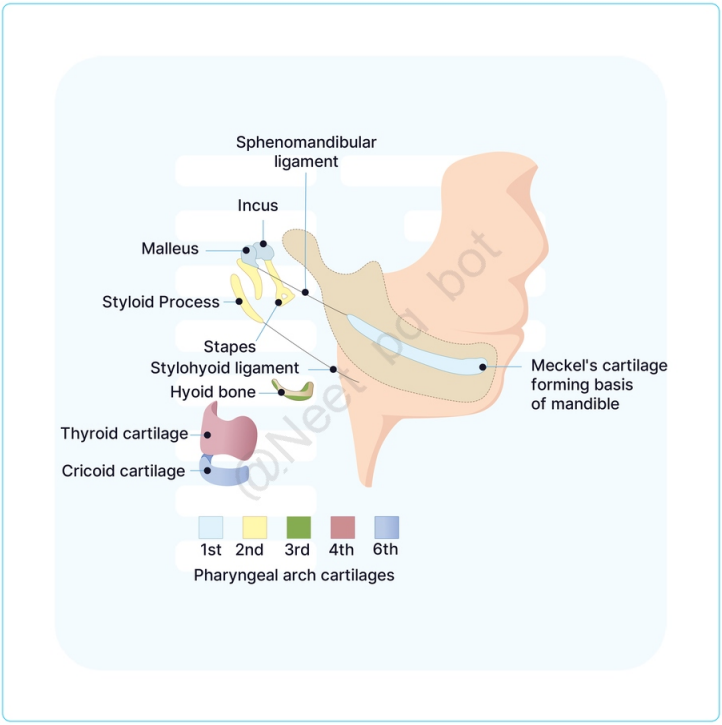
Correct Answer: B. Second pharyngeal arch nerve

■ *Listen (English)*

■ *Listen (Hindi)*

Explanation: Eagle syndrome involves the elongation or calcification of the stylohyoid ligament or styloid process, which can cause symptoms such as throat pain, referred ear pain (otalgia), and difficulty swallowing (dysphagia). Surgical intervention may be needed, and care should be taken to avoid damaging nearby structures. The facial nerve (cranial nerve VII) , derived from the second pharyngeal arch, is most likely to be affected during surgery due to its proximity to the stylohyoid ligament. Derivatives of the Pharyngeal arches: Pharyngeal arch Muscles derived Bones derived Cranial nerve Derivatives of clefts and pouches Mandibular arch (Arch I) Muscles of mastication, tensor veli palatini, tensor tympani, mylohyoid, anterior belly of digastric. Malleus Incus Trigeminal nerve (Option A) External auditory canal. The pouch of the first and second arches merges to further develop into the eustachian tube and the middle ear cavity. Hyoid Arch (Arch II) Muscles of facial expressions, stapedius, stylohyoid, posterior belly of the digastric muscle. Stapes Lesser horn of hyoid bone Upper part of the body, hyoid bone Styloid. Facial nerve (Option B) The cleft of the 2nd pharyngeal arch merges with the clefts of the 3rd, 4th and 6th arches to form the cervical sinus, which typically disappears during development. Glossopharyngeal arch (Arch III) Stylopharyngeus Greater cornua of hyoid Lower part of the body of the hyoid bone Glossopharyngeal nerve (Option B) Thymus and inferior parathyroid gland or parathyroid III from the 3rd pouch. Vagal Arch (Arch IV & V) Pharyngeal and laryngeal musculature Pharyngeal and laryngeal Cartilage Vagus nerve (Option C) Persistence of the cervical sinus may result in a collaural fistula , establishing an abnormal connection between the

external auditory canal and the middle ear.



References:

Diseases of Ear, Nose, Throat, PL Dhingra, 8th Edition, Page 321

BD Chaurasia's Human Anatomy, Volume 3, 8th Edition, Page 356

↑ *Back to this question in Part A*

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Q2: A 50-year-old male presents with impaired taste sensation. Examination shows diminished taste in the posterior one-third of the tongue. Which of the following nerves is responsible for this condition? (Q847956)

A. Hypoglossal nerve

B. Lingual nerve

C. Chorda tympani nerve

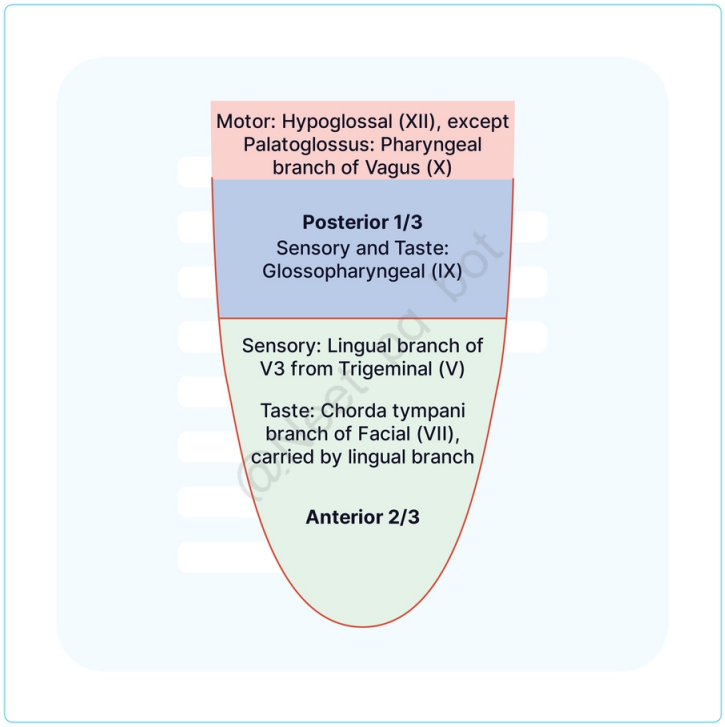
D. Glossopharyngeal nerve

Correct Answer: D. Glossopharyngeal nerve

■ *Listen (English)*

■ *Listen (Hindi)*

Explanation: The tongue is divided into two regions: Anterior two-thirds , innervated by the chorda tympani nerve Posterior one-third, supplied by the glossopharyngeal nerve , separated by the Sulcus terminalis. Dysfunction in either of these nerves can cause impaired taste perception and loss of taste, as each nerve is responsible for sensation in its respective area.



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References:

Diseases of Ear, Nose, Throat, PL Dhingra, 8th Edition, Page 275

BD Chaurasia's Human Anatomy Volume 3, 8th Edition, Page 305.

↑ *Back to this question in Part A*

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Q3: A 36-year-old patient presents with severe sore throat, difficulty swallowing, and neck pain. On examination, there is noticeable swelling on the lateral aspect of the neck and a muffled voice. Imaging studies reveal an abscess located in the space between the superior and middle pharyngeal constrictor muscles. Which structures

pass through this space? (Q847957)

A. Stylopharyngeus muscle and Recurrent laryngeal nerve

B. Levator veli palatini and Glossopharyngeal nerve

C. Levator veli palatini and Recurrent laryngeal nerve

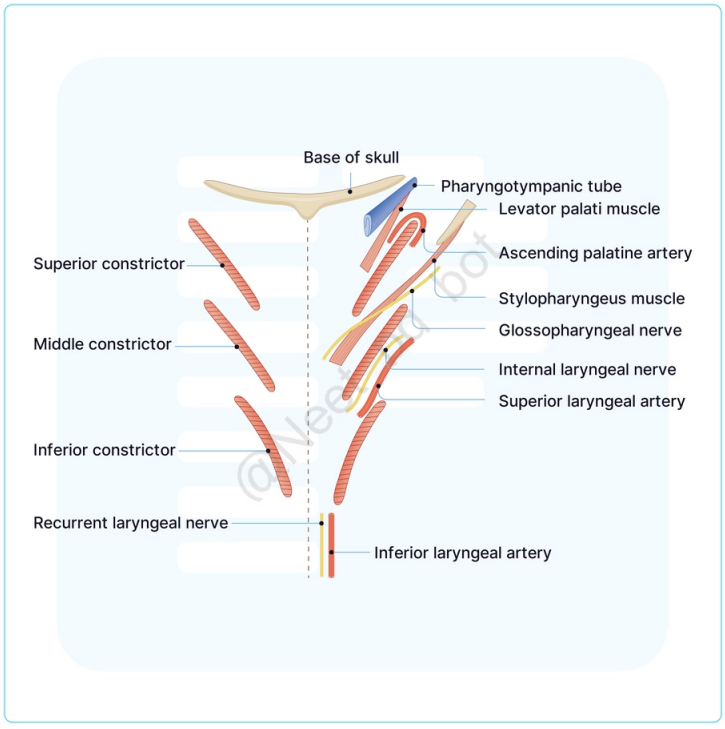
D. Stylopharyngeus muscle and Glossopharyngeal nerve

Correct Answer: D. Stylopharyngeus muscle and Glossopharyngeal nerve

■ *Listen (English)*

■ *Listen (Hindi)*

Explanation: The structures passing between the superior and middle pharyngeal constrictor muscles are the Stylopharyngeus muscle and the Glossopharyngeal nerve. Structures between the base of the skull and pharynx:



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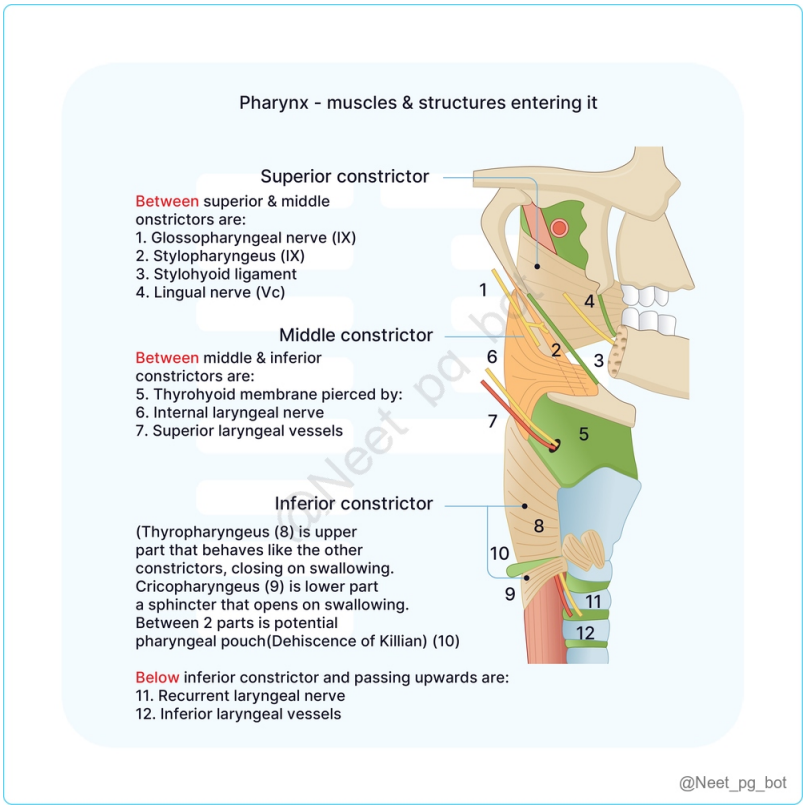


References:

Diseases of Ear, Nose, Throat, PL Dhingra, 8th Edition, Page 333

BD Chaurasia's Human Anatomy Volume 3, 8th Edition, Page 264

↑ *Back to this question in Part A*

@Neet_pg_bot

Q4: A 55-year-old male presents with progressive hearing loss in his right ear over the past few months, along with intermittent facial pain, difficulty swallowing, palate asymmetry, and speech difficulties. Nasopharyngoscopy reveals a nasopharyngeal mass. Which structure is likely responsible for hearing loss in this patient? (Q847958)

A. Cochlear nerve

B. Stylopharyngeus muscle

C. Tympanic membrane

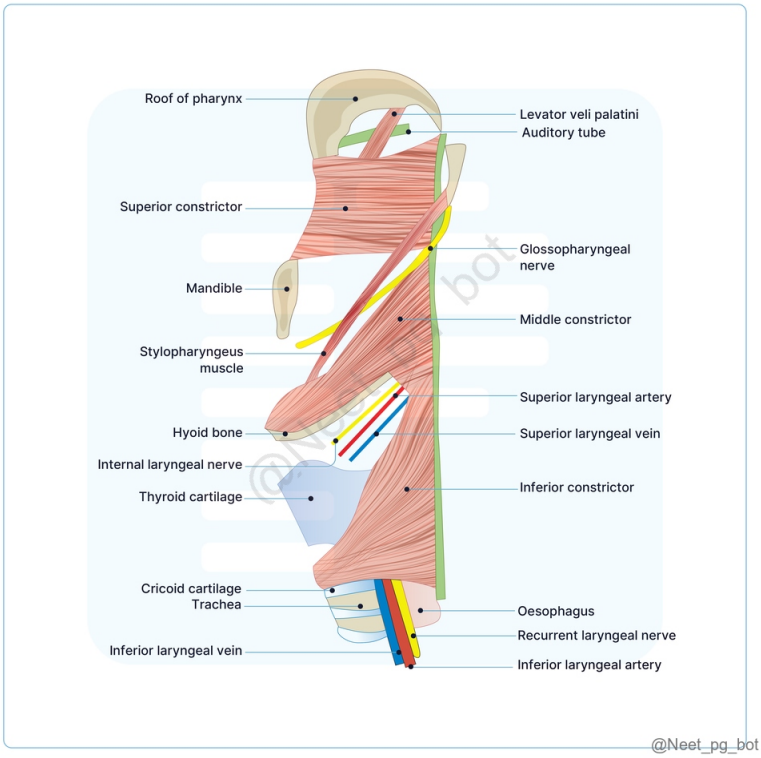
D. Eustachian tube

Correct Answer: D. Eustachian tube

■ *Listen (English)*

■ *Listen (Hindi)*

Explanation: The patient's symptoms align with Trotter's syndrome , commonly associated with nasopharyngeal carcinoma. This condition involves: Conductive hearing loss due to obstruction of the Eustachian tube, which is responsible for equalising ear pressure. Trigeminal neuralgia affects the mandibular division of the trigeminal nerve, 5thleading to facial pain. Palatal asymmetry resulting from tumour infiltration into the levator palatini muscles. Mnemonic: N- 5th nerve Neuralgia P- Palatal palsy C- CHL This occurs when malignant tumours infiltrate the lateral wall of the nasopharynx or originate in the Sinus of Morgagni (the space between the base of the skull and the superior constrictor muscle). Structures passing through the Sinus of Morgagni are Levator veli palatini Auditory tube/eustachian tube Tensor veli palatini Ascending palatine artery Fig: Structures passing through the Sinus of Morgagni



References:

Diseases of Ear, Nose, Throat, PL Dhingra, 8th Edition, Page 319

BD Chaurasia's Human Anatomy Volume 3, 8th Edition, Page 264

↑ *Back to this question in Part A*

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Q5: A 50-year-old patient presents with dysphagia and a sensation of a lump in the throat. On examination, a mass is noted on the posterior pharyngeal wall. Which anatomical structure primarily forms the inner layer? (Q847959)

A. Investing fascia

B. Buccopharyngeal Fascia

C. Prevertebral fascia

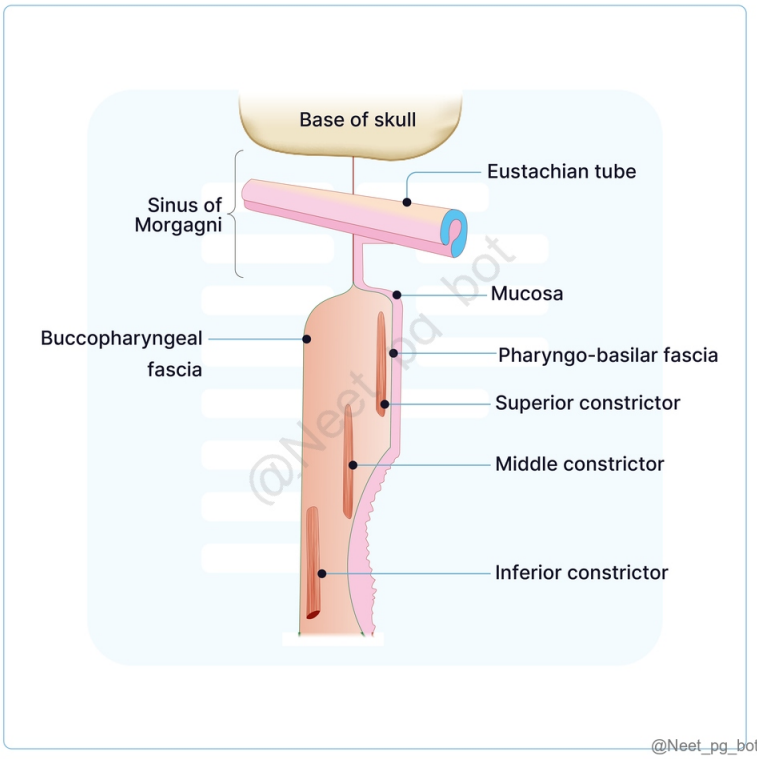
D. Pharyngobasilar Fascia

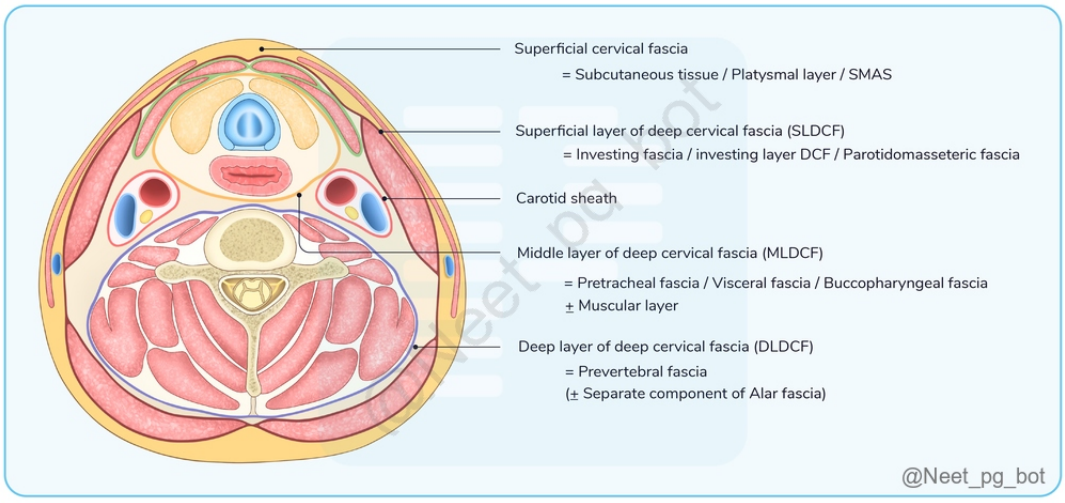
Correct Answer: D. Pharyngobasilar Fascia

■ *Listen (English)*

■ *Listen (Hindi)*

Explanation: Pharyngobasilar Fascia or Pharyngeal Aponeurosis is a thick fibrous layer located between the mucosa and the muscular layer and forms the inner layer. It provides structural integrity to the pharyngeal wall, especially where muscles are deficient, such as the posterior wall. It also anchors the pharynx to the skull base, ensuring firmness and support. Layers of pharyngeal wall: The pharyngeal wall consists of four layers, from innermost to outermost: Mucosal Membrane: Mucosa in the nasopharynx consists of Ciliated columnar epithelium and stratified squamous epithelium in the oropharynx and laryngopharynx. Pharyngobasilar Fascia (Pharyngeal Aponeurosis): A fibrous layer that provides structural integrity and support to the pharyngeal wall, especially in the posterior area. Muscular Layer consists of the superior, middle, and inferior constrictor muscles and they function in the peristaltic movement of the pharynx during swallowing. Buccopharyngeal Fascia (Option B) : This is the outermost layer of the pharyngeal wall. It covers the external surface of the pharyngeal muscles and is continuous with the pretracheal fascia. It also separates the pharyngeal wall from surrounding structures like the prevertebral fascia. Fig: Layers of the pharyngeal wall Investing fascia (Option A) is the outermost layer of the deep cervical fascia, which encases the entire neck. Fig: Layers of Deep Cervical Fascia Prevertebral fascia (Option C) is the inner layer of deep cervical fascia surrounding the vertebral column and its associated muscles.





References:

Diseases of Ear, Nose, Throat, PL Dhingra, 8th Edition, Page 303

www.ncbi.nlm.nih.gov/books/NBK541091/#:~:text=The%20prevertebral%2C%20or%20deep%20layer,of%20the%20sympathetic%20trunk%20ganglia.

↑ *Back to this question in Part A*

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Q6: A 38-year-old woman presents with six months of dysphagia, regurgitation, and a feeling of food getting stuck, often coughing while eating. A barium swallow study shows specific findings on the radiograph. Which muscle pairs define the anatomical boundaries of the observed dehiscence? (Q847960)

A. Cricopharyngeus and esophageal muscle fibres

B. Thyropharyngeus and esophageal muscle fibres

C. Thyropharyngeus and cricopharyngeus

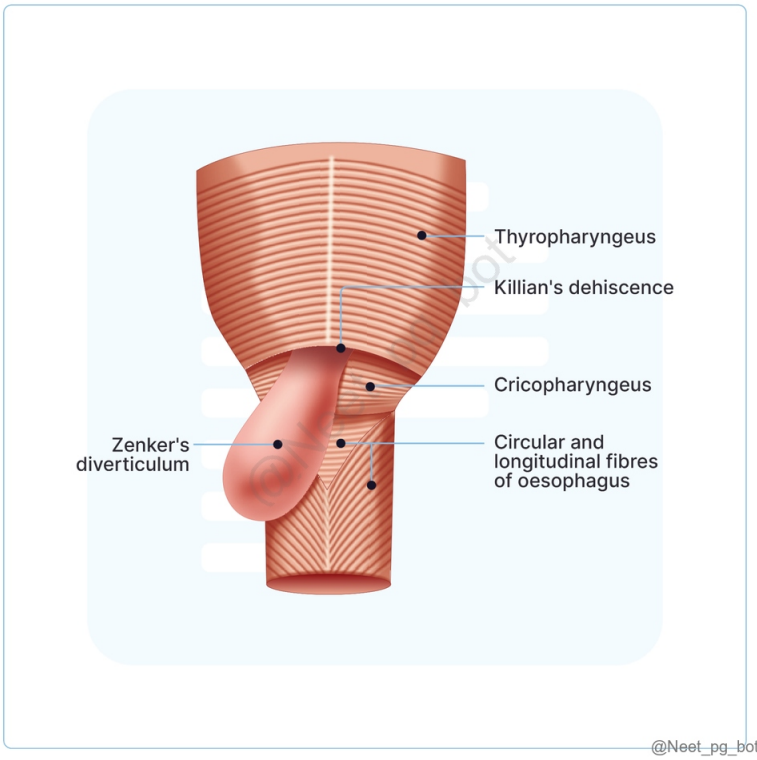
D. Inferior constrictor along with upper esophageal muscle fibres

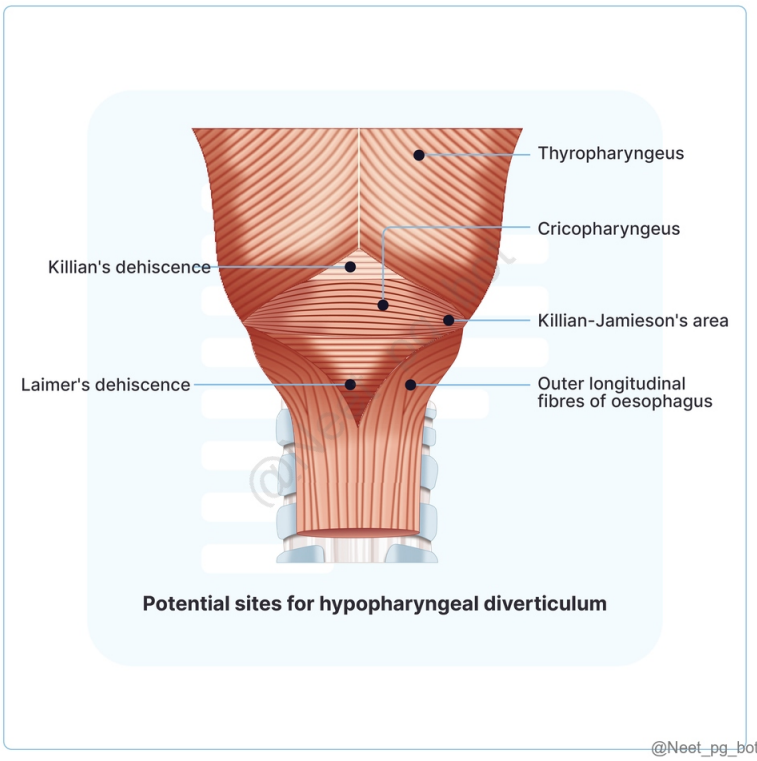
Correct Answer: C. Thyropharyngeus and cricopharyngeus

- *Listen (English)*
- *Listen (Hindi)*

Explanation: The scenario and barium swallow findings suggest Zenker's diverticulum , an outpouching occurring at a site known as Killian's Dehiscence (often referred to as the "gateway of tears"). This space is formed by the two parts of the inferior constrictor muscle: the thyropharyngeus (oblique fibres) and the cricopharyngeus (transverse fibres) . This arrangement creates a triangular gap known as Killian's dehiscence . Zenker's Diverticulum (Hypopharyngeal Pouch/Pharyngeal Pouch): Description An acquired, false, and pulsion diverticulum formed by the protrusion of mucosa and submucosa through Killian's dehiscence. Clinical manifestations Dysphagia Regurgitation Food getting stuck (leading to coughing while eating) Aspiration Halitosis (bad breath) Investigation Barium swallow reveals an outpouching of the pharyngeal mucosa above the upper oesophagal sphincter, often with slow emptying of the diverticulum. Management Diverticulectomy and cricopharyngeal myotomy: Surgical removal of the diverticulum and myotomy of the cricopharyngeal muscle. Diverticular suspension: Dissection and inversion of the diverticulum with its apex pointing cranially. Myotomy through stapler transection: Transoral insertion of a linear stapler to divide the septum between the diverticulum and the true oesophagal lumen. Dohlman Procedure: Endoscopic technique involving division of the diverticulum wall and cricopharyngeal myotomy. Cricopharyngeus and esophageal muscle fibres (Option A): Incorrect because Zenker's diverticulum arises above the esophagus, not between these structures. Thyropharyngeus and esophageal

muscle fibres (Option B): Incorrect, as the esophagus lies inferior to the area of dehiscence. Inferior constrictor along with upper esophageal muscle fibres (Option D): Incorrect because this does not specify the true anatomical gap (Killian’s dehiscence is between the two parts of the inferior constrictor, not between it and the esophagus).





References:

Diseases of Ear, Nose, Throat, PL Dhingra, 8th Edition, Page 281, 323, 324.

Bailey & Love's Short Practice of Surgery, 28th Edition, Page 1126, 1127.

↑ *Back to this question in Part A*

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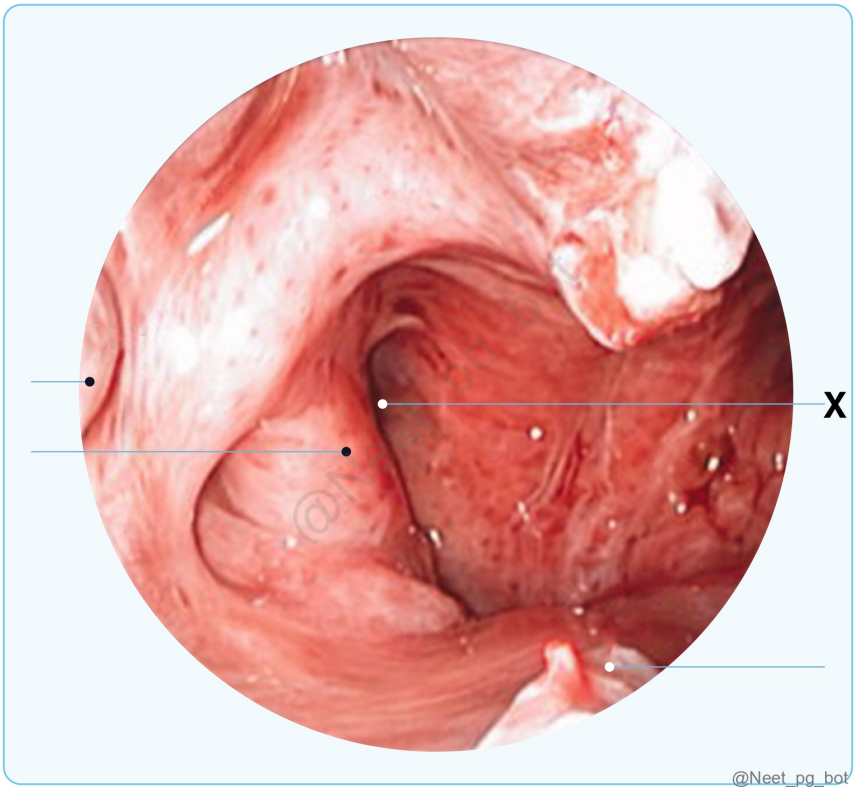
Q7: A 35-year-old female presenting with persistent right ear fullness, hearing loss, and pressure particularly during flights is suspected of having Eustachian tube blockage. During rhinoscopy, a structure labelled as X in the image below is noted. Identify this structure. (Q847961)

A. Pyriform fossa

B. Torus tubarius

C. Fossa of Rosenmuller

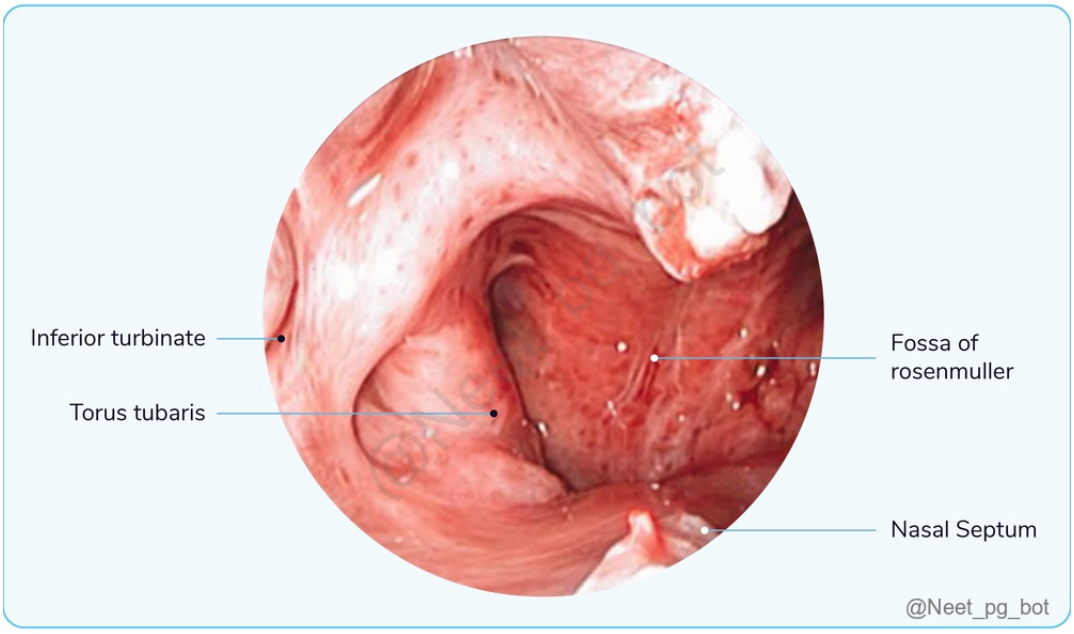
D. Post cricoid region



Correct Answer: C. Fossa of Rosenmuller

- *Listen (English)*
- *Listen (Hindi)*

Explanation: The structure marked ‘X’ in the above image is the fossa of rosenmuller. Anatomy of Nasopharynx The nasopharynx, also known as the epipharynx, is the uppermost portion of the pharynx, located behind the nasal cavities and extends from the base of the skull to the soft palate or the horizontal plane that passes through the hard palate. From anterior to posterior , the structures seen on the lateral wall are as follows: Eustachian tube Torus tubarius – a cushion-like elevation that lies above and behind the Eustachian tube. Fossa of Rosenmüller – a recess located above and behind the torus tubarius, and the most common site of carcinoma origin. Salpingopharyngeal fold – a ridge extending from the lower end of the torus tubarius to the lateral pharyngeal wall. Pyriform fossa (Option A) or pyriform sinus (smuggler’s pouch) are the two depressions on the lateral sides of the aryepiglottic folds. It is a site where foreign bodies can lodge and form the lateral channel for food. Post cricoid region (Option D) is the part of the anterior wall of the laryngopharynx between the upper and lower borders of the cricoid lamina.


Inferior turbinate
Torus tubaris
Fossa of rosenmuller
Nasal Septum
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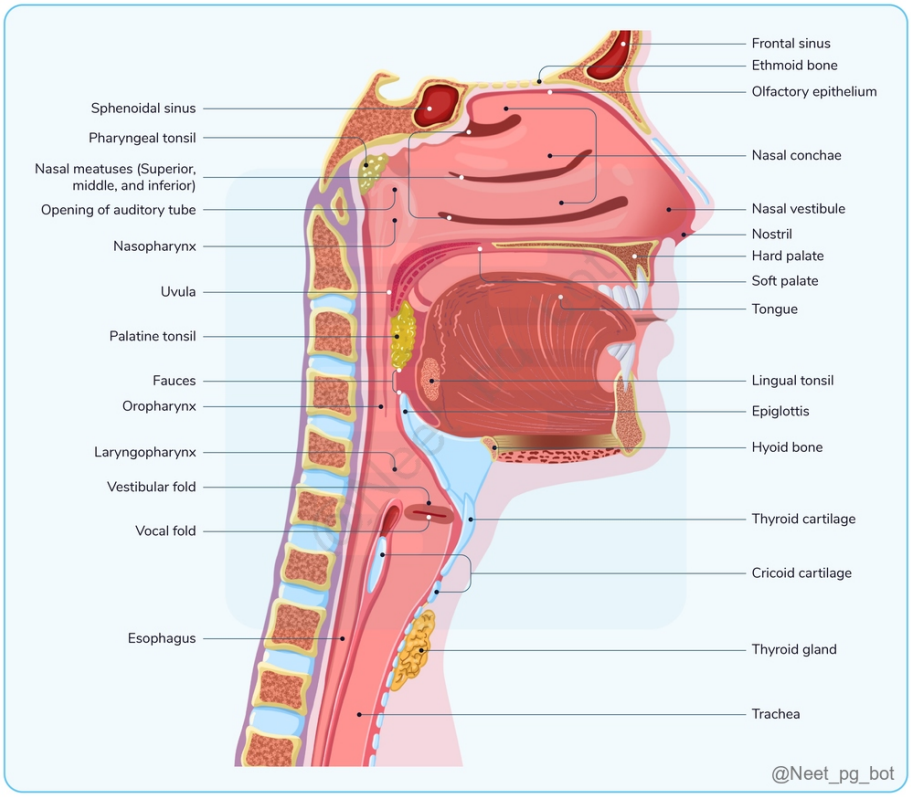
Frontal sinus
Ethmoid bone
Olfactory epithelium
Sphenoidal sinus
Pharyngeal tonsil
Nasal meatuses (Superior, middle, and inferior)
Opening of auditory tube
Nasopharynx
Uvula
Palatine tonsil
Fauces
Oropharynx
Laryngopharynx
Vestibular fold
Vocal fold
Esophagus
Nasal conchae
Nasal vestibule
Nostril
Hard palate
Soft palate
Tongue
Lingual tonsil
Epiglottis
Hyoid bone
Thyroid cartilage
Cricoid cartilage
Thyroid gland
Trachea
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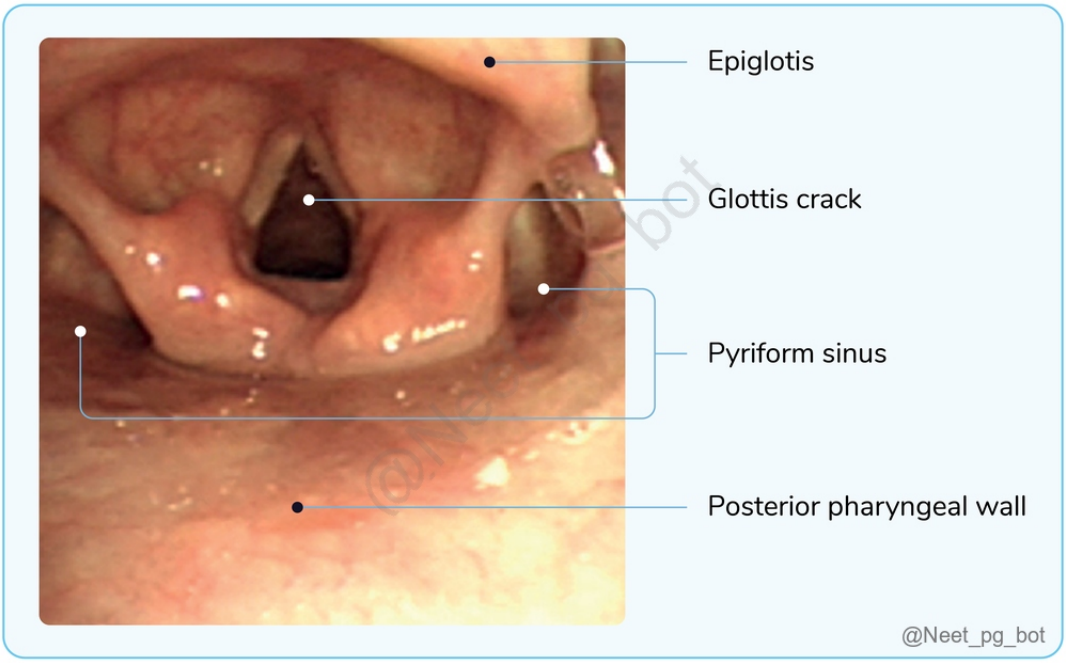

References:

PL DhingraDiseases of Ear, Nose, Throat, 8th Edition, Page 282

↑ *Back to this question in Part A*

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Q8: A 7-year-old girl presents with hypernasal speech and nasal regurgitation of fluids while drinking. She is diagnosed with palatal palsy. Which structure is responsible for separating the nasopharynx from the oropharynx during swallowing, preventing regurgitation? (Q847962)

A. Passavant’s ridge

B. Sinus of Morgagni

C. Rathke’s pouch

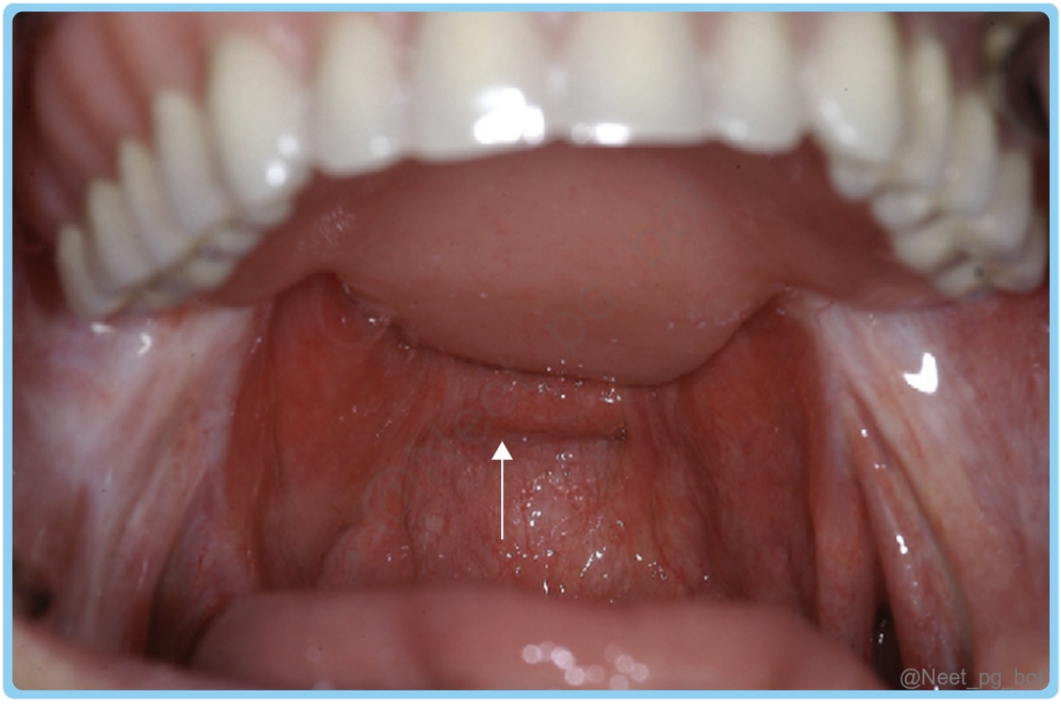
D. All of the above

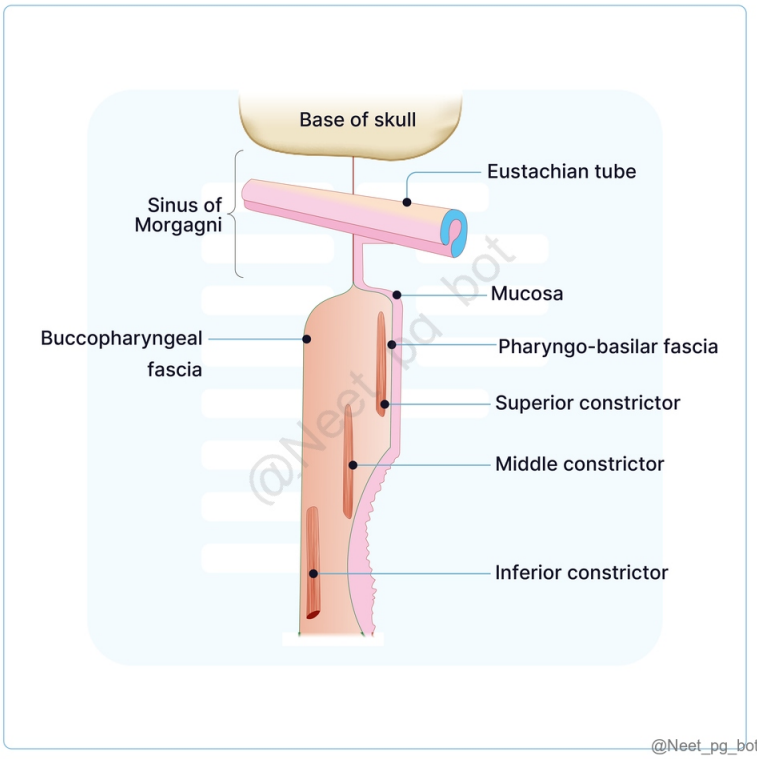
Correct Answer: A. Passavant’s ridge

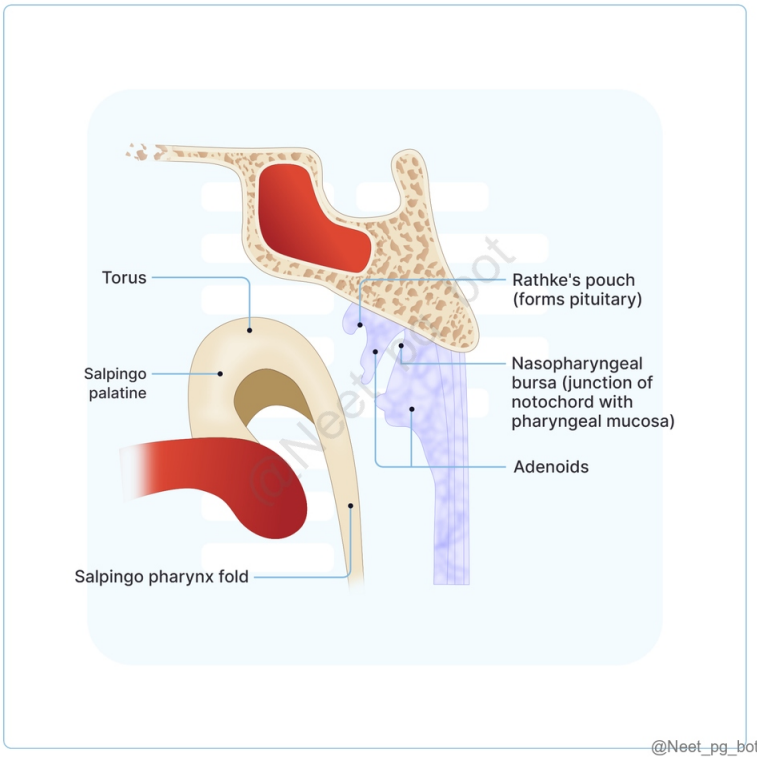
■ *Listen (English)*

■ *Listen (Hindi)*

Explanation: The condition mentioned in the above question indicates palatal palsy, which can lead to velopharyngeal insufficiency. Passavant’s ridge is the structure responsible for separating the nasopharynx from the oropharynx. Passavant’s ridge It is a mucosal ridge formed by the superior constrictor and palatopharyngeus, encircling the posterior and lateral walls of the nasopharyngeal isthmus. The soft palate firmly contracts against Passavant’s ridge on the posterior pharyngeal wall and completely cuts off the nasopharynx from the oropharynx, a crucial function during swallowing, vomiting, gagging, and speech. Sinus of Morgagni (Option B) is a space between the base of the skull and the upper free border of the superior constrictor muscle. Rathke’s pouch (Option C) is represented clinically by a dimple above the adenoids and is reminiscent of the buccal mucosal invagination, to form the anterior lobe of pituitary.







References:

Diseases of Ear, Nose, Throat, PL Dhingra, 8th Edition, Page 283

Scott-Brown Otorhinolaryngology, Head and Neck surgery, 8th Edition, Page 192

↑ *Back to this question in Part A*

@Neet_pg_bot

Q9: A teenager presented with a sore throat, difficulty swallowing, and a fever for the past three days. During the oral examination, the ENT surgeon asked the intern about the anatomy of the pharyngeal region located behind the oral cavity. Which of the following is not true about the anatomy of that region ? (Q847963)

A. Anterior pillar is formed by the palatoglossus muscle

B. The lateral wall comprises the anterior and posterior pillars

C. Anterior pillar with uvula form the oropharyngeal isthmus

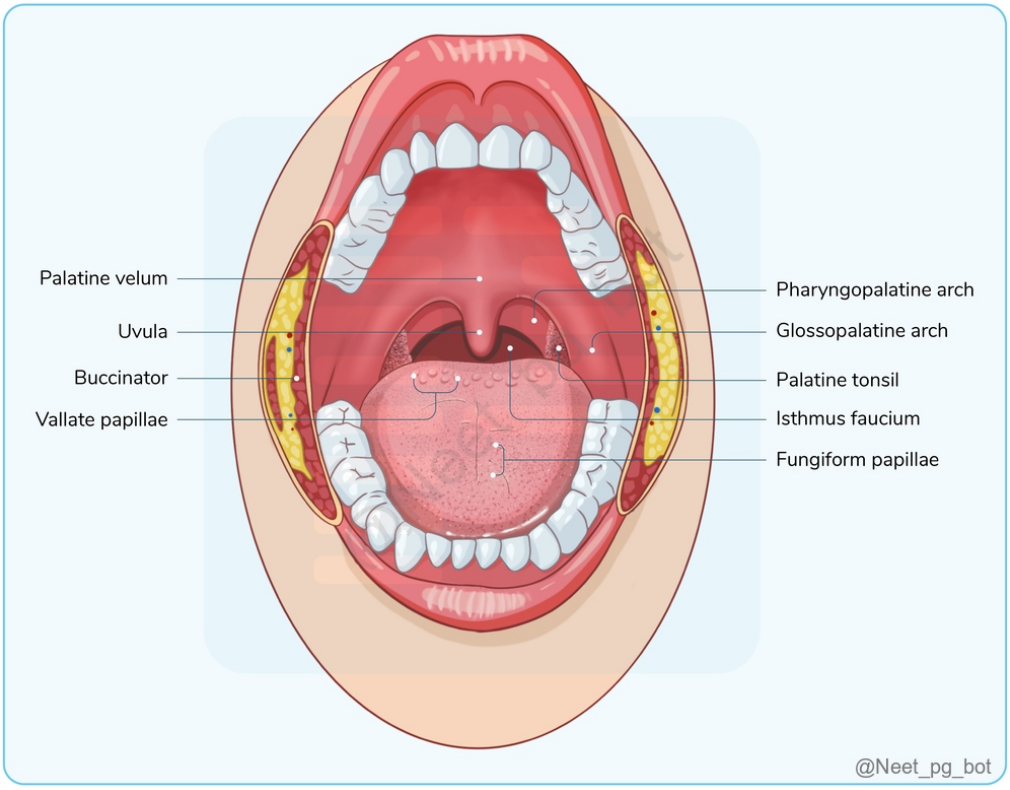
D. The posterior wall lies opposite the atlas vertebra.

Correct Answer: D. The posterior wall lies opposite the atlas vertebra.

■ *Listen (English)*

■ *Listen (Hindi)*

Explanation: The posterior wall of the oropharynx lies opposite to the 2nd and upper border of the 3rd vertebra, not the Ist vertebrae which is also known as ATLAS vertebrae. Anatomy of the Oropharynx: Oropharynx is the part of the pharynx which lies behind the oral cavity. Oropharyngeal isthmus: A communication between oropharynx and oral cavity. The uvula and anterior pillar together define the oropharyngeal isthmus (Option C). Boundaries of Oropharynx: Roof The plane of the hard palate. Floor The plane of the hyoid bone. Posterior wall Lies opposite the 2nd and upper part of the 3rd cervical vertebrae (Option D) and is r elated to retropharyngeal space. Anterior wall It is deficient above (oropharynx communicates with the oral cavity) Inferiorly it presents: Base of tongue (posterior 1/3rd) Lingual tonsil Valleculae : Cup-shaped depressions, between the tongue and epiglottis, are bordered by the median glossoepiglottic fold and pharyngoepiglottic fold. They often contain retention cysts. Lateral wall (Option A, B) Palatine (faucial) tonsil Anterior pillar/palatoglossal arch (formed by the palatoglossus muscle) Posterior pillar/palatopharyngeal arch (formed by the palatopharyngeus muscle).


Palatine velum
Uvula
Buccinator
Vallate papillae
Pharyngopalatine arch
Glossopalatine arch
Palatine tonsil
Isthmus faucium
Fungiform papillae
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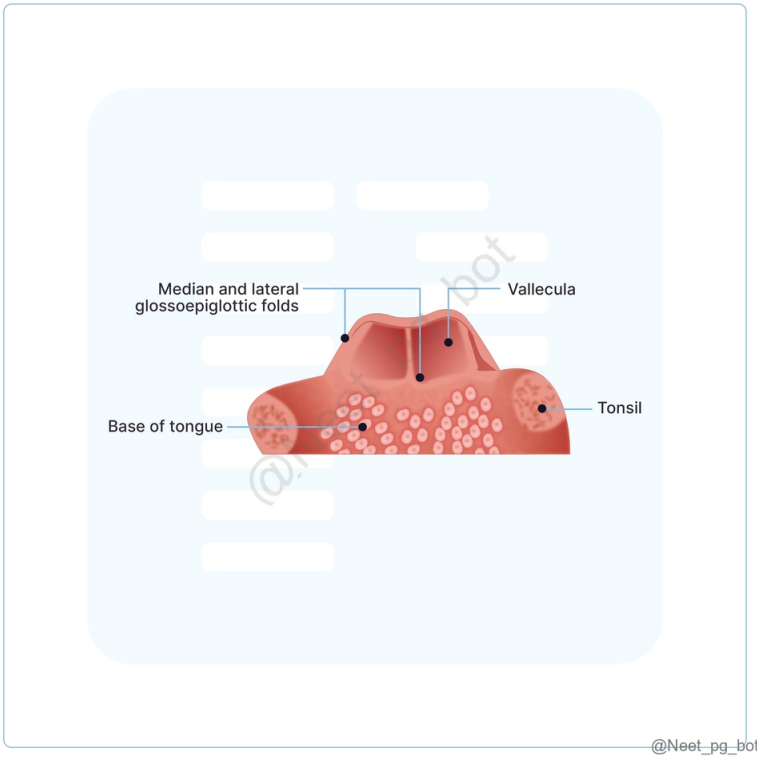
Median and lateral glossoepiglottic folds
Vallecula
Tonsil
Base of tongue
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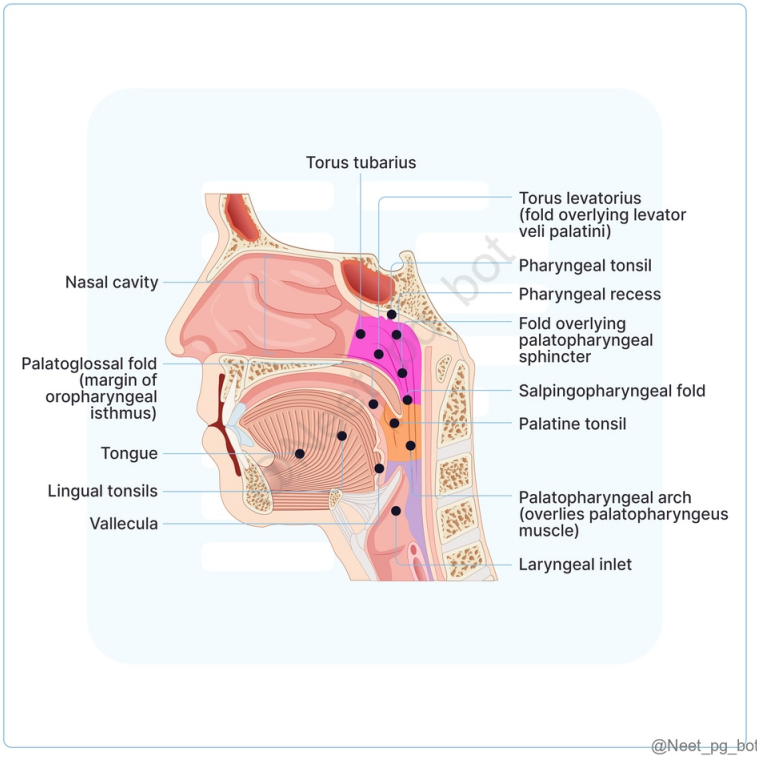


References:

Diseases of Ear, Nose, Throat, PL Dhingra, 8th Edition, Page 283, 284

↑ *Back to this question in Part A*

@Neet_pg_bot

Q10: A 56-year-old woman with a history of Plummer-Vinson syndrome presents with dysphagia, hoarseness, weight loss, and right-sided cervical lymphadenopathy. What is the most likely cause of her symptoms, and which area is most commonly affected? (Q847964)

A. Carcinoma Esophagus, Pyriform fossa

B. Carcinoma Pharynx, Posterior pharyngeal wall

C. Carcinoma Esophagus, Post cricoid region

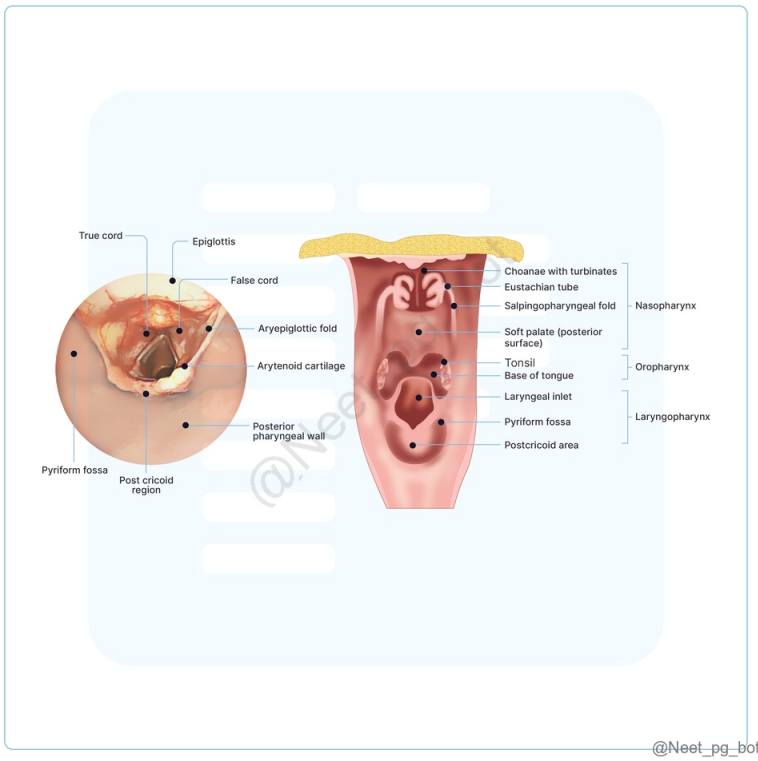
D. Carcinoma pharynx, Valleculae

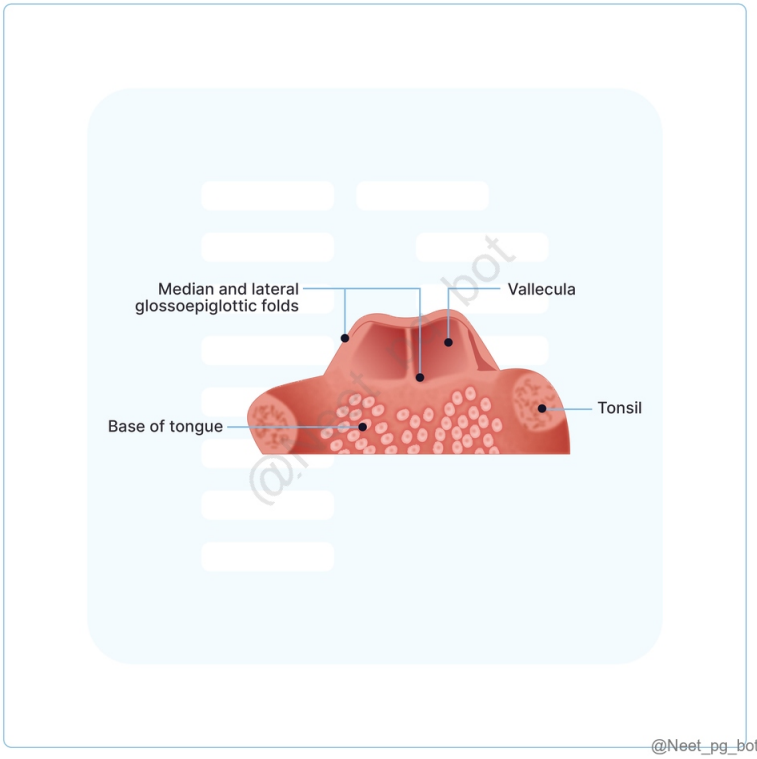
Correct Answer: C. Carcinoma Esophagus, Post cricoid region

■ *Listen (English)*

■ *Listen (Hindi)*

Explanation: Plummer-Vinson syndrome is a condition characterized by a triad of iron deficiency anemia, dysphagia due to esophageal webs, and an increased risk of upper esophageal squamous cell carcinoma. Patients with this syndrome are at an increased risk for developing squamous cell carcinoma of upper esophagus and the most common site of carcinoma is post-cricoid region Subdivisions of Hypopharynx: Pyriform fossa (sinus) or Smuggler's pouch (Option A) It lies on either side of the larynx and extends from pharyngoepiglottic fold to the upper end of the oesophagus. It is bounded as, Laterally: the thyrohyoid membrane and the thyroid cartilage. Medially: aryepiglottic fold and posterolateral surfaces of arytenoid and cricoid cartilages. It creates the lateral channel for food and can trap foreign bodies. Post cricoid region (Option C) Part of the anterior wall of laryngopharynx between the upper and lower borders of cricoid lamina. It is a common site for carcinoma in females suffering from Plummer-Vinson syndrome. Posterior pharyngeal wall (Option B) It extends from the level of hyoid bone to the level of cricoarytenoid joint. Valleculae (Option D) are cup-shaped depressions, between the tongue and epiglottis, and are bordered by the median glossoepiglottic fold and pharyngoepiglottic fold. They often contain retention cysts.





References:

Diseases of Ear, Nose, Throat, PL Dhingra, 8th Edition, Page 284, 285

Scott-Brown Otorhinolaryngology, Head and Neck surgery, 8th Edition, Page 275.

↑ *Back to this question in Part A*

@Neet_pg_bot

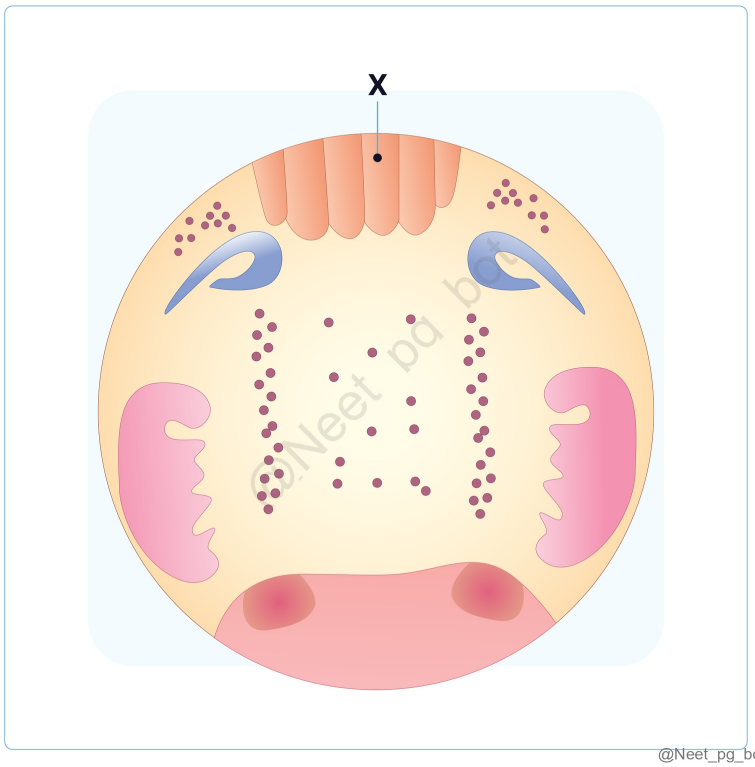
Q11: Identify the structure indicated as ‘X’ in the image. (Q847965)

A. Palatine tonsil

B. Gerlach’s tonsil

C. Lingual tonsil

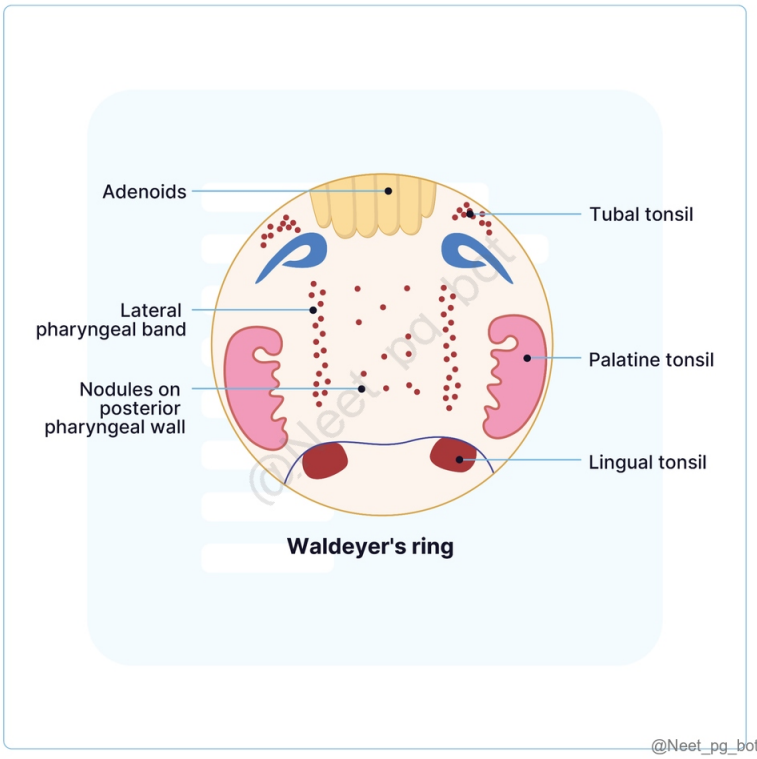
D. Luschka’s tonsil



Correct Answer: D. Luschka’s tonsil

- *Listen (English)*
- *Listen (Hindi)*

Explanation: The marked structure is part of Waldeyer’s Ring and is identified as the pharyngeal tonsil, also known as the adenoids or Luschka’s tonsil. Waldeyer’s Ring: Lymphoid tissue scattered in the subepithelial layer of the pharynx forms aggregated masses called Waldeyer's ring , which serve to protect the respiratory and digestive tracts. The lymphoid masses are: Nasopharyngeal tonsil also known as the pharyngeal tonsil, adenoids, or Luschka’s tonsil, is a midline structure located in the nasopharynx. Palatine tonsils (Option A) : Paired structures situated laterally within the oropharynx. Lingual tonsil (Option C) : Located in the oropharynx along the midline at the base of the tongue Tubal tonsils (in fossa of Rosenmuller) are also known as Gerlach’s tonsil (Option B). They paired structures, located in the fossa of Rosenmüller, near the eustachian tube opening into the nasopharynx. Nodules on the posterior pharyngeal wall. Lateral pharyngeal bands



References:

Diseases of Ear, Nose, Throat, PL Dhingra, 8th Edition, Page 281, 282

Scott-Brown Otorhinolaryngology, Head and Neck surgery, 8th Edition, Page 741

↑ *Back to this question in Part A*

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Q12: A 28-year-old female arrives at the emergency department with a severe sore throat, difficulty swallowing, fever, a muffled voice, and drooling. Examination reveals tonsil being pushed medially and uvula deviated to opposite side . Which of the following options defines the boundaries of the infected space? (Q847966)

A. Palatine tonsil and styloglossus

B. Lingual tonsil and superior constrictor

C. Palatine tonsil and superior constrictor

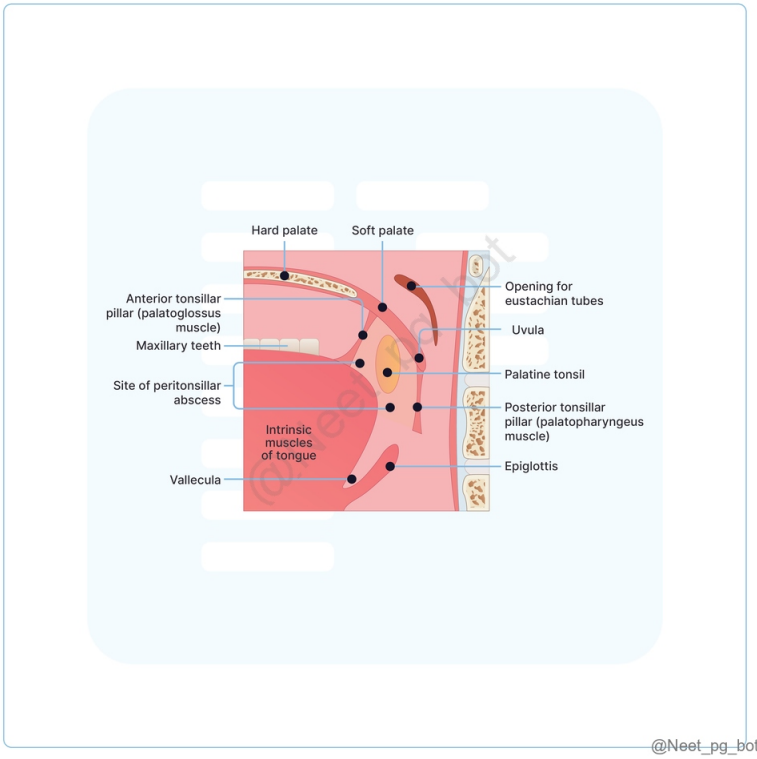
D. Lingual tonsil and styloglossus

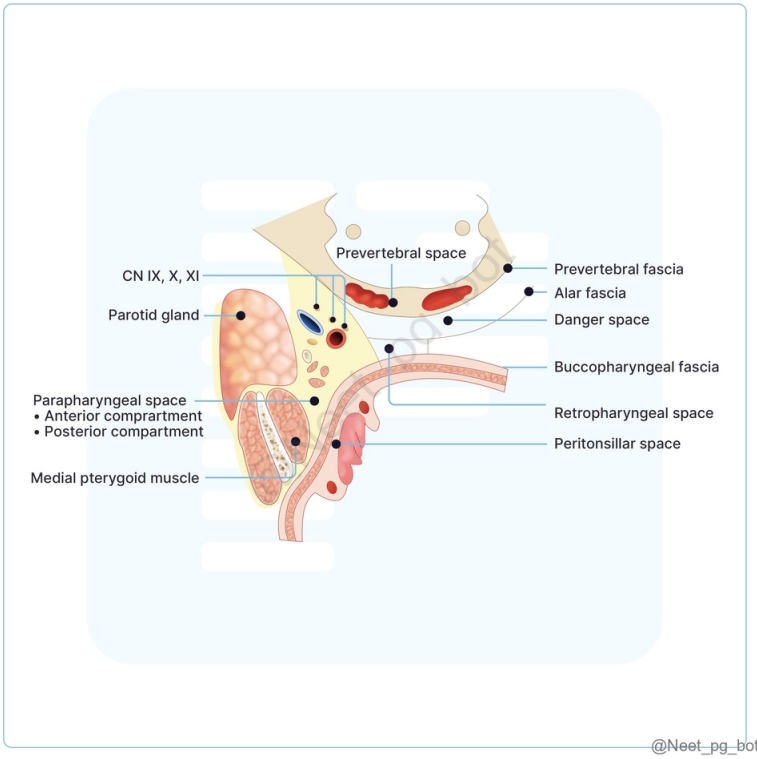
Correct Answer: C. Palatine tonsil and superior constrictor

■ *Listen (English)*

■ *Listen (Hindi)*

Explanation: The given scenario suggests a peritonsillar abscess , also referred to as quinsy , which forms in the peritonsillar space, located between the palatine tonsil and the superior constrictor muscle. Peritonsillar space: It is a paired structure, situated lateral to the tonsil. Lies between the capsule of tonsil (palatine) and the superior constrictor muscle The superior constrictor muscle forms the tonsil bed. Peritonsillar abscess/Quinsy: It is a collection of pus in the peritonsillar space. Tonsillar capsule may be breached by bacterial infections of the tonsil, resulting in abscess formation. If left untreated, peritonsillar infections may spread to the parapharyngeal space.





References:

Diseases of Ear, Nose, Throat, PL Dhingra, 8th Edition, Page 311, 315

Scott-Brown Otorhinolaryngology, Head and Neck surgery, 8th Edition, Page 550

↑ *Back to this question in Part A*

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Q13: A 7-year-old girl presents with severe throat pain, high fever, difficulty swallowing, excessive drooling, and trouble breathing. Examination reveals swelling in the posterior throat. The ENT specialist mentions that the infected space includes the nodes of Rouviere. Which space is affected? (Q847967)

A. Parapharyngeal space

B. Retropharyngeal space

C. Prevertebral space

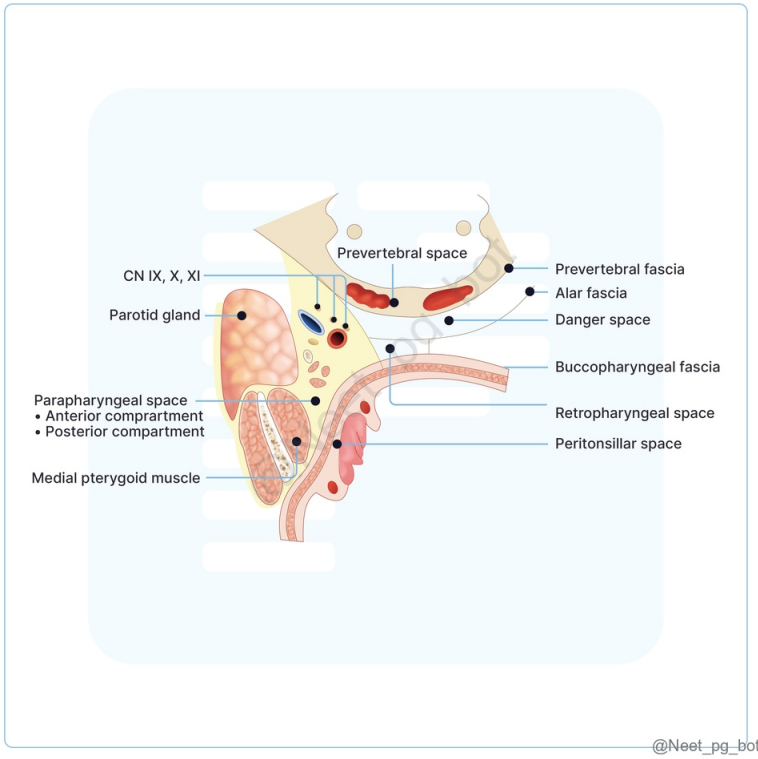
D. Sublingual space

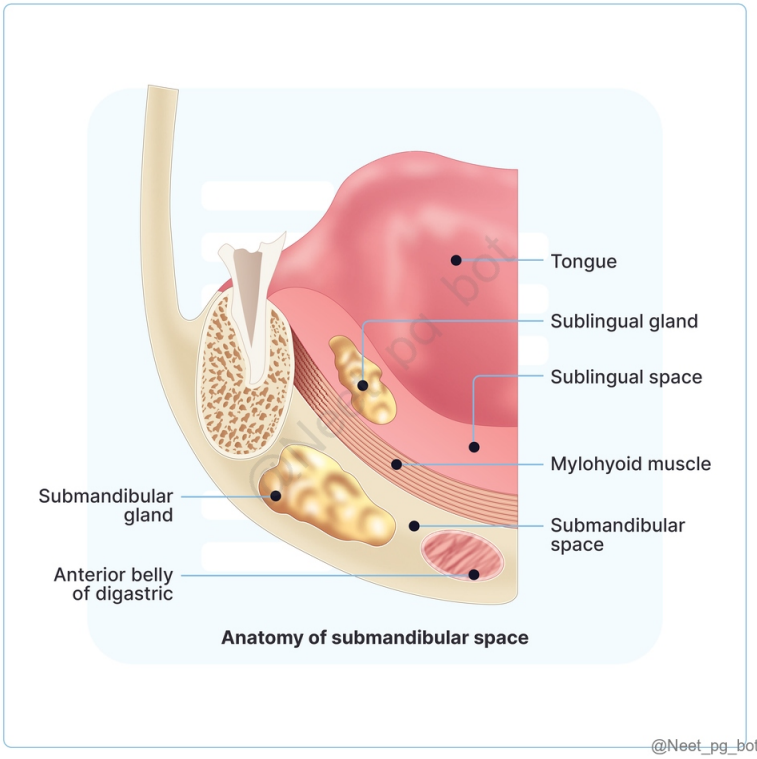
Correct Answer: B. Retropharyngeal space

■ *Listen (English)*

■ *Listen (Hindi)*

Explanation: Symptoms of infection along with swelling observed in the posterior throat and the involvement of the nodes of Rouviere are indicative of a Retropharyngeal Abscess. Retropharyngeal space Lies behind the pharynx between the buccopharyngeal fascia and the prevertebral fascia. Extends from the base of the skull to the bifurcation of trachea. The alar fascia divides the space into two lateral compartments, known as the spaces of Gillette, which contain the nodes of Rouviere (usually disappear at 3-4 years of age). Infection usually presents as a Unilateral Bulge in the Posterior Pharyngeal wall Infections can develop as a complication of tonsillitis or adenoids and may extend posteriorly behind the pharynx and esophagus into the mediastinum. Parapharyngeal space (Option A) is a pyramidal shaped space with base at the base of skull and apex at the hyoid bone and is divided by the styloid process into pre-styloid and post-styloid compartments. The boundaries are: Medial: Buccopharyngeal fascia Posterior: Prevertebral fascia and transverse processes of cervical vertebrae. Lateral: Medial pterygoid muscle, mandible and deep surface of parotid gland. It contains carotid vessels, jugular vein, IX, X, XI and XII cranial nerves and cervical sympathetic chain. The source of infection in this space is from the tonsil. Prevertebral space (Option C) is situated between the vertebral bodies posteriorly and the prevertebral fascia anteriorly, extending from the base of the skull to the coccyx. Infection of this space usually comes from the caries of spine. Sublingual space (Option D) is located above the mylohyoid muscle and beneath the oral mucosa. Infections of the premolars and the first molar are the most common causes of abscess formation in this area.





References:

Diseases of Ear, Nose, Throat - PL Dhingra, 8th Edition, Page 312, 313, 315

Scott-Brown Otorhinolaryngology, Head and Neck surgery, 8th Edition, Page 551

↑ *Back to this question in Part A*

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Q14: A 5-year-old child presents with persistent nasal congestion, unilateral nasal discharge, and occasional nosebleeds, along with frequent ear infections and a slightly nasal voice. Posterior rhinoscopy is planned. Which of the following structures are normally visible during this procedure? (Q847968)

A. Adenoids

B. Tubal tonsils

C. Pyriform fossa

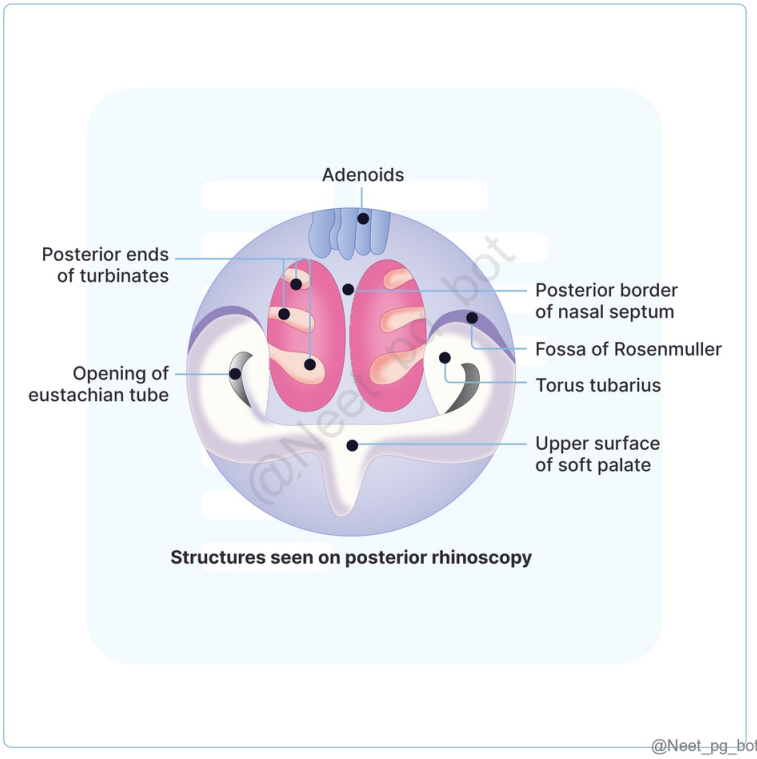
D. All of the above

Correct Answer: A. Adenoids

■ *Listen (English)*

■ *Listen (Hindi)*

Explanation: Adenoids can be examined and normally are visible during Posterior Rhinoscopy. Posterior Rhinoscopy Purpose A diagnostic procedure used to examine the posterior part of the nasal cavity, including the nasopharynx. Structures Following structures are normally visible in posterior rhinoscopy: Indications Choanal polyp Choanal atresia Hypertrophy of posterior ends of inferior turbinates Discharge in the middle meatus and above it. Tubal tonsils (Option B) and Pyriform fossa (Option C) are not visible in posterior rhinoscopy.



References:

Diseases of Ear, Nose, Throat, PL Dhingra, 8th Edition, Page 448, 449

↑ *Back to this question in Part A*

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Q15: Damage to which of the following muscles is least likely to cause dysarthria or dysphagia? (Q876225)

A. Tongue muscles (genioglossus, hyoglossus)

B. Pharyngeal constrictor muscles

C. Orbicularis oris

D. Stylopharyngeus

Correct Answer: C. Orbicularis oris

Explanation: Correct Option C - Orbicularis oris: Controlled by the facial nerves (CN VII). Mainly involved in lip closure and facial expression. Damage → difficulty closing lips (some labial articulation issues), but does not significantly affect swallowing or most types of dysarthria. Incorrect Options: Option A - Tongue muscles (genioglossus, hyoglossus): Controlled by the hypoglossal nerve (CN XII) Lesion → tongue weakness → impaired articulation (dysarthria) and difficulty moving food (dysphagia). Option B - Pharyngeal constrictor muscles: Controlled by the vagus nerve (CN X). Lesion → impaired swallowing → dysphagia, nasal regurgitation. Option D - Stylopharyngeus: Controlled by the glossopharyngeal nerve (CN IX) Elevates pharynx during swallowing → lesion → dysphagia

↑ *Back to this question in Part A*

@Neet_pg_bot

• [03_Pharynx] 021 Adenoid And Palatine Tonsils

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[03_Pharynx] 021 Adenoid And Palatine Tonsils — Quick Jump

Q1 (p. 1268)	*Q2 (p. 1271)*	*Q3 (p. 1272)*	*Q4 (p. 1273)*	*Q5 (p. 1274)*	*Q6 (p. 1274)*
Q7 (p. 1276)	*Q8 (p. 1279)*	*Q9 (p. 1280)*	*Q10 (p. 1284)*	*Q11 (p. 1284)*	*Q12 (p. 1287)*
Q13 (p. 1287)	*Q14 (p. 1288)*	*Q15 (p. 1289)*	*Q16 (p. 1290)*		

Q1: A 7-year-old child presents with chronic nasal obstruction, snoring, and mouth breathing. Physical examination reveals characteristic facial appearance as shown in the image and hypertrophy of the nasal turbinates. What is the most appropriate diagnostic test to confirm the suspected condition? (Q847969)

A. Posterior rhinoscopy

B. Nasal endoscopy

C. Anterior Rhinoscopy

D. CT Scan of the Nasopharynx

Correct Answer: B. Nasal endoscopy

- *Listen (English)*
- *Listen (Hindi)*

Explanation: The child’s chronic nasal obstruction, snoring, mouth breathing, and facial features (adenoid facies) strongly suggest adenoid hypertrophy. Nasal endoscopy is the most appropriate and accurate test for diagnosing adenoid hypertrophy as it provides a direct visual assessment of the nasopharynx and adenoid tissue. It provides direct visualisation of the adenoids and accurately assesses their size and the degree of choanal obstruction. Adenoid Hypertrophy Aetiology Physiological Enlargement: Common in childhood. Chronic Conditions: Recurrent rhinitis, sinusitis, chronic tonsillitis, & allergies. Clinical Features Nasal Symptoms: Nasal obstruction leading to mouth breathing and feeding difficulties. Nasal discharge due to choanal obstruction and chronic rhinitis. Sinusitis, Epistaxis & voice changes due to nasal obstruction. (Rhinolalia clausa) Aural Symptoms: Tubal obstruction causing retracted tympanic membrane and CHL. Recurrent acute otitis media and chronic suppurative otitis media. Otitis media with effusion due to intermittent eustachian tube obstruction. Adenoid Facies: Characteristic facial appearance with an elongated face, open mouth, crowded upper teeth, and high-arched palate. Pulmonary Hypertension: Potential due to long-standing nasal obstruction. Aprosexia: Difficulty concentrating Clinical Examination External Nose: Check for skin changes indicating frequent nose rubbing. Nasal Assessment: Halogen light otoscope is used for simple anterior rhinoscopy (Option C), which examines the nasal cavity but not the adenoids. Adenoid Assessment: Nasal endoscopy: For detailed evaluation, a flexible pediatric endoscope with topical anaesthesia is preferred. It provides an accurate assessment of adenoid size in an outpatient setting. Lateral Soft-Tissue Radiograph (Option B) : This is useful when endoscopy is not tolerated; it correlates well with endoscopic findings.

Adenoid facies

- Sunken eyes
- Narrow pinched nostrils
- Open mouth
- High-arched palate
- Crowded teeth
- Dull mask-like face
- Protruding teeth
- Drooling saliva
- Everted upper lip
- Rhinorrhoea
- Loss of nasolabial fold

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References:

PL DhingraDiseases of Ear, Nose, Throat, 8th Edition, Page 286, 287

Scott-Brown's Otorhinolaryngology and Head and Neck Surgery, 8th Edition, Page 287

↑ *Back to this question in Part A*

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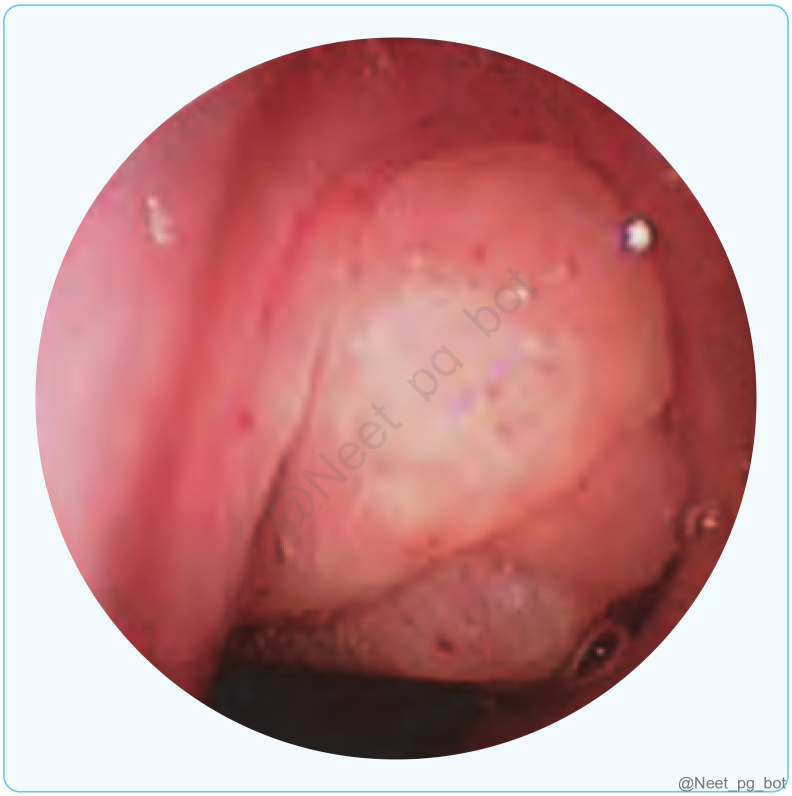
Q2: An 8-year-old child presents with chronic nasal obstruction and recurrent otitis media. The physician performs endoscopy to evaluate adenoid hypertrophy. The endoscopic finding is given in the image. What is the grade of adenoid hypertrophy? (Q847970)

A. Grade I

B. Grade II

C. Grade III

D. Grade IV

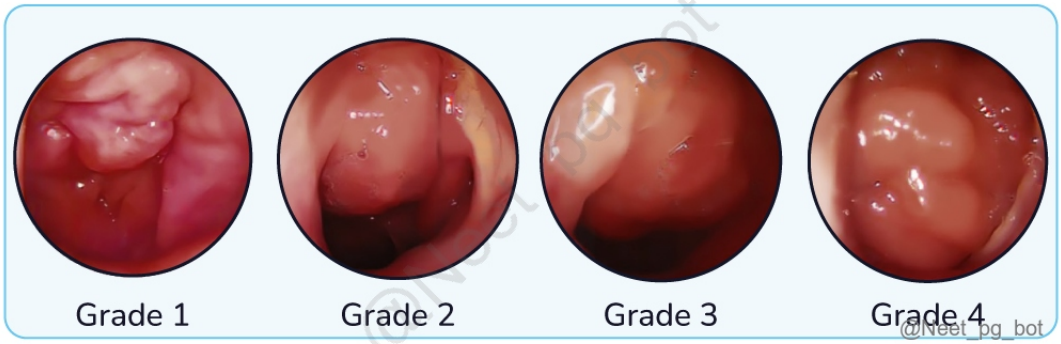


Correct Answer: C. Grade III

■ *Listen (English)*

■ *Listen (Hindi)*

Explanation: The endoscopic image showing adenoid tissue filling from 50-75% of the choanae corresponds to Grade III. Grading of Adenoid Hypertrophy: Grade I: Adenoid occupies 0-25% of the choanal space. Grade II: Adenoid occupies 25-50% of the choanal space. Grade III: Adenoid occupies 50-75% of the choanal space. Grade IV: Adenoid occupies >75% of the choanal space.



References:

Scott-Brown's Otorhinolaryngology and Head and Neck Surgery, 8th Edition, Page 287

↑ *Back to this question in Part A*

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Q3: A 6-year-old child with persistent nasal obstruction and recurrent ear infections has not improved with decongestants and antihistamines. What is the most appropriate next step for definitive management currently being used? (Q847971)

A. Curettage

B. Endoscopic adenoidectomy

C. Nasal Steroids

D. Observation

Correct Answer: B. Endoscopic adenoidectomy

■ *Listen (English)*

■ *Listen (Hindi)*

Explanation: Given the scenario where a child with persistent nasal obstruction and recurrent ear infections has not responded to Medical management, the most appropriate next step for definitive management is Endoscopic debridement . Management of Adenoid Hypertrophy: Medical Management: (For Mild Cases initially) Breathing exercises Decongestant nasal drops Antihistamines for any nasal allergies Topical Nasal Steroids (Option C) may reduce adenoid size and improve related symptoms. Surgical Intervention: (Adenoidectomy) Traditional Methods:

Blind curettage adenoidectomy (Option A) remains common, but it has disadvantages, including unpredictable bleeding and poor access to the choanal adenoid. Hence, Endoscopic management is currently preferred. Direct Vision Techniques: Suction Diathermy Endoscopic Coblation/Microdebridement (Option B) involves using endoscopy to visualise and allows for precise removal of obstructive adenoid tissue, addressing the underlying issue directly. KTP Laser: Associated with a higher risk of nasopharyngeal stenosis, while the gold laser has not shown this risk.

References:

Diseases of Ear, Nose, Throat, PL Dhingra, 8th Edition, Page 287

Scott-Brown's Otorhinolaryngology and Head and Neck Surgery, 8th Edition, Page 288

↑ *Back to this question in Part A*

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Q4: A 9-year-old child was scheduled for elective adenoidectomy but developed an acute upper respiratory infection the day before the surgery. The child has no cleft palate or bleeding disorders. What is the most appropriate next step? (Q847972)

A. Proceed with adenoidectomy as planned

B. Delay the surgery until the infection resolves

C. Start antibiotics and proceed with surgery

D. Discharge the patient with medical management

Correct Answer: B. Delay the surgery until the infection resolves

■ *Listen (English)*

■ *Listen (Hindi)*

Explanation: Elective surgery, including adenoidectomy , should be postponed in children with an acute upper respiratory infection to minimise complications. Indications & Contraindications of Adenoidectomy Indications Adenoid hypertrophy causing snoring, mouth breathing, sleep apnea, or speech abnormalities (rhinolalia clausa). Recurrent rhinosinusitis. Chronic otitis media with effusion linked to adenoid hyperplasia. Recurrent ear discharge in benign CSOM associated with adenoiditis. Preventing recurrence of dental malocclusion after orthodontic treatment. Contraindications Cleft palate or submucous palate (risk of velopharyngeal insufficiency). Hemorrhagic diathesis. Acute upper respiratory infection. Proceed with adenoidectomy as planned (Option A): Incorrect because an acute URI poses increased anesthesia risk. Start antibiotics and proceed with surgery (Option C): Incorrect; antibiotics do not eliminate anesthetic risk during URI. Discharge the patient with medical management (Option D): Incorrect because surgery is elective, not emergent; focus is on timing, not discharge.

References:

PL Dhingra Diseases of Ear, Nose, Throat, 8th Edition, Page 507

↑ *Back to this question in Part A*

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Q5: A 6-year-old child undergoes an adenoidectomy. Following the surgery, the child is monitored for potential complications. Which of the following is not a recognised complication of adenoidectomy? (Q847973)

A. Velopharyngeal Insufficiency

B. Grisel’s Syndrome

C. Chronic Otitis Media

D. Injury to Eustachian tube

Correct Answer: C. Chronic Otitis Media

■ *Listen (English)*

■ *Listen (Hindi)*

Explanation: Chronic Otitis Media is a condition that might be associated with adenoid hypertrophy and can be improved by adenoidectomy, but it is not a complication of the surgery itself. Complications of Adenoidectomy: Hemorrhage : Immediate postoperative bleeding may require postnasal packing. Risk of injury: Eustachian tubes (Option D) , pharyngeal musculature, and vertebrae. Special care for Down’s syndrome patients due to potential atlantoaxial instability. Grisel’s Syndrome (Option B) : Neck pain and torticollis, possibly from atlantoaxial dislocation. Velopharyngeal Insufficiency (Option A) : Check for submucous cleft palate preoperatively. Nasopharyngeal Stenosis : Due to scarring. Recurrence : Regrowth of adenoid tissue left behind.

References:

Diseases of Ear, Nose, Throat, PL Dhingra, 8th Edition, Page 507 , 508

↑ *Back to this question in Part A*

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Q6: A 45-year-old patient presents with chronic nasopharyngeal discomfort and intermittent nasal obstruction. Imaging studies reveal a midline cystic structure in the nasopharynx. The patient is diagnosed with Thornwaldt's disease. Which of the following anatomical remnants is most likely associated with this condition?

(Q847974)

A. Remnant of Rathke’s pouch

B. Remnant of the pharyngeal cleft

C. Remnant of the notochord

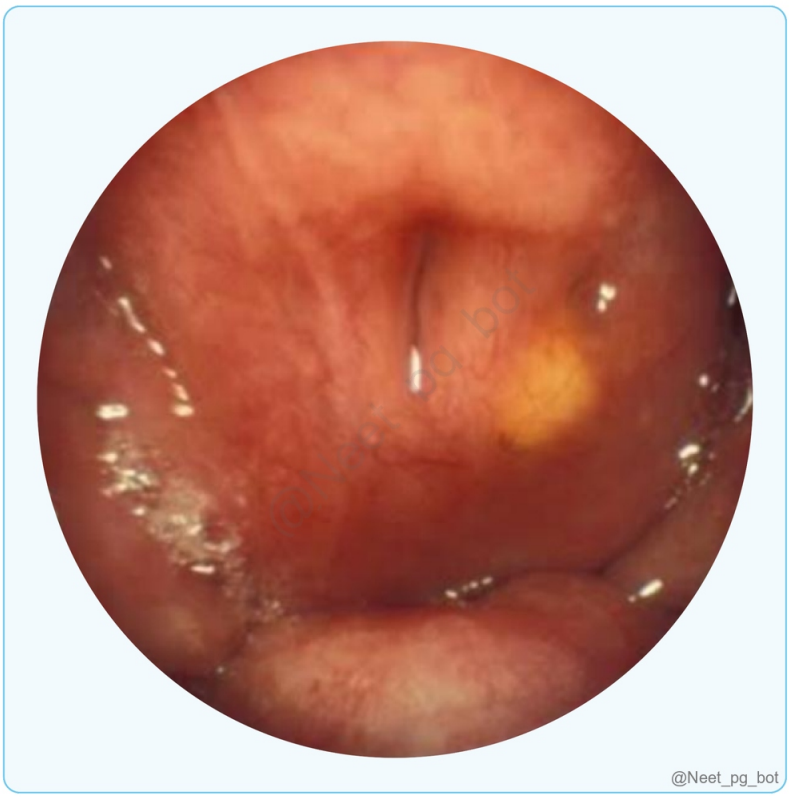
D. Persistence of the thyroglossal duct

Correct Answer: C. Remnant of the notochord

■ *Listen (English)*

■ *Listen (Hindi)*

Explanation: The persistence of notochordal remnants can lead to the formation of midline cystic structures in the nasopharynx, which is consistent with Thornwaldt's disease. Thornwaldt's disease Thornwaldt’s bursa is an epithelial-lined recess in the nasopharynx, representing a remnant of the attachment of the notochord to the endoderm of the pharynx during early development. Thornwaldt’s disease is characterised by a midline nasopharyngeal cyst resulting from the persistence of a remnant of the notochord. It presents with persistent postnasal discharge or crusting, nasal obstruction, dull occipital headache, low-grade fever, recurrent sore throat, obstruction to the eustachian tube and serous otitis media. Remnant of Rathke’s pouch (Option A) : Rathke’s pouch is an embryonic structure that forms the anterior lobe of the pituitary gland. Remnants of Rathke’s pouch typically result in Rathke’s cleft cysts, which are located in the sellar region of the skull and are not related to the nasopharynx. Remnants of pharyngeal clefts (Option B) usually lead to branchial cleft cysts or sinuses, which are typically located along the lateral neck or anterior border of the sternocleidomastoid muscle. They are not associated with midline cystic lesions in the nasopharynx. Persistence of the Thyroglossal Duct (Option D) : The thyroglossal duct is a temporary embryonic structure that connects the thyroid gland to the base of the tongue. It normally obliterates after development, but when it fails to do so, it can form a thyroglossal cyst , which typically appears as a midline neck mass.



References:

PL Dhingra's Diseases of Ear, Nose & Throat and Head and Neck Surgery, 8th Edition, Pages 288

↑ *Back to this question in Part A*

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Q7: A 10-year-old child presents with a sore throat, difficulty swallowing, and a fever. On examination, the child has enlarged tonsils with visible crypts. Which of the following anatomical features of the palatine tonsils is not true? (Q847975)

A. They are covered by stratified squamous epithelium with crypts.

B. They receive blood mainly from the tonsillar branch of the facial artery.

C. A fibrous capsule with loose areolar tissue covers the lateral surface.

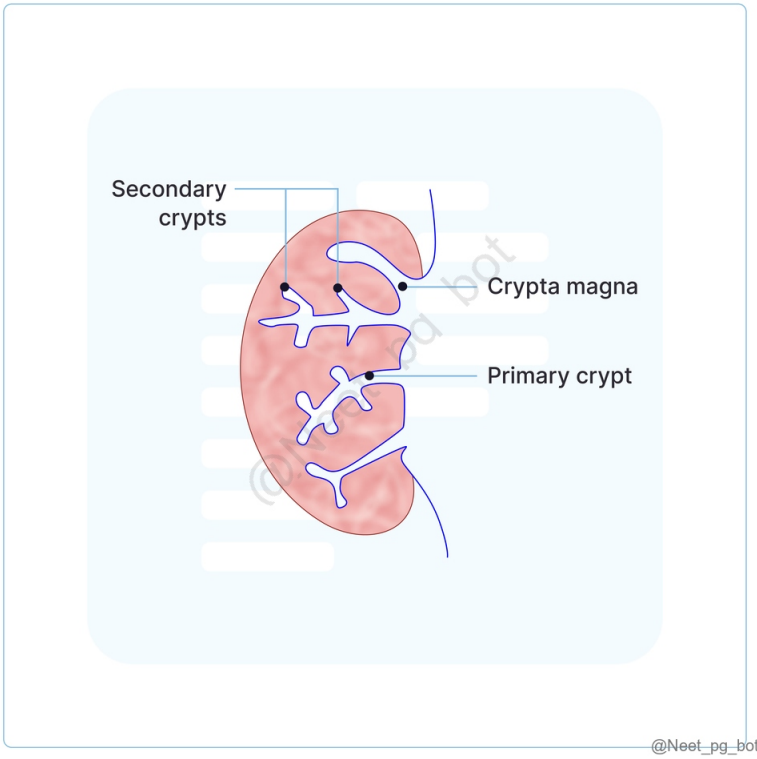
D. Lymphatic drainage primarily involves the lower deep cervical nodes.

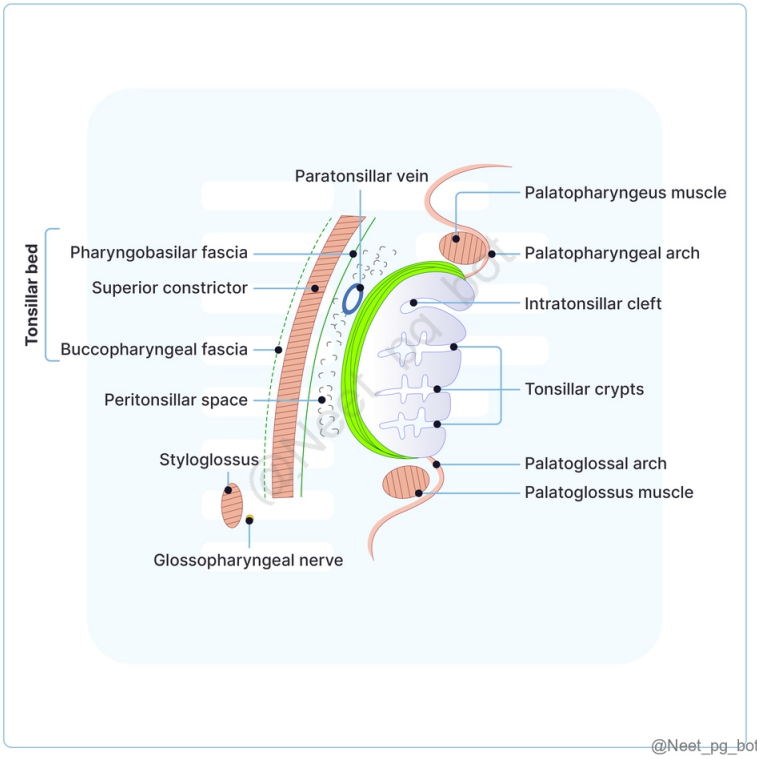
Correct Answer: D. Lymphatic drainage primarily involves the lower deep cervical nodes.

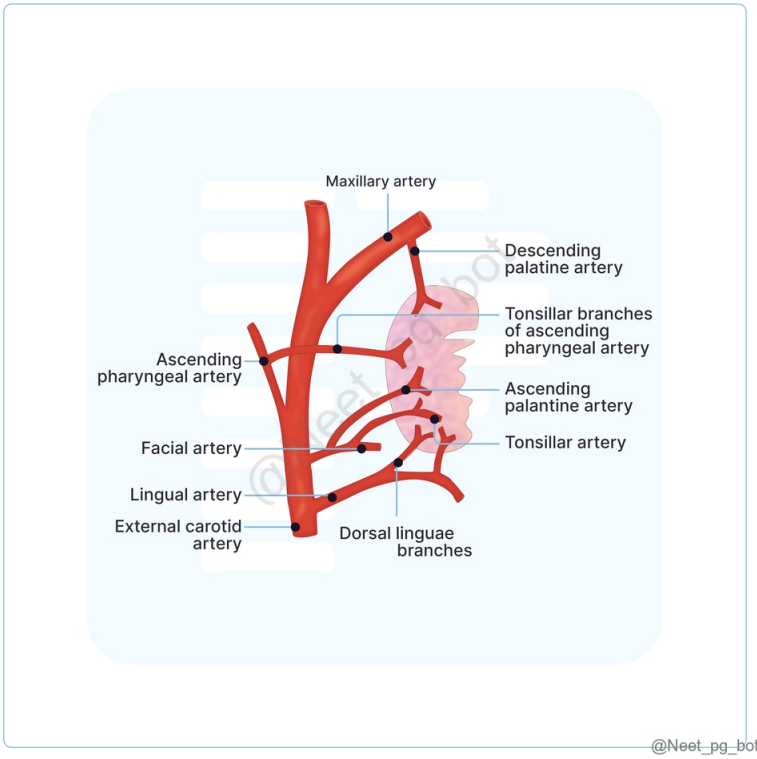
■ *Listen (English)*

■ *Listen (Hindi)*

Explanation: The lymphatic drainage of the palatine tonsils primarily flows into the upper deep cervical nodes, not the lower deep cervical nodes . Anatomy of Palatine tonsils Location Lateral wall of the oropharynx between the anterior and posterior pillars. Surface Extensions Upwards into the soft palate, downwards into the base of the tongue, and anteriorly into the palatoglossal arch. Medial Surface Epithelium Stratified squamous epithelium with crypts. (Option A) Crypta magna, or intratonsillar cleft, is located near the upper part of the tonsil. Lateral Surface It is covered by a fibrous capsule separated from the tonsil bed by loose areolar tissue. (Option C) Tonsil Bed Muscles Formed by the superior constrictor and styloglossus muscles. Arterial Supply Tonsillar branch of the facial artery (main supply) (Option B) Ascending pharyngeal artery Ascending palatine artery Dorsal linguae branches of the lingual artery Descending palatine branch of the maxillary artery. Venous Drainage It drains into the paratonsillar vein , which joins the common facial vein and the pharyngeal venous plexus. Lymphatic Drainage Flows into the upper deep cervical nodes. Sensory Nerve Supply Lesser palatine branches of the sphenopalatine ganglion (CN V) and the glossopharyngeal nerve.







References:

Diseases of Ear, Nose, Throat, PL Dhingra, 8th Edition, Page 303, 304

↑ *Back to this question in Part A*

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Q8: During a tonsillectomy, injury to structures within the tonsillar bed may result in significant complications. Which of the following structures is not directly associated with the tonsillar bed but can be affected by deep dissection or improper technique? (Q847976)

A. Paratonsillar vein

B. Glossopharyngeal nerve

C. Tonsillar branch of facial artery

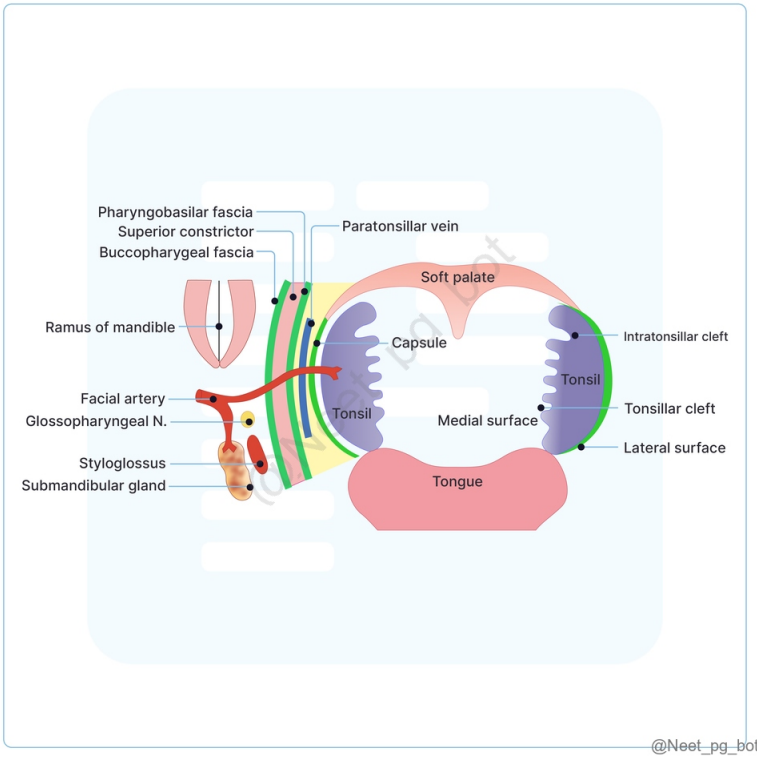
D. Hypoglossal nerve

Correct Answer: D. Hypoglossal nerve

■ *Listen (English)*

■ *Listen (Hindi)*

Explanation: The hypoglossal nerve is not directly associated with the tonsillar bed, but improper or deep dissection could affect it, although it is anatomically more distant compared to the other structures listed. Structures forming Tonsillar bed Muscles forming the tonsillar bed Superior Constrictor Muscle Styloglossus Muscle Structures close to the tonsillar bed (outside the superior constrictor muscle) Facial Artery (Tonsillar Branch): Major blood supply to the tonsils, at risk for haemorrhage during surgery. Paratonsillar Vein: Venous drainage of the tonsil, risk of bleeding during tonsillectomy. Submandibular Salivary Gland Posterior Belly of Digastric Muscle Medial Pterygoid Muscle Mandible Glossopharyngeal Nerve: Provides sensory innervation to the tonsils.



References:

Diseases of Ear, Nose, Throat, PL Dhingra, 8th Edition, Pg 303, 304

↑ *Back to this question in Part A*

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Q9: A 12-year-old patient presents with a sore throat and fever. Upon examination, the physician observes that the tonsils are enlarged and other findings as in the image below. Which type of tonsillitis does this clinical presentation indicate? (Q847977)

A. Acute catarrhal tonsillitis

B. Acute follicular tonsillitis

C. Chronic tonsillitis with tonsillolith

D. Acute membranous tonsillitis

Correct Answer: D. Acute membranous tonsillitis

- *Listen (English)*
- *Listen (Hindi)*

Explanation: The presence of a thick, whitish membrane on the tonsils in the image is indicative of acute membranous tonsillitis. Type of Acute Tonsillitis Description Clinical Features Acute Catarrhal Tonsillitis (Option A) Most common type and is a part of generalised pharyngitis, often viral. Redness and mild swelling of the tonsils; sore throat; no pus or membrane. Acute Follicular Tonsillitis (Option B) Infection involves the tonsillar crypts that are filled with purulent material. Yellowish spots at the openings of the crypts; sore throat; fever. Acute Parenchymatous Tonsillitis (Option D) It affects the substance of the tonsil and leads to uniform enlargement and redness. Uniformly enlarged, red tonsils; significant swelling; no membrane. Acute Membranous Tonsillitis Progression from acute follicular tonsillitis; exudate from crypts forms a membrane on the tonsil surface. The whitish or greyish membrane covering the tonsils; severe sore throat; fever. Chronic tonsillitis with tonsilloliths (Option C) presents with persistent symptoms like halitosis and recurrent infections, not acute fever and enlarged tonsils. The patient has acute symptoms, more suggestive of acute membranous tonsillitis.

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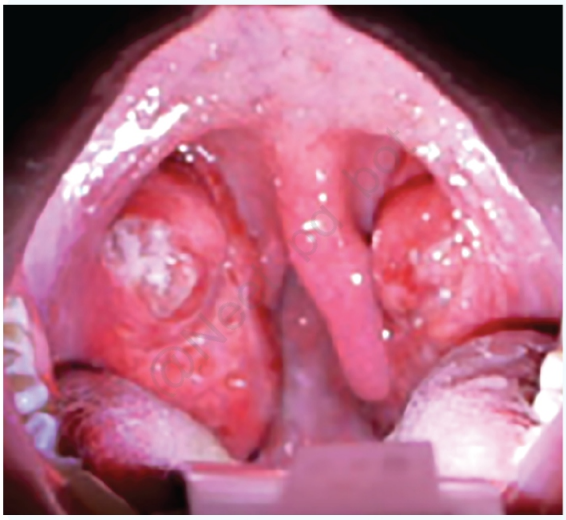

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References:

PL DhingraDiseases of Ear, Nose, Throat, 8th Edition, Page 304

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Q10: A 10-year-old boy presents with fever, sore throat, and difficulty swallowing for 3 days. On examination, there is bilateral tonsillar enlargement with purulent exudate. A rapid strep test is positive. What is the next step in management? (Q847978)

A. Prescribe paracetamol and monitor for 48 hours.

B. Initiate a 7-10 day course of oral amoxicillin.

C. Administer intravenous antibiotics.

D. Perform an immediate tonsillectomy.

Correct Answer: B. Initiate a 7-10 day course of oral amoxicillin.

■ *Listen (English)*

■ *Listen (Hindi)*

Explanation: For a child with confirmed streptococcal tonsillitis , (the most common cause of acute tonsillitis being group A Streptococcus) the appropriate management is to prescribe a full course of oral antibiotics , typically amoxicillin, for 7-10 days to treat the infection and prevent complications. Management of Acute tonsillitis Management Aspect Treatment/Action General Supportive Care Bed Rest and adequate fluids to aid in comfort and prevent complications. Symptomatic Relief Analgesics (e.g., Aspirin, Paracetamol) to provide relief from pain and fever. (Option A) Antibiotic therapy Antibiotics are prescribed to treat bacterial infections, primarily Streptococcus. First-line Antibiotics: Penicillin, Ampicillin, Amoxicillin, Amoxicillin with Clavulanic acid. Alternative: Erythromycin (for penicillin allergy). Treatment duration is typically 7-10 days. Administer intravenous antibiotics (Option C) are typically reserved for patients unable to tolerate oral medications due to severe vomiting or inability to swallow, or showing signs of severe infection or complications such as an abscess or sepsis. Perform an immediate tonsillectomy (Option D) is indicated for recurrent or chronic tonsillitis, not for acute cases. Immediate tonsillectomy is usually reserved for severe obstructive tonsillar hypertrophy and peritonsillar abscess unresponsive to medical therapy.

References:

Diseases of Ear, Nose, Throat, PL Dhingra, 8th Edition, Page 305

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Q11: A 32-year-old male presents with a recurrent sore throat, difficulty swallowing, and foul-smelling breath for the past year. He reports episodes of fever and malaise. Examination reveals enlarged tonsils that on pressing the crypt , pus oozes out and tender anterior cervical lymph nodes. What is the most likely sign seen in this patient? (Q847979)

A. Griesinger’s Sign

B. Battle's Sign

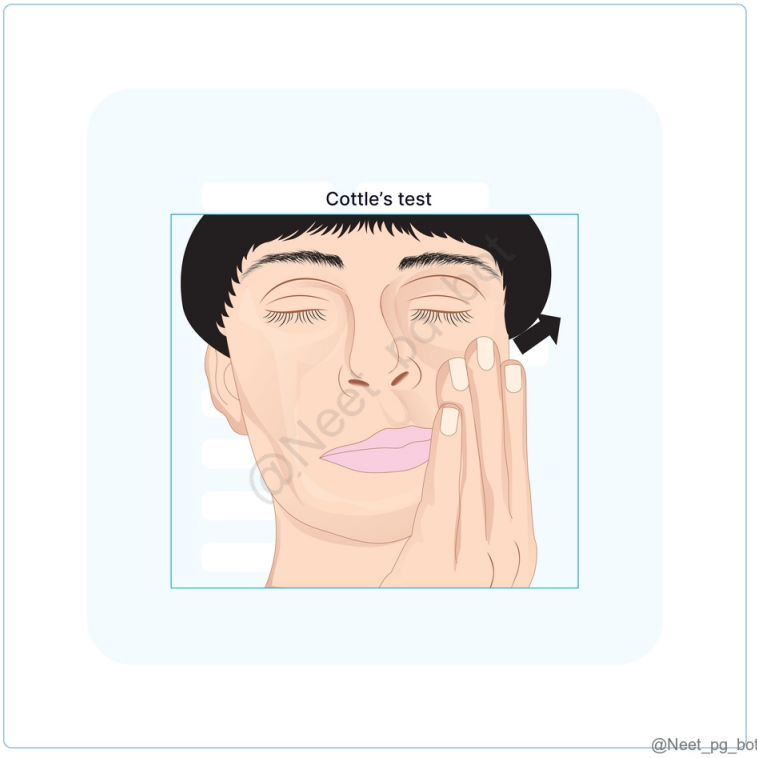
C. Cottle's Sign

D. Irwin Moore sign

Correct Answer: D. Irwin Moore sign

- *Listen (English)*
- *Listen (Hindi)*

Explanation: Irwin Moore Sign is characteristic of chronic tonsillitis, where pressing the anterior tonsillar pillar expresses pus from the crypts of the tonsils. This occurs due to the accumulation of debris and bacteria in the crypts, leading to chronic inflammation. Griesinger’s Sign (Option A) is characterised by pain, swelling, and tenderness over the mastoid process and is caused by the spread of infection from the middle ear to the mastoid air cells, leading to thrombophlebitis. It is indicative of mastoiditis with thrombosis of the sigmoid sinus and may suggest intracranial complications like lateral sinus thrombosis. Battle's Sign (Option B) refers to ecchymosis (bruising) over the mastoid process and is seen in basilar skull fractures, particularly involving the temporal bone. Cottle's Sign (Option C) is used to assess nasal obstruction. Lateral traction of the cheek (Cottle manoeuvre) improves airflow if the obstruction is due to nasal valve collapse or dysfunction, one of the common causes of functional nasal obstruction.



References:

PL Dhingra's Diseases of Ear, Nose & Throat and Head and Neck Surgery, 8th Edition, Pages 172, 307, 308

www.ncbi.nlm.nih.gov/books/NBK537104/#

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Q12: A 17-year-old male presents with recurrent sore throat, recent high-grade fever, and breathing difficulties during sleep. He is scheduled for a tonsillectomy. Which among the following is a contraindication for this procedure? (Q847980)

A. Obstructive sleep apnea

B. Suspicion of tonsillar carcinoma.

C. Peritonsillar abscess

D. Acute Tonsillitis

Correct Answer: D. Acute Tonsillitis

■ *Listen (English)*

■ *Listen (Hindi)*

Explanation: Acute tonsillitis involves active infection and inflammation of the tonsils, which increases the risk of bleeding, poor wound healing, and postoperative infection. Surgeons typically wait for the infection to resolve with antibiotics before performing a tonsillectomy. Indications of Tonsillectomy Absolute Indications Relative Indications Recurrent Tonsillitis Tonsillitis causing febrile seizures Tonsils interfering with speech, swallowing or breathing Suspicion of malignancy (Option B) Obstructive sleep apnea (Option A) Chronic tonsillitis with bad taste or halitosis Peritonsillar abscess (Option C) Diphtheria carriers , not responding to antibiotics.

References:

Diseases of Ear, Nose, Throat, PL Dhingra, 8th Edition, Page 503

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Q13: A 16 year old girl, who had a tonsillectomy 6 days ago, presents with high fever, throat pain, and swelling in the neck. All the following are immediate complications of this surgery except? (Q847981)

A. Primary Hemorrhage

B. Facial edema

C. Reactionary Hemorrhage

D. Parapharyngeal abscess

Correct Answer: D. Parapharyngeal abscess

■ *Listen (English)*

■ *Listen (Hindi)*

Explanation: Parapharyngeal abscess is not an immediate complication but can develop later as a secondary issue, often due to an infection. It typically presents days to weeks after the surgery, rather than immediately . Complications of Tonsillectomy Immediate complications Delayed Complication Primary Hemorrhage , it happens at the time of surgery. (Option A) Reactionary Hemorrhage which happens within 24 hours of the surgery (Option C) Injury to tonsillar pillars, uvula, soft palate, teeth, tongue or superior constrictor muscle Aspiration of blood Facial oedema, particularly of eyelids (Option B) Surgical emphysema (not very common) Secondary Hemorrhage , it happens anywhere between 5 to 10 days post-Op Infection of tonsillar fossa might lead to para-pharyngeal abscess or otitis media. Aspiration of blood, mucus or tissue fragments. Scarring in soft palate and pillars Tonsillar remnants which may get repeatedly infected. Hypertrophy of lingual tonsil.

References:

Diseases of Ear, Nose, Throat, PL Dhingra, 8th Edition, Page 506.

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Q14: A 15 years old female who had a tonsillectomy 16 hours ago is currently under post-op monitoring, suddenly begins to bleed from the mouth and is noted to have hypotension with tachycardia. What is the most likely cause of this bleeding? (Q847982)

A. Premature membrane separation

B. Secondary infection

C. Injury to the tonsillar artery

D. Slipping of ligature

Correct Answer: D. Slipping of ligature

■ *Listen (English)*

■ *Listen (Hindi)*

Explanation: The most likely cause of bleeding in this scenario is the slipping of a ligature. During tonsillectomy, ligatures control bleeding from the tonsillar bed. If a ligature slips or becomes dislodged, it can lead to sudden bleeding, often occurring within the first 24 hours post-operatively (Reactionary hemorrhage) . This can result in hypotension and tachycardia due to blood loss. Hemorrhage is the most common complication post-tonsillectomy and is of 3 types based on the duration: Type of Hemorrhage Primary Hemorrhage Reactionary Hemorrhage Secondary Hemorrhage Duration of occurrence Immediate complication, occur at the time of surgery. Happens within first 24 hours post surgery (Immediate complication) Seen between 5th to 10th postoperative day. Causes Inadequate hemostasis or injury to the vessels (Option C) Slipping of ligature (Option D) , hypertension or the dislodging of clot. Infection (Option B) or premature separation of the membrane (Option A) Management Application of pressure, ligation or electrocoagulation of the bleeding vessels. Initially, remove the clot and apply pressure or use a vasoconstrictor. If these measures are ineffective, proceed with ligation or electrocoagulation of the bleeding vessels. Initially by Antibiotics, if bleeding persists re-exploration is done.

References:

Diseases of Ear, Nose, Throat, PL Dhingra, 8th Edition, Page 506

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Q15: Which of the following clinical features are associated with the condition represented in the imaging? Mouth breathing Failure to thrive Sleep apnoea Prominent nasolabial fold (Q891946)

A. 1, 2, and 3

B. 2, 3, and 4

C. 1, 3, and 4

D. 1, 2, 3, and 4

Correct Answer: A. 1, 2, and 3

Explanation: The diagnosis is Adenoid Hypertrophy based on the lateral soft tissue X-ray showing a soft tissue mass obstructing the nasopharyngeal airway. Chronic enlargement of the adenoids leads to significant respiratory and developmental issues in children. The clinical manifestations of Adenoid Hypertrophy include: Airway Obstruction: The child resorts to mouth breathing as the primary route for ventilation due to the blockage of the posterior choanae. (Statement 1) Growth and Development: Chronic upper airway obstruction can lead to failure to thrive due to the high energy cost of breathing, chronic hypoxia, and poor feeding. (Statement 2) Sleep-Disordered Breathing: Enlarged adenoids are a primary cause of snoring and pediatric Obstructive Sleep Apnoea (OSA), characterized by restless sleep and apneic spells. (Statement 3) Adenoid Facies: This involves an elongated face, open mouth, high-arched palate, and the obliteration of the nasolabial folds. Therefore, a prominent nasolabial fold is not a feature of this condition. (Statement 4) Voice Changes: Obstruction leads to hyponasality, also known as Rhinolalia clausa. Aural Complications: Pressure on the Eustachian tube orifice can lead to conductive hearing loss and otitis media with effusion.

References:

PL Dhingra’s Diseases of Ear, Nose and Throat and Head and Neck Surgery, 8th Edition, Page 287.

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Q16: A 7-year-old is brought by his mother with complaints of mouth breathing and characteristic facial features, as shown below. On examination, a high arched palate is noted. What is the voice abnormality that can be noted in this child? (Q891958)

A. Hot potato voice

B. Rhinolalia clausa

C. Rhinolalia aperta

D. Staccato voice

Correct Answer: B. Rhinolalia clausa

Explanation: The facial features are characteristic of Adenoid Facies secondary to chronic adenoid hypertrophy, characterised by a flat, expressionless, long face with an open mouth, crowded teeth, and a high arched palate. The voice abnormality associated with nasal or nasopharyngeal obstruction is Rhinolalia clausa (hyponasality). Because the nasopharyngeal space is occupied by the enlarged lymphoid mass, the nose cannot act as a resonating chamber for speech. This primarily affects the production of nasal consonants, where 'm', 'n', and 'ng' sound like 'b', 'd', and 'g' respectively. Hot potato voice (Option A) is a thick, muffled voice characteristic of peritonsillar abscess (Quinsy) or acute tonsillitis. Rhinolalia aperta (Option C) refers to hypernasality (open nose voice), which is seen in conditions of velopharyngeal insufficiency such as cleft palate or palatal paralysis. Staccato voice (Option D) is a jerky, interrupted speech pattern, typically associated with cerebellar lesions or neurological disorders like multiple sclerosis.

References:

PL Dhingra’s Diseases of Ear, Nose and Throat and Head and Neck Surgery, 8th Edition, Page 287.

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• [03_Pharynx] 022 Jna And Nasopharyngeal Carcinoma

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[03_Pharynx] 022 Jna And Nasopharyngeal Carcinoma — Quick Jump

Q1 (p. 1293) *Q2 (p. 1293)* *Q3 (p. 1294)* *Q4 (p. 1295)* *Q5 (p. 1296)* *Q6 (p. 1297)*
Q7 (p. 1299) *Q8 (p. 1300)* *Q9 (p. 1301)* *Q10 (p. 1302)* *Q11 (p. 1304)* *Q12 (p. 1304)*
Q13 (p. 1307)

Q1: Which of the following is a risk factor for nasopharyngeal carcinoma? Epstein-Barr (EB) virus Dry salted fish Chinese population Cigarette smoking Opium smoking Inhalation of smoke from Incense (Q847939)

A. 1, 2, 3 and 4

B. 1, 4 and 6

C. All except 2 and 5

D. All the above

Correct Answer: D. All the above

■ *Listen (English)*

■ *Listen (Hindi)*

Explanation: All of the listed factors can increase the risk of nasopharyngeal carcinoma Etiology: Genetic Higher susceptibility in the Chinese population (Option D) Viral Epstein-Barr (EB) virus (Option D) Environmental (Option D) Air pollution Smoking (tobacco, opium) Nitrosamines from dry salted fish Inhalation of smoke from Incense

References:

Dhingra Diseases of Ear, Nose and Throat and Head and Neck Surgery 8th Edition, Page 296-298

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Q2: A 58-year-old man presents with persistent nasal obstruction and bloody nasal discharge over the past 3 months. On examination, he has unilateral conductive hearing loss and a swelling in his neck. Imaging studies reveal a nasopharyngeal mass

with cervical lymphadenopathy. Which of these symptoms is a part of the Trotter's triad? (Q847940)

A. Nasal obstruction

B. Epistaxis

C. Conductive hearing loss

D. Cervical lymphadenopathy

Correct Answer: C. Conductive hearing loss

■ *Listen (English)*

■ *Listen (Hindi)*

Explanation: Trotter's triad - Triad of these 3 symptoms in nasopharyngeal carcinoma: Conductive hearing loss due to blockage of the eustachian tube Ipsilateral temporoparietal neuralgia from the involvement of cranial nerve V Palatal paralysis resulting from involvement of cranial nerve X Diagnosis of Nasopharyngeal Carcinoma: Endoscopy Biopsy is taken Imaging CT Scan/MRI of Nasopharynx and Neck - High-resolution, contrast-enhanced CT is the preferred method MRI of Nasopharynx and Neck - better for assessing soft-tissue extension and lymph nodes Positron Emission Tomography (PET) - for detecting metastases throughout the body Screening Epstein-Barr viral markers Audiogram Diagnosing of serous otitis media Monitors for side effects of radiation and chemotherapy

References:

Dhingra Diseases of Ear, Nose and Throat and Head and Neck Surgery, 8th Edition, Page 297,298

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Q3: A 55-year-old male presents with nasopharyngeal carcinoma. On examination, he has a large nasopharyngeal mass with invasion into the surrounding bony structures and involvement of the intracranial space. Imaging studies reveal multiple lymph nodes in the neck, some of which are greater than 6 cm in size. There is no evidence of distant metastasis . What is the TNM staging of this cancer? (Q847941)

A. T4N3aM0

B. T2N2M1

C. T3N1M1

D. T1N1M1

Correct Answer: A. T4N3aM0

■ *Listen (English)*

■ *Listen (Hindi)*

Explanation: TNM staging of nasopharyngeal carcinoma: Category Stage Description Primary Tumour (T) T1 Tumour confined to the nasopharynx T2 Tumour extends to soft tissues of the oropharynx and/or nasal cavity T3 Tumour invades bony structures and/or paranasal sinuses T4 Tumour with intracranial extension and/or involvement of cranial nerves, infratemporal fossa, hypopharynx, orbit, or masticator space Regional Lymph Nodes (N) Nx Regional lymph nodes cannot be assessed N0 No regional lymph node metastasis N1 Unilateral metastasis in lymph node(s), ≤6 cm in greatest dimension, above the supraclavicular fossa N2 Bilateral metastasis in lymph nodes, ≤6 cm in greatest dimension, above the supraclavicular fossa N3a Metastasis greater than 6 cm in lymph node(s) N3b Metastasis in lymph node(s) in the supraclavicular fossa Distant Metastasis (M) MX Distant metastasis cannot be assessed M0 No distant metastasis M1 Distant metastasis Treatment of nasopharyngeal carcinoma: Stages I and II: radiotherapy Stages III and IV: Concomitant radiation and chemotherapy or radiation followed by chemotherapy Recurrent cases: IMRT (Intensity-Modulated Radiation Therapy) Depending on stage. Also surgery is the treatment in recurrence.

References:

Dhingra Diseases of Ear, Nose and Throat and Head and Neck Surgery 8th Edition, Pages 298-299

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Q4: In juvenile nasopharyngeal angiofibroma (JNA), which combination of molecular and genetic factors is most likely responsible for promoting both the proliferation of stromal cells and the enhancement of tumor growth through interactions with other pathways (Q847942)

A. Androgen receptor, VEGF, and p53

B. C-MYC proto-oncogene, IGF-II, and Beta-catenin

C. VEGF, BCL-2, and APC gene

D. Beta-catenin, Androgen receptor, and C-MYC proto-oncogene

Correct Answer: D. Beta-catenin, Androgen receptor, and C-MYC proto-oncogene

Explanation: Beta-catenin is critical for stromal cell proliferation, and its interaction with androgen receptors and C-MYC drives tumor growth. These factors are known to work together in the pathogenesis of JNA. Juvenile nasopharyngeal angiofibroma (JNA) Site of Origin Posterior nasal cavity, near the superior margin of the

sphenopalatine foramen, where the sphenoid and palatine bones meet. Gross Appearance Reddish-purple, lobulated, sessile mass covered by mucosa; lacks a capsule despite being benign. Microscopic Appearance Vascular Tissue: Endothelium-lined spaces with incomplete/absent muscle coats, leading to bleeding; peripheral vessels are thin-walled, central vessels hyperplastic. Stromal Cells: Stellate or spindle-shaped cells that produce collagen, affecting tumor firmness. Immunohistochemistry Fibroblasts, collagen, myofibroblasts, mast cells, and occasionally giant cells are present. Reactivity to smooth muscle actin and beta-catenin, suggesting beta-catenin's role in growth. Growth Factors JNA development likely results from a combination of hormonal influence, growth factors, and genetic factors. Androgen Receptors: Present in 75% of JNA tumors, indicating male hormone involvement. VEGF: Promotes endothelial and stromal cell growth. IGF-II: Role is less clear. Genetics: C-MYC proto-oncogene found in larger tumors; may interact with androgen receptor and beta-catenin genes. Androgen receptor, VEGF, and p53 (Option A): While VEGF promotes endothelial and stromal cell growth, p53 is not typically involved in JNA, and this combination does not account for the genetic factors directly interacting to enhance tumor growth. C-MYC proto-oncogene, IGF-II, and Beta-catenin (Option B): C-MYC and Beta-catenin are important, but IGF-II's role is less clear in direct tumor growth and proliferation compared to VEGF or androgen receptor interactions. VEGF, BCL-2, and APC gene (Option C) : VEGF promotes cell growth, but BCL-2 is mainly involved in apoptosis, and the APC gene does not play a key role in JNA development.

References:

Dhingra Diseases of Ear, Nose and Throat and Head and Neck Surgery, 8th Edition, Pages 289-291

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Q5: Which of the following is the common symptom of juvenile nasopharyngeal angiofibroma? (Q847943)

A. Diplopia

B. Recurrent Epistaxis

C. Conductive hearing loss

D. Nasal Discharge

Correct Answer: B. Recurrent Epistaxis

■ *Listen (English)*

■ *Listen (Hindi)*

Explanation: Profuse, recurrent nosebleeds (epistaxis) are the hallmark symptom of juvenile nasopharyngeal angiofibroma (JNA0 and are often the first presenting sign due to the fragile, thin-walled vessels in the tumor. JNA - Clinical Features Nasal and Nasopharyngeal Symptoms Epistaxis: Recurrent , profuse nosebleeds due to fragile, thin-walled vessels. (Option B) Nasal Obstruction: Progressive blockage causing nasal voice. Nasal Discharge: Often from secondary sinusitis or obstruction. (Option D ruled out) Otologic Symptoms Conductive Hearing Loss: Eustachian tube obstruction leading to fluid in the middle ear. (Option C ruled out) Otitis Media with Effusion:

Fluid build-up, possible ear pain. Ophthalmo-neurological Symptoms Proptosis: Eyeball protrusion from orbital invasion. Diplopia: Double vision due to cranial nerve compression (CN III, IV, VI). (Option A ruled out) Cranial Nerve Palsies: Various deficits like vision changes (CN II), facial pain (CN V), or swallowing difficulty (CN IX, X). Facial Deformity Broadening of Nasal Bridge: Widening from tumor pressure. Cheek Swelling: Asymmetry due to tumor extension. Frog-Face Deformity: Bilateral proptosis with bulging eyes and flattened profile. Other Features Age and Sex: Predominantly affects adolescent males (10-20 years) . Rare in females or older individuals. Endoscopic Appearance: Smooth or lobulated reddish-purple mass blocking nasal passages. Consistency: Firm but should not be palpated due to bleeding risk.

References:

Dhingra Diseases of Ear, Nose and Throat and Head and Neck Surgery, 8th Edition, Page 292

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Q6: A 17-year-old male presents with recurrent epistaxis, nasal obstruction, and a reddish-purple mass visible in the nasal cavity. He also reports occasional facial pain. CECT scan finding is shown below. Which investigation is most useful in evaluating the vascularity of this tumor and planning for preoperative embolization? (Q847944)

A. Magnetic resonance imaging

B. Ultrasound Doppler

C. Nasopharyngoscopy

D. Digital Subtraction Angiography

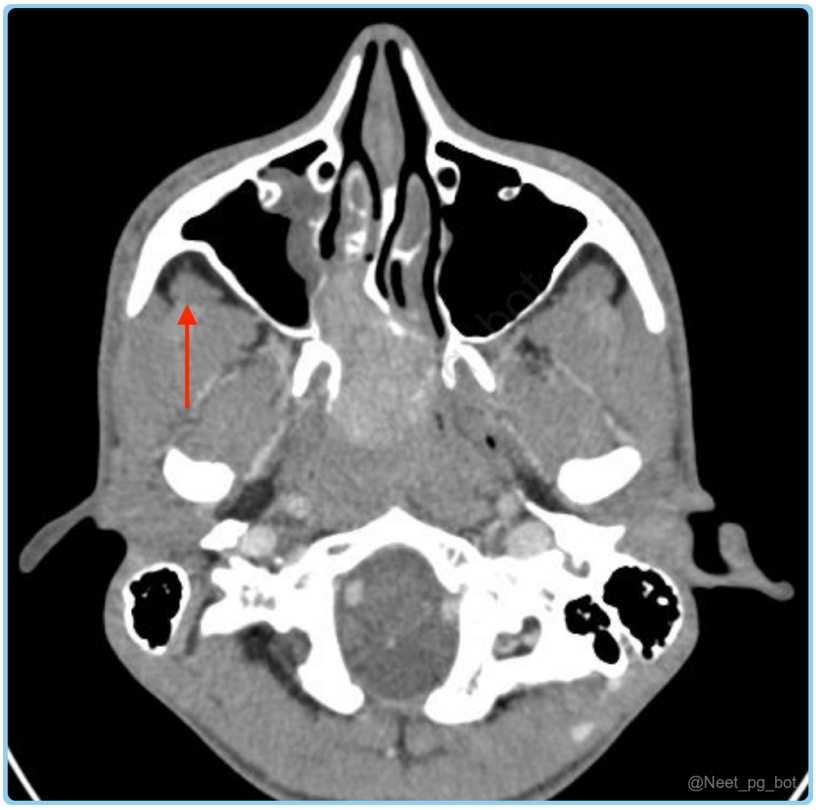
Correct Answer: D. Digital Subtraction Angiography

■ *Listen (English)*

■ *Listen (Hindi)*

Explanation: The case scenario suggests JNA and CECT show a mass in the nasopharynx with anterior bowing of the posterior wall of the maxillary sinus (Holman-Miller sign). Digital Subtraction Angiography (DSA) is the best imaging modality to evaluate the vascularity of the tumor and to identify feeding vessels for preoperative embolization, which helps reduce intraoperative blood loss. JNA is a highly vascular tumor, primarily supplied by the internal maxillary artery , a branch of the external carotid artery. Larger lesions may involve multiple feeding arteries.The second most common source is the ascending pharyngeal artery . {{caption_text}} Investigations of Juvenile Nasopharyngeal Angiofibroma (JNA) Contrast-Enhanced CT Scan Investigation of choice ; shows tumor size, location, and bony involvement. Pathognomonic sign: Holman-Miller sign (bowing of maxillary wall). Magnetic Resonance Imaging (MRI) Evaluates soft tissue and intracranial extension, differentiates between extradural and intradural spread. (Option A ruled out) Digital Subtraction Angiography (DSA) Visualizes tumor vascularity, identifies feeding vessels and aids in preoperative embolization to reduce surgical blood loss. Nasopharyngoscopy Provides a direct view of the tumor, but biopsy is generally avoided due to high bleeding risk. (Option C ruled out) Audiometry Assesses hearing loss caused by Eustachian tube obstruction; establishes

baseline and monitors post-treatment hearing. Biopsy Biopsy is contraindicated due to risk of profuse bleeding. Ultrasound Doppler (Option B) : Although Doppler ultrasound can assess blood flow, it is not routinely used to evaluate the vascularity of juvenile nasopharyngeal angiofibroma due to its limitations in this region.



References:

Dhingra Diseases of Ear, Nose and Throat and Head and Neck Surgery, 8th Edition, Page 292

https://www.ncbi.nlm.nih.gov/books/NBK545240/

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Q7: A 15-year-old male presents with recurrent epistaxis and a nasal mass that has been progressively growing. Imaging reveals a large juvenile nasopharyngeal angiofibroma (JNA) with extension into the infratemporal fossa and cheek. The surgeon plans to excise the tumor. Which surgical approach is most appropriate for a JNA with extension into the infratemporal fossa? (Q847945)

A. Transpalatine approach

B. Transmaxillary (Le Fort I) approach

C. Wei’s operation

D. Lateral rhinotomy with medial maxillectomy

Correct Answer: C. Wei’s operation

Explanation: Juvenile nasopharyngeal angiofibroma (JNA) with extension into the infratemporal fossa and cheek needs Maxillary swing approach (Wei’s operation). Multidisciplinary management required (surgery, radiology, oncology) for JNA, with treatment decisions based on tumor stage, location, symptoms and patient health. Staging and Treatment of Juvenile Nasopharyngeal Angiofibroma (JNA) Staging Systems for JNA Classification based on tumor size, location, involvement of structures, and surgical accessibility. Notable systems include Sessions (1981), Fisch (1983), Chandler (1984), Radkowski (1996), Janakiram (2017). Surgical approaches Location Approach A. Nose and nasopharynx Transpalatal or endoscopic (Option A ruled out) B. Nose, nasopharynx maxillary antrum and pterygopalatine fossa Lateral rhinotomy with medial maxillectomy (Option D ruled out) OR Endoscopic OR Le Fort I (Option B ruled out) C. Nose, nasopharynx maxillary antrum and pterygopalatine fossa + Infratemporal fossa Extended lateral rhinotomy OR Infratemporal fossa approach OR Maxillary swing approach (Option C) D. Nose, nasopharynx maxillary antrum and pterygopalatine fossa + Infratemporal fossa + Cheek extension Maxillary swing approach (Option C) E. Nose, nasopharynx maxillary antrum and pterygopalatine fossa + Infratemporal fossa + Intracranial Extended lateral rhinotomy Combined intracranial and extracranial approach (craniotomy + one of the extracranial approaches) OR Radiation if intracranial part is inaccessible F. Residual or recurrent disease (extracranial) Observation OR repeat surgery or radiation if inaccessible G. Intracranial residual or recurrent Stereotactic radiation (X or gamma knife) Preoperative Embolization Performed using Digital Subtraction Angiography (DSA) to block arteries feeding the tumor and reduce blood loss during surgery. Risks: Stroke, cranial nerve palsies, blindness. Radiotherapy Used for: Inoperable tumors due to location/extent. Recurrent tumors after surgery. Intracranial extension with internal carotid artery supply. Risks: Atrophic rhinitis, facial deformities, radiation-induced angiosarcoma (rare). Other Treatment Modalities Chemotherapy: For aggressive, recurrent, or residual tumors, though not curative. Hormonal Therapy: Antiandrogens have been explored but with limited success. Recurrence Recurrence occurs in up to 35% of cases. Management includes observation, revision surgery or radiation therapy.

References:

Dhingra Diseases of Ear, Nose and Throat and Head and Neck Surgery, 8th Edition, Page 293

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Q8: A 14-year-old adolescent boy presents with recurrent episodes of profuse, unprovoked epistaxis and progressive bilateral nasal obstruction. Radiological evaluation reveals a large, highly vascular mass occupying the nasopharynx and extending into the pterygopalatine fossa. Which of the following best describes the biological behaviour of this specific lesion? (Q891862)

A. Benign but locally aggressive

B. Benign with no local invasion

C. Premalignant

D. Malignant

Correct Answer: A. Benign but locally aggressive

Explanation: The findings are characteristic of juvenile nasopharyngeal angiofibroma (JNA) , a tumor that occurs almost exclusively in adolescent males . Histologically, it is a benign tumor composed of numerous vascular channels within a fibrous stroma , without cellular atypia or anaplasia. Despite its benign histology, JNA behaves in a locally aggressive manner . It expands along paths of least resistance , causing pressure erosion of surrounding bone and extension into adjacent spaces such as the nasal cavity, paranasal sinuses, pterygopalatine fossa, infratemporal fossa, orbit, and cranial cavity. Benign with no local invasion (Option B): Although histologically benign, juvenile nasopharyngeal angiofibroma shows locally aggressive growth with bone erosion and extension into adjacent spaces , so it cannot be described as non-invasive. Premalignant (Option C): JNA is not a premalignant lesion and does not undergo malignant transformation. Malignant (Option D): JNA lacks cellular atypia, anaplasia, and metastatic potential , which are features required to classify a tumor as malignant.

References:

PL Dhingra's Diseases of Ear, Nose and Throat and Head and Neck Surgery, 8th Edition, Page 289.

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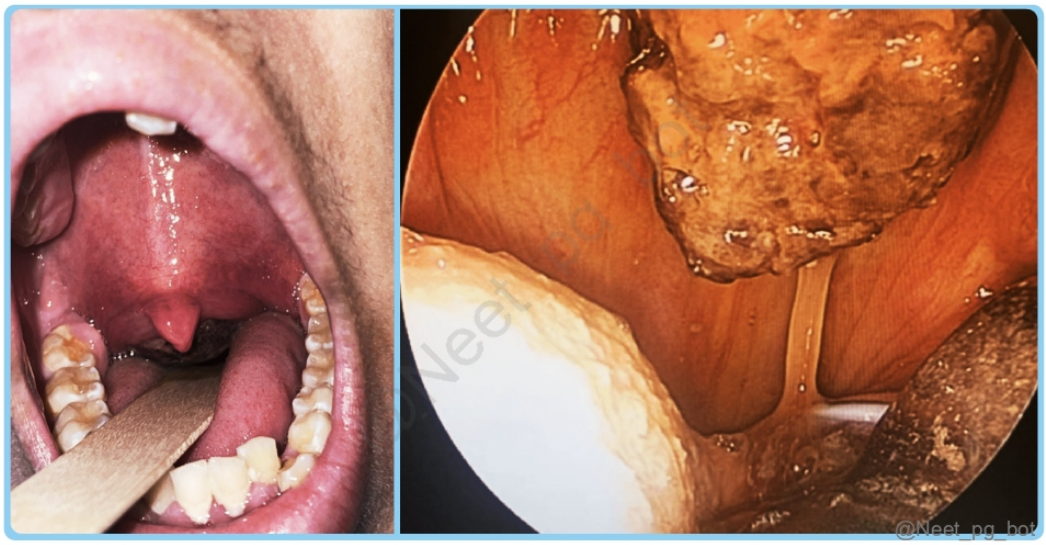
Q9: A 13-year-old boy presents with progressive nasal obstruction, difficulty in breathing, and dysphagia. Examination reveals a vascular mass arising in the nasal cavity and extending into the nasopharynx and oropharynx. Which of the following statements regarding this condition is false? (Q891863)

A. It is significantly more common in females

B. It typically develops around the age of puberty

C. It is considered a hormone-dependent condition

D. Incisional biopsy is strictly contraindicated



Correct Answer: A. It is significantly more common in females

Explanation: The clinical presentation is characteristic of juvenile nasopharyngeal angiofibroma (JNA) , a highly vascular, benign but locally aggressive tumor that occurs almost exclusively in adolescent males . It typically arises from the posterolateral wall of the nasal cavity near the sphenopalatine foramen and grows into the nasopharynx , with possible extension into the pterygopalatine fossa, infratemporal fossa, paranasal sinuses, orbit, and cranial cavity. JNA usually presents during puberty (10-20 years) (Option B) and is thought to be androgen-dependent (Option C) , explaining its marked male predominance . The most common presenting features are recurrent epistaxis and progressive nasal obstruction . Because the tumor is extremely vascular , incisional biopsy is contraindicated (Option D) due to the risk of severe hemorrhage. Diagnosis is primarily based on clinical features and imaging such as contrast-enhanced CT and MRI , which demonstrate a vascular mass and characteristic extension patterns. Angiography may be used to identify feeding vessels and is often performed prior to preoperative embolization , which reduces intraoperative bleeding during surgical excision. Histologically, JNA consists of numerous irregular, thin-walled vascular channels embedded within a fibrous stroma , lacking a muscular layer, which explains the tumor's tendency for profuse bleeding .

References:

PL Dhingra's Diseases of Ear, Nose and Throat and Head and Neck Surgery, 8th Edition, Page 289, 292.

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Q10: An adolescent male presents with recurrent, unprovoked epistaxis and progressive nasal obstruction. Imaging reveals an expansile mass pushing the posterior wall of the maxillary sinus anteriorly. During surgical resection, the pedicle of this highly vascular mass is traced to its anatomical root. Which of the following is the exact site of origin for this tumour? (Q891868)

A. Fossa of Rosenmüller

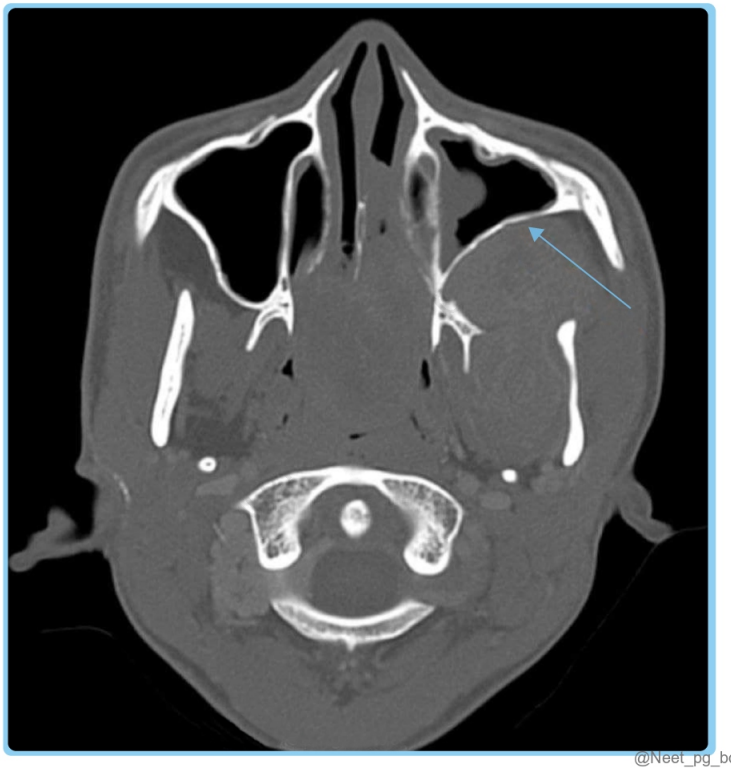
B. Superior margin of the sphenopalatine foramen

C. Floor of the sphenoid sinus

D. Roof of the nasopharynx

Correct Answer: B. Superior margin of the sphenopalatine foramen

Explanation: The clinical presentation is characteristic of juvenile nasopharyngeal angiofibroma (JNA) , a highly vascular, benign but locally aggressive tumor seen almost exclusively in adolescent males . Despite presenting as a large mass occupying the nasopharynx, the true anatomical origin of JNA is the posterolateral wall of the nasal cavity at the superior margin of the sphenopalatine foramen . From this origin, the tumor expands into the nasopharynx, nasal cavity, and pterygopalatine fossa, and may further extend into the infratemporal fossa, orbit, or cranial cavity. Radiologically, anterior bowing of the posterior wall of the maxillary sinus (Holman-Miller sign) indicates tumor extension into the pterygopalatine fossa , a classic feature of JNA. Fossa of Rosenmüller (Option A) is the most common site of origin for nasopharyngeal Carcinoma , a malignant epithelial tumour. Floor of the sphenoid sinus (Option C): While the tumour can erode into the sphenoid sinus as it expands, the sinus floor itself is not the primary site of origin. Roof of the nasopharynx (Option D) is the anatomical location of the nasopharyngeal tonsil (adenoids).



References:

PL Dhingra’s Diseases of Ear, Nose and Throat and Head and Neck Surgery, 8th Edition, Page 289.

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Q11: Which histological characteristic of the nasopharyngeal tumour is responsible for the severe bleeding tendency? (Q891871)

A. Lack of a contractile muscular coat in the blood vessels

B. Absence of a well-defined tumour capsule

C. Secretion of local tissue plasminogen activators

D. Direct invasion into the internal carotid artery

Correct Answer: A. Lack of a contractile muscular coat in the blood vessels

Explanation: Juvenile nasopharyngeal angiofibroma (JNA) is composed of a dense fibrous stroma containing numerous irregular, thin-walled vascular channels . A key histological feature is that these vessels lack a well-developed smooth muscle layer . Because the vascular channels lack a contractile muscular coat, they cannot undergo vasoconstriction or physiological vasospasm when injured. As a result, even minor trauma such as biopsy or surgical manipulation can lead to profuse and potentially life-threatening hemorrhage , explaining the characteristic severe bleeding tendency of this tumor. Absence of a well-defined tumour capsule (Option B): JNA may be poorly encapsulated, but this feature does not account for the severe bleeding tendency. Secretion of local tissue plasminogen activators (Option C): Bleeding in JNA is not due to fibrinolytic activity but rather due to the abnormal vascular structure of the tumor. Direct invasion into the internal carotid artery (Option D): Although JNA may extend into adjacent spaces, direct invasion of major arteries is not the mechanism responsible for its bleeding tendency.

References:

PL Dhingra’s Diseases of Ear, Nose and Throat and Head and Neck Surgery, 8th Edition, Page 291.

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Q12: A 16-year-old male with a history of recurrent epistaxis undergoes a contrast-enhanced CT scan of the paranasal sinuses. The radiologist observes a highly enhancing mass in the pterygopalatine fossa that is causing the anterior bowing of the posterior wall of the maxillary sinus. This specific radiological finding is classically referred to as: (Q891872)

A. Holman-Miller sign

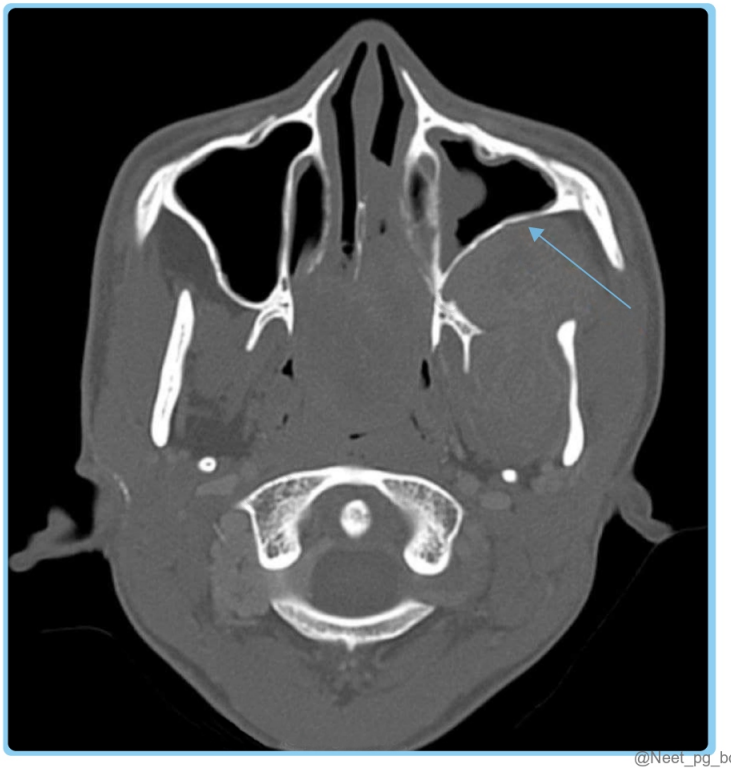
B. Lyre sign

C. Phelp's sign

D. Steeple sign

Correct Answer: A. Holman-Miller sign

Explanation: The Holman-Miller sign (Antral sign) refers to anterior bowing of the posterior wall of the maxillary sinus , a classic radiological finding seen in juvenile nasopharyngeal angiofibroma (JNA) . JNA arises near the sphenopalatine foramen in the posterolateral wall of the nasal cavity and commonly spreads into the pterygopalatine fossa . As the tumor expands laterally, it exerts pressure on the posterior wall of the maxillary sinus , causing it to bow anteriorly, producing the Holman-Miller sign on CT imaging. Lyre sign (Option B) is an angiographic sign seen in carotid body tumours , where the expanding mass at the carotid bifurcation causes splaying of the internal and external carotid arteries, resembling a lyre. Phelp's sign (Option C) is a finding seen in glomus jugulare tumours , characterised by the erosion and loss of the bony crest between the jugular bulb and the carotid canal. Steeple sign (Option D) is seen on AP neck X-ray finding showing subglottic narrowing, associated with acute laryngotracheobronchitis (Croup) in children.



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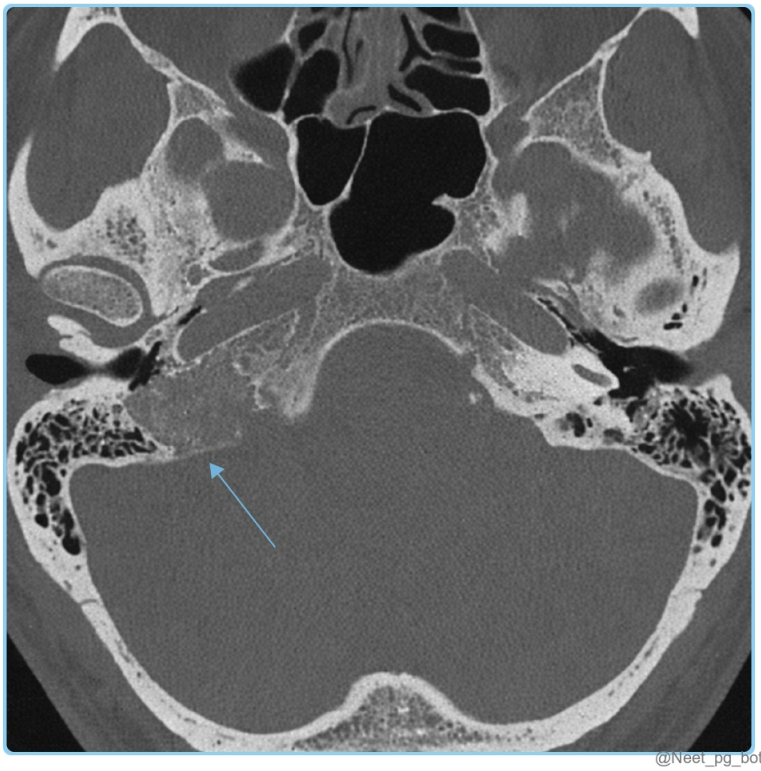
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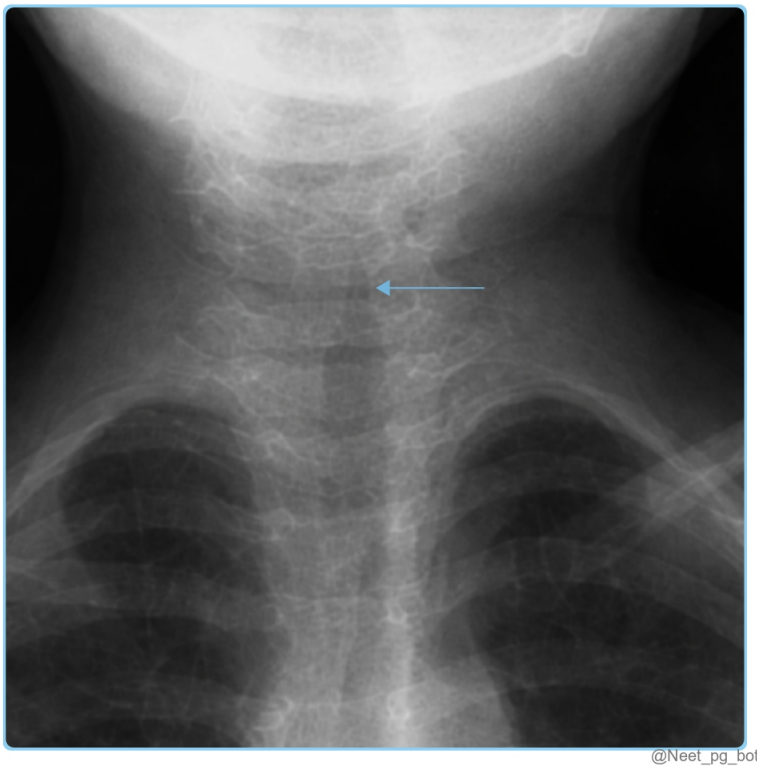

References:

PL Dhingra's Diseases of Ear, Nose and Throat and Head and Neck Surgery, 8th Edition, Page 292-293.

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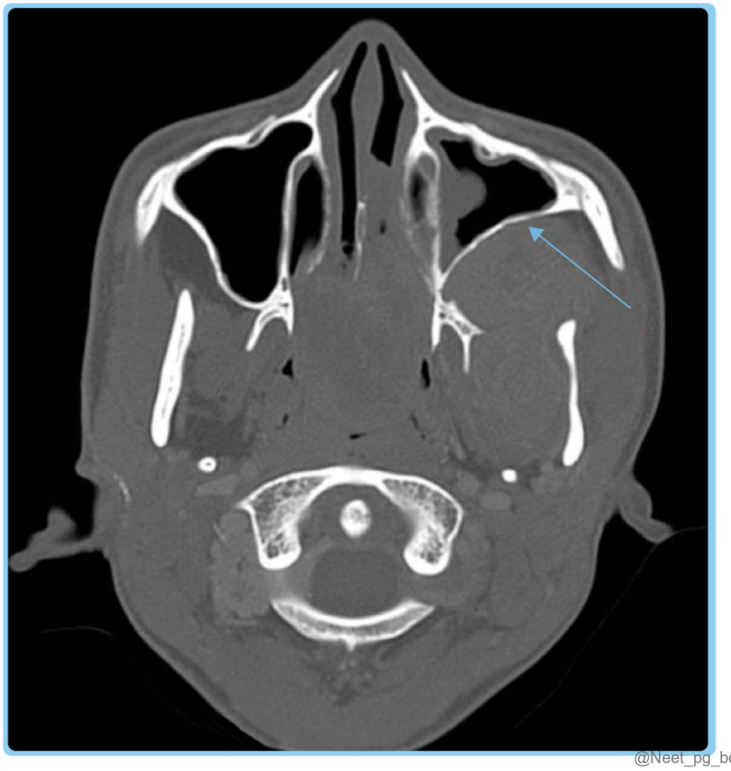
Q13: A 15-year-old male presents with recurrent, profuse epistaxis and progressive nasal obstruction. Based on the pathognomonic imaging finding shown, which of the following statements regarding his condition are correct? It is the most common benign tumour of the nasopharynx. The tumour does not have a true capsule. Digital palpation and biopsy are strictly contraindicated. There is a very low rate of recurrence following surgical excision. (Q891873)

A. 1, 2, and 3

B. 1, 3, and 4

C. 2, 3, and 4

D. 1, 2, 3, and 4



Correct Answer: A. 1, 2, and 3

Explanation: The imaging shows the Holman-Miller sign , characterized by anterior bowing of the posterior wall of the maxillary sinus , a classic radiological feature of juvenile nasopharyngeal angiofibroma (JNA) . JNA is the most common benign tumor of the nasopharynx and occurs almost exclusively in adolescent males . (Statement 1) The tumor is unencapsulated and spreads locally along natural tissue planes, often extending into the pterygopalatine and infratemporal fossae. (Statement 2) Because JNA is highly vascular and its vessels lack a muscular layer, biopsy and digital palpation are contraindicated due to the risk of severe hemorrhage. (Statement 3) Despite surgical treatment, recurrence rates are significant (~35%) , particularly in tumors with skull-base extension. (Statement 4)

References:

PL Dhingra’s Diseases of Ear, Nose and Throat and Head and Neck Surgery, 8th Edition, Page 289, 291-292, 295.

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• [03_Pharynx] 023 Ludwig S Angina Pharyngeal Pouch And Abscess Related To Pharynx

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[03_Pharynx] 023 Ludwig S Angina Pharyngeal Pouch And Abscess Related To Pharynx — Quick Jump

Q1 (p. 1309)	*Q2 (p. 1310)*	*Q3 (p. 1311)*	*Q4 (p. 1312)*	*Q5 (p. 1314)*	*Q6 (p. 1316)*
Q7 (p. 1318)	*Q8 (p. 1320)*	*Q9 (p. 1321)*	*Q10 (p. 1324)*	*Q11 (p. 1325)*	*Q12 (p. 1326)*
Q13 (p. 1327)	*Q14 (p. 1329)*	*Q15 (p. 1330)*	*Q16 (p. 1331)*	*Q17 (p. 1331)*	

Q1: A 40-year-old female presents with bilateral submandibular swelling and difficulty swallowing. On examination the swelling is "woody-hard," and the patient exhibits trismus. A CECT scan confirms the presence of diffuse cellulitis without a well-formed abscess. Which of the following is the most critical initial step in managing this condition? (Q847947)

A. Administer intravenous corticosteroids to reduce inflammation

B. Perform an intraoral incision and drainage to relieve pressure

C. Initiate systemic broad-spectrum antibiotics immediately

D. Conduct a repeat contrast-enhanced CT scan to monitor progression

Correct Answer: C. Initiate systemic broad-spectrum antibiotics immediately

■ *Listen (English)*

■ *Listen (Hindi)*

Explanation: In the absence of a well-formed abscess, the primary and critical initial management for Ludwig’s angina is to start systemic broad-spectrum antibiotics. This helps to address the mixed bacterial infection and prevent further progression. Ludwig’s angina Clinical Features General Symptoms: Severe difficulty swallowing (odynophagia) and varying degrees of trismus (difficulty opening the mouth). Symptoms depend on infection location and extent: Sublingual Space: Swelling in the floor of the mouth, pushing the tongue upward and backwards. Submandibular Region: Swelling and tenderness in the submandibular area, often described as " woody - hard ." Progression: The tongue can displace upward and backward, potentially obstructing the airway, with possible laryngeal edema. Diagnosis Clinical Evaluation: Assess symptoms, including swelling, tenderness, trismus, and airway compromise. Imaging Studies: Ultrasound: Identifies abscess presence and location. Contrast-enhanced CT Scan : Differentiates between abscess and cellulitis (Phlegmon), revealing infection extent. Treatment Systemic Antibiotics : Broad-spectrum antibiotics to target mixed aerobic and anaerobic bacteria. Incision and Drainage: Necessary if an abscess is present. (Option B ruled out) Intraoral Approach : For infections

confined to the sublingual space. External Approach : For infections in the submandibular and submental spaces, involving a transverse incision along the mandible. Airway Management: Maintaining a patent airway is crucial; tracheostomy may be needed in severe cases. Complications Spread of Infection: May extend to the parapharyngeal and retropharyngeal spaces and potentially to the mediastinum, causing mediastinitis. Airway Obstruction Septicaemia Aspiration Pneumonia Administer intravenous corticosteroids to reduce inflammation (Option A): While corticosteroids may help with inflammation in some cases, they are not the primary treatment for Ludwig's angina, especially when systemic antibiotics are urgently needed. Conduct a repeat contrast-enhanced CT scan to monitor progression (Option D): While monitoring is important, the immediate priority in managing Ludwig's angina with diffuse cellulitis is to start systemic antibiotics rather than repeating imaging.

References:

Dhingra Diseases of Ear, Nose and Throat and Head and Neck Surgery 8th Edition, Page 310, 311

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Q2: A 40-year-old male with a history of untreated tuberculosis presents with mild throat discomfort and difficulty in swallowing. Examination reveals a central fluctuant swelling in the posterior pharyngeal wall, and X-rays confirm caries of the cervical spine. What is the diagnosis? (Q847954)

A. Prevertebral abscess

B. Retropharyngeal abscess

C. Parapharyngeal abscess

D. Peritonsillar abscess

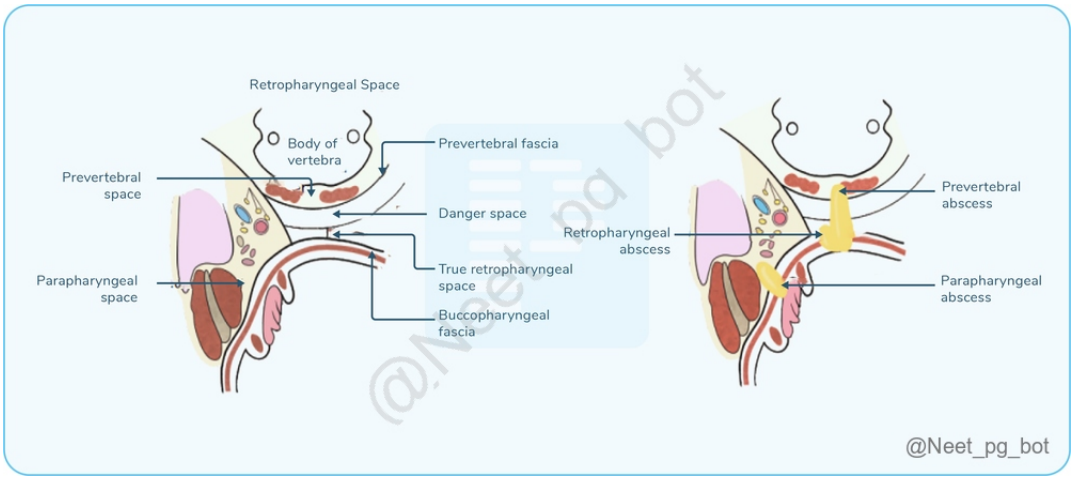
Correct Answer: A. Prevertebral abscess

■ *Listen (English)*

■ *Listen (Hindi)*

Explanation: Prevertebral abscess , which is formed as a complication of cervical spine caries due to TB, presents as a fluctuant swelling in the posterior pharyngeal wall centrally. Prevertebral Abscess: Prevertebral space Extent: Base of skull to coccyx Location: Between vertebrae on one side and prevertebral muscles and the prevertebral fascia on the other Aetiology Tubercular in nature, caused by: Caries of the cervical spine (central abscess behind prevertebral fascia) Tuberculous infection of retropharyngeal lymph nodes (unilateral abscess behind buccopharyngeal fascia) Clinical Features Throat discomfort Mild dysphagia Fluctuant swelling in posterior pharyngeal wall, either centrally or on one side of midline Treatment Incision and drainage Antitubercular therapy Comparison between retropharyngeal and prevertebral abscesses: Retropharyngeal (Option B) Prevertebral (Option A) Location of the space Behind the pharynx, between the buccopharyngeal fascia and prevertebral fascia,

extending from the base of the skull to the bifurcation of the trachea. Between vertebrae on one side and prevertebral muscles and the prevertebral fascia on the other, extenting from the base of skull to coccyx Etiology Children under 3 years (common)-suppuration of retropharyngeal lymph nodes Adults-penetrating injuries to the posterior pharyngeal wall or cervical esophagus. Tubercular in nature, caused by: Caries of the cervical spine or tuberculous infection of retropharyngeal lymph nodes Clinical features Dysphagia Breathing difficulty Stridor Croupy cough Torticollis Unilateral bulge in the posterior pharyngeal wall Throat discomfort Mild dysphagia Fluctuant swelling in posterior pharyngeal wall, either centrally or on one side of midline Parapharyngeal abscess (Option C): Incorrect as it causes lateral wall bulge, trismus, and more severe systemic symptoms. Peritonsillar abscess (Option D): Incorrect since it is peritonsillar, not posterior pharyngeal, and presents with uvular deviation.



References:

Dhingra Diseases of Ear, Nose and Throat and Head and Neck Surgery, 8th Edition, Page 313-315

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Q3: A 35-year-old man presents with a 5-day history of sore throat, difficulty swallowing, and neck pain. On examination, there is a unilateral bulge in the posterior pharyngeal wall and neck stiffness with limited movement. A lateral neck X-ray reveals a widened prevertebral shadow. What is the etiology? (Q847953)

A. Penetrating injury to posterior pharyngeal wall

B. TB infection of cervical spine

C. Spread of infection from retropharyngeal lymph node

D. None of the above

Correct Answer: A. Penetrating injury to posterior pharyngeal wall

■ *Listen (English)*

■ *Listen (Hindi)*

Explanation: Given is a scenario of an adult with an acute retropharyngeal abscess. The most common etiology of an adult with an acute retropharyngeal abscess is a penetrating injury to the posterior pharyngeal wall or cervical esophagus. Acute retropharyngeal abscess: Retropharyngeal space Location: Behind the pharynx, between the buccopharyngeal fascia and prevertebral fascia. Extent: From the base of the skull to the bifurcation of the trachea. Divisions: Two lateral compartments (spaces of Gillette) divided by a fibrous raphe. Communication: with the parapharyngeal space Aetiology Children under 3 years (common): suppuration of retropharyngeal lymph nodes from infections in adenoids, nasopharynx, posterior nasal sinuses, or nasal cavity. Adults: penetrating injuries to the posterior pharyngeal wall or cervical esophagus. Clinical Features Dysphagia Breathing difficulty Stridor Croupy cough Torticollis Unilateral bulge in the posterior pharyngeal wall Diagnosis X-ray neck lateral view shows widened prevertebral shadow, sometimes even the presence of gas Contrast-enhanced CT scan reveals the extent of the abscess Treatment Incision and drainage Systemic antibiotics Tracheostomy if needed

References:

Dhingra Diseases of Ear, Nose and Throat and Head and Neck Surgery, 8th Edition, Page 312-314

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Q4: A 45-year-old male presents with difficulty swallowing, a bulge in the pharynx behind the posterior pillar, and swelling in the parotid region. He also exhibits paralysis of cranial nerves IX, X, XI, and XII. What is the diagnosis? (Q847952)

A. Parapharyngeal abscess in the anterior compartment

B. Parapharyngeal abscess in the posterior compartment

C. Parapharyngeal abscess in the medial compartment

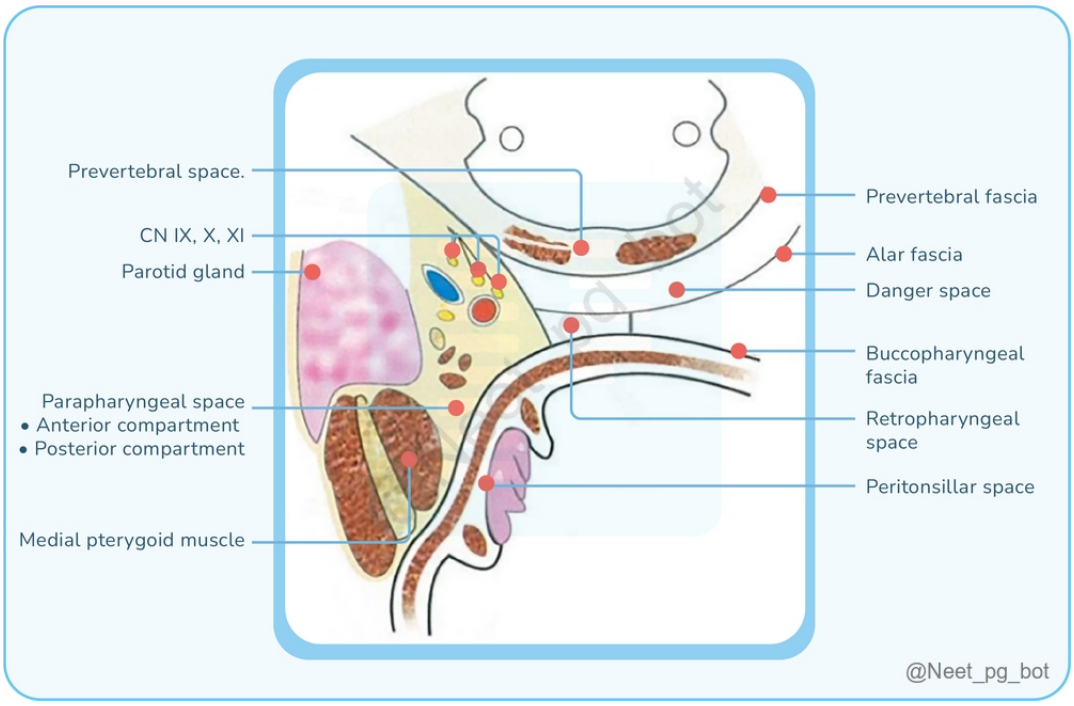
D. Parapharyngeal abscess in the lateral compartment

Correct Answer: B. Parapharyngeal abscess in the posterior compartment

■ *Listen (English)*

■ *Listen (Hindi)*

Explanation: Bulge of pharynx behind posterior pillar, paralysis of CN IX, X, XI, XII, and parotid region swelling are seen in the abscess of the posterior compartment of parapharyngeal space. Parapharyngeal abscess: Parapharyngeal Space Pyramidal in shape Base: skull Apex: hyoid bone Medial: buccopharyngeal fascia Posterior: prevertebral fascia Lateral: medial pterygoid muscle, mandible, deep surface of parotid gland Aetiology of Infection Pharynx: Acute/chronic infections (tonsil, adenoid), peritonsillar abscess Dental infections: usually lower last molars Ear: Bezold abscess, petrositis Infections of other spaces: Parotid, retropharyngeal, and submaxillary spaces External trauma Symptoms Fever Odynophagia Sore throat Torticollis Signs of toxaemia Compartment-wise symptoms Anterior compartment-anterior to styloid process. Abscess here causes: Prolapse of tonsil and tonsillar fossa Trismus External swelling behind angle of jaw Posterior compartment -posterior to styloid process. Abscess here causes: Bulge of pharynx behind posterior pillar Paralysis of CN IX, X, XI, XII, and sympathetic chain Parotid region swelling Minimal trismus or tonsillar prolapse Treatment Systemic antibiotic Drainage of abscess



References:

Dhingra Diseases of Ear, Nose and Throat and Head and Neck Surgery, 8th Edition, Page 314-316

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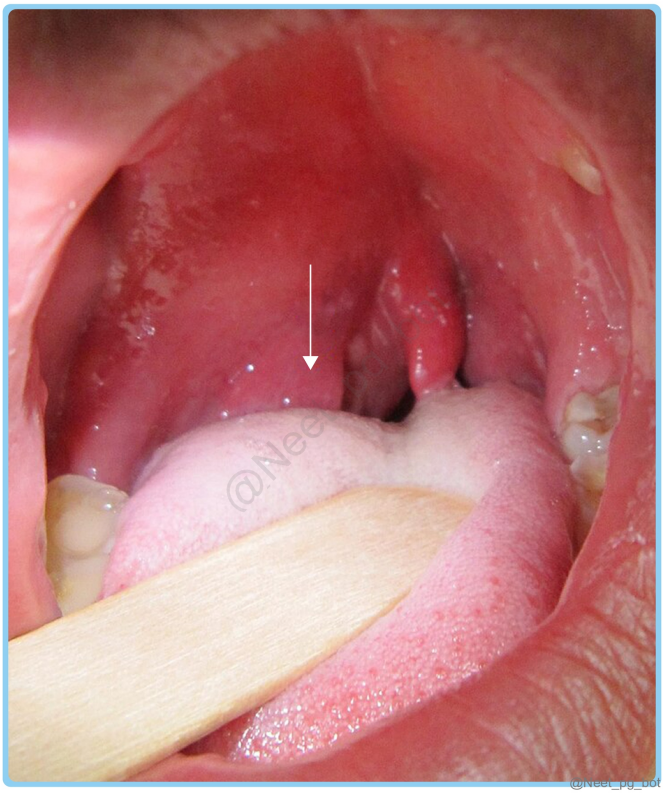
Q5: Adult male with complaints of fever, throat pain on left side, painful swallowing with change in voice since 2 days. Oral examination revealed the following. No visible neck swelling is seen. What is the most likely diagnosis? (Q847951)

A. Parapharyngeal abscess

B. Ludwig's angina

C. Quinsy

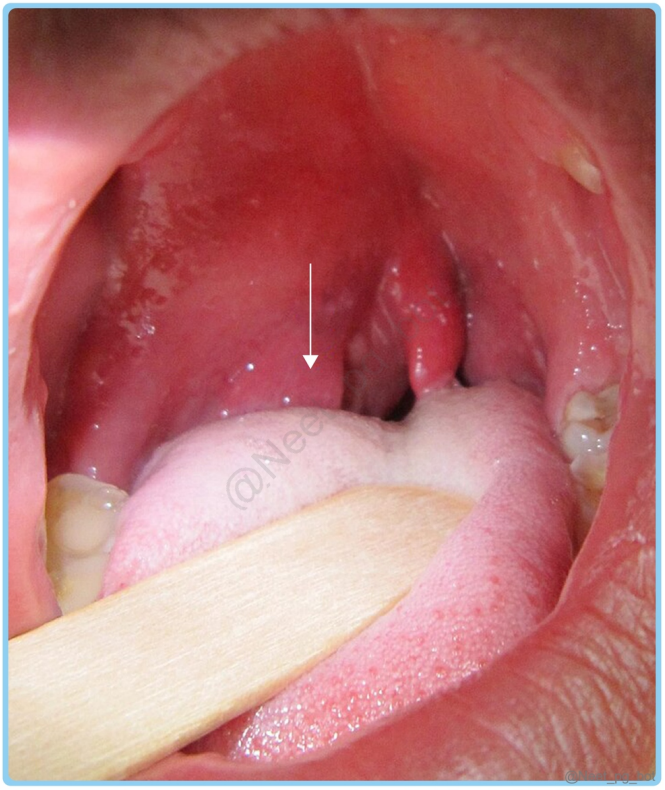
D. Retropharyngeal abscess



Correct Answer: C. Quinsy

- *Listen (English)*
- *Listen (Hindi)*

Explanation: Given clinical scenario is suggestive of Peritonsillar abscess , also known as Quinsy . Peritonsillar abscess (Quinsy): Definition Collection of pus in the peritonsillar space (between tonsil capsule and superior constrictor muscle). Aetiology Follows acute tonsillitis or can arise de novo. Infection begins in the tonsillar crypt Cause Streptococcus pyogenes, S. aureus, anaerobes or mixed infection. Clinical Features Fever with chills & rigors Severe unilateral throat pain Odynophagia (difficulty swallowing) Muffled " hot potato voice ", foul breath Ipsilateral earache (referred via CN IX) Examination Findings Swollen, congested tonsils, soft palate Uvula pushed to the opposite side with bulging soft palate No visible neck swelling seen Investigations Contrast-enhanced CT or MRI to show abscess and extent Needle aspiration for bacterial culture and sensitivity testing Treatment Conservative: IV fluids, Analgesics, IV antibiotics, Oral hygiene (hydrogen peroxide or saline mouthwash) Incision and drainage for abscess Surgical: Interval tonsillectomy (after 4–6 weeks)/ Hot tonsillectomy (Tonsillectomy consecutively along with I&D) Complications Parapharyngeal abscess/ Laryngeal edema Pneumonitis or lung abscess/ Septicaemia Jugular vein thrombosis Parapharyngeal abscess (Option A) and Retropharyngeal abscess (Option D): both would present with a neck swelling. Ludwig’s angina (Option B): Presents with submandibular swelling.



References:

Dhingra Diseases of Ear, Nose and Throat and Head and Neck Surgery, 8th Edition, Page 311, 312, 453

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Q6: Which of the following statements about the parapharyngeal space is/are correct? 1) The parapharyngeal space extends from the base of the skull to the tracheal bifurcation. 2) The retropharyngeal space communicates with the parapharyngeal space. 3) The anterior compartment of the parapharyngeal space is related to the medial pterygoid muscle. 4) The posterior compartment of the parapharyngeal space contains the carotid artery, jugular vein, and cranial nerves IX, X, XI, XII. (Q847950)

A. only 1

B. 1, 3, 4

C. 2, 3, 4

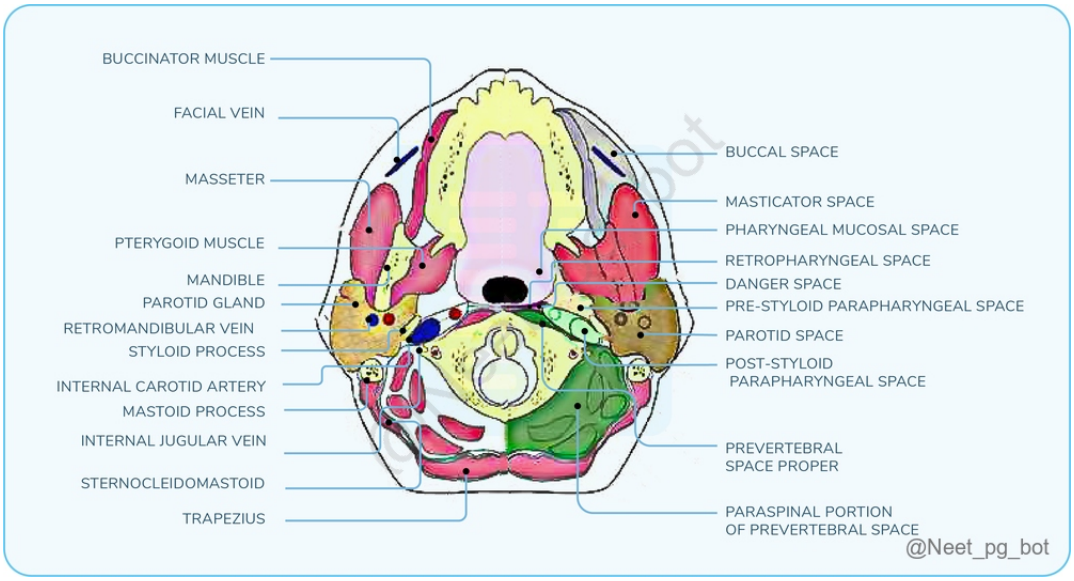
D. only 2

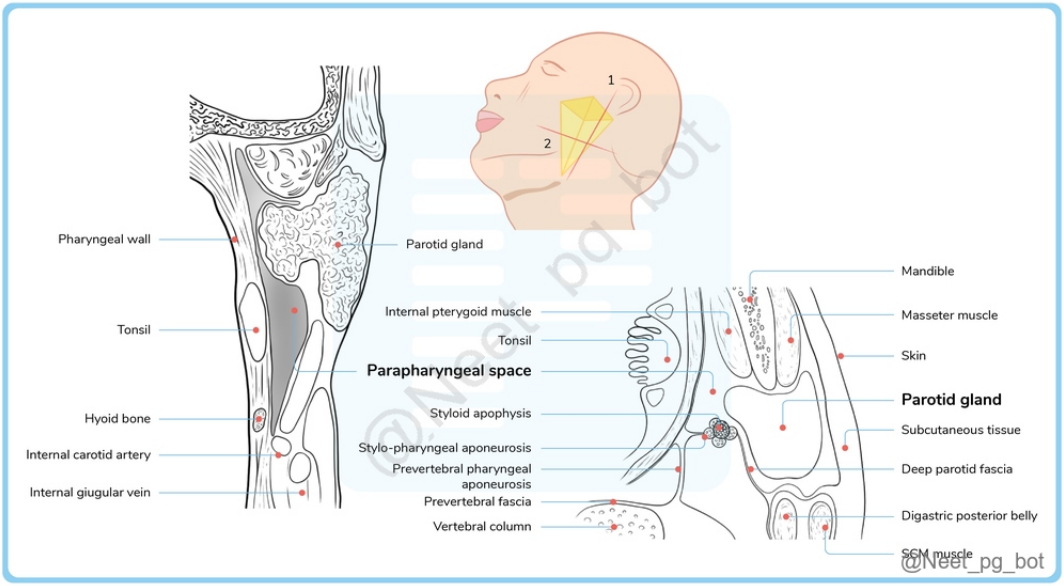
Correct Answer: C. 2, 3, 4

■ *Listen (English)*

■ *Listen (Hindi)*

Explanation: Parapharyngeal space: Pyramidal, with its base at the skull's base and its apex at the hyoid bone. (Statement 1) Communications: retropharyngeal space (Statement 2) , submandibular, parotid, carotid, and visceral spaces. Relations of the Parapharyngeal Space: Medial: Buccopharyngeal fascia covering the constrictor muscles Posterior: Prevertebral fascia covering prevertebral muscles and transverse processes of cervical vertebrae Lateral: Medial pterygoid muscle, mandible, and deep surface of the parotid gland The styloid process and its attached muscles divide the parapharyngeal space into two compartments: Anterior compartment: Related to the tonsillar fossa (medially) and medial pterygoid muscle (laterally). (Statement 3) Posterior compartment: Related to the posterior part of the lateral pharyngeal wall (medially) and the parotid gland (laterally). Structures: Carotid artery, jugular vein, cranial nerves IX, X, XI, XII, and the sympathetic trunk , along with upper deep cervical nodes. (Statement 4) Retropharyngeal and Prevertebral spaces: Space Location Features Retro- pharyngeal Space Behind the pharynx Extent: from the skull base to tracheal bifurcation. Infection may spread to the mediastinum. Divided into spaces of Gillette by median raphe. Pre- vertebral Space Between vertebral bodies (posterior) and prevertebral fascia (anterior) Extent: from the skull base to coccyx Infections often from vertebral caries. Abscess causes a midline bulge.





References:

Dhingra Diseases of Ear, Nose and Throat and Head and Neck Surgery, 8th Edition, Page 312-314

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Q7: A 65-year-old man presents with progressive dysphagia, regurgitation of undigested food, chronic bad breath, and a gurgling sound in his neck during swallowing. What is the most likely diagnosis? (Q847949)

A. Achalasia

B. Gastroesophageal reflux disease (GERD)

C. Zenker's diverticulum

D. Plummer-Vinson syndrome

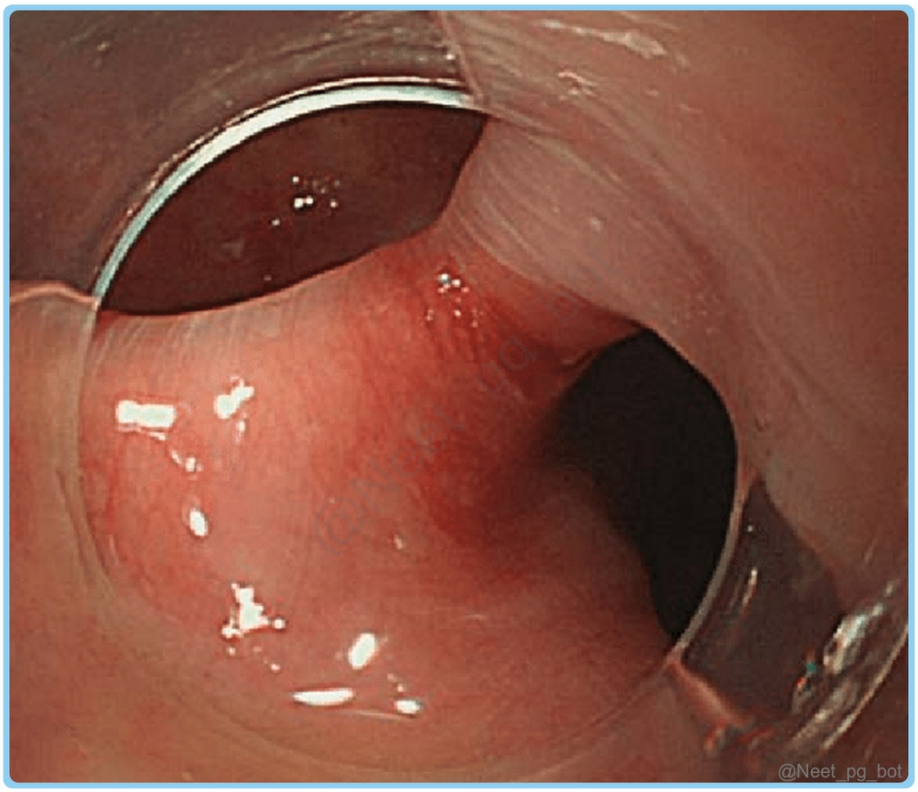
Correct Answer: C. Zenker's diverticulum

■ *Listen (English)*

■ *Listen (Hindi)*

Explanation: Zenker's Diverticulum: Outpouching of the pharyngeal mucosa through a weak area in the posterior pharyngeal wall (Killian's dehiscence). Clinical features: Dysphagia is the most prominent feature appears when the pouch gets filled with food and presses on the oesophagus. A gurgling sound is produced on swallowing. Regurgitation at night of the undigested food, causing cough and aspiration pneumonia. Halitosis(Chronic bad

breathe) Malnourished due to dysphagia. Associated hiatus hernia Diagnosis: Barium swallow provides information regarding its size, location and character of the mucosal lining. Endoscopy reveal fibrosis and pooling of food in the diverticulum. Treatment: Excision of the pouch and cricopharyngeal myotomy done through cervical approach. Dohlman's procedure: Partition wall between the oesophagus and the pouch is exposed and divided by diathermy through a weerda scope. Endoscopic laser treatment: Partition wall between the oesophagus and the pouch is exposed and divided by CO2 laser using endoscope. This procedure is known to have fewer recurrences and faster improvement in symptoms. Achalasia (OptionA): Lower esophageal sphincter fails to relax properly, leading to dysphagia for both solids and liquids. However, it typically does not cause halitosis or gurgling sound in the neck. Gastroesophageal Reflux Disease (GERD) (Option B): Characterized by the reflux of stomach contents into the esophagus leading to heartburn, regurgitation, dysphagia. However, GERD usually does not present with bad breath, or gurgling sound in the neck. Plummer-Vinson Syndrome (Option D): Characterized by dysphagia, iron-deficiency anemia, and esophageal webs. While it involves dysphagia, it does not typically cause regurgitation of undigested food, bad breath or gurgling sound in the neck.



References:

Dhingra Diseases of Ear, Nose and Throat and Head and Neck Surgery, 8th Edition, Page 323, 324

Zenker

↑ *Back to this question in Part A*

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Q8: In the development of a pharyngeal pouch, which anatomical area is primarily affected? (Q847948)

A. Killian’s dehiscence

B. Vallecula

C. Pyriform sinus

D. Uvula

Correct Answer: A. Killian’s dehiscence

■ *Listen (English)*

■ *Listen (Hindi)*

Explanation: Killian’s dehiscence is more prone to the formation of a pharyngeal pouch or Zenker's diverticulum due to increased pressure during swallowing, leading to the outpouching of mucosal tissue. Laimer's dehiscence: It is also present below Killian's dehiscence, but its position is in the midline below the cricopharyngeus Vallecula (Option B) is a depression between the base of the tongue and epiglottis and is not an area of muscular weakness; hence, it is not involved in the formation of a pharyngeal pouch. Pyriform sinus (Option C) is a recess in the hypopharynx lateral to the laryngeal inlet and is not the site of mucosal herniation in Zenker’s diverticulum. Uvula (Option D) is a midline structure of the soft palate and has no anatomical or functional relation to the weak area responsible for pharyngeal pouch formation.

References:

Dhingra Diseases of Ear, Nose and Throat and Head and Neck Surgery, 8th Edition, Page 323, 324

www.ncbi.nlm.nih.gov/pmc/articles/PMC1742115/#

↑ *Back to this question in Part A*

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Q9: A 7-year-old child presents to the ER with rapidly progressing swelling under the jaw and difficulty breathing. On examination, there is bilateral submandibular swelling with elevation of the tongue, but no trismus or fluctuation. He reports recent dental pain in his lower molars. Which anatomical connection is primarily responsible for the rapid bilateral spread of this infection? (Q847946)

A. Between the submental and parapharyngeal spaces

B. Between the sublingual and retropharyngeal spaces

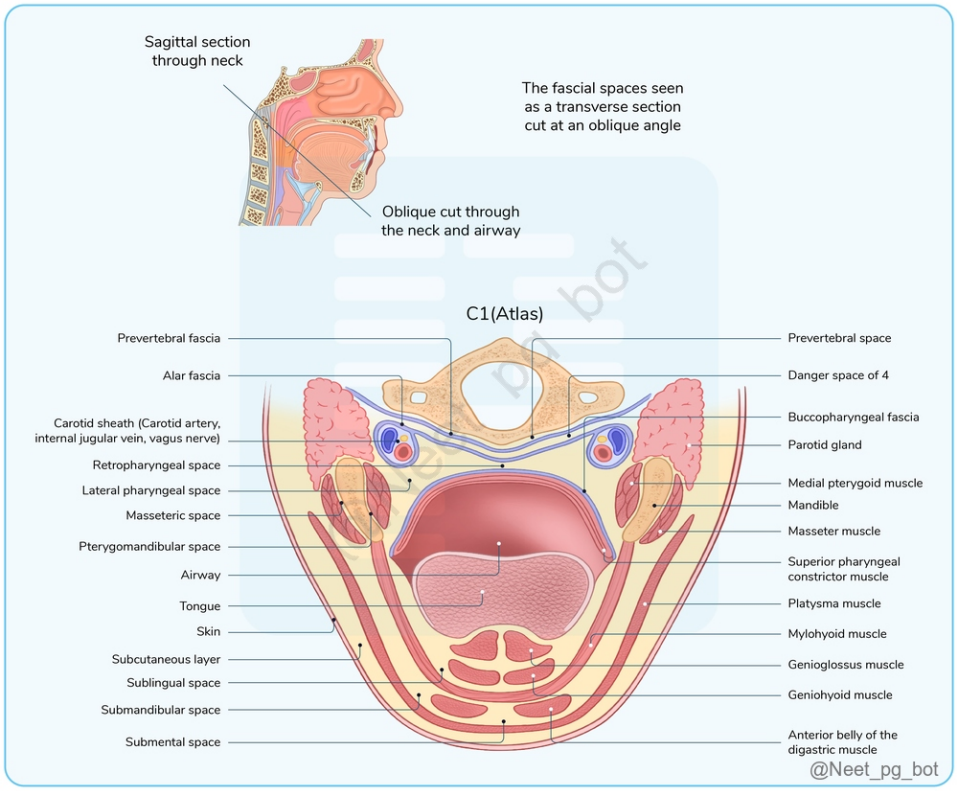
C. Between the submandibular and submental spaces

D. Between the submental and buccal spaces

Correct Answer: C. Between the submandibular and submental spaces

- *Listen (English)*
- *Listen (Hindi)*

Explanation: Clinical scenario is suggestive of Ludwig's angina. The infection typically begins in the submandibular space due to dental infection. The close anatomical connection between the submandibular and submental spaces allows for rapid spread across the midline, leading to bilateral involvement. Ludwig's angina is a rapidly spreading cellulitis primarily affecting the mandibular spaces. Ludwig' angina - Anatomy Primary Spaces It involves three spaces around the mandible: the sublingual, submandibular, and submental spaces. Sublingual space : Infections here typically arise from the premolars and first molar. Submandibular space : It contains the submandibular gland and lymph nodes, and connects to both the sublingual and submental spaces. (Option C) Submental space : Infections in the submandibular space can easily spread to the submental and contralateral sublingual spaces. Secondary Spaces The secondary spaces, known collectively as the masticator space, surround the muscles involved in mastication (masseter, medial and lateral pterygoid, and temporalis). These spaces can become involved due to the posterior spread of infection from the primary spaces or from a third molar infection. The primary clinical feature of masticator space infection is significant trismus.



References:

Dhingra Diseases of Ear, Nose and Throat and Head and Neck Surgery, 8th Edition, Page 309, 310

↑ *Back to this question in Part A*

@Neet_pg_bot

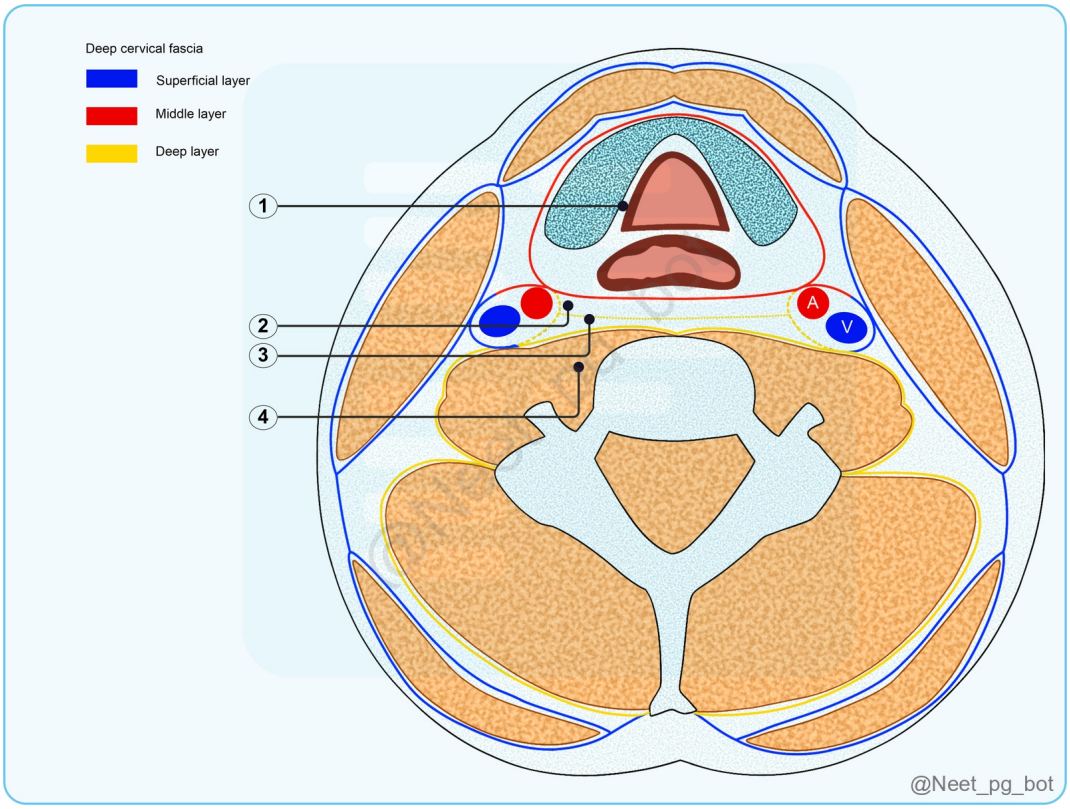
Q10: Which of the marked structures is known as the Space of Gillette? (Q891878)

A. 1

B. 2

C. 3

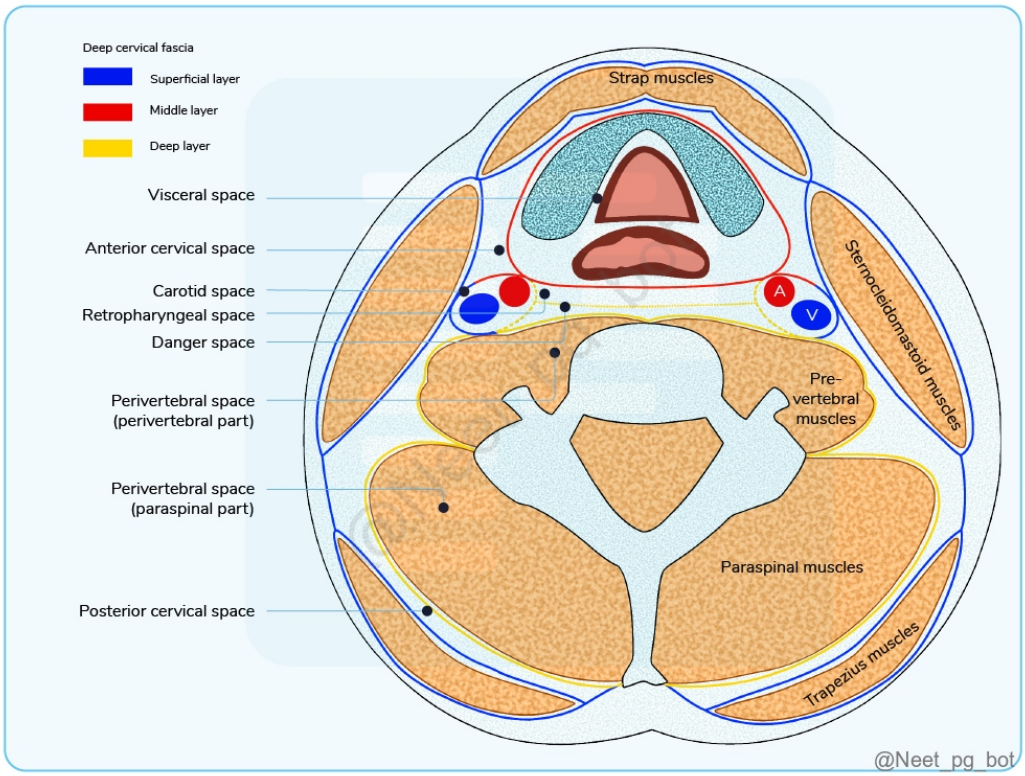
D. 4



Correct Answer: B. 2

Explanation: The retropharyngeal space, also referred to as the Space of Gillette, is a potential space located posterior to the pharynx. It is bounded anteriorly by the buccopharyngeal fascia and posteriorly by the alar fascia. This space extends from the base of the skull down to the level of the superior mediastinum. In children, it contains the retropharyngeal lymph nodes, which typically atrophy by the age of 6 years, explaining why acute suppurative retropharyngeal abscesses are predominantly seen in the pediatric age group. 1 (Option A) is Visceral space , a central compartment in the infrahyoid neck extending from the hyoid bone to the superior mediastinum containing the thyroid, parathyroid, larynx, and oesophagus. 3 (Option C) is Danger space , which is located between the alar fascia anteriorly and the prevertebral fascia posteriorly, providing a direct conduit for infection to

spread into the posterior mediastinum. 4 (Option D) is Prevertebral space , which lies between the prevertebral fascia and the vertebral bodies, and is the site for chronic abscesses usually secondary to spinal tuberculosis.



References:

PL Dhingra's Diseases of Ear, Nose and Throat and Head and Neck Surgery, 8th Edition, Page 312.

↑ *Back to this question in Part A*

@Neet_pg_bot

Q11: Which of the following lymph nodes is the most superior member of the lateral retropharyngeal group, situated at the level of the atlas near the base of the skull? (Q891882)

A. Delphian node

B. Node of Rouviere

C. Virchow's node

D. Cloquet's node

Correct Answer: B. Node of Rouviere

Explanation: The retropharyngeal lymph nodes are located in the potential space behind the pharynx and serve as the primary drainage site for the upper aerodigestive tract. The Node of Rouviere is specifically identified as the most superior node of the lateral retropharyngeal group. These nodes are clinically significant in the pediatric population because their suppuration following an upper respiratory tract infection is the most common cause of an acute retropharyngeal abscess. Delphian node (Option A) is a midline prelaryngeal lymph node located on the cricothyroid membrane, primarily involved in the spread of laryngeal and thyroid carcinomas. Virchow's node (Option C) refers to the left-sided supraclavicular lymph node; its enlargement is associated with the metastatic spread of abdominal malignancies. Cloquet's node (Option D), also known as the node of Rosenmüller, is a deep inguinal lymph node in the femoral canal draining the lower limbs and external genitalia.

References:

PL Dhingra’s Diseases of Ear, Nose and Throat and Head and Neck Surgery, 8th Edition, Page 457.

↑ *Back to this question in Part A*

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Q12: The Danger Space of the neck, which acts as a direct conduit for the spread of infection from the skull base to the posterior mediastinum, is anatomically bounded in front and back by: (Q891883)

A. Buccopharyngeal fascia and Alar fascia

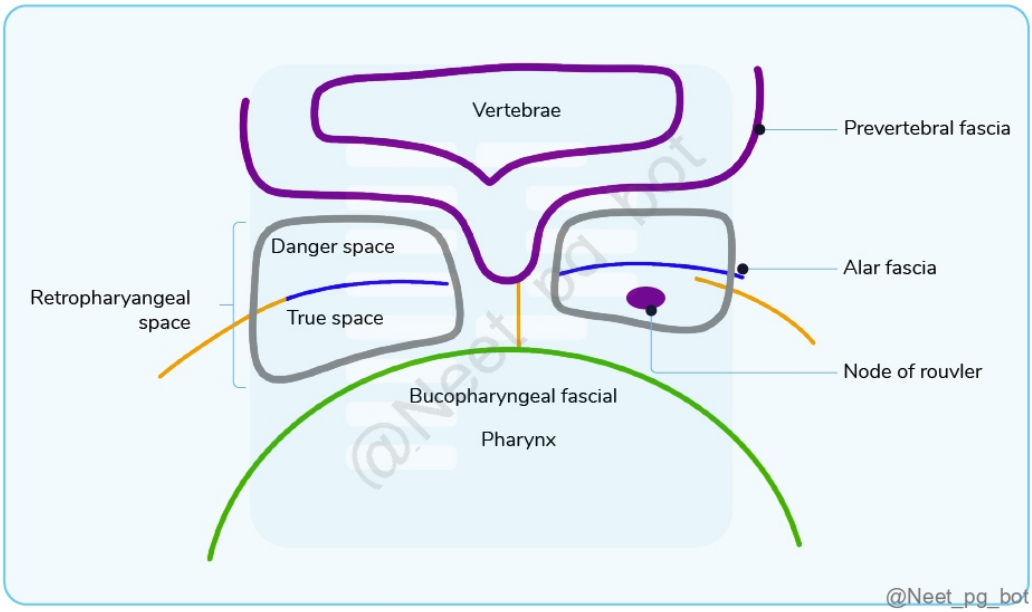
B. Buccopharyngeal fascia and Prevertebral fascia

C. Alar fascia and Prevertebral fascia

D. Prevertebral fascia and Vertebral bodies

Correct Answer: C. Alar fascia and Prevertebral fascia

Explanation: The Danger Space is a potential space of the neck characterized by its unrestricted vertical extent, allowing infections to descend rapidly into the thorax. Key anatomical and clinical features include: Anterior Boundary: It is lined in front by the alar fascia (a division of the deep cervical fascia). Posterior Boundary: It is lined in back by the prevertebral fascia. Extent: It extends from the base of the skull through the neck into the posterior mediastinum, reaching the level of the diaphragm. Clinical Significance: Because it is open inferiorly, a retropharyngeal abscess that breaches the alar fascia enters this space and causes life-threatening necrotizing mediastinitis. Buccopharyngeal fascia and Alar fascia (Option A) bound the true retropharyngeal space (Space of Gillette), which is anatomically limited at the level of the superior mediastinum (T1-T2). Buccopharyngeal fascia and Prevertebral fascia (Option B) represent a broader clinical definition of the retropharyngeal area but ignore the intervening alar fascia, which creates the specific Danger Space. Prevertebral fascia and Vertebral bodies (Option D) bound the prevertebral space, which is the anatomical site for chronic cold abscesses associated with spinal tuberculosis.



References:

PL Dhingra's Diseases of Ear, Nose and Throat and Head and Neck Surgery, 8th Edition, Page 312-313, 315.

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Q13: The child presented with stridor and neck stiffness. X-ray neck reveals the following findings. What is the most likely diagnosis? (Q891886)

A. Epiglottitis

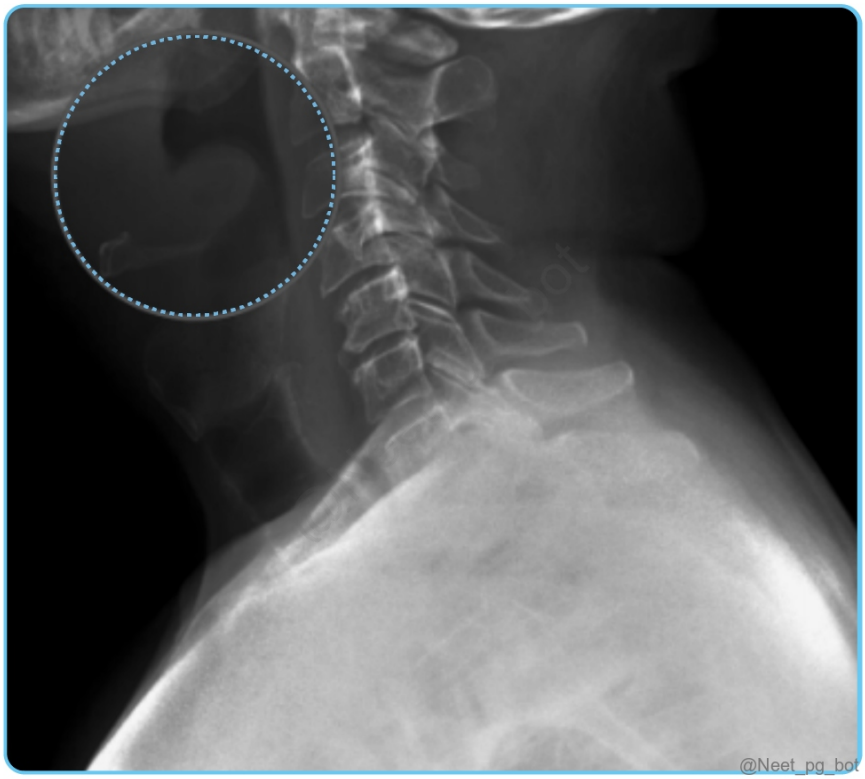
B. Retropharyngeal abscess

C. Ludwig's angina

D. TB spine

Correct Answer: B. Retropharyngeal abscess

Explanation: The diagnosis is Retropharyngeal Abscess based on the lateral neck X-ray showing pathognomonic widening of the prevertebral soft tissue shadow. In children, this shadow should not exceed 7 mm at the level of C2 or 14 mm at the level of C6. The presence of gas shadows or an air-fluid level within this widened space is highly suggestive of an acute suppurative process. Clinically, this presents as stridor, odynophagia, and a hot potato voice, often with the head held in a neutral or extended position to maintain the airway. Epiglottitis (Option A): A lateral X-ray in this condition would show the thumb sign, representing a thickened, edematous epiglottis. Ludwig's angina (Option C) is a cellulitis involving the submandibular and sublingual spaces; while it causes airway compromise, the pathology is in the floor of the mouth. TB spine (Option D) causes a chronic prevertebral abscess; the X-ray would typically demonstrate associated vertebral body destruction, narrowing of the disc spaces, and a lack of acute symptoms like high-grade fever and sudden-onset stridor.



References:

PL Dhingra's Diseases of Ear, Nose and Throat and Head and Neck Surgery, 8th Edition, Page 313.

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Q14: A 22-year-old patient presents with a severe sore throat, odynophagia, and hot potato voice. Clinical examination reveals a congested tonsil displaced medially and an edematous uvula pushed to the opposite side. This condition is clinically synonymous with which of the following? (Q891888)

A. Dental abscess

B. Peritonsillar abscess

C. Prevertebral abscess

D. Parapharyngeal abscess

Correct Answer: B. Peritonsillar abscess

Explanation: The clinical presentation described is characteristic of a Peritonsillar Abscess, which is colloquially and clinically known as Quinsy. This condition involves a collection of pus in the peritonsillar space charcterised by severe unilateral pain, odynophagia, and a characteristic muffled or hot potato voice. On examination, medial displacement of the tonsil, edema of the soft palate, and deviation of the uvula to the healthy side are observed. Dental abscess (Option A) involves a collection of pus at the root of a tooth and may spread to the submandibular space. Prevertebral abscess (Option C) is a collection of pus in the space between the prevertebral fascia and the vertebrae, often associated with spinal tuberculosis, presenting with midline swelling rather than lateral tonsillar displacement. Parapharyngeal abscess (Option D) is a deep neck space infection, presenting with swelling behind the posterior pillar and more severe trismus, often occurring as a complication of Quinsy.

References:

PL Dhingra's Diseases of Ear, Nose and Throat and Head and Neck Surgery, 8th Edition, Page 311.

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Q15: Which of the following terms are used as synonyms for an abscess occurring in the parapharyngeal abscess? Pharyngomaxillary abscess Retropharyngeal abscess Lateral pharyngeal abscess Medial pharyngeal abscess (Q891890)

A. 1 and 2

B. 1 and 3

C. 1, 3, and 4

D. 1, 2, 3, and 4

Correct Answer: B. 1 and 3

Explanation: Parapharyngeal abscess is synonymous with pharyngomaxillary abscess and lateral pharyngeal abscess. Key anatomical and clinical features regarding these synonyms include: Pharyngomaxillary space is the most common synonym, reflecting the space's position between the pharyngeal constrictors medially and the maxilla, mandible, and pterygoid muscles laterally. (Statement 1) Lateral pharyngeal space is used to emphasize its location lateral to the pharyngeal wall, distinguishing it from the midline retropharyngeal space. (Statement 3) Retropharyngeal space is a distinct anatomical compartment located posterior to the pharynx. (Statement 2) Medial pharyngeal space is not a recognized anatomical or clinical term; the space situated medial to the pharyngeal wall is the retropharyngeal space. (Statement 4)

References:

PL Dhingra's Diseases of Ear, Nose and Throat and Head and Neck Surgery, 8th Edition, Page 314.

↑ *Back to this question in Part A*

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Q16: Which of the following statements are correct regarding a parapharyngeal space abscess: Preponderance for male gender A self-limiting condition Often follows tonsillar infection Managed with parenteral antibiotics (Q891892)

A. 1 and 2

B. 1, 3, and 4

C. 2, 3, and 4

D. 1, 2, 3, and 4

Correct Answer: B. 1, 3, and 4

Explanation: Parapharyngeal Abscess is a deep neck space infection requiring urgent intervention. It occurs in the space lateral to the pharynx and is bounded by the layers of the deep cervical fascia. The clinical and epidemiological profile includes: Gender: It has a preponderance for the male gender. (Statement 1) Etiology: It most commonly originates from infections of the palatine tonsils, the pharynx, or dental infections. (Statement 3) Clinical Nature: It is an aggressive, life-threatening infection and is never self-limiting; it can lead to airway obstruction or vascular catastrophe. (Statement 2) Management: Treatment requires hospitalization and high-dose parenteral antibiotics. Surgical drainage is mandatory if an abscess has formed. (Statement 4)

References:

PLDhingra's Diseases of Ear, Nose and Throat and Head and Neck Surgery, 8th Edition, Page 315-316.

https://pmc.ncbi.nlm.nih.gov/articles/PMC7908373/#:~:text=The%20annual%20incidence%20rate%20of,has%20increased%20in%20recent%20years.

↑ *Back to this question in Part A*

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Q17: A patient is diagnosed with an infection of the post-styloid compartment of the parapharyngeal space. Which of the following features are associated with this condition? Trismus Vocal cord palsy Horner's syndrome Parotid swelling (Q891894)

A. 1 and 2

B. 1, 3, and 4

C. 2, 3, and 4

D. 1, 2, 3, and 4

Correct Answer: C. 2, 3, and 4

Explanation: The parapharyngeal space is anatomically divided into anterior and posterior compartments by the styloid process and its attached muscles (stylohyoid, stylopharyngeus, and styloglossus). Posterior compartment involvement is characteristically associated with neurovascular deficits rather than mechanical obstruction of the jaw. Feature Anterior Compartment (Pre-styloid) Posterior Compartment (Post-styloid) Primary Triad Prolapse of tonsil, trismus, swelling behind the angle of the jaw (Statement 1) Bulge behind the posterior pillar, paralysis of CN IX-XII, parotid region swelling Trismus Marked (due to spasm of medial pterygoid muscle) Minimal or absent Neurological Usually spared Paralysis of CN IX, X (vocal cord paralysis), XI, XII, and the sympathetic chain (Horner's) (Statements 2 & 3) Oropharynx Medial displacement/prolapse of tonsil and tonsillar fossa Minimal tonsillar prolapse; bulge occurs behind the posterior pillar Swelling External swelling behind the angle of the jaw Swelling localized to the parotid region (Statement 4) Symptoms Marked odynophagia Symptoms related to cranial nerve palsies

References:

PL Dhingra’s Diseases of Ear, Nose and Throat and Head and Neck Surgery, 8th Edition, Page 315-316.

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• [03_Pharynx] 024 Previous Year Questions

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[03_Pharynx] 024 Previous Year Questions — Quick Jump

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Q1: What would be the next step in managing the symptoms of a 7-year-old child who underwent a tonsillectomy and now presents with snoring, palpitations, mouth breathing, a slight hearing loss, a high arched palate, and a decline in school performance, causing concern to the mother? (Q793606)

A. Adenoidectomy

B. Myringoplasty

C. Adenoidectomy with grommet insertion

D. Conservative management

Correct Answer: C. Adenoidectomy with grommet insertion

Explanation: The next course of treatment for this youngster would be an adenoidectomy with grommet insertion based on the symptoms and examination results. Snoring, mouth breathing, and a minor loss of hearing in the children are indications that the upper airway may be blocked, possibly as a result of swollen adenoids. The child's breathing would be made better by an adenoidectomy by removing the adenoids. Grommets would facilitate greater middle ear fluid outflow, enhancing the child's hearing. Adenoidectomy and grommet insertion may help the child's symptoms, which may also be caused by the child's high-arched palate. Incorrect choices: Option a: Adenoidectomy: In some instances where swollen adenoids are the cause of upper airway obstruction, adenoidectomy alone may be adequate. However, the child in this instance also has a high arched palate and a slight hearing loss, which indicates that there may be additional factors causing his symptoms. Option b: Myringoplasty: A surgical treatment called myringoplasty can be used to seal an eardrum hole. However, in this instance, the child's primary symptoms are obstruction of the upper airway. Myringoplasty is not a suitable course of treatment for this reason. Option d: Conservative management: For some cases of upper airway blockage brought on by enlarged adenoids, conservative care, such as observation and symptomatic treatment, may be suitable. The child's symptoms are, however, impacting his academic performance in this instance, and consequences could arise if the obstruction is not removed. The child's symptoms may not be sufficiently

addressed and his quality of life may not be improved by conservative management, for this reason.

References:

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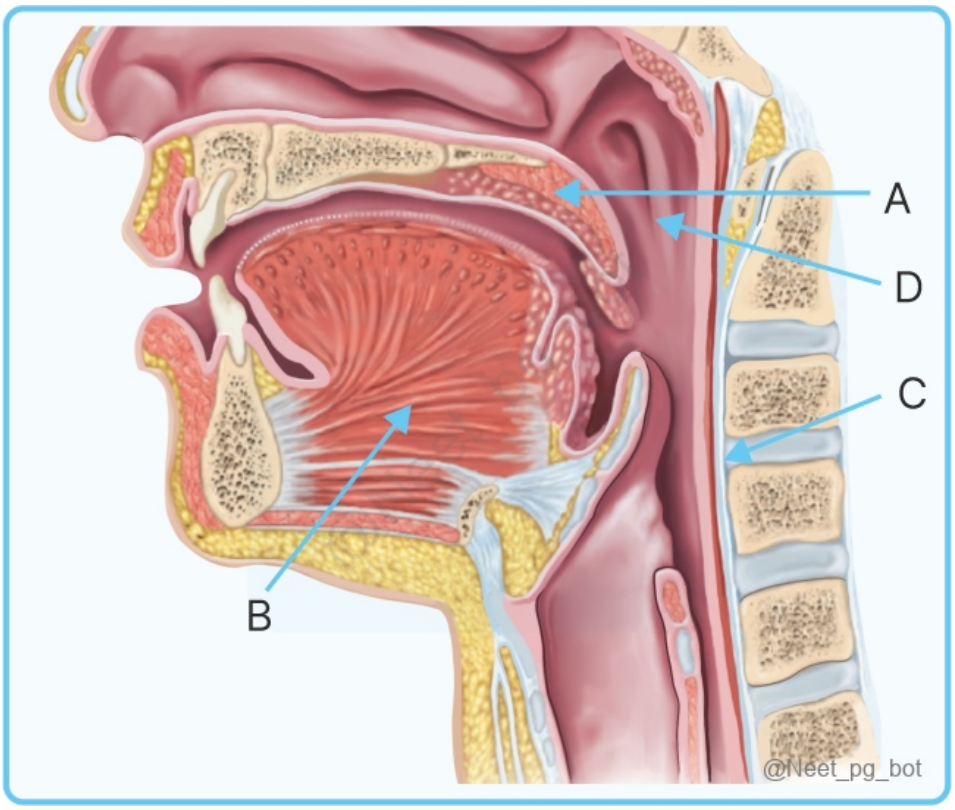
Q2: Which of the following structures are associated with dysphagia and dysarthria, except? (Q879180)

A. Genioglossus

B. Posterior pharyngeal wall

C. Soft palate

D. Nasopharynx



Correct Answer: D. Nasopharynx

Explanation: Dysphagia and dysarthria involve muscles controlling swallowing and speech- genioglossus, posterior pharyngeal wall, and soft palate. The nasopharynx is not directly involved in these motor functions. Incorrect Options: Genioglossus (Option A): Helps in tongue movement essential for articulation and swallowing. Posterior pharyngeal wall (Option B): Involved in pharyngeal contraction during swallowing. Soft palate (Option C): Aids in speech and prevents nasal regurgitation during swallowing.

References:

Dysphagia

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Q3: A patient presents with a firm, tender, slow-growing mass below the ear as shown in the image below. What could be the diagnosis? (Q855768)

A. Bezold abscess

B. Parotid abscess

C. Upper cervical lymphadenopathy

D. Osteoma of the mandible

Correct Answer: B. Parotid abscess

Explanation: Correct Option: B) Parotid Abscess The firm, tender, slow-growing mass in front of and underneath the ear, suggests a parotid abscess. The parotid gland is a salivary organ found in front of the ear and when it becomes infected, it can result in the arrangement of an abscess. The diagnosis of a parotid abscess can be affirmed by clinical examination, and imaging ponders may be utilized to evaluate the degree of the abscess and direct treatment. Treatment typically includes antibiotics, incision and drainage, and pain management. Bezold abscess (Option A): A Bezold abscess is an uncommon complication of otitis media (middle ear contamination) that can lead to the formation of an abscess within the neck. However, this abscess is regularly found within the deep tissues of the neck , and not specifically below the ear. Upper cervical lymphadenopathy (Option C) : Upper cervical lymphadenopathy refers to extended lymph nodes within the neck, which can be caused by an assortment of conditions, including contamination, malignancy, and autoimmune disorders. Whereas it is possible for lymph nodes to be found underneath the ear, the indications depicted by the patient suggest a localized mass instead of generalized lymphadenopathy. Osteoma of the mandible (Option D) : An osteoma is a benign bone tumor that can occur in any bone of the body, including the mandible (lower jawbone). In any case, an osteoma is ordinarily asymptomatic and does not regularly show as a firm, tender, slow-growing mass. Imaging studies may be utilized to diagnose an osteoma, and treatment is regularly perceived, although surgical evacuation may be considered in certain cases.

References:

Diseases of the Ear, Nose, Throat, 8th Edition, Page no: 297

↑ *Back to this question in Part A*

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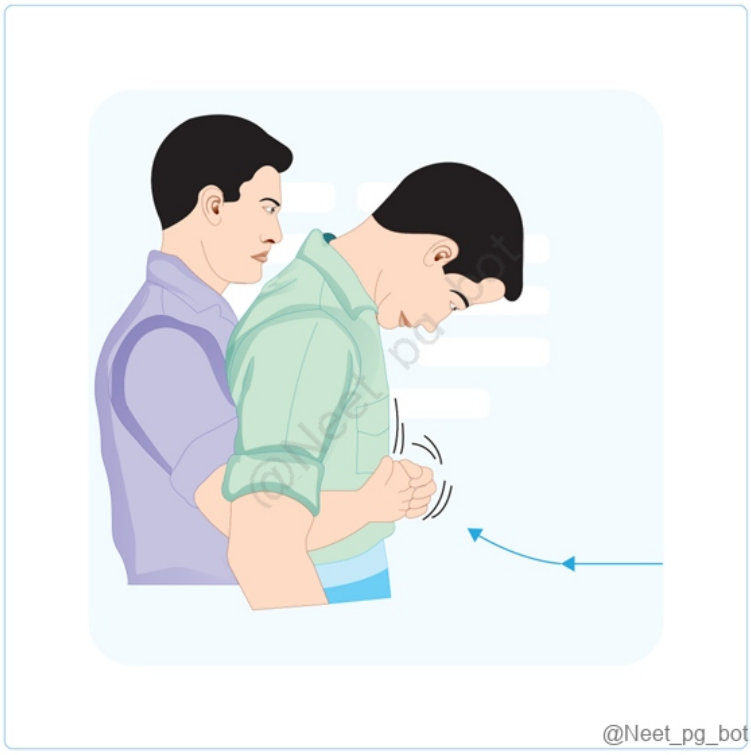
Q4: An adult man in a restaurant suddenly begins choking on his food. He is conscious. The following procedure was performed. Identify the procedure. (Q855591)

A. Heimlich’s maneuver

B. Back slap

C. Chest thrust

D. Blind insertion of finger



Correct Answer: A. Heimlich’s maneuver

Explanation: Correct Option: A) Heimlich's maneuver. It is a first-aid procedure utilized to dislodge an object from a person's windpipe when they are choking. It includes standing behind the choking individual and applying powerful upward pressure on the abdomen, below the ribcage and above the umbilicus, to make sufficient pressure to dislodge the object. Incorrect Options: Back slap (Option B) : Back slapping is a first-aid strategy utilized for infants who are choking. It includes the rescuer placing the newborn child face down on their forearm and delivering firm slaps to the infant's back between the shoulder blades. Typically done to unstick the object from the infant's airway. However, this procedure isn't recommended for adults because it can cause harm. Chest thrust (Option C) : Chest thrusts are a strategy utilized in CPR (cardiopulmonary resuscitation) to clear an obstructed airway when the casualty isn't breathing. This strategy includes setting the casualty on their back and delivering forceful thrusts to the lower half of their breastbone, between the nipples. This will help dislodge the object from the airway and reestablish breathing, but it isn't fitting for a conscious choking casualty who is still able to breathe. Blind insertion of finger (Option D) : Blind insertion of finger isn't suggested as a first-aid method for choking casualties because it can thrust the object forward into the windpipe, making the circumstance worse. It can also cause harm to the victim's throat and airway. It is important to utilize appropriate first-aid methods such as the Heimlich maneuver or chest thrusts to dislodge the object from the airway.

References:

Diseases of the Ear, Nose, Throat, 8th Edition, Page no: 289

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Q5: A 5-year-old girl is brought by her mother, with the complaint that the child is experiencing difficulties breathing through her nose. The girl's face appears elongated and lacks expression, and her mouth remains open. Upon examination, it is observed that she has a palate with a high arch and her upper teeth are crowded. An X-ray image is provided for reference. Based on these findings, what is the most probable diagnosis? (Q859900)

A. Lingual tonsils

B. Quinsy

C. Tonsillar hypertrophy

D. Adenoid hypertrophy

Correct Answer: D. Adenoid hypertrophy

Explanation: The symptoms described- difficulty breathing through the nose, an elongated face, lack of expression, mouth-breathing, high-arched palate, and crowded upper teeth- are classic signs of adenoid hypertrophy . Adenoid hypertrophy occurs when the adenoid tissue, located in the nasopharynx, becomes enlarged, obstructing airflow through the nasal passages. This leads to mouth breathing , sleep disturbances , and characteristic facial features, including an elongated face and a high-arched palate due to the prolonged

open-mouth breathing pattern. Adenoid Hypertrophy: Adenoid hypertrophy is common in young children and can cause nasal obstruction , leading to mouth breathing and sleep disturbances (e.g., snoring, sleep apnea). It may also result in facial deformities like the elongated face, high-arched palate, and crowded teeth due to chronic open-mouth breathing. X-ray imaging typically shows enlargement of the adenoid tissue in the nasopharyngeal region. Incorrect Options: Lingual tonsils (Option A) : is incorrect because while the lingual tonsils can contribute to obstructive symptoms, they are located at the base of the tongue, not in the nasopharynx. Quinsy (Option B) : is incorrect because quinsy refers to a peritonsillar abscess , typically presenting with severe throat pain , fever, and trismus , not with chronic nasal obstruction and facial deformities. Tonsillar hypertrophy (Option C) : is incorrect because tonsillar hypertrophy refers to the enlargement of the palatine tonsils , which is more likely to cause throat-related symptoms like difficulty swallowing , rather than the nasal obstruction seen in this case.

References:

Diseases of Ear, Nose, Throat - PL Dhingra, 8th Edition, Pg - 286,287

Scott Brown ENT, 8th Edition, Pg - 287

↑ *Back to this question in Part A*

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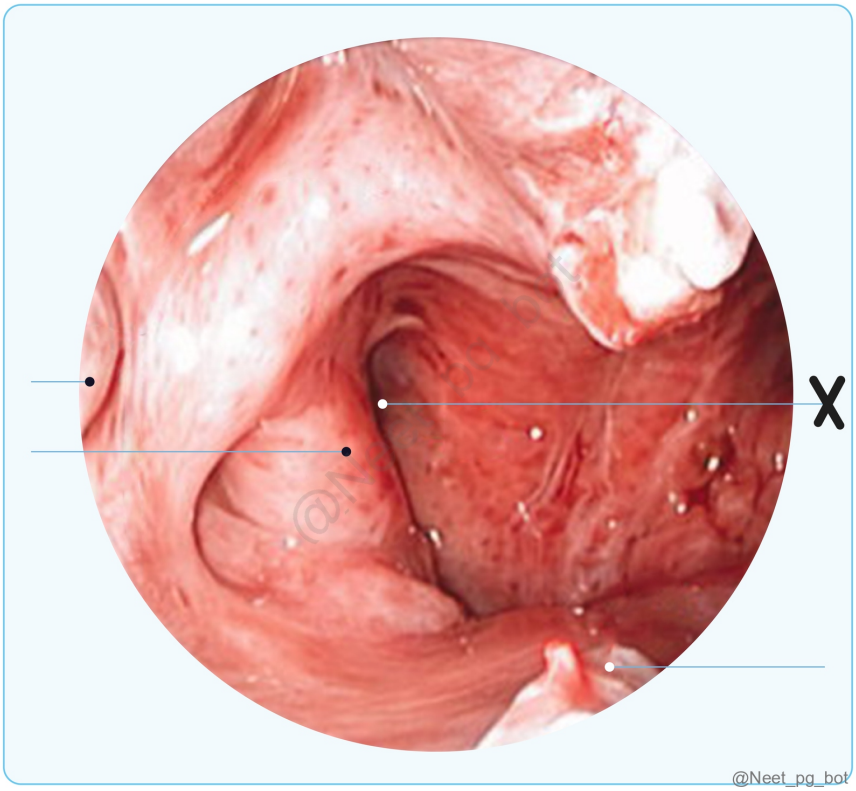
Q6: Please identify the structure marked "X" in this endoscopic image of the nasopharynx. (Q859376)

A. Sinus of Morgagni

B. Passavant’s ridge

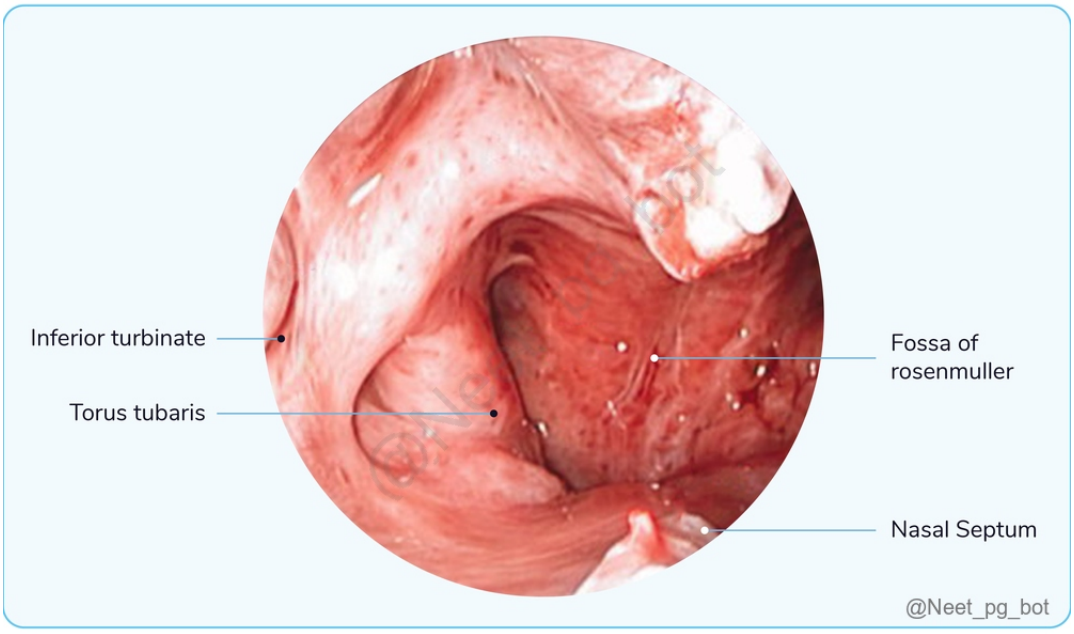
C. Fossa of Rossenmuller

D. Rathke’s pouch



Correct Answer: C. Fossa of Rossenmuller

Explanation: The fossa of Rosenmüller is a common site of nasopharyngeal carcinoma and is located posterior to the torus tubarius in the lateral wall of the nasopharynx . On endoscopic examination , it appears as a deep recess lateral to the Eustachian tube opening . Nasopharyngeal Anatomy Structure Description Fossa of Rosenmüller Deep recess behind the torus tubarius , common site of nasopharyngeal carcinoma Sinus of Morgagni Gap between the base of the skull and superior pharyngeal constrictor muscle Passavant's Ridge Muscular ridge formed by the superior pharyngeal constrictor , involved in velopharyngeal closure Rathke's Pouch Embryological remnant from which the anterior pituitary gland develops Sinus of Morgagni (Option A): is incorrect because it is an anatomical gap at the skull base, not a recess seen in endoscopy . Passavant's Ridge (Option B): is incorrect because it is a transient muscular ridge formed during swallowing, not a fixed nasopharyngeal structure . Rathke's Pouch (Option D): is incorrect because it is an embryological structure related to pituitary gland development, not visible in nasopharyngeal endoscopy .



References:

P L Dhingra Diseases of Ear Nose and Throat and Head and Neck Surgery - 7th Edition • Page no: 270

↑ *Back to this question in Part A*

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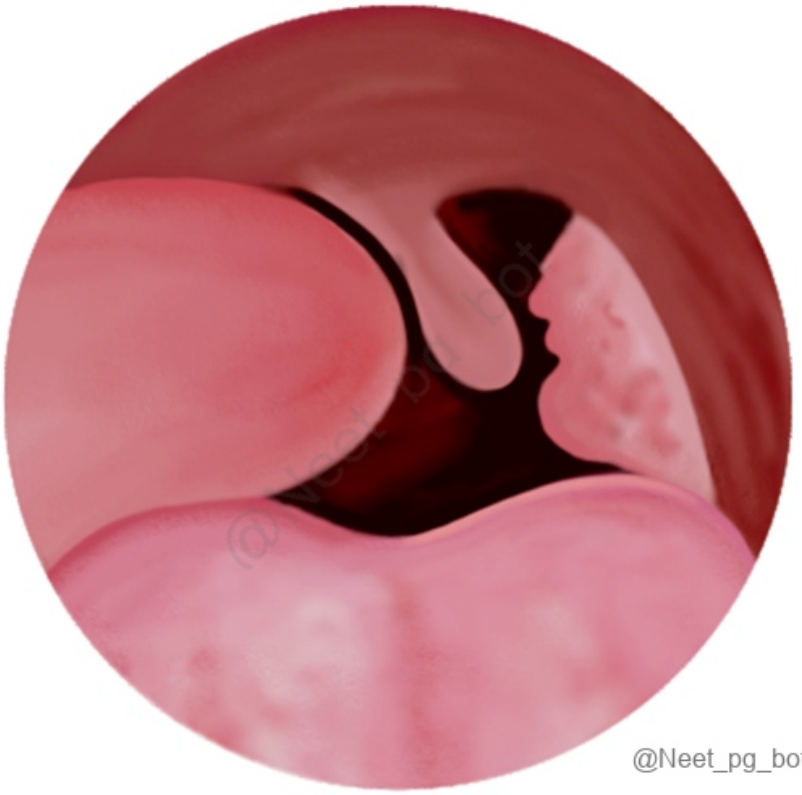
Q7: Which of the following is the likely cause for the complaints of a 9-year-old boy presenting with right ear pain, difficulty in opening the mouth, painful swallowing, and fever, when the oral cavity examination shows no abnormalities in the external facial examination? (Q854866)

A. Pharyngitis

B. Parotid abscess

C. Bezold’s Abscess

D. Quinsy



Correct Answer: D. Quinsy

Explanation: - Quinsy: Quinsy (Peritonsillar abscess): Quinsy is the most likely diagnosis based on the symptoms. It typically follows an episode of acute tonsillitis and presents with fever, sore throat, difficulty swallowing (odynophagia), pain referred to the ear, and trismus (difficulty opening the mouth). The absence of abnormalities on oral examination and the external facial exam makes this a more probable diagnosis. Pharyngitis (Option A): is incorrect because pharyngitis generally presents with sore throat and fever, but it typically does not cause significant difficulty in opening the mouth or severe ear pain as seen in this case. There is no mention of visible throat redness or swelling, which would be expected in pharyngitis. Parotid abscess (Option B): is incorrect because a parotid abscess usually causes swelling in the parotid gland area, which is not described here. Though ear pain is a symptom, there is no external facial swelling or pus drainage from the duct, which are typical signs of a parotid abscess. Bezold’s Abscess (Option C): is incorrect because Bezold's abscess is a deep neck abscess that occurs as a complication of mastoiditis, usually presenting with swelling in the neck or behind the ear. The absence of such features and mastoiditis symptoms makes this diagnosis unlikely in this case.

References:

Diseases of Ear, Nose & Throat - PL Dhingra - 8th Edition • Page no: 94, 300, 309, 311, 312

↑ *Back to this question in Part A*

@Neet_pg_bot

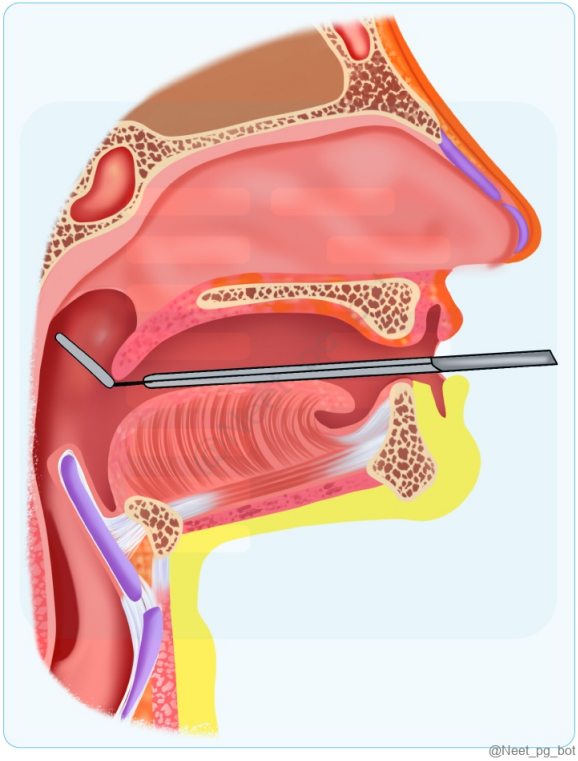
Q8: A senior resident in the hospital is performing the following clinical examination, as shown in the image below. Which of the following structures will not be visible to him? (Q856779)

A. Adenoids

B. Arytenoids

C. Torus tubarius

D. Upper surface of soft palate



Correct Answer: B. Arytenoids

Explanation: Arytenoids : The arytenoid cartilage is located in the larynx and is not visible during a posterior rhinoscopy, which examines the nasal cavity and nasopharynx using a mirror or endoscope. The arytenoids are situated lower down in the larynx and are not accessible through the posterior nasal passage. Posterior Rhinoscopy: Posterior rhinoscopy is a clinical examination technique used to visualize the posterior part of the nasal cavity, nasopharynx, and adjacent structures like the adenoids , torus tubarius , and the upper surface of the soft palate . This procedure is typically performed with a mirror or flexible endoscope, allowing the examiner to assess the nasopharyngeal area for any abnormalities. Structures located in the nasopharynx and upper airway, but not the larynx, will be visible. Incorrect Options: Adenoids (Option A): are visible during posterior rhinoscopy, as they are located in the nasopharynx, which is the area examined in this procedure. Torus tubarius (Option C): is the elevation of the mucosa over the eustachian tube orifice and is also visible during posterior rhinoscopy, being located in the nasopharynx. Upper surface of soft palate (Option D): is visible during posterior rhinoscopy as it is

part of the posterior oropharyngeal area and can be observed during the examination.

References:

Diseases of Ear, Nose & Throat - PL Dhingra - 8th Edition • Page no: 551

SRB Manual of Surgery, 6th Edition • Page no: 1148, 1150

↑ *Back to this question in Part A*

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Q9: What would be your immediate course of action in managing a patient who is experiencing bleeding from the surgical site following a tonsillectomy while in the recovery room? (Q856214)

A. Shift to OT, remove the clots, and cauterize/ligate the vessel

B. Shift to OT, start IV antibiotics, and pack the tonsillar fossa

C. Give anticoagulants, repeated gargling, and wait for 24 hours

D. Do blood transfusion and wait and watch

Correct Answer: A. Shift to OT, remove the clots, and cauterize/ligate the vessel

Explanation: - Shift to OT, remove the clots, and cauterize/ligate the vessel Post-tonsillectomy bleeding is a serious complication that can lead to airway obstruction and significant blood loss . The immediate priority is to Securing the airway and ensuring hemodynamic stability are the first priorities.. The best course of action is to: Shift the patient to the operating theater (OT) for better visualization. Remove clots to identify the bleeding source. Cauterize or ligate the bleeding vessel to achieve hemostasis. This is especially crucial in primary post-tonsillectomy hemorrhage (within 24 hours of surgery), which is usually due to inadequate hemostasis during the initial procedure. Shift to OT, start IV antibiotics, and pack the tonsillar fossa (Option B): Incorrect because while IV antibiotics may be necessary in cases of secondary hemorrhage (after 24 hours, often due to infection), primary hemorrhage requires immediate surgical intervention rather than just packing. Give anticoagulants, repeated gargling, and wait for 24 hours (Option C): Incorrect because anticoagulants would worsen the bleeding , and gargling is ineffective in stopping active hemorrhage. Waiting 24 hours without intervention could lead to life-threatening blood loss and airway compromise . Do blood transfusion and wait and watch (Option D): Incorrect because while a blood transfusion may be needed in severe cases, it does not stop the active bleeding . Immediate surgical control is essential.

References:

Diseases of Ear, Nose & Throat - PL Dhingra - 8th Edition • Page no: 506

Scott-Brown's Otorhinolaryngology and Head and Neck Surgery 8th Edition: Volume 3: Head and Neck Surgery, Plastic Surgery • Page no: 208, 635, 742, 755

↑ *Back to this question in Part A*

@Neet_pg_bot

Q10: Involvement of Jugular foramen leads to which of the following: (Q856058)

A. Loss of taste from the anterior ■ of the tongue

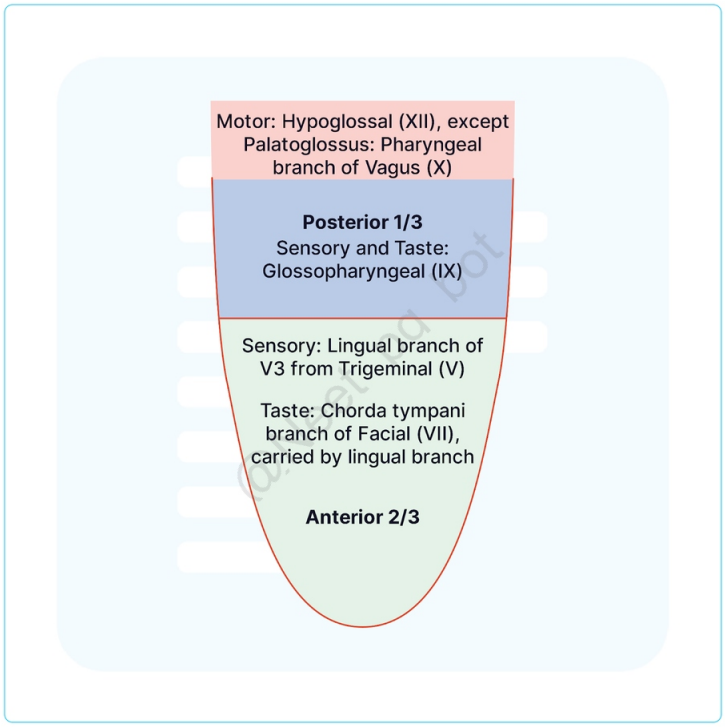
B. Loss of sensation from the posterior ■ of the tongue

C. Loss of sensation from the anterior ■ of the tongue

D. Loss of tasteand sensation from the anterior ■ of the tongue

Correct Answer: B. Loss of sensation from the posterior ■ of the tongue

Explanation: Damage to the jugular foramen can compress or injure the glossopharyngeal nerve, leading to loss of both taste and sensation from the posterior one-third of the tongue. The tongue is divided into two regions: Anterior two-thirds , innervated by the chorda tympani nerve (Option C) Posterior one-third, supplied by the glossopharyngeal nerve , separated by the Sulcus terminalis. {{caption_text}} Dysfunction in either of these nerves can cause impaired taste perception and loss of taste, as each nerve is responsible for sensation in its respective area. Development of tongue and nerve innervation Aspects Anterior ■ of tongue Posterior ■ of tongue Posterior most of the tongue Epithelial Development Two lingual swellings and a tuberculum impar, made from the mesoderm of 1st arch, fuse to form the anterior ■ of tongue. The hypobranchial arch is formed by the mesoderm of the 3rd and 4th pharyngeal arches and is further divided into cranial and caudal parts. The cranial part of this arch gives rise to the posterior ■. The Caudal parts derived from the hypobranchial arch develop to the posterior part of the tongue Taste Sensation Chorda Tympani Glossopharyngeal nerve (supplies circumvallate papillae) (Option B) Internal laryngeal nerve (Branch of Vagus) Sensory supply Lingual nerve Motor Supply Except for the palatoglossus muscle, which is innervated by the vagus nerve , all other intrinsic and extrinsic muscles of the tongue are supplied by the hypoglossal nerve . Muscles All the Tongue muscles develop from Occipital Somites.



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References:

Diseases of Ear, Nose, Throat - PL Dhingra, 8th edition, Pg no 275

BD Chaurasia's Human Anatomy Volume 3 & 4, 8th edition, Pg no 305.

↑ *Back to this question in Part A*

@Neet_pg_bot

Q11: Identify the condition shown in the image. (Q856044)

A. Adenoid facies

B. Goldenhar syndrome

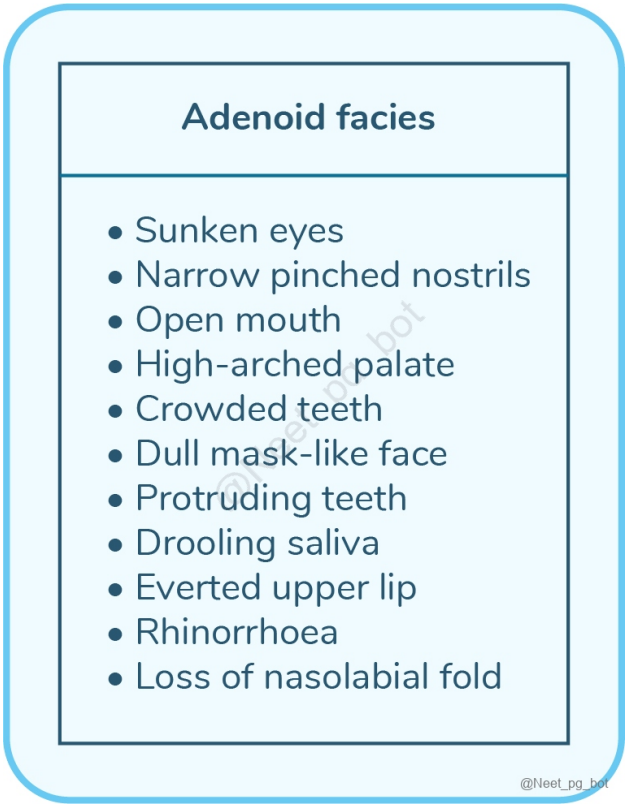
C. Horse facies

D. Frog facies

Correct Answer: A. Adenoid facies

Explanation: Adenoid facies, also known as adenoid face or long-face syndrome, refers to a characteristic facial appearance associated with chronic enlargement of the adenoids. Adenoid facies is characterized by specific facial features, which may include: Long and narrow face Open-mouth posture High-arched palate Dental crowding Adenoid Hypertrophy : (Enlargement of the adenoids) Aetiology Physiological Enlargement: Common in childhood. Chronic Conditions: Recurrent rhinitis, sinusitis, chronic tonsillitis, & allergies. Clinical Features Nasal Symptoms: Nasal obstruction leading to mouth breathing and feeding difficulties. Nasal discharge due to choanal obstruction and chronic rhinitis. Sinusitis, Epistaxis & voice changes due to nasal obstruction. (Rhinolalia clausa) Aural Symptoms: Tubal obstruction causing retracted tympanic membrane and CHL. Recurrent acute otitis media and chronic suppurative otitis media. Otitis media with effusion due to intermittent eustachian tube obstruction. Adenoid Facies: Characteristic facial appearance with an elongated face, open mouth, crowded upper teeth, and high-arched palate. {{caption_text}} {{caption_text}} Pulmonary Hypertension: Potential due to long-standing nasal obstruction. Aprosexia: Difficulty concentrating Clinical Examination External Nose: Check for skin changes indicating frequent nose rubbing. Nasal Assessment: Halogen light otoscope is used for simple anterior rhinoscopy , which examines the nasal cavity but not the adenoids. Adenoid Assessment: Nasendoscopy: For detailed evaluation, a flexible pediatric endoscope with topical anaesthesia is preferred. It provides an accurate assessment of adenoid size in an outpatient setting. Lateral Soft-Tissue Radiograph: This is useful when endoscopy is not tolerated; it correlates well with endoscopic findings. Goldenhar syndrome (Option B): Goldenhar syndrome, also known as oculo-auriculo-vertebral spectrum (OAVS) or hemifacial microsomia , is a rare congenital condition that affects the development of structures on one side of the face. The most prominent feature of Goldenhar syndrome is craniofacial asymmetry. This can involve facial asymmetry, microtia (underdeveloped or absent external ear), and facial clefts such as cleft lip and palate. Horse facies (Option C): Also known as Greek warrior helmet appearance, is seen in Treacher Collins syndrome. It is characterized by a short philtrum, a downturned mouth, Small chin (micrognathia), and Poorly formed ears with small holes (pits) or flaps

of skin (tags). Frog facies (Option D): The term is often used to describe the facial features observed in individuals with juvenile nasal angiofibroma. Broadening of the nasal bridge, swelling of cheek, frog face deformity (in cases of bilateral proptosis).



References:

Diseases of Ear, Nose, Throat - PL Dhingra, 8th Edition, Pg - 286,287, 292, 136

Scott Brown ENT, 8th Edition, Pg - 287

https://pubmed.ncbi.nlm.nih.gov/38839403/

↑ *Back to this question in Part A*

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Q12: What is the primary source of arterial supply for the palatine tonsils among the options provided? (Q857658)

A. Tonsillar branch of the facial artery

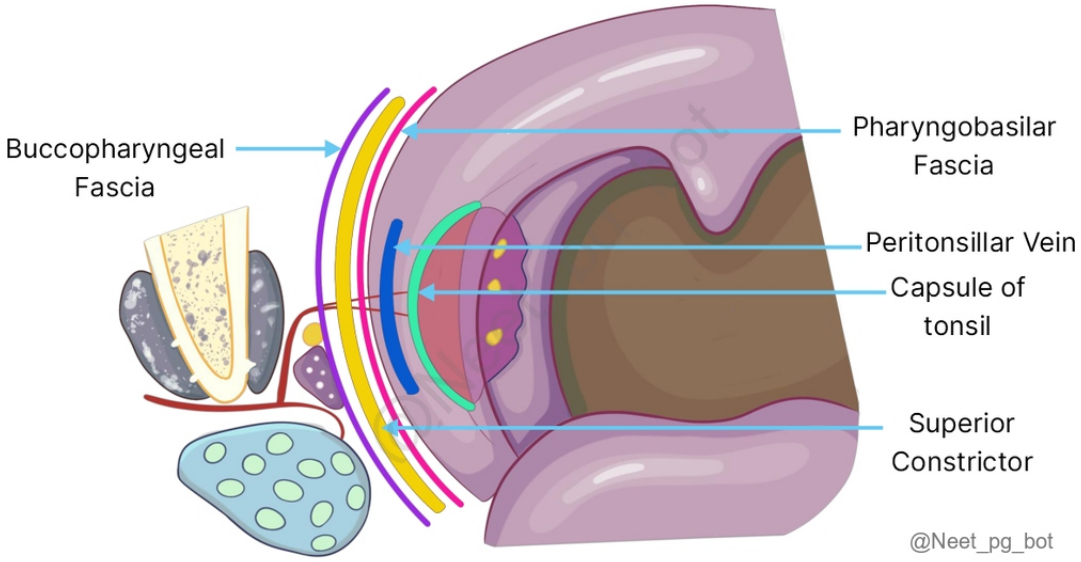
B. Descending palatine branch of maxillary artery

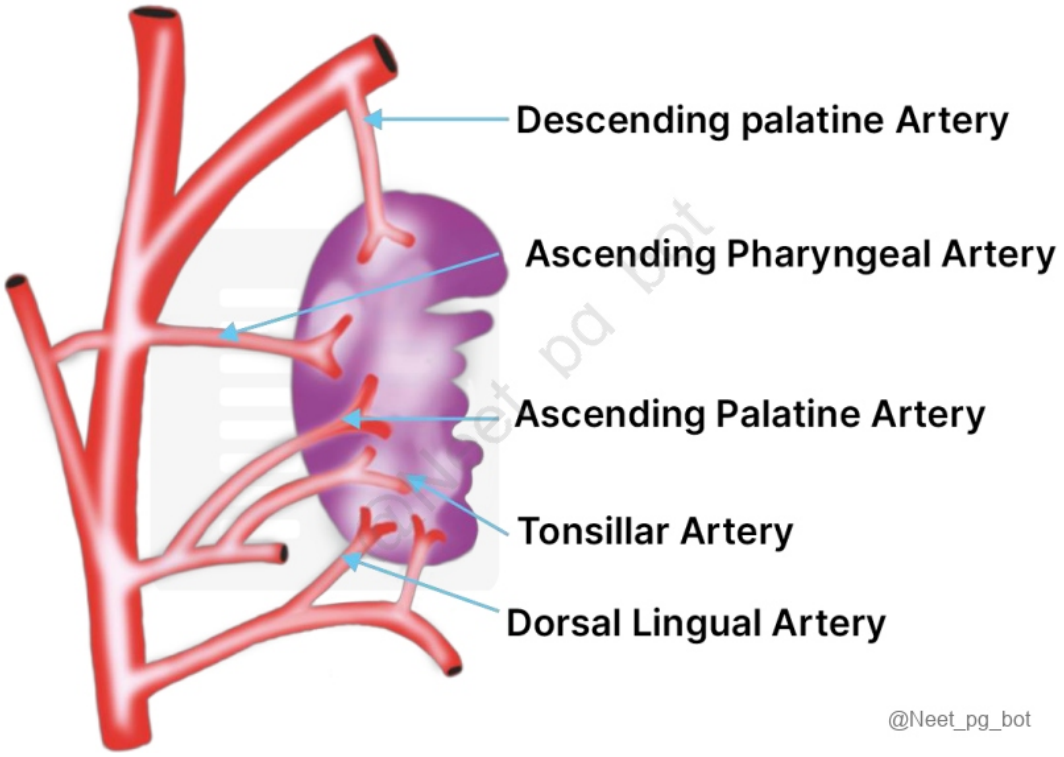
C. Buccal branch of maxillary artery

D. Ascending palatine branch of facial artery

Correct Answer: A. Tonsillar branch of the facial artery

Explanation: The tonsillar branch of the facial artery is the primary arterial supply to the palatine tonsils. The facial artery provides a direct tonsillar branch that supplies the tonsillar bed and adjacent structures. Anatomy of Palatine tonsils Location Lateral wall of the oropharynx between the anterior and posterior pillars. Surface Extensions Upwards into the soft palate, downwards into the base of the tongue, and anteriorly into the palatoglossal arch. Medial Surface Epithelium Stratified squamous epithelium with crypts. Crypta magna, or intratonsillar cleft, is located near the upper part of the tonsil. Lateral Surface It is covered by a fibrous capsule separated from the tonsil bed by loose areolar tissue. Tonsil Bed Muscles Formed by the superior constrictor and styloglossus muscles. Arterial Supply Tonsillar branch of the facial artery (main supply) Ascending pharyngeal artery Ascending palatine artery Dorsal linguae branches of the lingual artery Descending palatine branch of the maxillary artery. Venous Drainage It drains into the paratonsillar vein , which joins the common facial vein and the pharyngeal venous plexus. Lymphatic Drainage Flows into the upper deep cervical nodes. Sensory Nerve Supply Lesser palatine branches of the sphenopalatine ganglion (CN V) and the glossopharyngeal nerve. Descending palatine branch of maxillary artery (Option B) : This artery supplies the palate, including the soft and hard palates, but it is not the main source of blood supply for the palatine tonsils. Buccal branch of maxillary artery (Option C) : This artery primarily supplies the buccinator muscle and cheek mucosa, not the palatine tonsils. Ascending palatine branch of facial artery (Option D) : Although it contributes to the vascularisation of the pharyngeal region, it is not the primary supplier of the tonsils.





References:

Diseases of Ear, Nose, Throat - PL Dhingra, 8th edition, Page 303, 304

↑ *Back to this question in Part A*

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Q13: The image given below is from a chronic smoker's oral examination. Identify the lesion given. (Q857648)

A. Erythroplakia

B. Leukoplakia

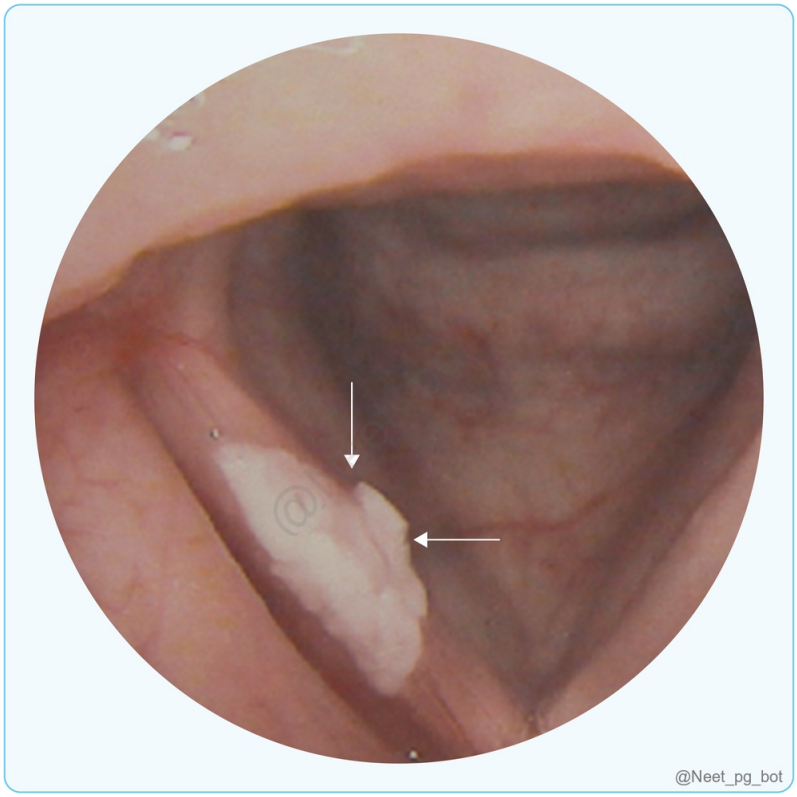
C. Fordyce's granules

D. Koplik's spots

Correct Answer: B. Leukoplakia

Explanation: Leukoplakia is characterised by a white patch or plaque on the oral mucosa that cannot be wiped off and cannot be attributed to another identifiable cause. It is commonly associated with chronic smoking, alcohol use, or other irritants. This lesion is considered a precancerous condition and warrants further evaluation and biopsy if necessary. {{caption_text}} Definition White patch on oral mucosa, defined clinically, excluding conditions like lichen planus, candidiasis, etc. Causes Smoking, tobacco chewing Alcohol abuse (especially with smoking) Chronic trauma (ill-fitting dentures, cheek bites) Associated with submucous fibrosis, hyperplastic candidiasis, Plummer-Vinson syndrome Common sites Buccal mucosa (most common in India) Oral commissures, floor of mouth, tongue, gingivobuccal sulcus, lip mucosa Age & Gender Men in their 40s are 2-3 times more affected than females. Clinical types Homogenous : Smooth or wrinkled white patch, lower malignancy risk Nodular (speckled) : White patches on an erythematous base, higher malignancy risk Erosive (erythroleukoplakia) : Interspersed with red patches, fissures, highest malignancy risk Malignant potential 1-17.5% risk, average 5% malignant transformation Higher risk in dysplastic lesions and certain locations Treatment Remove causative

factors : Spontaneous regression in some cases. Biopsy : For lesions with high malignant potential. Surgical excision or laser/cryotherapy : For suspicious or small lesions Erythroplakia (Option A) : Erythroplakia presents as a red patch on the oral mucosa, often velvety in appearance, and is also a precancerous lesion. However, the lesion in this case is white, not red. Fordyce's granules (Option C) : These are small, yellow or whitish papules representing ectopic sebaceous glands. They are benign and not related to smoking. They do not appear as a white patch like leukoplakia. Koplik's spots (Option D) : Koplik's spots are small white lesions with a red halo, typically seen on the buccal mucosa during the early stages of measles (rubeola). They are not associated with chronic smoking.



References:

Dhingra's Diseases Of Ear, Nose And Throat, & Head and Neck Surgery, 8th Edition, Page 263,264

Scott Brown ENT 8th edition, 3rd volume, Pg. 434

Lichen planus

↑ *Back to this question in Part A*

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Q14: Which among the following conditions does not result in the development of a grey-white membrane over the tonsils? (Q857642)

A. Streptococcal tonsillitis

B. Diphtheria

C. Ludwig’s angina

D. Infectious mononucleosis

Correct Answer: C. Ludwig’s angina

Explanation: Ludwig's angina is a deep neck space infection involving the submandibular, sublingual, and submental spaces. It does not produce a grey-white membrane over the tonsils. Instead, it is characterised by swelling of the floor of the mouth, raised tongue, and difficulty in breathing, speaking, or swallowing. {{caption_text}} Ludwig’s angina- Anatomy Primary Spaces It involves three spaces around the mandible: the sublingual, submandibular, and submental spaces. Sublingual space : Infections here typically arise from the premolars and first molar. Submandibular space : It contains the submandibular gland and lymph nodes, and connects to both the sublingual and submental spaces. Submental space : Infections in the submandibular space can easily spread to the submental and contralateral sublingual spaces. Secondary Spaces The secondary spaces, known collectively as the masticator space, surround the muscles involved in mastication (masseter, medial and lateral pterygoid, and temporalis). These spaces can become involved due to the posterior spread of infection from the primary spaces or from a third molar infection. The primary clinical feature of masticator space infection is significant trismus. Streptococcal tonsillitis (Option A) : Although rare, severe forms can lead to exudative tonsillitis, with grey-white deposits on the tonsils. However, this is not as adherent or classic as the membrane seen in diphtheria. Diphtheria (Option B) : Diphtheria is a hallmark condition associated with the formation of a grey-white pseudomembrane over the tonsils, which is firmly adherent and bleeds upon removal. Infectious mononucleosis (Option D) : Caused by the Epstein-Barr virus, it can produce white or greyish exudates on the tonsils, especially in severe cases, alongside fever, sore throat, and lymphadenopathy.

References:

Dhingra Diseases of Ear, Nose and Throat and Head and Neck Surgery 8th Edition, Page 309, 310

↑ *Back to this question in Part A*

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Q15: What is the most probable condition for a 6-year-old child who has not received immunization, presented to the Emergency Room by a concerned mother, experiencing symptoms such as fever, cough, and difficulty breathing? Physical examination reveals the presence of a pseudo membrane on the tonsils that bleeds upon attempted removal, as well as a swollen neck giving a bull-neck appearance. (Q857633)

A. Infectious mononucleosis

B. Tonsillitis

C. Diphtheria

D. Candidiasis

Correct Answer: C. Diphtheria

Explanation: The described clinical presentation is most consistent with diphtheria , a bacterial infection caused by Corynebacterium diphtheriae . Key findings that support this diagnosis include: Pseudo membrane on tonsils : A hallmark feature of diphtheria, this greyish membrane adheres firmly to the underlying tissue and bleeds upon removal. Bull-neck appearance : Swelling of the neck due to cervical lymphadenopathy and soft tissue oedema is a classic sign of diphtheria. Fever, cough, and difficulty breathing : These are common systemic and respiratory symptoms of diphtheria. No immunisation history : The lack of vaccination increases susceptibility to diphtheria, which is preventable through the DPT vaccine. Causes of Membrane over the tonsils include: Moniliasis (Candidiasis) Diphtheria (pseudomembrane) Vincent's angina (pseudomembrane) Infectious mononucleosis Malignancy of tonsil Trauma Aphthous ulcers Leukaemia Agranulocytosis Infectious mononucleosis (Option A) : While it may cause tonsillar swelling and pharyngitis, it does not cause a pseudomembrane or bull-neck appearance. Bleeding upon removal of the membrane is also not characteristic. Tonsillitis (Option B) : Tonsillitis can cause fever and difficulty swallowing, but it does not produce a pseudomembrane or bull-neck swelling. It is usually due to bacterial (e.g., Streptococcus pyogenes) or viral infections. Candidiasis (Option D) : Oral candidiasis can cause white patches on the mucosa, but these are easily scraped off without bleeding, unlike the pseudomembrane in diphtheria. It is also less likely to cause systemic symptoms like bull-neck swelling.

References:

Diseases of Ear, Nose, Throat - PL Dhingra, 8th edition, Page 304

↑ *Back to this question in Part A*

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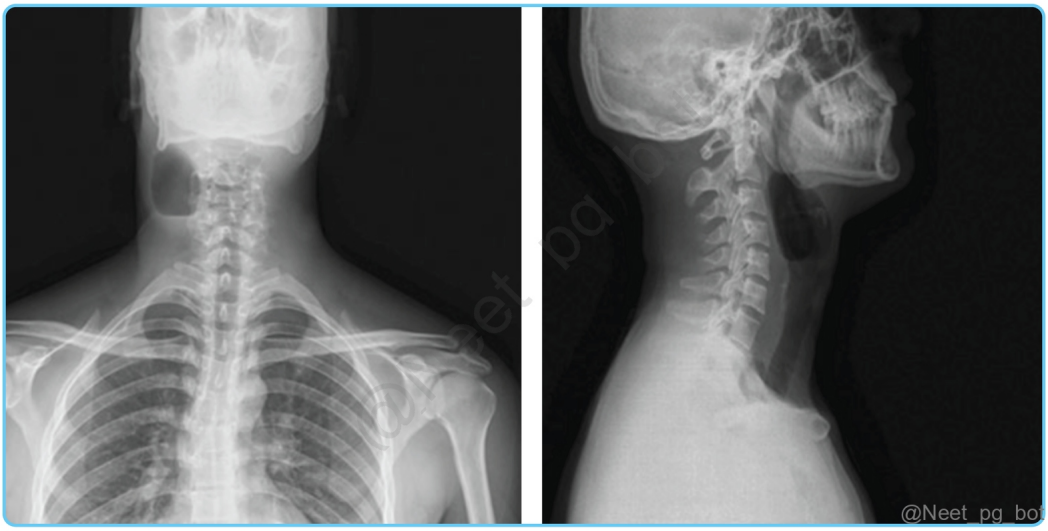
Q16: A young male who is a professional trumpet blower presented with a swelling on the left side of the neck. On examination, there is a gurgling sound compressing the swelling. X-ray of the neck is seen below. What is the most likely diagnosis? (Q856990)

A. Pharyngeal pouch

B. Laryngocele

C. Trachea-oesophageal fistula

D. Tonsillar cyst



Correct Answer: B. Laryngocele

Explanation: The clinical presentation of a professional trumpet blower with a swelling on the side of the neck, associated with a gurgling sound upon compression, strongly suggests a laryngocele . A laryngocele is an abnormal air-filled dilation of the laryngeal saccule that can communicate with the laryngeal lumen. It is often seen in individuals who engage in activities requiring frequent or high-pressure breathing, such as wind instrument players or glassblowers. Key clinical features of a laryngocele: Swelling in the neck that may increase in size with activities like blowing. Gurgling sound or fluctuation on palpation if it contains mucus or air. Can present as an internal, external, or mixed type (external is visible as a neck swelling). Incorrect Options: Pharyngeal pouch (Option A) : Typically presents with dysphagia, regurgitation of undigested food, and a swelling that may gurgle but is located posterior to the pharynx. It is not associated with trumpet blowing or activities requiring forced expiration. Trachea-oesophageal fistula (Option C) : This is a congenital or acquired condition presenting with recurrent aspiration, coughing, and feeding difficulties. It does not cause a compressible neck swelling or gurgling sound. Tonsillar cyst (Option D) : This would present as a localized swelling near the tonsillar region without the gurgling sound or association with forced expiratory activities.

References:

Dhingra Diseases of Ear, Nose and Throat and Head and Neck Surgery 8th edition, Page 344

↑ *Back to this question in Part A*

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Q17: Human papillomavirus (HPV) infection is most strongly associated with which of the following head and neck cancers? (Q866707)

A. Nasopharyngeal carcinoma

B. Hypopharyngeal carcinoma

C. Laryngeal carcinoma

D. Oropharyngeal carcinoma

Correct Answer: D. Oropharyngeal carcinoma

Explanation: HPV , especially HPV-16 , is strongly linked to oropharyngeal squamous cell carcinoma , involving sites such as the tonsils and base of tongue . These cancers often occur in younger, non-smoking individuals , have a better prognosis, and are driven by the E6 and E7 viral oncoproteins that inactivate p53 and Rb tumor suppressor pathways. In the clinical context, HPV testing is important for prognosis and treatment planning, as HPV-positive tumors respond better to chemoradiotherapy. HPV HPV 6 and 11 cause juvenile respiratory papillomatosis which rarely undergoes malignant change Sexual behaviors and HPV infection are strongly associated with oropharyngeal cancers, but there is limited epidemiological evidence connecting these factors with laryngeal cancers. Unlike oropharyngeal cancer, current studies do not show an improved prognosis for HPV-positive laryngeal tumors. Incorrect Options: Nasopharyngeal carcinoma (Option A): Strongly associated with Epstein–Barr virus (EBV) infection, not HPV. Hypopharyngeal carcinoma (Option B): More commonly linked to tobacco and alcohol abuse rather than HPV infection. Laryngeal carcinoma (Option C): Usually related to smoking and alcohol; HPV may play a minor role but not the strongest association.

↑ *Back to this question in Part A*

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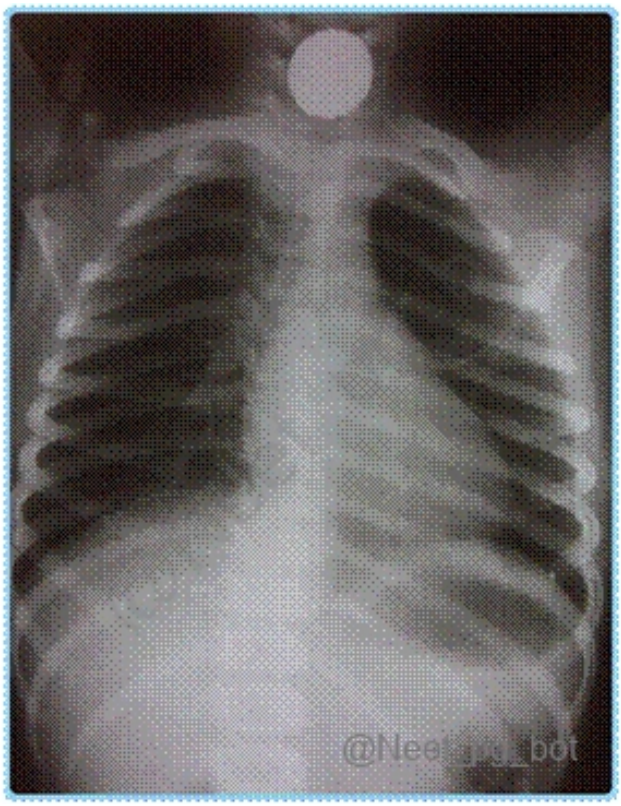
Q18: A 2-year-old was brought to the emergency department with difficulty swallowing for the last few hours. The X-ray is given below. Which is the next best step to manage this patient? [(Q858088)

A. Bronchoscopy

B. Esophagoscopy

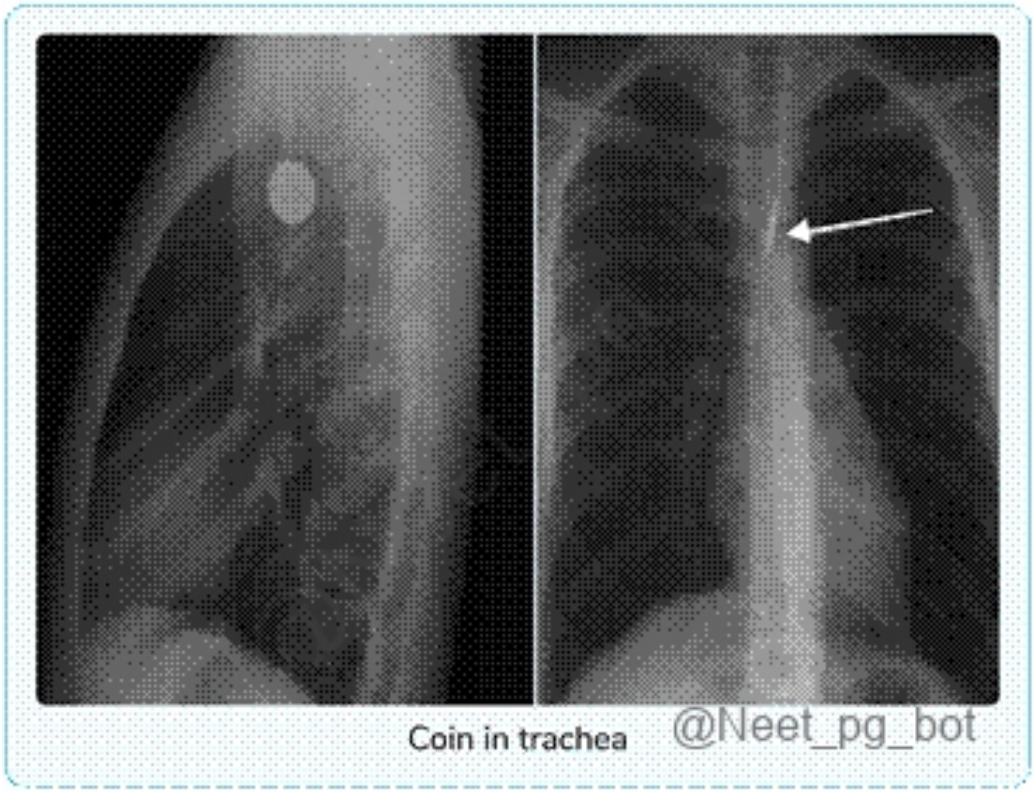
C. Tracheostomy

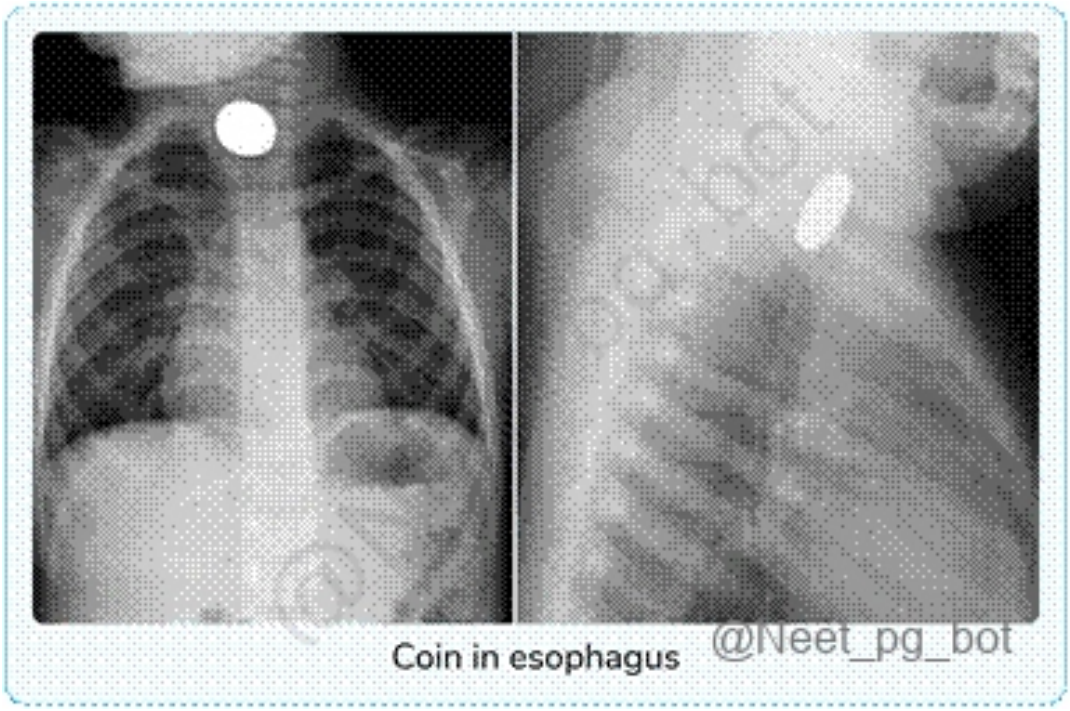
D. Heimlich's manoeuvre



Correct Answer: B. Esophagoscopy

Explanation: The X-ray shows a radiopaque foreign body in the esophagus, which is a common foreign body ingestion in children. Esophagoscopy is the preferred method for both diagnosing and safely removing the foreign body. The esophagus is the likely location when the object’s flat surface is seen on the anteroposterior (AP) X-ray because coins align flatly in the esophagus, unlike in the trachea, where the edge appears in the AP view. {{caption_text}} {{caption_text}} Foreign body in esophagus: Category Indications Management Emergency Esophageal obstruction (inability to handle oral secretions) Disk batteries Sharp-pointed objects Immediate endoscopic removal Urgent Blunt objects Incomplete obstruction Multiple magnets (or single magnet plus another ferromagnetic object within endoscopic reach) Coins Endoscopic removal within 12 to 24 hours Non Urgent Objects in stomach >2.5cm diameter Disc battery in the stomach for up to 48 hrs if asymptomatic Blunt objects that fail to pass the stomach in 3-4 weeks Observation Bronchoscopy (Option A): is not appropriate as the foreign body is in the esophagus and not the airway. Tracheostomy (Option C): is not necessary as the airway is not obstructed. Heimlich's maneuver (Option D): may be appropriate for foreign bodies in the trachea and choking due to food or other material.





References:

Esophageal Foreign Body

↑ *Back to this question in Part A*

@Neet_pg_bot

Q19: In a 10-year-old child with symptoms of throat pain, fever, and ear pain, the diagnosis is recurrent tonsillitis. Which specific nerve is associated with the ear pain in this patient? (Q855225)

A. Tympanic branch of the glossopharyngeal nerve

B. Greater auricular nerve

C. Auriculotemporal nerve

D. Auricular branch of the vagus nerve

Correct Answer: A. Tympanic branch of the glossopharyngeal nerve

Explanation: Correct Option: A) Tympanic branch of the glossopharyngeal nerve T he glossopharyngeal nerve provides sensory and motor innervation to the tongue, pharynx, and middle ear. The tympanic branch of the glossopharyngeal nerve, also known as Jacobson's nerve, provides sensory innervation to the middle ear cavity and the eustachian tube. In tonsillitis, ear pain is referred via Jacobson's nerve. Incorrect Options: Greater auricular nerve (Option B) : The greater auricular nerve is a sensory nerve that arises from the cervical plexus and provides innervation to the skin on the side of the head and neck, including the area around the ear. It is not typically involved in ear pain associated with tonsillitis. Auriculotemporal nerve (Option C): The auriculotemporal nerve is a branch of the trigeminal nerve and provides sensory innervation to the skin of the temporal region, including the area in front of the ear. It is not typically involved in ear pain associated with tonsillitis. Auricular branch of the vagus nerve (Option D): The auricular branch of the vagus nerve is a sensory nerve that arises from the vagus nerve and provides innervation to the skin of the ear canal and outer ear. However, it is not typically involved in ear pain associated with tonsillitis.

References:

Diseases of the Ear, Nose, Throat, 8th Edition, Page no: 290

↑ *Back to this question in Part A*

@Neet_pg_bot

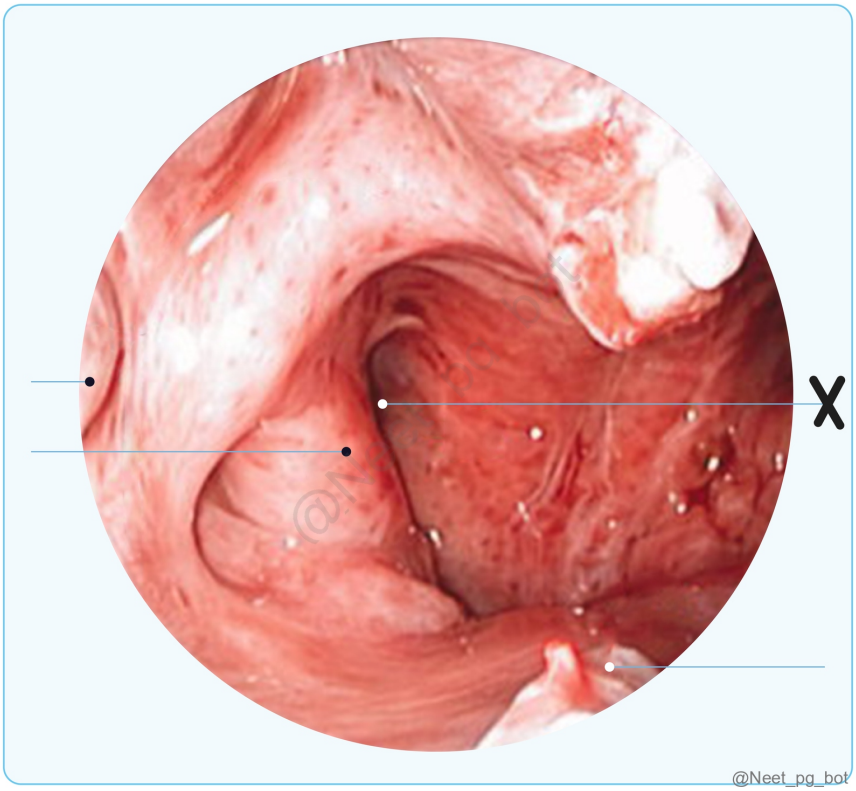
Q20: Identify the structure marked in the image. (Q855218)

A. Fossa of Rosenmuller

B. Tubal tonsil

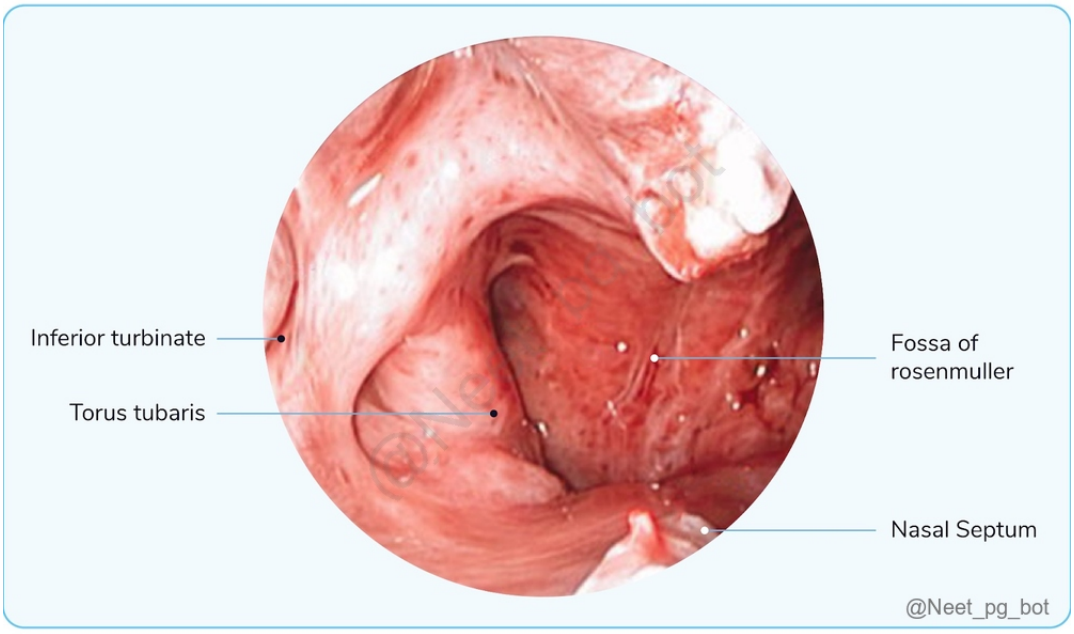
C. Opening of the Eustachian tube

D. Adenoid



Correct Answer: A. Fossa of Rosenmuller

Explanation: Correct Option: A) Fossa of Rosenmuller The structure marked in the image is the Fossa of Rosenmüller The Fossa of Rosenmüller is a small indentation in the lateral wall of the nasopharynx located behind the posterior opening of the nasal cavity. In an image, it may appear as a small, rounded depression in the nasopharynx tissue on either side. {{caption_text}} Incorrect Options: Tubal Tonsil (Option B): The Tubal Tonsil is a lymphoid tissue near the Eustachian tube’s opening. It is typically found in the superior aspect of the nasopharynx and may appear as a small, rounded tissue mass in an image. Opening of Eustachian tube (Option C): The opening of Eustachian tube is located in the lateral wall of the nasopharynx, near the posterior border of the nasal cavity. It may appear as a small, slit-like opening in an image. Adenoids (Option D): A rectangular mass of lymphatic tissue called the adenoids is present in the nasopharynx. The adenoids on the nasopharynx's roof and back wall are midline structures. They are a component of the Waldeyer ring, which also consists of the adenoids, palatine tonsils, and lingual tonsils. Beginning in the seventh month of pregnancy, they typically develop until they reach adulthood.



References:

Diseases of the Ear, Nose, Throat, 8th Edition, Page no: 279

↑ *Back to this question in Part A*

@Neet_pg_bot

Q21: A child with a mild cold who also has adenoid facies has been identified as having chronic adenoid hypertrophy. Which is the best surgical management for this condition? (Q820381)

A. Coblator

B. Microdebrider

C. Curettage

D. Breathing exercise and symptomatic treatment

Correct Answer: A. Coblator

Explanation: Coblator: For a child with chronic adenoid hypertrophy and adenoid facies, the best surgical management option among the given choices is Option A: Coblator. This technique offers precise tissue removal with minimal damage, reduced postoperative pain, and faster recovery Incorrect Options: Option B - Microdebrider: A microdebrider is a surgical instrument that uses suction and a rotating blade to remove tissue. It is another option for performing adenoidectomy. While it offers precise removal of tissue, it may generate more

postoperative bleeding compared to Coblation. Microdebrider-assisted adenoidectomy can also be effective in treating chronic adenoid hypertrophy. Option C - Curettage: Curettage involves scraping or scooping out tissue using a curette, a surgical instrument with a spoon-shaped end. While this technique was used in the past, it has largely been replaced by more advanced methods like Coblation and microdebrider due to their advantages in terms of reduced bleeding, decreased postoperative pain, and improved recovery. Option D - Breathing exercise and symptomatic treatment: This option involves non-surgical management of chronic adenoid hypertrophy. Breathing exercises and symptomatic treatments may help manage the symptoms associated with adenoid hypertrophy, but they do not address the underlying issue of enlarged adenoid tissue. In cases where the adenoids are significantly enlarged and causing persistent symptoms, surgical intervention is often recommended to provide more effective and long-lasting relief.

References:

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↑ *Back to this question in Part A*

@Neet_pg_bot

Q22: What is the most common site of ranula? (Q820369)

A. Floor of the mouth

B. Tonsil

C. Uvula

D. Cingula

Correct Answer: A. Floor of the mouth

Explanation: Correct Option A - Floor of the mouth: A ranula is a type of mucocele that occurs in the floor of the mouth. It is a cystic swelling that develops due to the obstruction of the salivary gland duct, most commonly the sublingual gland duct. The sublingual gland is located beneath the tongue and its duct can become blocked, leading to the accumulation of saliva and the formation of a cystic swelling in the floor of the mouth. Ranulas can vary in size and may cause discomfort or interfere with speech and swallowing. Incorrect Options: Option B - Tonsil: A ranula is not associated with the tonsil. Tonsils are lymphoid tissue masses located at the back of the throat and are part of the immune system, helping to protect against infections. Conditions related to tonsils could include tonsillitis, but not ranulas. Option C - Uvula: A ranula does not typically occur on the uvula. The uvula is the small, fleshy mass of tissue that hangs down at the back of the throat. Conditions affecting the uvula could include uvulitis (inflammation of the uvula), but ranulas are not associated with this structure. Option D - Cingula: The term "cingula" might be a bit confusing in this context. The cingulum is a term used in dentistry to refer to the raised, rounded area on the lingual surface of anterior teeth. It's not related to the location of a ranula.

References:

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↑ *Back to this question in Part A*

@Neet_pg_bot

Q23: What is the likely diagnosis of the image given below? (Q857383)

A. Ranula

B. Pleomorphic adenoma

C. Ludwig angina

D. Dermoid cyst

Correct Answer: A. Ranula

Explanation: A ranula is a type of mucocele that occurs when a salivary gland duct, typically the sublingual gland duct, becomes blocked or damaged, leading to the accumulation of saliva in a cystic structure. This results in a painless, translucent or bluish swelling in the floor of the mouth as shown in the image Treatment: marsupialisation Pleomorphic adenoma (Option B) is the most common salivary gland tumor with an epithelial and mesenchymal component, commonly occurring in the parotid gland located in front, below & behind the ear lobule, pushing it up. Ludwig angina (Option C) typically presents with a rapidly spreading, firm, and symmetrical swelling in the submandibular (below the jaw) and sublingual (under the tongue) spaces. The swelling may extend to the neck and cause a "woody" or indurated texture. It is also associated with features like fever, drooling, neck

pain, and difficulty swallowing. Dermoid cysts (Option D) usually present as a well-defined, raised mass under the skin. The size can vary from small to large.The surface of the dermoid cyst is usually smooth and can appear skin-colored or slightly discolored. It may resemble normal skin or have a slightly yellowish hue.

References:

Diseases of the Ear, Nose, and Throat, PL Dhingra, 8th Edition, Page no: 279

↑ *Back to this question in Part A*

@Neet_pg_bot

Q24: What is the preferred management for a pediatric patient with symptomatic adenoid hypertrophy causing chronic nasal obstruction and sleep apnea? (Q860061)

A. Adenoidectomy

B. Adenoidectomy with grommet insertion

C. Antibiotic therapy

D. Watchful waiting

Correct Answer: A. Adenoidectomy

Explanation: Adenoidectomy is the treatment of choice for children with significant symptoms such as nasal obstruction and sleep apnea. Enlarged adenoids can block nasal airflow and contribute to sleep-disordered breathing. Removing the adenoids improves airway patency rapidly. It also enhances sleep quality, growth, and overall health outcomes. Medical management does not resolve chronic obstruction. Surgery is safe and highly effective with low complication rates. Therefore, adenoidectomy alone is the preferred first-line treatment. Incorrect Options

References:

Diseases of Ear, Nose, Throat - PL Dhingra, 8th Edition, Pg - 287

Scott Brown ENT, 8th Edition, Pg - 288

↑ *Back to this question in Part A*

@Neet_pg_bot

Q25: Which structure is typically involved in causing lower lip paralysis following a parotidectomy? (Q839980)

A. Facial-cervical branches of FN

B. Facial-main trunk of FN

C. Facial-temporal part of FN

D. Parotid duct

Correct Answer: B. Facial-main trunk of FN

Explanation: Correct Option: B) Facial-main trunk of FN The lower lip is supplied by the marginal mandibular nerve. Injury to the main trunk of the facial nerve will cause paralysis of lower lip. Incorrect Options: (Option A) Facial-cervical branch: Cervical branch injury can be distinguished from marginal mandibular nerve injury by the fact that the patient will be able to evert the lower lip because of a functioning mentalis muscle. (Option C) Facial-temporal part: Injury to the temporal part of the facial nerve leads to paralysis of the upper part of the face. (Option D) Parotid duct: Injury to the parotid duct is not related to lower lip paralysis.

References:

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↑ *Back to this question in Part A*

@Neet_pg_bot

Q26: A 13-year-old boy presents with right-sided nasal obstruction and recurrent epistaxis for the past 6 months. What is the most likely diagnosis? (Q839965)

A. JNA

B. Allergic rhinitis

C. Coagulation disorder

D. Antrochoanal polyp

Correct Answer: A. JNA

Explanation: Correct Option A - JNA: Juvenile nasopharyngeal angiofibroma is a rare, benign, vascular tumor of nasopharynx exclusively seen in the juvenile age group and in males. Most common site of origin is sphenopalatine foramen. Clinical features include: Recurrent unprovoked profuse epistaxis Anemia Nasal obstruction- Hyponasal speech and frog face deformity Eustachian tube obstruction Incorrect Options: Option B - Allergic rhinitis: Allergic rhinitis presents with paroxysmal sneezing, nasal obstruction, iching in the nose, watery nasal discharge, asthma, dryness of the skin. Option C - Coagulation disorder: Coagulation disorders does not present with unilateral nasal obstruction. Option D - Antrochoanal polyp: Antrochoanal polyp does not present with profuse recurrent epistaxis.

↑ *Back to this question in Part A*

@Neet_pg_bot

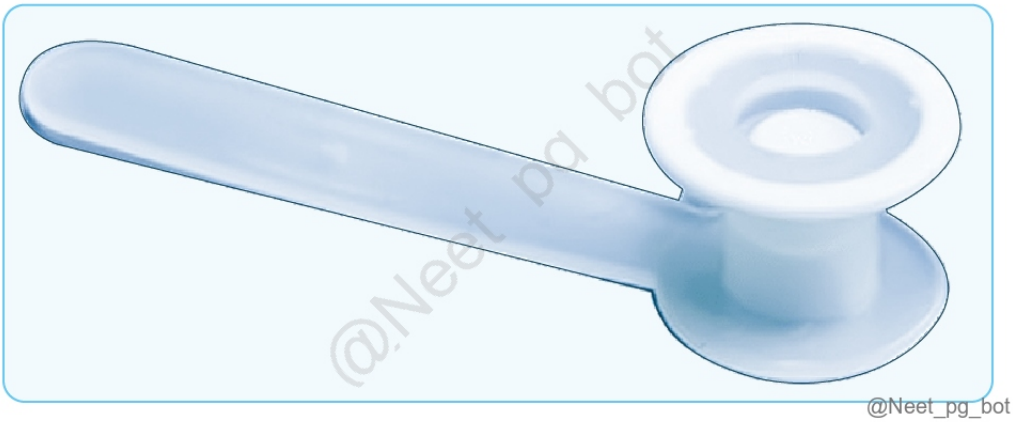
Q27: Identify the given instrument ? (Q860490)

A. Montgomery T- tube

B. Tracheoesophageal prosthesis

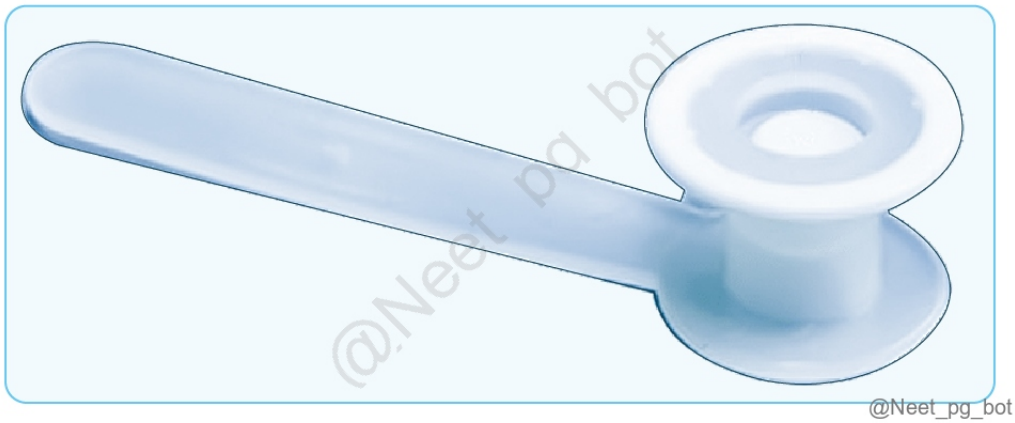
C. BAHA

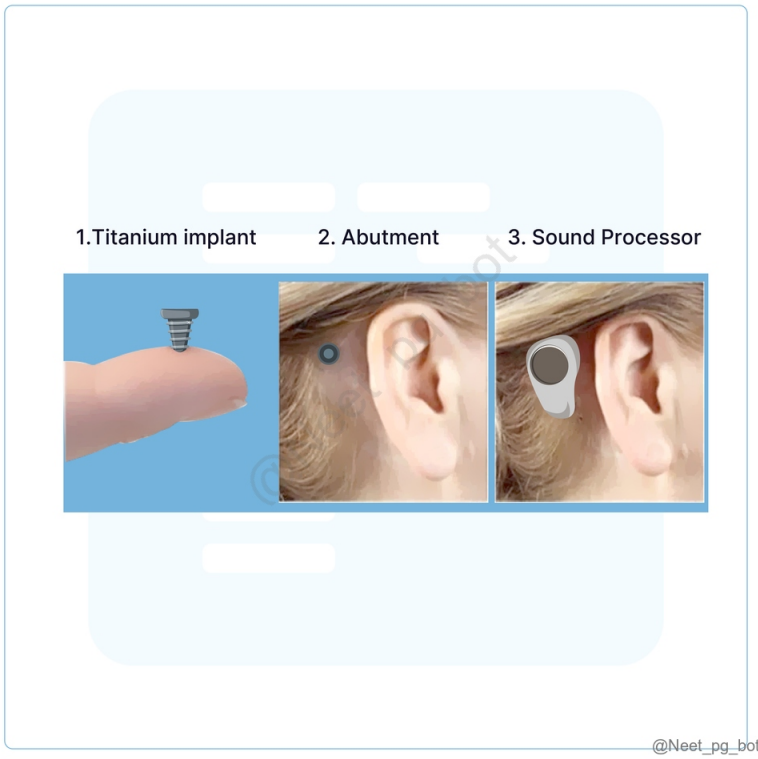
D. PORP prosthesis



Correct Answer: B. Tracheoesophageal prosthesis

Explanation: It has two valves-one connected to the trachea and other valve to esophagus Provox and Blom singer are some of its types. Montgomery tube (Option A): This instrument works like a stent to keep the lumen patent whenever there is subglottic and tracheal resection done. BAHA (Option C): Bone anchored hearing aid is used for patient with hearing loss especially conductive hearing loss PORP prosthesis (Option D): This is used in ossicular chain reconstruction/Ossiculoplasty





References:

Diseases of Ear, Nose and Throat, PL Dhingra, 8th Edition, Page no: 279

↑ *Back to this question in Part A*

@Neet_pg_bot

Q28: Identify the device shown in the image? (Q843947)

A. Nasopharyngeal airway

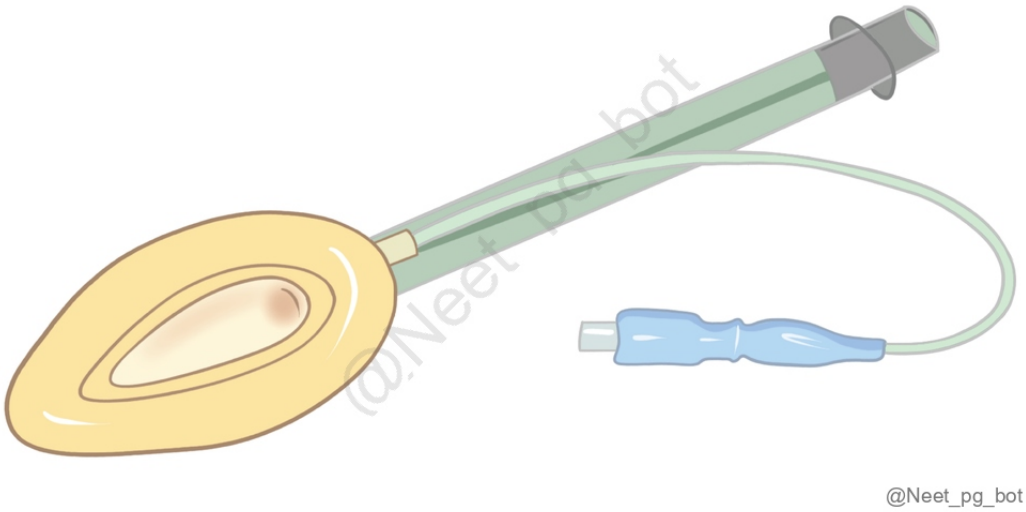
B. Laryngeal Mask Airway (LMA)

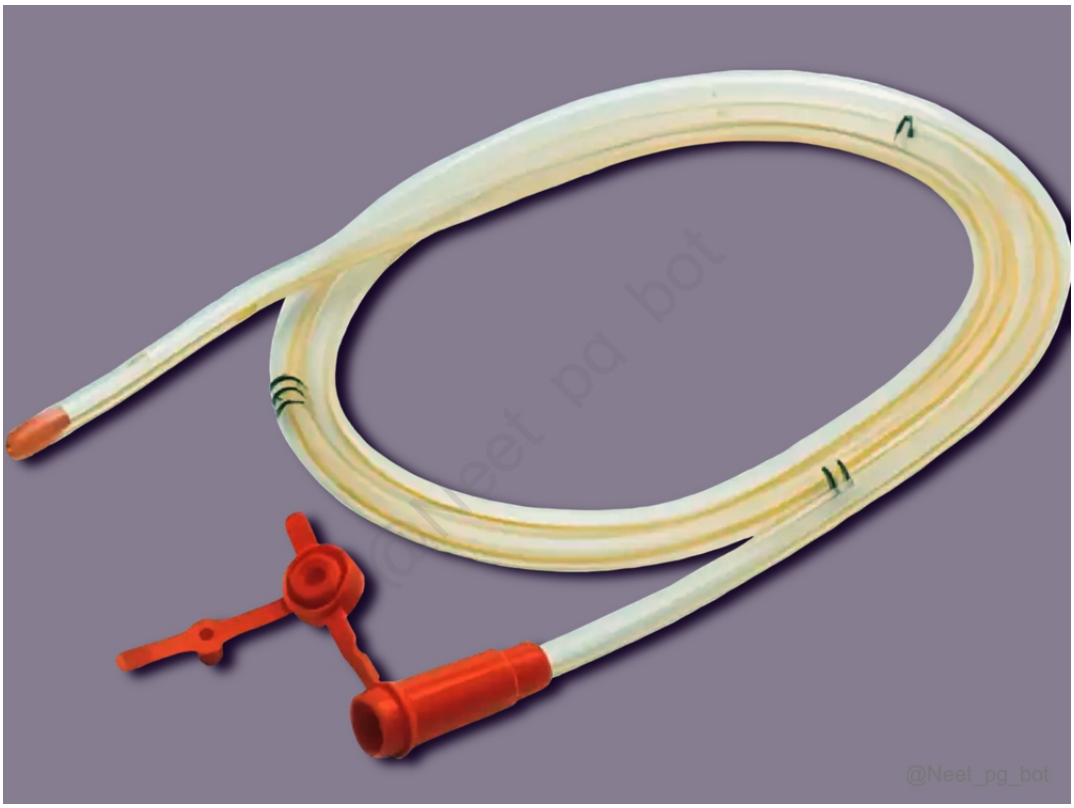
C. NG tube

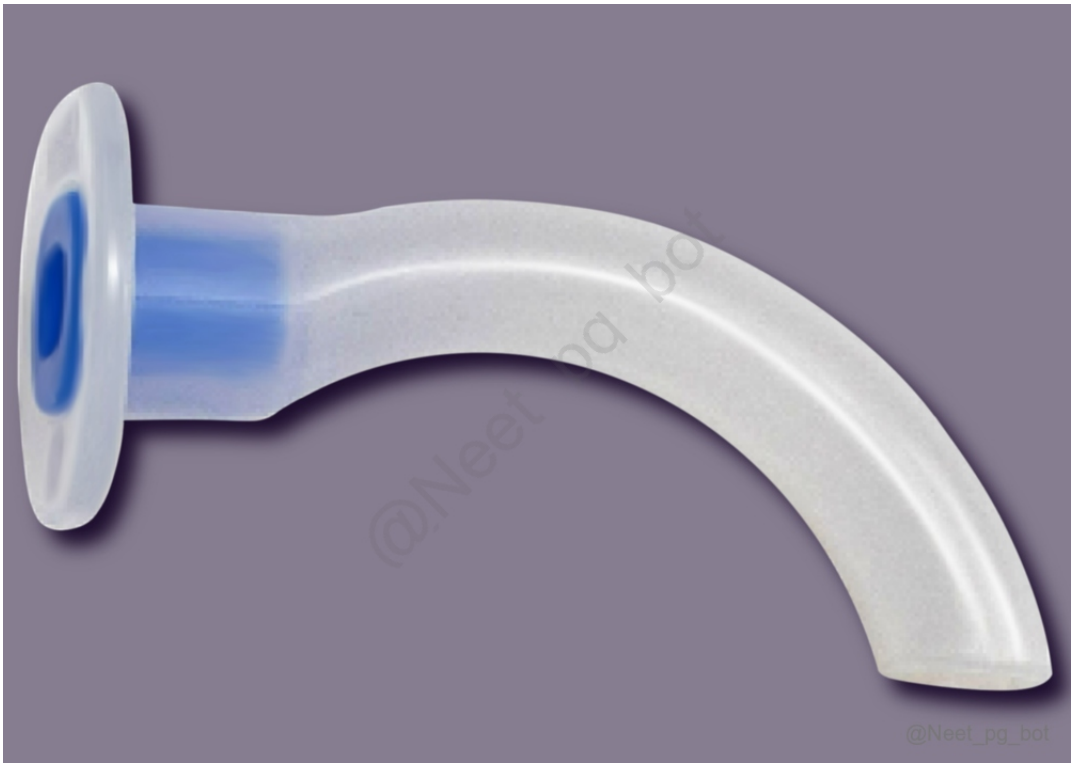
D. Oropharyngeal tube

Correct Answer: A. Nasopharyngeal airway

Explanation: Correct Option A - Nasopharyngeal airway: The given image shows a nasopharyngeal airway (NPA) device or "nasal trumpet." It is a hollow plastic or soft rubber tube that can improve oxygenation and ventilation in cases where bag-valve-mask ventilation is ineffective. Incorrect Options: Option B - Laryngeal Mask Airway (LMA): Option C - NG tube: Option D - Oropharyngeal tube:







References:

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↑ *Back to this question in Part A*

@Neet_pg_bot

Q29: Impaired gag reflex is caused by a lesion in which of the following cranial nerves? (Q843918)

A. CN V and VI

B. CN X and XI

C. CN IX and X

D. CN VII and VIII

Correct Answer: C. CN IX and X

Explanation: Correct Option C - CN IX and X: The sensory supply of the oropharynx is via the glossopharyngeal nerve (CN IX), and the motor supply is via the vagus nerve (CN X), so any lesion in these nerves will lead to an impaired gag reflex. Incorrect Options: Options A, B, and D are incorrect, as explained above.

↑ *Back to this question in Part A*

@Neet_pg_bot

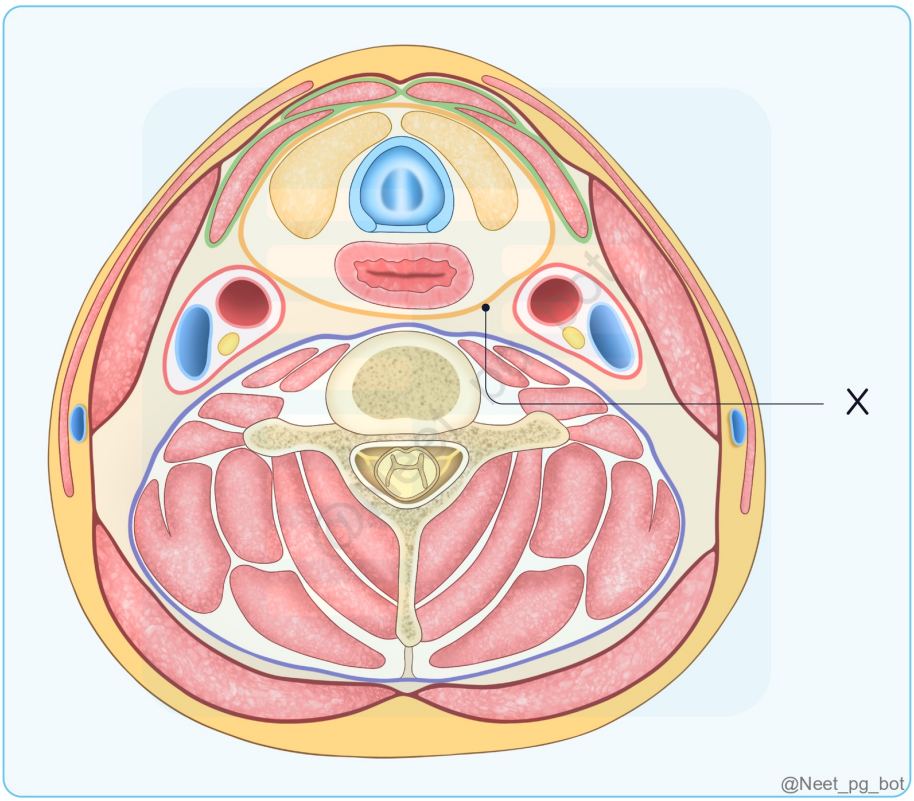
Q30: Identify the structure given in the image below (Q852648)

A. Buccopharyngeal fascia

B. Prevertebral fascia

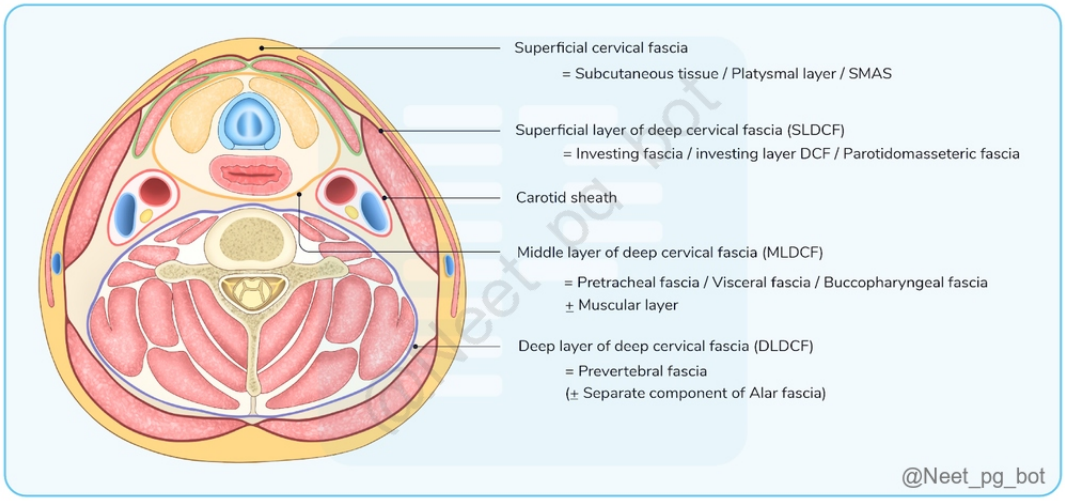
C. Pharyngobasilar fascia

D. Alar fascia



Correct Answer: A. Buccopharyngeal fascia

Explanation: The Buccopharyngeal fascia is a thin connective tissue layer that covers the outer surface of the pharynx and esophagus . It is part of the deep cervical fascia and plays a key role in supporting the pharyngeal wall and separating it from adjacent structures. It encloses the pharyngeal constrictor muscles and extends from the base of the skull down to the esophagus . It is continuous with the pretracheal fascia anteriorly and blends with the adventitia of the esophagus inferiorly . This fascia contains the pharyngeal venous plexus and forms an important anatomical barrier between the pharynx and the retropharyngeal space . Other Options: Prevertebral fascia (Option B) : Covers the vertebral column and associated muscles (not the pharynx). Pharyngobasilar fascia (Option C) : Lies deep to the pharyngeal muscles and helps attach the pharynx to the skull base . Alar fascia (Option D) : A thin layer between the buccopharyngeal and prevertebral fasciae , forming part of the retropharyngeal space .



References:

Diseases of Ear, Nose, Throat - PL Dhingra, 8th edition, Pg 654

↑ *Back to this question in Part A*

@Neet_pg_bot

Q31: Which of the following conditions is associated with Hollman miller's sign in the CT image given below? (Q852630)

A. Juvenile nasopharyngeal angiofibroma

B. Maxillary sinusitis

C. Nasal polyp

D. Rhinosporidiosis

Correct Answer: A. Juvenile nasopharyngeal angiofibroma

Explanation: Holman-Miller sign (also called the antral sign) refers to the anterior bowing of the posterior wall of the maxillary sinus seen on CT imaging . This is a classic radiological feature of Juvenile Nasopharyngeal

Angiofibroma (JNA) . Investigations of Juvenile nasopharyngeal angiofibroma (JNA) Contrast-Enhanced CT Scan Investigation of choice ; shows tumor size, location, and bony involvement. Pathognomonic sign: Holman-Miller sign (bowing of maxillary wall). Magnetic Resonance Imaging (MRI) Evaluates soft tissue and intracranial extension, differentiates between extradural and intradural spread. Digital Subtraction Angiography (DSA) Visualizes tumor vascularity, identifies feeding vessels and aids in preoperative embolization to reduce surgical blood loss. Nasopharyngoscopy Provides a direct view of the tumor, but biopsy is generally avoided due to high bleeding risk. Audiometry Assesses hearing loss caused by Eustachian tube obstruction; establishes baseline and monitors post-treatment hearing. Biopsy Biopsy is contraindicated due to risk of profuse bleeding. Maxillary sinusitis (Option B) : Causes mucosal thickening and fluid collection but does not produce bony bowing. Nasal polyp (Option C) : Soft tissue lesion without bony remodeling or aggressive expansion. Rhinosporidiosis (Option D) : Fungal infection causing friable polypoid masses but does not cause the Holman-Miller sign .

References:

Diseases of Ear, Nose, Throat - PL Dhingra, 8th edition, Pg 790

↑ *Back to this question in Part A*

@Neet_pg_bot

Q32: A middle-aged lady choked while eating fish and has associated symptoms of coughing, hoarseness of voice, and a foreign body sensation in the throat. On examination, the pyriform fossa is found to be inflamed. Which of the following nerves supplies this region? (Q865374)

A. Internal Laryngeal Nerve (ILN)

B. External Laryngeal Nerve (ELN)

C. Glossopharyngeal Nerve

D. Recurrent Laryngeal Nerve

Correct Answer: A. Internal Laryngeal Nerve (ILN)

Explanation: Internal Laryngeal Nerve (ILN) (Option A): The internal laryngeal nerve is a branch of the superior laryngeal nerve (which in turn is a branch of the vagus nerve). It is responsible for sensory innervation above the vocal cords, including the epiglottis, aryepiglottic folds, and the pyriform fossa. External Laryngeal Nerve (ELN) (Option B ruled out): The external laryngeal nerve is primarily motor, supplying the cricothyroid muscle (which tenses the vocal cords). It has very little sensory function, and not to the pyriform fossa. Glossopharyngeal Nerve (Option C ruled out): The glossopharyngeal nerve (CN IX) provides sensory innervation to the posterior one-third of the tongue, tonsils, and part of the pharynx, but not directly to the pyriform fossa. Recurrent Laryngeal Nerve (Option D ruled out): The recurrent laryngeal nerve (RLN) is primarily motor to most intrinsic laryngeal muscles (except the cricothyroid) and provides sensory innervation below the vocal cords. It does not supply the pyriform

References:

https://radiopaedia.org/articles/pyriform-sinus

↑ *Back to this question in Part A*

@Neet_pg_bot

• [04_Larynx] 025 Anatomy And Pathology Of Larynx

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[04_Larynx] 025 Anatomy And Pathology Of Larynx — Quick Jump

Q1 (p. 1376)	*Q2 (p. 1377)*	*Q3 (p. 1378)*	*Q4 (p. 1380)*	*Q5 (p. 1381)*	*Q6 (p. 1383)*
Q7 (p. 1385)	*Q8 (p. 1386)*	*Q9 (p. 1388)*	*Q10 (p. 1391)*	*Q11 (p. 1393)*	*Q12 (p. 1394)*
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Q19 (p. 1403)	*Q20 (p. 1405)*				

Q1: Which of the following features is a characteristic of the infant larynx compared to the adult larynx? (Q847873)

A. The larynx is positioned opposite the C5 vertebra at rest.

B. The thyroid cartilage has a well-defined angle.

C. The subglottis is the narrowest part of the larynx.

D. The arytenoid cartilages are smaller and cover less of the posterior glottis

Correct Answer: C. The subglottis is the narrowest part of the larynx.

■ *Listen (English)*

■ *Listen (Hindi)*

Explanation: In infants, the subglottis is the narrowest part, important for paediatric airway management. Differences Between Adult and Infant Larynx: Feature Infant Larynx Adult Larynx Position Higher in the neck; glottis at C3-C4 at rest, C1-C2 during swallowing (allows simultaneous breathing & swallowing) (Option A ruled out) Lower in the neck; vocal cords at the level of C5 vertebra Cartilage Consistency Softer and more prone to collapse Firmer, less prone to collapse Epiglottis Shape Omega (Ω)-shaped Leaf-shaped Arytenoid Size Proportionally larger, covers more of the posterior glottis (Option D ruled out) Smaller compared to infant Thyroid Cartilage Flat, overlaps cricoid cartilage and hyoid bone (narrows cricothyroid and thyrohyoid spaces) (Option B ruled out) A more defined angle does not overlap cricoid cartilage Larynx Shape and Size Smaller, conical; subglottis is the narrowest part Larger, cylindrical; glottis and subglottis are similar in size Submucosal Tissue Looser, more prone to oedema, risk of obstruction Denser, less prone to oedema Growth Spurts Two growth spurts: 1st during the first 3 years (width and length), 2nd in adolescence (vocal cord growth, voice changes) Larynx growth complete after adolescence

References:

Dhingra's Diseases Of Ear, Nose And Throat, & Head and Neck Surgery, 8th edition, Page 335

↑ *Back to this question in Part A*

Q2: An 8-year-old boy is brought to the emergency department after an attack of bees in the backyard. He was playing with his friends when he got stung by bees there. He is in obvious distress and has difficulty in breathing. Examination swelling in mouth, lips, and arms, with red patches. He is given intravenous epinephrine, and a mini tracheostomy is performed. The procedure is done through which of the following structures? (Q882300)

A. Cricothyroid membrane

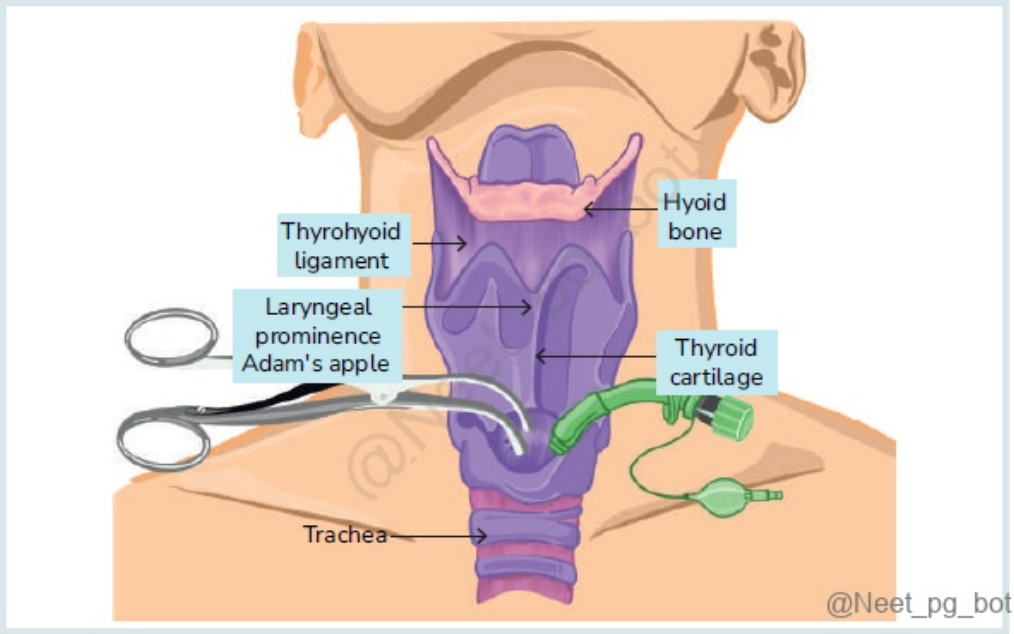
B. 2nd and 3rd tracheal rings

C. Any of the above

D. None of the above

Correct Answer: A. Cricothyroid membrane

Explanation: Mini tracheostomy is performed through the cricothyroid membrane. Option A: Cricothyroid membrane Minitracheostomy, Cricothyrotomy, or Laryngotomy The cricothyroid membrane is used to open the airway. The lower boundary of the thyroid cartilage and the cricoid ring is recognized by extending the patient's head and neck. The cricothyroid membrane is opened with a transverse incision after the skin in this area is incised vertically. It is a last-minute technique to purchase time for the patient to be transferred to the operating room. As an elective procedure, it has been done to clear the bronchial secretions following thoracic surgery. Option B: 2 nd and 3 rd tracheal rings A mid tracheostomy is done through the 2 nd or 3 rd ring and would entail the division of the thyroid isthmus or its retraction upwards or downwards to expose this part of the trachea. Option C: Any of the above Mini tracheostomy is performed through the cricothyroid membrane. Option D: None of the above Mini tracheostomy is performed through the cricothyroid membrane.



References:

Dhingra Textbook of ENT

↑ *Back to this question in Part A*

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Q3: A 35-year-old teacher presents with hoarseness and vocal fatigue over the past few months. Laryngoscopy reveals bilateral lesions at the junction of the anterior 1/3rds and posterior 2/3rds of the vocal cords. Which of the following is the most likely diagnosis? (Q847881)

A. Vocal Polyp

B. Vocal Nodule

C. Laryngeal Papilloma

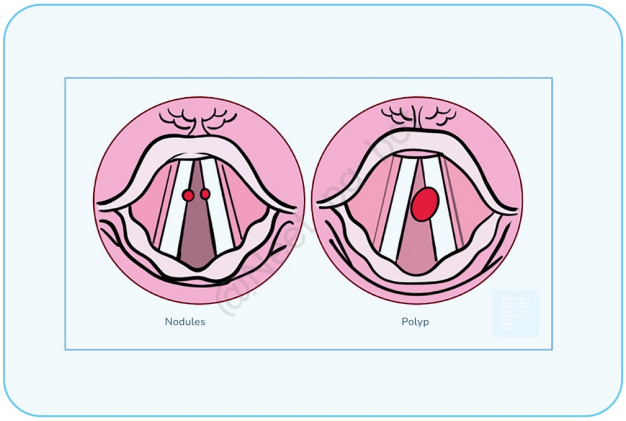
D. Reinke's Edema

Correct Answer: B. Vocal Nodule

■ *Listen (English)*

■ *Listen (Hindi)*

Explanation: Vocal nodules are caused by chronic vocal abuse , commonly seen in teachers or singers. They are typically bilateral and located at the junction of the anterior and posterior thirds of the vocal cords, matching the patient's presentation. Vocal Nodule (Singer or screamer's nodule) Vocal Polyp Cause Chronic vocal abuse (teachers, actors, vendors or pop singers.) Sudden Vocal abuse like shouting (Men in the age group of 30-50 years). Heavy smoking Laterality Bilateral or symmetrical Unilateral Location Free edge of vocal cord at the junction of anterior 1/3rd and posterior 2/3rd. This is the area of maximum vibration of the vocal cord. Same as vocal nodules. Appearance Sessile , Reddish in the early stage and white in the chronic stage Smooth and pedunculated. Symptoms Hoarseness, vocal fatigue and neck pain on prolonged phonation. Hoarseness of voice and diplophonia (double voice due to different vibrating frequencies of two vocal cords) Large polyps- dyspnea, stridor, choking. Treatment Initially, voice rest. If it fails - microscopic excision without injuring the vocal ligament Speech therapy Microscopic excision Speech therapy Vocal Polyp (Option A): Vocal polyps are typically unilateral , not bilateral, and arise from sudden vocal trauma rather than chronic abuse. Laryngeal papilloma (Option C) is a unilateral, wart-like growth caused by HPV infection , not the bilateral nodular lesions seen with chronic vocal strain. Reinke's Edema(Option D) appears as a “bag of water” and bilateral vocal cord swelling from chronic smoking or voice abuse , causing diffuse edema instead of nodules.



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References:

Dhingra's Diseases Of Ear, Nose And Throat, & Head and Neck Surgery, 8th edition, Pages 352,353

Scott-Brown’s Otorhinolaryngology Head and Neck Surgery , 8th Edition, 3rd Volume, Pages 950,951

↑ *Back to this question in Part A*

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Q4: A 5 y/o boy presents with a history of progressive hoarseness and stridor. Laryngoscopy reveals multiple warty lesions in the larynx. Which of the following is the most likely diagnosis? (Q847880)

A. Juvenile-onset laryngeal papillomatosis

B. Vocal Polyp

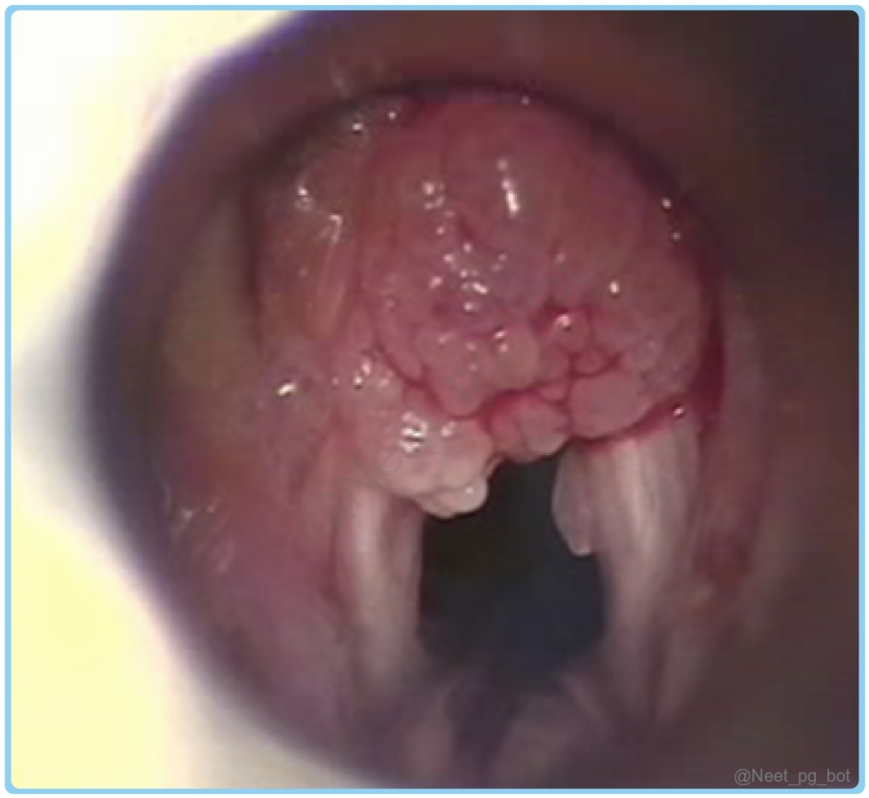
C. Adult-onset laryngeal papillomatosis

D. Vocal Nodule

Correct Answer: A. Juvenile-onset laryngeal papillomatosis

- *Listen (English)*
- *Listen (Hindi)*

Explanation: Juvenile-onset laryngeal Papillomatosis is the correct answer because it typically presents in young children with multiple lesions and symptoms like hoarseness and stridor, caused by HPV 6 and 11. M / C benign larynx tumor with premalignant potential. {{caption_text}} Caused by HPV6 and HPV11 There are two types of papillomas. Aspect Juvenile-Onset Laryngeal Papillomatosis Adult-Onset Laryngeal Papillomatosis Age Infants and young children 30-50years (Option C) Sex No sex predisposition. More common in males. Mode of transmission Mother to child during vaginal delivery Sexual intercourse. Number Multiple Single (Option C) Location Mostly the supraglottic and glottic regions. But can also involve the subglottis, trachea and bronchi. Anterior half of vocal cord or the anterior commisure. Presentation Hoarseness, aphonia, respiratory difficulty and stridor. Change in voice (initial), airway obstruction, respiratory distress and stridor. Aggressive Aggressive, recurrence is common after excision. Less aggressive does not recur after excision. Recurrence rate High Low Treatment of Laryngeal Papillomas: Surgical : CO2 laser excision during microlaryngoscopy (avoiding vocal ligament injury). Alternative : Removal with cup forceps or debrider if no CO2 laser. Medical Adjuvants : Interferon alpha-2a : Effective but with side effects (fever, chills, myalgia, etc.). 13-cis-retinoic acid : Alternative with significant side effects. Vocal Polyp (Option B): Vocal polyps are typically unilateral and occur in adults with sudden vocal strain, not children with progressive hoarseness and multiple lesions. Vocal Nodule (Option D): Vocal Nodules are bilateral, associated with chronic vocal abuse , and usually occur in adults or professionals with voice strain, not in children with multiple lesions and stridor.



References:

Dhingra's Diseases Of Ear, Nose And Throat, & Head and Neck Surgery, 8th Edition, Page 356, 357

Scott-Brown’s Otorhinolaryngology Head and Neck Surgery, 8th Edition, Volume 3, Page 367-370

Adult onset laryngeal papillomatosis

↑ *Back to this question in Part A*

@Neet_pg_bot

Q5: A 50 y/o man with a history of chronic cough and weight loss presents with hoarseness and severe throat pain. Laryngoscopy reveals ulcerative lesions predominantly in the posterior part of the larynx, with some areas of hyperemia and swelling. His chest X-ray shows cavitary lesions. Based on the patient's history and laryngeal findings, which condition is most likely responsible for the observed laryngeal lesions? (Q847879)

A. Laryngeal Papillomatosis

B. Reinke’s Edema

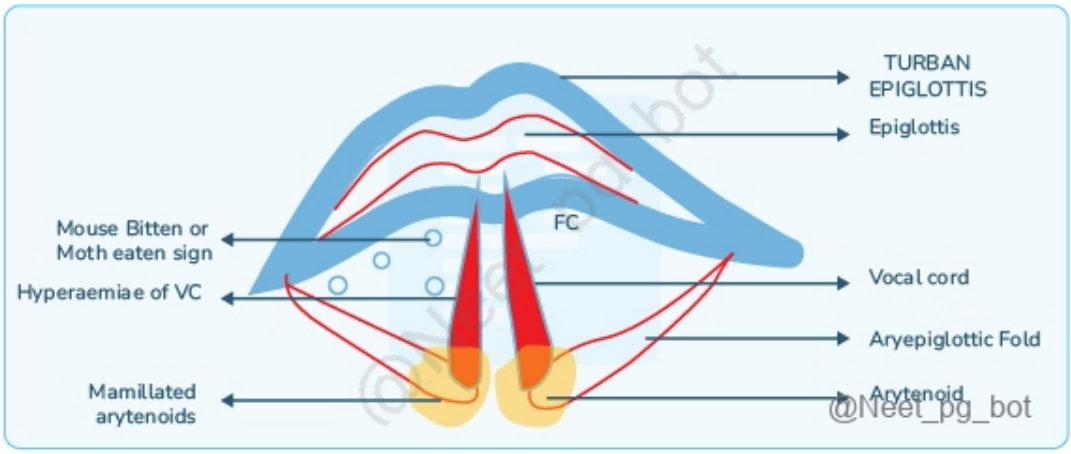
C. Lupus of the Larynx

D. Tuberculosis of the Larynx

Correct Answer: D. Tuberculosis of the Larynx

- *Listen (English)*
- *Listen (Hindi)*

Explanation: Tuberculosis of the Larynx is the most likely diagnosis due to the presence of ulcerative lesions in the posterior larynx and cavitary lung lesions, indicative of pulmonary tuberculosis. Tuberculosis of the Larynx Lupus of larynx Features Secondary to pulmonary tuberculosis. Affects middle-aged males. Spread occurs via bronchogenic or haematogenous routes. Tubercle bacilli from sputum settle in laryngeal mucosa, leading to infection Indolent tubercular infection associated with lupus of the nose and pharynx. Lupus primarily affects the anterior part of the larynx. Pathology : Affects the posterior larynx more than the anterior. Common sites:Interarytenoid fold, ventricular bands, vocal cords, and epiglottis. Formation of submucosal tubercles, which may ulcerate and cause cellular infiltration (pseudoedema). Starts in the epiglottis , which may be destroyed. Lesion spreads to the aryepiglottic folds and ventricular bands . No association with pulmonary tuberculosis Clinical Features : Weakness of voice (early symptom) Hoarseness Severe pain, radiating to ears, especially with ulceration Dysphagia in later stages. {{caption_text}} Painless condition. Often asymptomatic, found incidentally during lupus evaluation. Signs : Hyperaemia of vocal cords (impaired adduction) Swelling in inter arytenoid region with a mamillated appearance Ulceration of vocal cords (" mouse-nibbled" appearance) Superficial ragged ulcerations on arytenoids and inter arytenoid region Granulation tissue in inter arytenoid region Pseudoedema of the epiglottis (" turban epiglottis") Swelling of ventricular bands and aryepiglottic folds Destruction of the epiglottis. Involvement of aryepiglottic folds and ventricular bands. Diagnosis : X-ray of chest Sputum examination for tuberculosis Biopsy of laryngeal lesion to exclude carcinoma Routine laryngeal examination in patients with lupus of the nose . No pulmonary TB involvement. Treatment : Treat the pulmonary tuberculosis (antitubercular drugs). Voice rest Antitubercular drugs . Laryngeal Papillomatosis (Option A): Typically involves multiple papilated lesions, less ulcerative lesions and is not usually associated with cavitary lung lesions. Reinke’s Edema (Option B): Characterized by vocal cord swelling, not typically associated with ulcerative lesions and cavitary lung findings. Lupus of the Larynx (Option C): Affects the anterior larynx and is usually asymptomatic; not associated with cavitary lung lesions.



References:

Dhingra's Diseases Of Ear, Nose And Throat, & Head and Neck Surgery, 8th edition, Pages 342, 343

↑ *Back to this question in Part A*

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Q6: A 45 y/o woman with a history of heavy smoking presents with a low-pitched, rough voice and noticeable hoarseness. Laryngoscopy reveals the following findings.

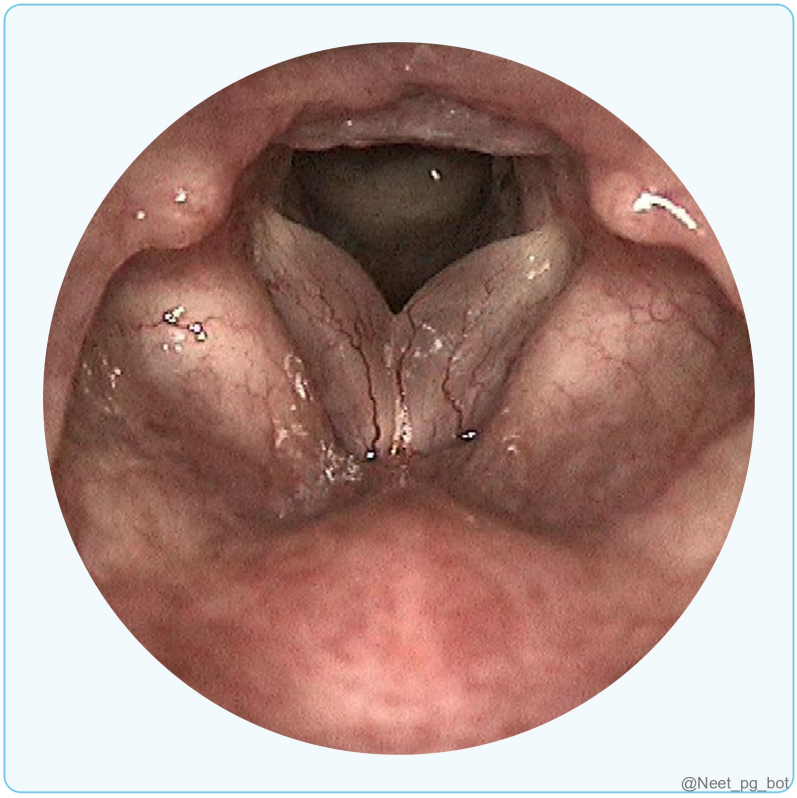
What is the most likely diagnosis for this patient's condition? {{caption_text}} (Q847878)

A. Vocal Polyp

B. Reinke’s Edema

C. Laryngeal Papillomatosis

D. Vocal Nodule



Correct Answer: B. Reinke’s Edema

- *Listen (English)*
- *Listen (Hindi)*

Explanation: Reinke’s Edema is the most likely diagnosis due to the presence of fusiform swelling of the vocal cords with a pale, translucent appearance as shown in the image. It is also consistent with the h/o chronic smoking. Causes : Chronic vocal cord irritation (voice misuse, heavy smoking). Aka smokers larynx Chronic sinusitis, laryngopharyngeal reflux. Myxoedema More common in middle-aged men and women. Clinical Features : Hoarseness or husky voice. Use of false vocal cords for voice production, leading to a low-pitched, rough voice. Examination : Laryngoscopy: Fusiform swelling of vocal cords with a pale, translucent appearance. Ventricular bands may be hyperaemic and hypertrophic, obscuring true cords. Treatment : Decortication of vocal cords : Removal of a strip of epithelium, first on one side, then the other after 3-4 weeks. Voice rest Speech therapy : To improve proper voice production. Vocal Polyp (Option A): Typically unilateral, pedunculated, and caused by

sudden vocal abuse, not associated with the fusiform swelling shown. Laryngeal Papillomatosis (Option C): Characterized by multiple lesions and not the fusiform swelling and pale appearance as shown. Vocal Nodule (Option D): Usually bilateral but more discrete and located at the junction of the anterior and posterior thirds of the vocal cords; does not present with fusiform swelling.

References:

Dhingra's Diseases Of Ear, Nose And Throat, & Head and Neck Surgery, 8th Edition, Page 342

Scott-Brown’s Otorhinolaryngology Head and Neck Surgery, 8th Edition, Volume 3, Page 951,952

↑ *Back to this question in Part A*

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Q7: A 50 y/o man with a history of tobacco chewing presents with a white patch on his laryngeal mucosa which is not easy to scrape off. Oral examination reveals a smooth white patch with no red or ulcerative areas. The patient reports no significant pain or symptoms. What is the most likely diagnosis for this patient's oral lesion? (Q847877)

A. Oral Candidiasis

B. Leukoplakia

C. Lichen Planus

D. Oral submucous Fibrosis

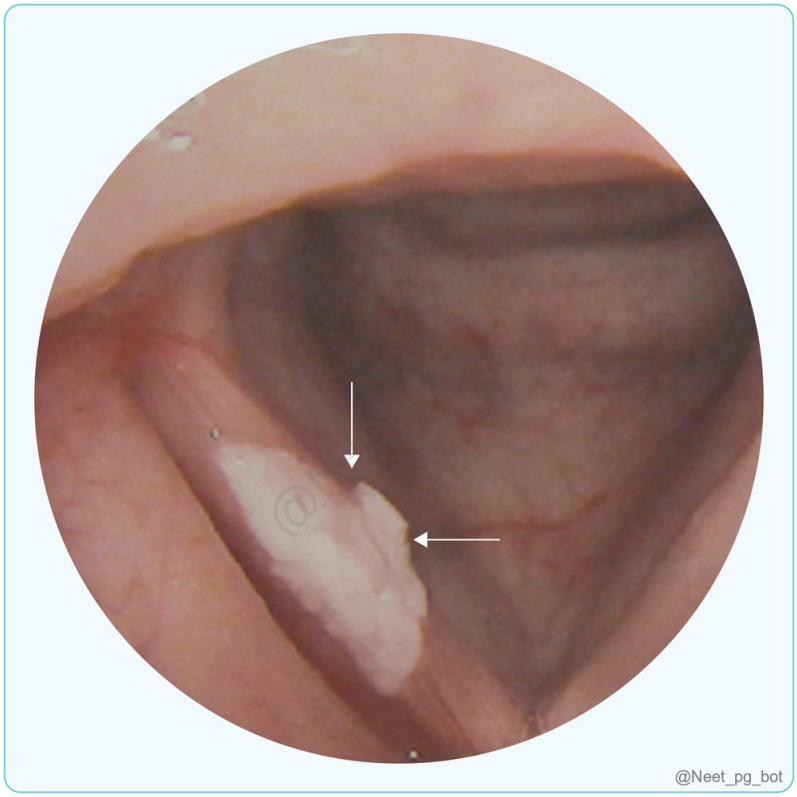
Correct Answer: B. Leukoplakia

■ *Listen (English)*

■ *Listen (Hindi)*

Explanation: The presence of a smooth white patch on the laryngeal mucosa without ulceration in patients with h/o tobacco chewing suggests a diagnosis of leukoplakia. {{caption_text}} Definition White patch on oral mucosa, defined clinically, excluding conditions like lichen planus, candidiasis, etc. Causes Smoking, tobacco chewing Alcohol abuse (especially with smoking) Chronic trauma (ill-fitting dentures, cheek bites) Associated with submucous fibrosis, hyperplastic candidiasis, Plummer-Vinson syndrome Common sites Buccal mucosa (most common in India) Oral commissures, floor of mouth, tongue, gingivobuccal sulcus, lip mucosa Age & Gender Men in their 40s are 2-3 times more affected than females. Clinical types Homogenous : Smooth or wrinkled white patch, lower malignancy risk Nodular (speckled) : White patches on an erythematous base, higher malignancy risk Erosive (erythroleukoplakia) : Interspersed with red patches, fissures, highest malignancy risk Malignant potential 1-17.5% risk, average 5% malignant transformation Higher risk in dysplastic lesions and certain locations Treatment Remove causative factors Biopsy : For lesions with high malignant potential. Surgical excision or laser/cryotherapy : For suspicious or small lesions Oral Candidiasis (Option A): Typically presents with white, creamy patches that can be easily scraped off. Lichen Planus (Option C): Often presents with white, lace-like

striations (Wickham’s striae) rather than a smooth white patch. Oral submucous Fibrosis (Option D): Typically presents with oral mucosal stiffness and restricted mouth opening, not a white patch.



References:

Dhingra's Diseases Of Ear, Nose And Throat, & Head and Neck Surgery, 8th edition, Pages 263,264

Scott-Brown’s Otorhinolaryngology Head and Neck Surgery , 8th Edition, 3rd Volume, Page 434

Lichen planus

↑ *Back to this question in Part A*

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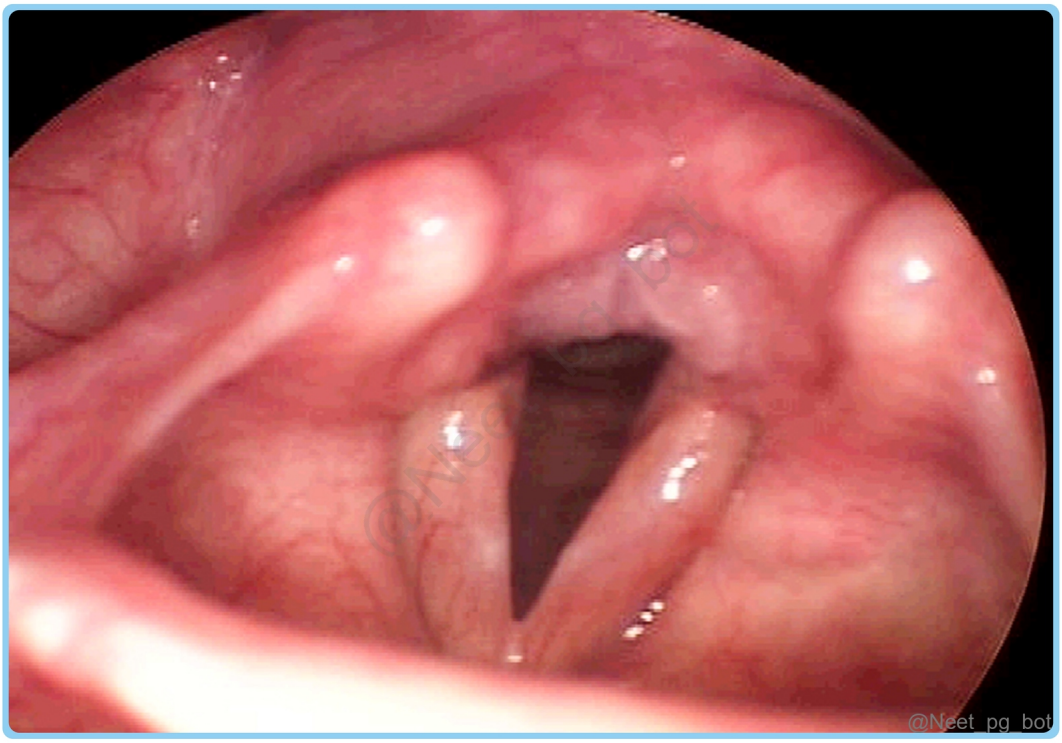
Q8: A 55 y/o man, who is a heavy smoker and drinker, visits complaining of a persistent husky voice and throat irritation. During a laryngoscopic examination, the following is observed. Based on the above image, what is the most likely diagnosis? (Q847876)

A. Pachyderma Laryngitis

B. Vocal Polyp

C. Acute Laryngitis

D. Vocal Cord Nodules



Correct Answer: A. Pachyderma Laryngitis

■ *Listen (English)*

■ *Listen (Hindi)*

Explanation: The image shows bilateral vocal cord oedema with hypervascularity. Pachyderma , characterised by mucosal thickening, swelling, ulceration and hypertrophy in the arytenoid region, is observed in the posterior glottic space. Pachyderma Laryngitis: A chronic hypertrophic laryngitis Aspect Details Clinical Presentation Hoarseness or husky voice. Throat irritation. Laryngoscopic Findings Red or grey granulation tissue in the interarytenoid region. Ulcerations on the posterior thirds of the vocal cords (contact ulcers). Bilateral and symmetrical changes. Malignant Potential Typically does not progress to malignancy. Biopsy is essential to rule out carcinoma or tuberculosis. Aetiology The exact cause is uncertain. Predominantly in men who smoke and consume excessive alcohol. Contributing Factors Excessive and forceful talking. Gastroesophageal reflux disease (GERD), leads to irritation from acidic stomach fluids. Treatment Removal of Granulation Tissue: Acid Reflux Management: Speech Therapy: Vocal Polyps (Option B) are usually unilateral , appearing as pedunculated or sessile lesions on the free edge of the vocal cords. They are often associated with phonotrauma (excessive voice use) rather than smoking or alcohol abuse. Acute laryngitis (Option C) usually presents acutely with hoarseness, weak voice or voice loss, dyspnea and dry cough. Laryngoscopy shows diffuse erythema and edema , but not pachyderma . Vocal cord nodules(Option D) present as bilateral callous-like growths on the vocal cords, typically seen in professional voice users (e.g., singers and teachers). Laryngoscopy shows small, firm nodules on the true vocal cords.

References:

Dhingra's Diseases Of Ear, Nose And Throat, & Head and Neck Surgery, 8th Edition, Page 342

↑ *Back to this question in Part A*

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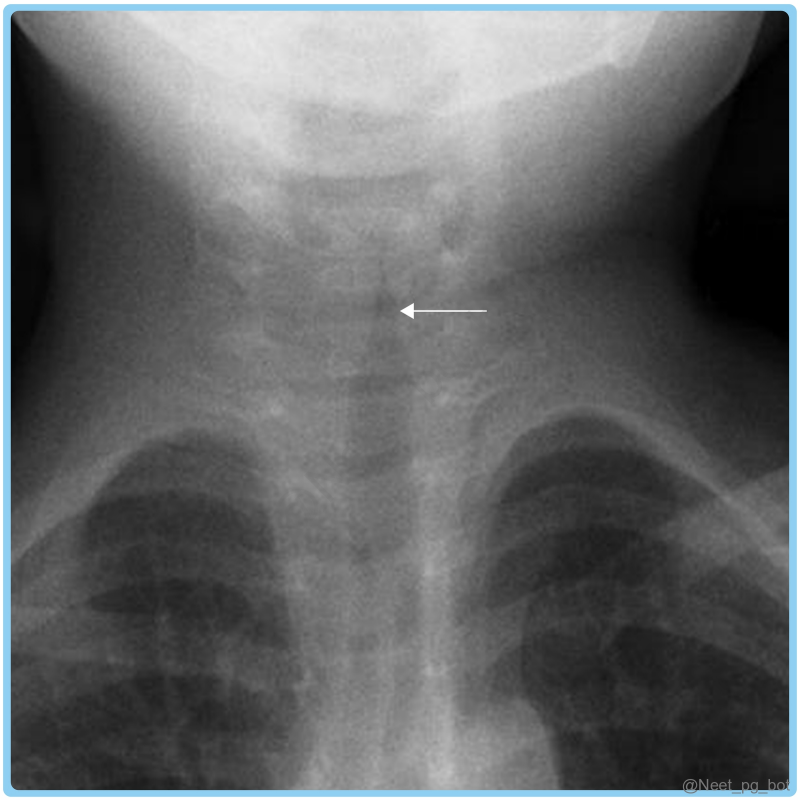
Q9: A 3 y/o child presents with a 2-day history of a worsening cough, fever, and difficulty breathing. The parents report that the child's cough has a characteristic "barking" quality, and they have noticed increased difficulty in breathing, especially at night. The child appears irritable and distressed. O/E there are signs of respiratory distress. An anteroposterior X-ray of the neck is done. {{caption_text}} Based on the clinical presentation and X-ray findings, which of the following is the most likely diagnosis? (Q847875)

A. Acute Epiglottitis

B. Croup (Acute Laryngotracheobronchitis)

C. Foreign Body Aspiration

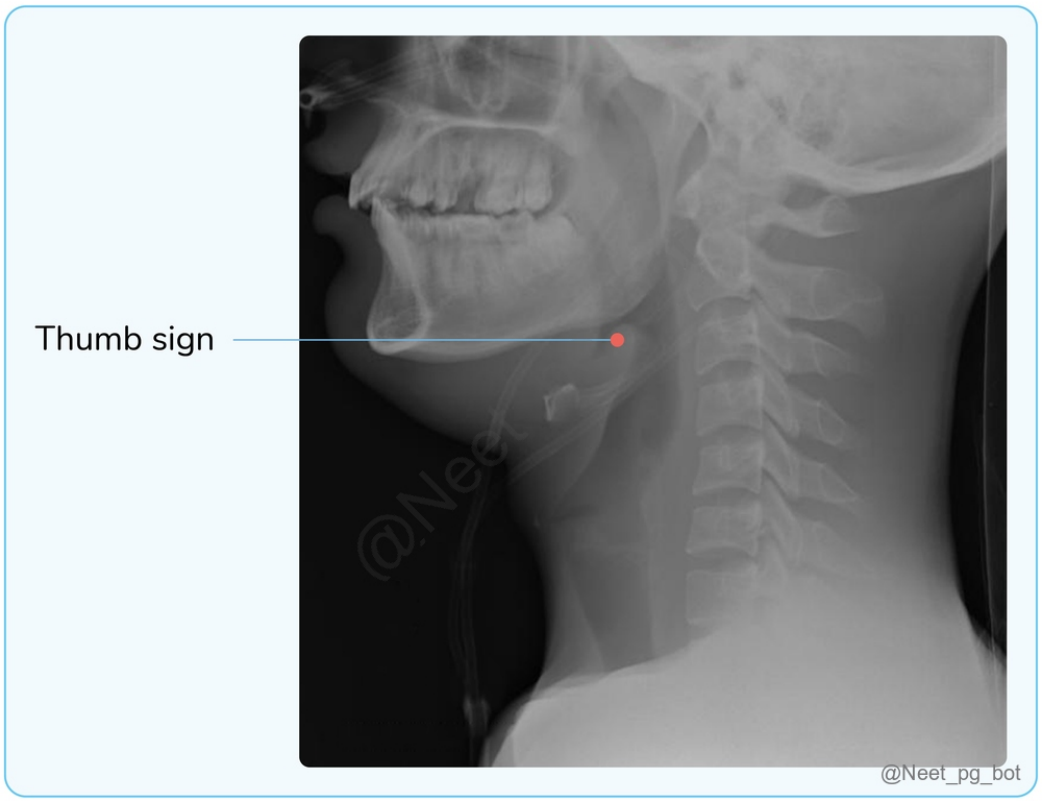
D. Tracheitis (Subglottic Stenosis)

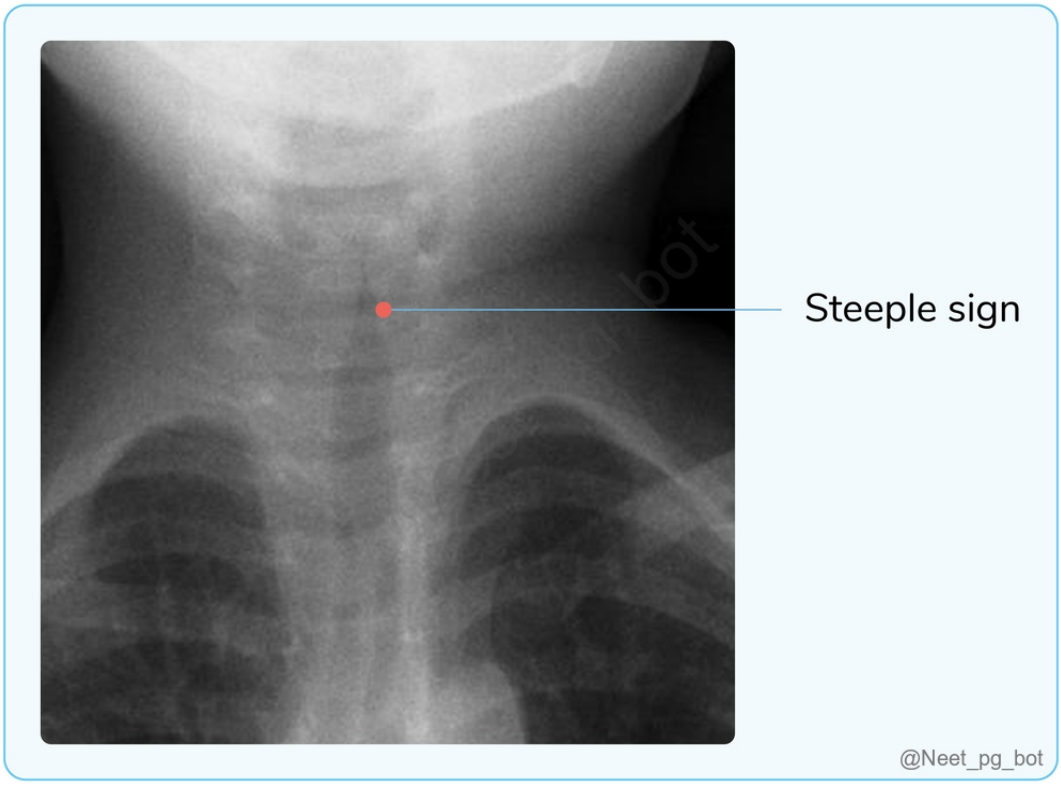


Correct Answer: B. Croup (Acute Laryngotracheobronchitis)

- *Listen (English)*
- *Listen (Hindi)*

Explanation: The X-ray given shows the characteristic Steeple sign . The "steeple sign" on the X-ray and the characteristic barking cough are indicative of croup. Diagnosis and Treatment of Acute Epiglottitis vs. Croup Aspect Acute Epiglottitis Croup (Acute Laryngotracheobronchitis) Diagnosis Visualisation: Red and swollen epiglottis (avoid indirect laryngoscopy to prevent airway obstruction). Lateral Neck X-ray: "Thumb sign" indicating swollen epiglottis. (Option A ruled out) Differentiated based on clinical features (e.g., absence of drooling, voice quality). The "steeple sign" on an X-ray AP view shows a narrowing of the upper airway, often seen in croup. X-Ray Imaging {{caption_text}} {{caption_text}} Hospitalisation Required due to the high risk of airway obstruction. Often necessary due to potential breathing difficulties. Treatment Antibiotics: Parenteral administration (e.g., ampicillin, third-generation cephalosporins). Steroids: to reduce oedema. Hydration: IV fluids if needed. Humidified Oxygen: Via mist tent or croupette. Intubation or Tracheostomy: In cases of severe respiratory obstruction. Antibiotics: Ampicillin 50 mg/kg/day against the H. influenza virus. Humidification: Helps clear crusts and thick secretions that block the tracheobronchial tree. Steroids : to reduce oedema. Racemic Epinephrine: Used as a bronchodilator. Intubation or Tracheostomy: Considered if obstruction worsens or lasts beyond 72 hours. Foreign body aspiration (Option C) does not specifically show the "steeple sign." Tracheitis or subglottic stenosis (Option D) typically shows narrowing of the trachea and not the "steeple sign."





References:

Dhingra's Diseases Of Ear, Nose And Throat, & Head and Neck Surgery, 8th edition, Pages 339, 340

↑ *Back to this question in Part A*

@Neet_pg_bot

Q10: Which of the following is true regarding acute epiglottitis compared to croup? (Q847874)

A. Acute epiglottitis is more commonly caused by viral infections.

B. Croup typically has an abrupt onset and rapid progression.

C. The "thumb sign" on a lateral neck X-ray is a characteristic of croup.

D. Acute epiglottitis in children can lead to life-threatening airway obstruction.

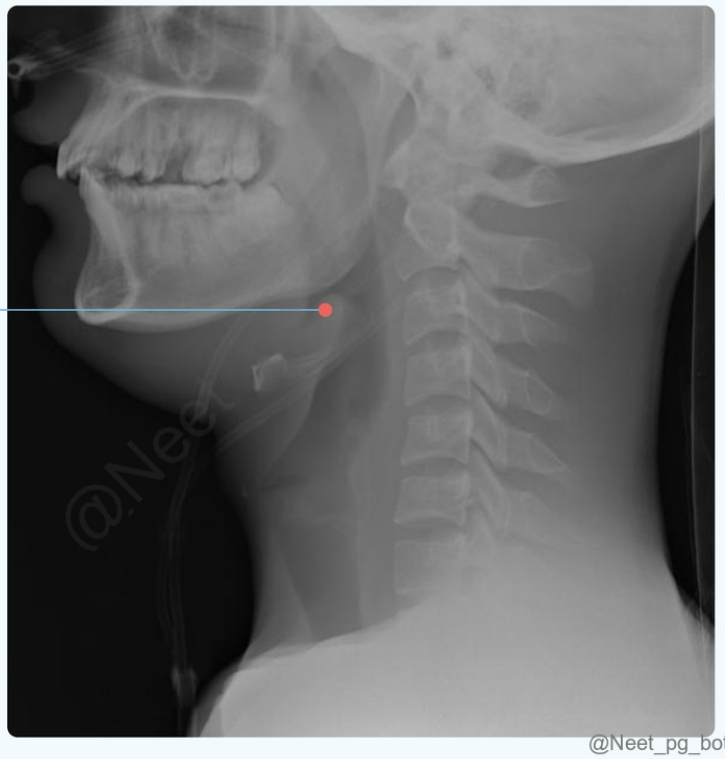
Correct Answer: D. Acute epiglottitis in children can lead to life-threatening airway obstruction.

■ *Listen (English)*

■ *Listen (Hindi)*

Explanation: In children, acute epiglottitis can rapidly progress to airway obstruction , making it life-threatening. Acute Epiglottitis vs. Croup: Feature Acute Epiglottitis Croup (Acute Laryngotracheobronchitis) Cause Haemophilus influenzae type B (most common in children) Viral infections (Parainfluenza types I and II most common) Onset Abrupt onset, rapid progression Starts as an upper respiratory infection with hoarseness and a "croupy" cough then progress down to larynx l/t barking cough Incidence Affects children 2–7 years old; can also occur in adults More common, affects children 6 months–3 years old (more common in males) Symptoms Sore throat, dysphagia , salivary drooling and tripod posture (Adults) Dyspnoea, stridor, rapid airway obstruction (respiratory emergency in Children) Mild and slow progression as compared to acute epiglottitis. Hoarseness, croupy cough, difficulty breathing, inspiratory stridor, suprasternal and intercostal retractions (severe cases). Fever High fever (up to 40°C), often with septicaemia Mild to moderate fever Diagnosis Visualisation of red, swollen epiglottis " Thumb sign " on lateral X-ray of the neck. Avoid indirect laryngoscopy Differentiated from epiglottitis by clinical features, no "thumb sign" A steeple sign is seen on the X-ray. X-Ray Imaging {{caption_text}} {{caption_text}} Tripod Position in Acute Epiglottitis:

Thumb sign



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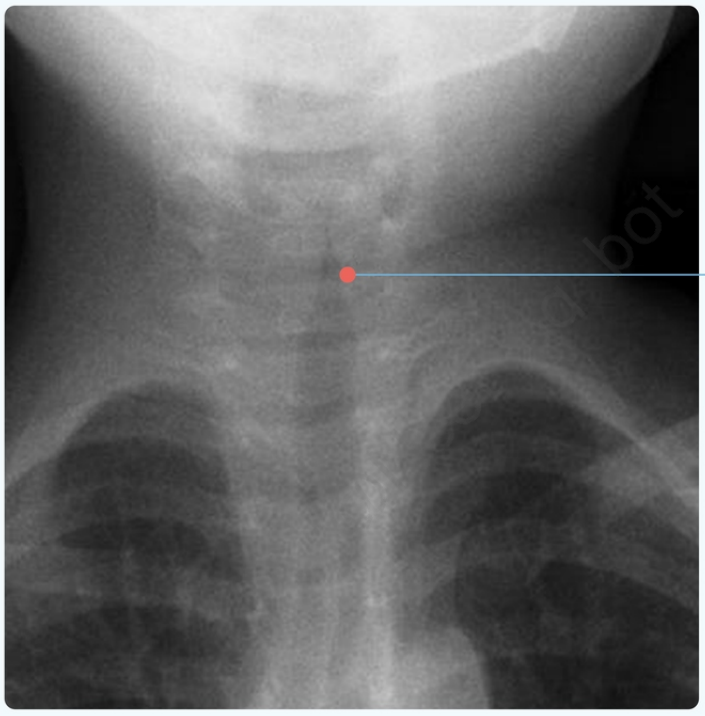

Steeple sign

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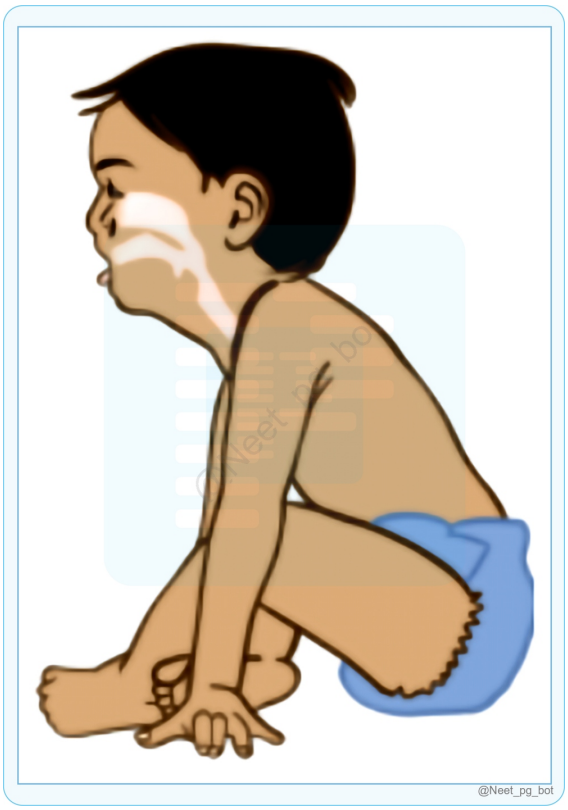


References:

Dhingra's Diseases Of Ear, Nose And Throat, & Head and Neck Surgery, 8th edition, Pages 338, 339

Epiglotittis

Tripod Position

↑ *Back to this question in Part A*

@Neet_pg_bot

Q11: Which of the following is a paired hyaline cartilage of the larynx? (Q847863)

A. Cuneiform

B. Arytenoid

C. Corniculate

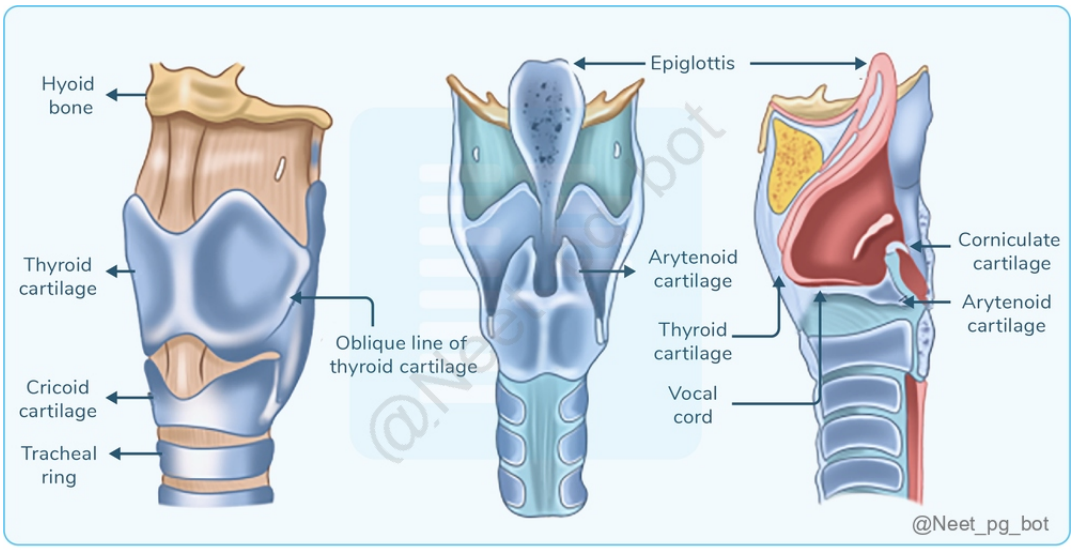
D. Thyroid

Correct Answer: B. Arytenoid

■ *Listen (English)*

■ *Listen (Hindi)*

Explanation: The arytenoid cartilages are paired hyaline cartilages located on the upper border of the cricoid cartilage. They are crucial for vocal cord movement and phonation . Although there are three paired cartilages — arytenoid, corniculate, and cuneiform — only the arytenoids are hyaline ; the corniculate and cuneiform cartilages are elastic Type of Cartilage Paired Cartilage Unpaired Cartilage Hyaline Cartilage (Calcifies with age) Arytenoid Thyroid (Option D ruled out) , Cricoid Elastic Cartilage Corniculate, Cuneiform (Option A & C ruled out) Epiglottis



References:

Dhingra's Diseases Of Ear, Nose And Throat, & Head and Neck Surgery, 8th edition, Page 331

Scott-Brown’s Otorhinolaryngology Head and Neck Surgery , 8th Edition, 3rd Volume, Pagess 884, 885.

Logan Turner’s Diseases Of Nose, Throat And Ear Head and Neck Surgery, 11th edition. Pages 149, 150

↑ *Back to this question in Part A*

@Neet_pg_bot

Q12: Which of the following statements about the spaces of the larynx is true? (Q847872)

A. The paraglottic space is located above the infrahyoid epiglottis.

B. The preepiglottic space is continuous with the paraglottic space.

C. Reinke's space is located between the quadrangular membrane and the thyroid cartilage.

D. Tumours in the preepiglottic space typically extend into the neck via the cricothyroid membrane.

Correct Answer: B. The preepiglottic space is continuous with the paraglottic space.

■ *Listen (English)*

■ *Listen (Hindi)*

Explanation: The preepiglottic space is continuous with the paraglottic space. Spaces of the Larynx: Space Location Boundaries Contents Clinical Relevance Preepiglottic Space (Space of Boyer) Anterior and superior to the infrahyoid epiglottis (Option A ruled out) Anterior: Upper thyroid cartilage and thyrohyoid membrane Superior: Hyoepiglottic ligament Posterior: Quadrangular membrane Areolar tissue, fat, lymphatics Can be invaded by cancers of the supraglottic larynx or base of the tongue Paraglottic Space Lateral to the laryngeal ventricle Lateral: Thyroid cartilage Medial: Quadrangular membrane and ventricle Inferomedial: Conus elasticus Posterior: Piriform fossa mucosa N/A Tumours may extend into the neck via the cricothyroid membrane (Option D ruled out) Reinke's Space Beneath the epithelium of the vocal cords (Option C ruled out) Bounded by arcuate lines running from the vocal process of arytenoid to the anterior commissure Subepithelial connective tissue Oedema in this space results in Reinke's oedema, causing vocal cord swelling.

References:

Dhingra's Diseases Of Ear, Nose And Throat, & Head and Neck Surgery, 8th edition, Page 334

↑ *Back to this question in Part A*

@Neet_pg_bot

Q13: Which of the following extrinsic muscles is not an elevator of the larynx? (Q847871)

A. Sternohyoid

B. Stylopharyngeus

C. Mylohyoid

D. Digastric

Correct Answer: A. Sternohyoid

■ *Listen (English)*

■ *Listen (Hindi)*

Explanation: The sternohyoid muscle is an extrinsic muscle of the larynx which is a depressor, not an elevator of the larynx. It acts to lower the hyoid bone and the larynx. EXTRINSIC MUSCLES OF THE LARYNX Connect the laryngeal cartilages to the hyoid bone above and the trachea below. ELEVATORS DEPRESSORS Primary elevators (Option B ruled out) Act directly as they are attached to the thyroid cartilage. Stylopharyngeus Salpingopharyngeus Palatopharyngeus Thyrohyoid Sternohyoid Sternothyroid Omohyoid Secondary elevators

(Options C & D ruled out) Act indirectly as they are attached to the hyoid bone. Mylohyoid (main) Digastric Stylohyoid Geniohyoid

References:

Dhingra's Diseases Of Ear, Nose And Throat, & Head and Neck Surgery, 8th edition, Pages 332, 333

Logan Turner’s Diseases Of Nose, Throat And Ear Head and Neck Surgery, 11th edition. Page 151

Scott-Brown’s Otorhinolaryngology Head and Neck Surgery , 8th Edition, 3rd Volume, Pages 887, 888

↑ *Back to this question in Part A*

@Neet_pg_bot

Q14: Which of the following intrinsic muscles of the larynx is a tensor and is derived from the 4th branchial arch? (Q847870)

A. Vocalis

B. Cricothyroid

C. Posterior cricoarytenoid

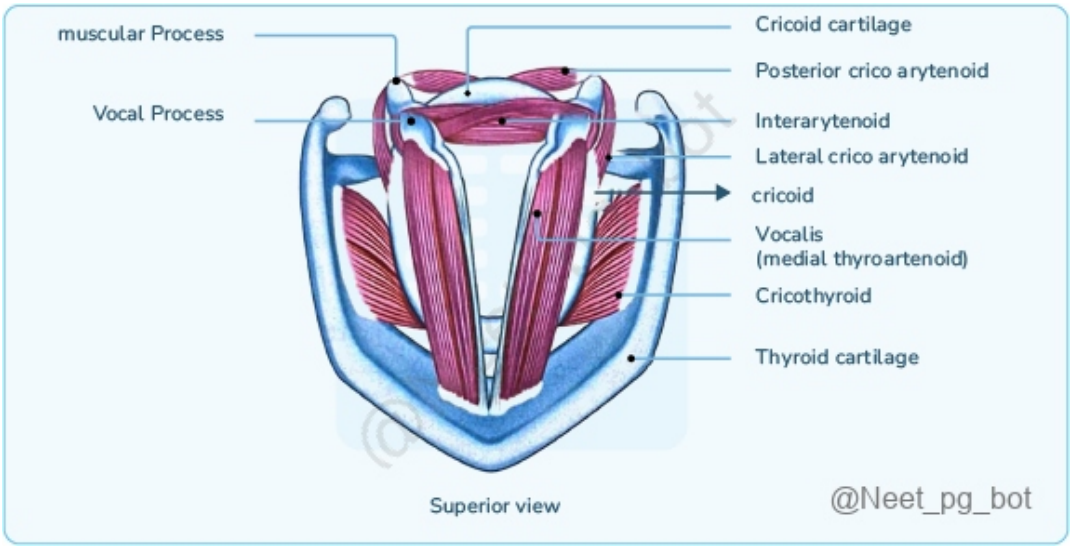
D. Transverse Interarytenoid

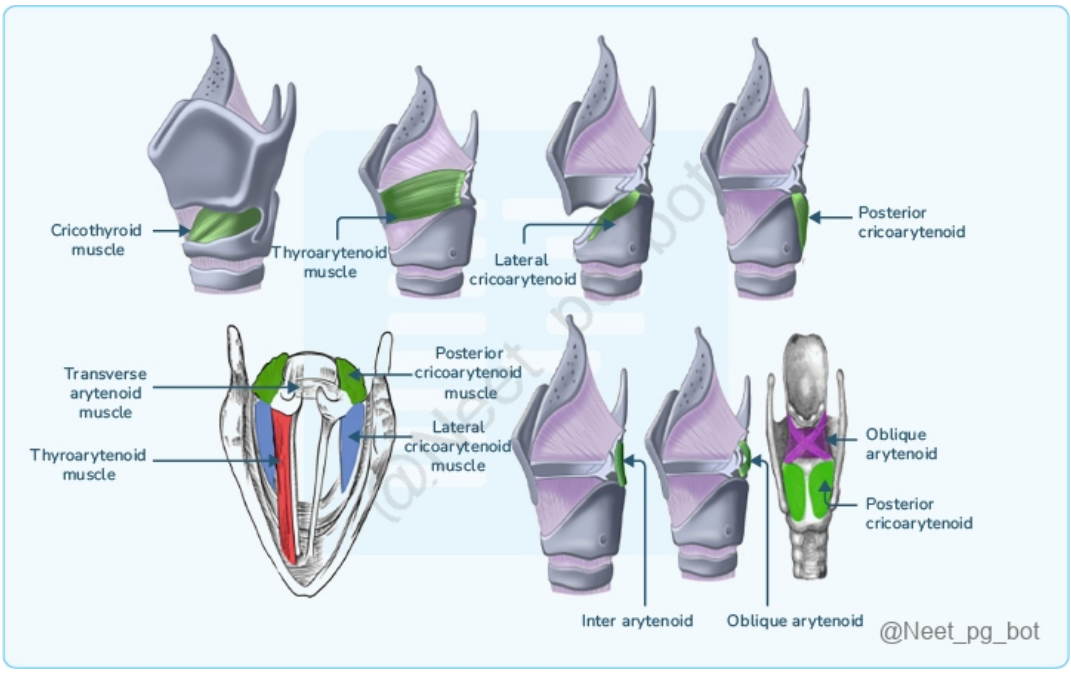
Correct Answer: B. Cricothyroid

■ *Listen (English)*

■ *Listen (Hindi)*

Explanation: The cricothyroid muscle is a tensor of the vocal cords and is derived from the 4th branchial arch. Branchial arch Laryngeal Structure 4th arch Thyroid cartilage ; Cricothyroid muscle ; All muscles of pharynx except stylopharyngeus 6th arch Cricoid, arytenoid, corniculate, and cuneiform cartilages ; All intrinsic muscles of larynx except cricothyroid Hypobranchial eminence Epiglottis INTRINSIC MUSCLES OF THE LARYNX Acting on the vocal cord Acting on the Laryngeal inlet Abductors Posterior cricoarytenoid(Safest muscle of larynx) Openers of the laryngeal inlet Thyroepiglottic Adductors Lateral cricoarytenoid Interarytenoid (unpaired muscle , dual nerve supply by right and left RLN)(transverse arytenoid) Thyroarytenoid (external part) Closers of laryngeal inlet Interarytenoid (oblique part) Aryepiglottic (posterior oblique part of inter arytenoids) Tensors Cricothyroid Vocalis (internal part of thyroarytenoid)





References:

Dhingra's Diseases Of Ear, Nose And Throat, & Head and Neck Surgery, 8th edition, Pages 332, 333

Logan Turner’s Diseases Of Nose, Throat And Ear Head and Neck Surgery, 11th edition. Page 151

Scott-Brown’s Otorhinolaryngology Head and Neck Surgery , 8th Edition, 3rd Volume, Pages 887, 889

↑ *Back to this question in Part A*

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Q15: What type of epithelium lines the vocal cords, and what is the space between them called? (Q847869)

A. Non-keratinizing stratified squamous epithelium; Rima vestibularis

B. Pseudostratified ciliated columnar epithelium; Rima glottidis

C. Non-keratinizing stratified squamous epithelium; Rima glottidis

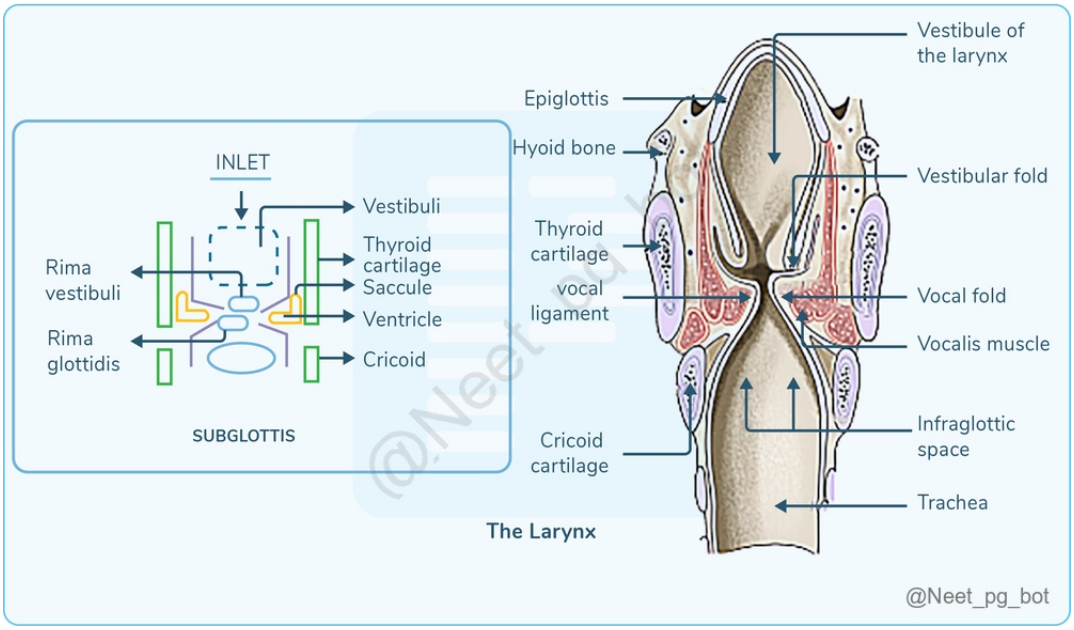
D. Pseudostratified ciliated columnar epithelium; Rima vestibularis

Correct Answer: C. Non-keratinizing stratified squamous epithelium; Rima glottidis

■ *Listen (English)*

■ *Listen (Hindi)*

Explanation: The vocal cords are lined by non-keratinizing stratified squamous epithelium and the space between them is called the rima glottidis. LARYNGEAL CAVITY The laryngeal cavity extends from the laryngeal inlet aryepiglottic fold to the lower border of the cricoid cartilage, where it continues with the trachea. It is divided into three parts by two pairs of folds, the vestibular and vocal folds : Vestibule Ventricle (Sinus of Larynx) Subglottic Space The rima vestibularis is the space between the vestibular folds (Option A & D ruled out) , while the rima glottidis is the narrowest part of the larynx, located between the vocal folds. It is divided into an anterior phonatory portion and a posterior respiratory portion. Mucous membranes of the larynx: Pseudostratified Ciliated Columnar Epithelium (Respiratory-Type): Most of the larynx. Non-Keratinizing Stratified Squamous Epithelium: Upper Half of the Posterior Surface of the Epiglottis Upper Part of the Aryepiglottic Fold Posterior Glottis Vocal Folds (Vocal Cords) (Option B ruled out)



References:

Dhingra's Diseases Of Ear, Nose And Throat, & Head and Neck Surgery, 8th edition, Pages 333, 334

Logan Turner’s Diseases Of Nose, Throat And Ear Head and Neck Surgery, 11th edition. Pages 151, 153

Scott-Brown’s Otorhinolaryngology Head and Neck Surgery , 8th Edition, 3rd Volume, Pages 890, 891

↑ *Back to this question in Part A*

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Q16: Match the following: 1. Extrinsic Membranes of Larynx a) Quadrangular membrane 2. Intrinsic Membranes of the larynx b) Aryepiglottic membrane c) Thyrohyoid membrane d) Cricothyroid membrane e) Cricovocal membrane (Q847868)

A. 1- a, d, e; 2- b, c

B. 1- c, d; 2- a, b,d, e

C. 1- a, b; 2- c, d, e

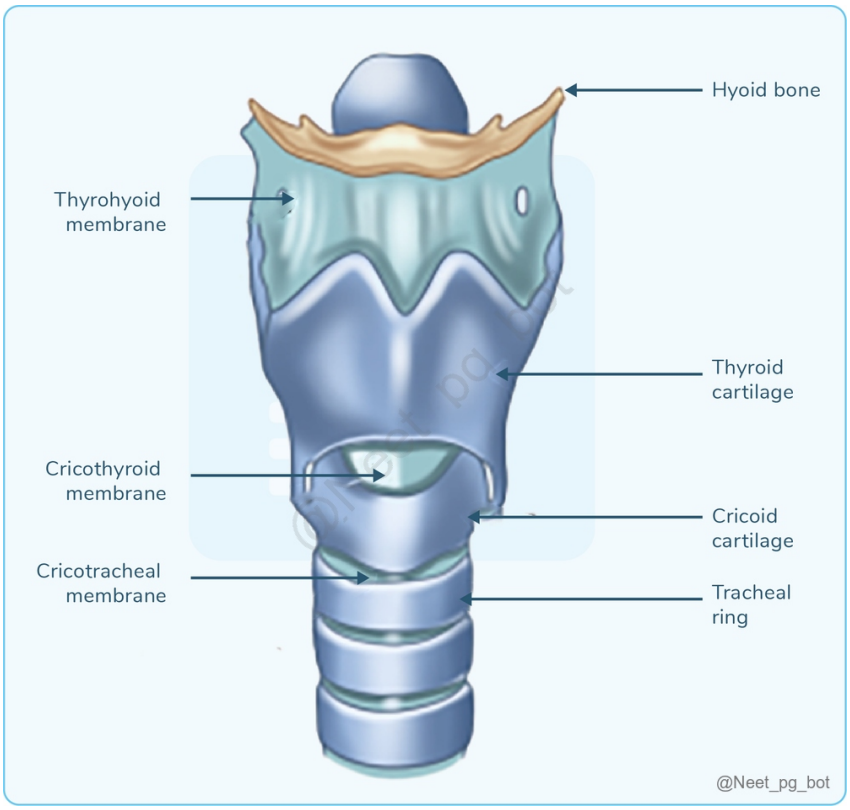
D. 1- b, d, e; 2- a, c

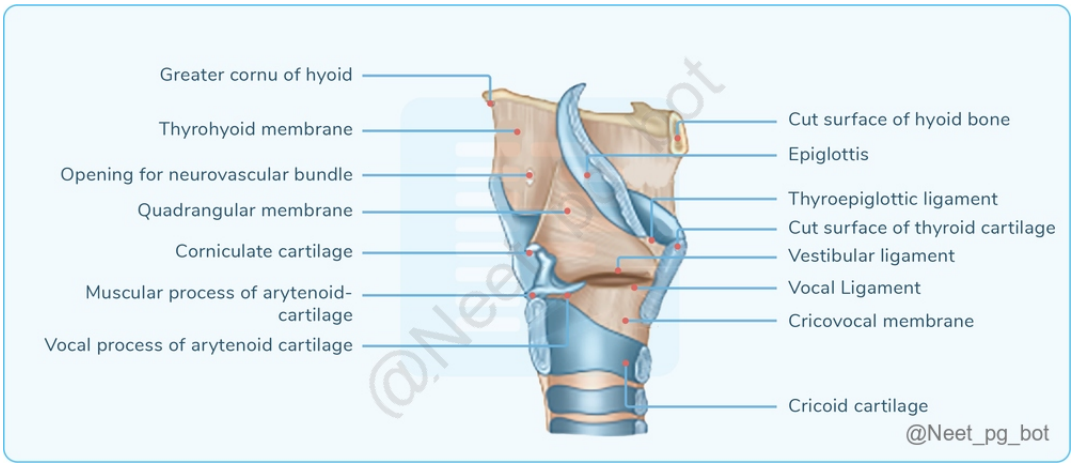
Correct Answer: B. 1- c, d; 2- a, b,d, e

■ *Listen (English)*

■ *Listen (Hindi)*

Explanation: Extrinsic Membranes Intrinsic Membranes Connecting laryngeal cartilage to extra laryngeal structure. Connecting laryngeal cartilage to another laryngeal cartilage. Thyrohyoid membrane - Pierced by superior laryngeal vessels and internal laryngeal nerve. Hyoepiglottic ligament - Connects epiglottis to the hyoid bone. Aryepiglottic membrane - Completely seals off the laryngeal spaces, creating a sphincter that protects the larynx and lungs from foreign bodies. Quadrangular membrane - The lower border forms the vestibular ligament which forms the false cord. Cricovocal/ Conus elasticus membrane - Connects the thyroid, cricoid, and arytenoid cartilages, forming the vocal ligament and conus elasticus. It provides a site where subglottic foreign bodies may become impacted. Cricothyroid membrane - Pierced in a cricothyroidotomy during access for an emergency airway





References:

Dhingra's Diseases Of Ear, Nose And Throat, & Head and Neck Surgery, 8th edition, Page 332

Logan Turner’s Diseases Of Nose, Throat And Ear Head and Neck Surgery, 11th edition. Page 151

Scott-Brown’s Otorhinolaryngology Head and Neck Surgery , 8th Edition, 3rd Volume, Page 887

↑ *Back to this question in Part A*

@Neet_pg_bot

Q17: Which of the following statements is false regarding the arytenoid, corniculate, and cuneiform cartilages? (Q847867)

A. The arytenoid cartilages have a base that articulates with the cricoid cartilage.

B. The corniculate cartilages articulate with the apex of the arytenoid cartilages.

C. The cuneiform cartilages provide support to the vocal cords.

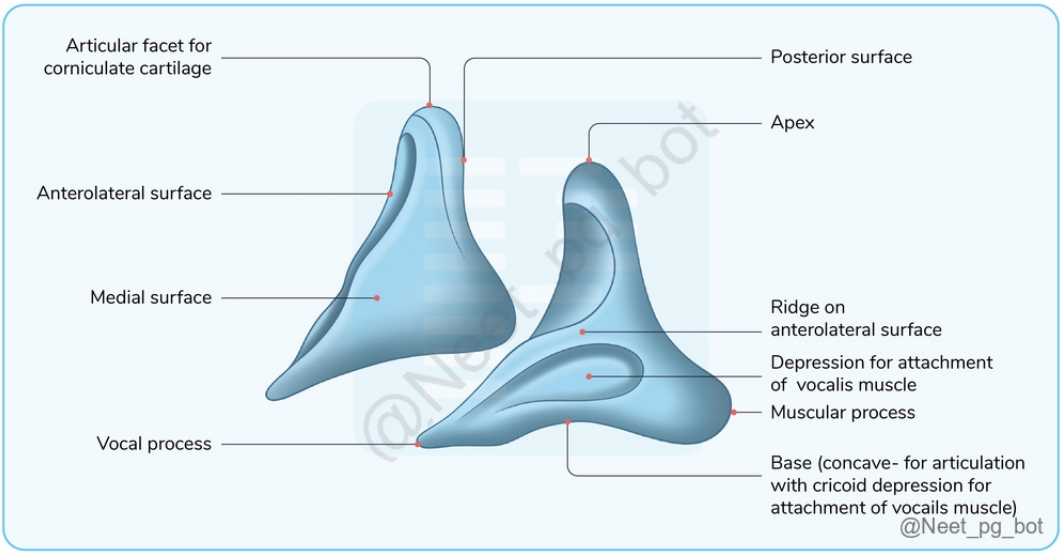
D. The corniculate cartilages are responsible for supporting the aryepiglottic fold.

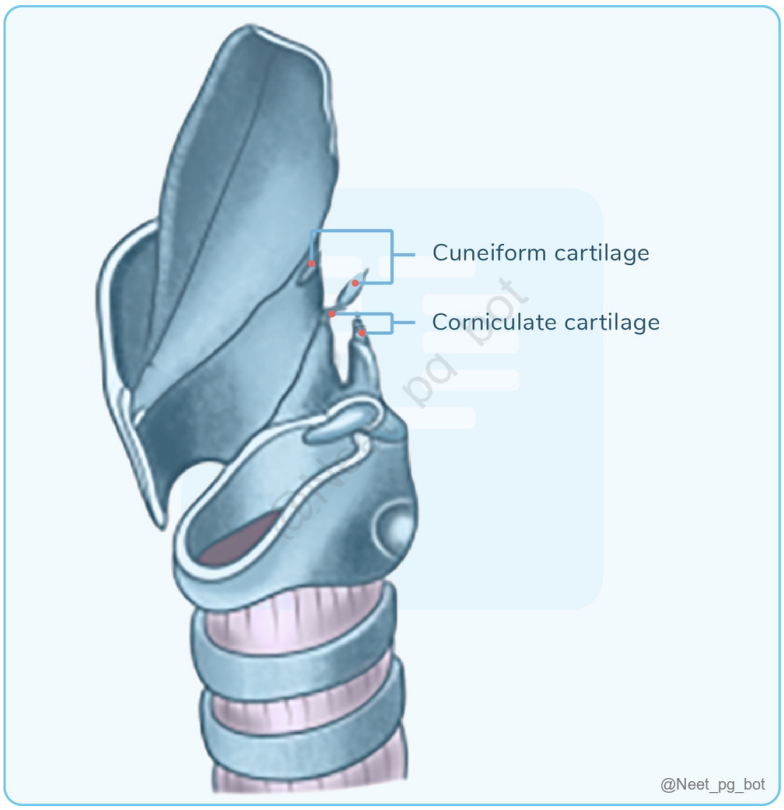
Correct Answer: C. The cuneiform cartilages provide support to the vocal cords.

■ *Listen (English)*

■ *Listen (Hindi)*

Explanation: Cuneiform cartilages are rod-shaped and located in the aryepiglottic fold, but they provide support to the aryepiglottic fold, not the vocal cords. The vocal cords are attached to the vocal process of the arytenoid cartilages. CARTILAGE DESCRIPTION ARYTENOID Paired Hyaline Cartilage. Each arytenoid cartilage is shaped like a pyramid. Base : The base of each arytenoid cartilage articulates with the cricoid cartilage. (Option A ruled out) Muscular Process : A lateral projection where intrinsic laryngeal muscles attach. Vocal Process : Anterior projection that provides attachment for the vocal cords. Apex : The top part of the arytenoid cartilage that supports the corniculate cartilage. CORNICULATE Cartilages of Santorini There are two corniculate cartilages, one on each side. Elastic cartilage Each corniculate cartilage articulates with the apex of the arytenoid cartilage. (Option B ruled out) They resemble horns (hence the name "corniculate") and function to support the aryepiglottic fold. (Option D ruled out) CUNEIFORM Cartilages of Wrisberg Paired elastic Cartilage. Each cuneiform cartilage has a rod-like shape. Positioned in the aryepiglottic fold in front of the corniculate cartilage. Provides passive support to the aryepiglottic fold, enhancing its stability.





References:

Dhingra's Diseases Of Ear, Nose And Throat, & Head and Neck Surgery, 8th edition, Page 331

Logan Turner’s Diseases Of Nose, Throat And Ear Head and Neck Surgery, 11th edition. Pages 150, 151

Scott-Brown’s Otorhinolaryngology Head and Neck Surgery , 8th Edition, 3rd Volume, Page 886

↑ *Back to this question in Part A*

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Q18: Which of the following is true about the epiglottis? (Q847866)

A. It is an unpaired hyaline cartilage.

B. Preepiglottic space is not associated with cancers involving the base of the tongue.

C. It is connected to the hyoid bone by the hyoepiglottic ligament.

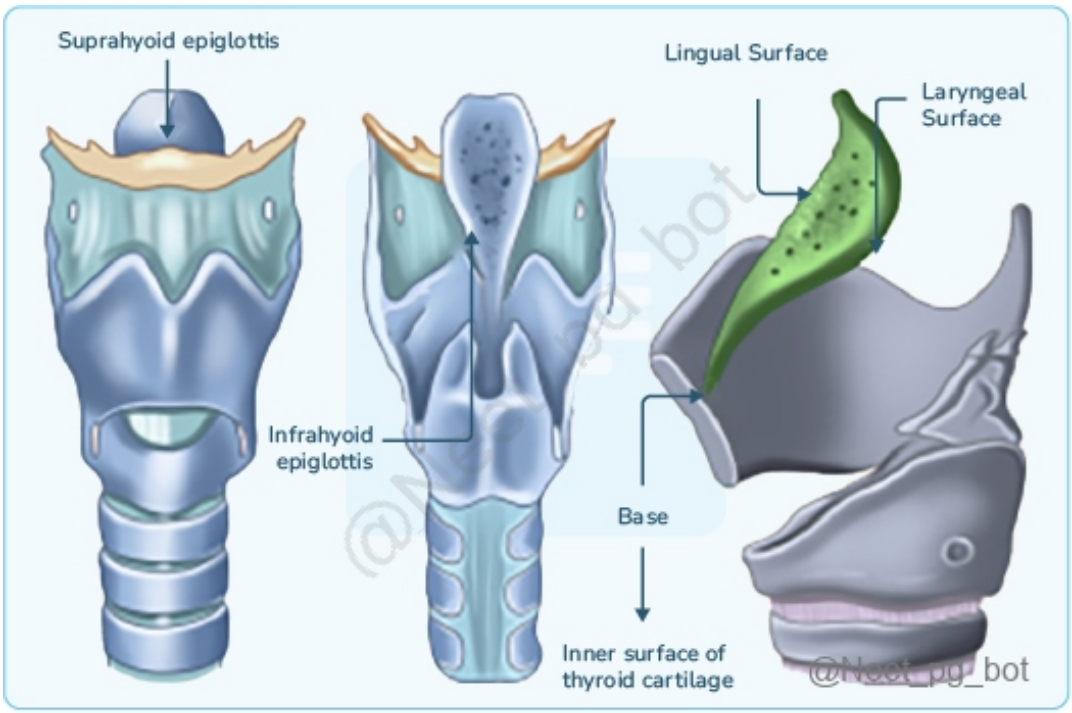
D. The epiglottis is not essential for swallowing and can be safely removed.

Correct Answer: C. It is connected to the hyoid bone by the hyoepiglottic ligament.

■ *Listen (English)*

■ *Listen (Hindi)*

Explanation: The epiglottis is connected to the hyoid bone by the hyoepiglottic ligament. Epiglottis Unpaired Elastic Cartilage (Option A ruled out) Shape: Leaf-shaped yellow elastic cartilage. Location: Forms the anterior wall of the laryngeal inlet. Attachments: Connected to the hyoid bone by the hyoepiglottic ligament , dividing it into suprahyoid and infrahyoid portions. The petiole attaches it to the thyroid cartilage just above the vocal cords. Anterior Surface: Preepiglottic Space: Located in front of the epiglottis, between the anterior surface and the thyrohyoid membrane/upper thyroid cartilage. Filled with fat, it may be involved in supraglottic cancers or the base of tongue carcinomas. (Option B ruled out) Posterior Surface: Tubercle of Epiglottis: A bulge that may obstruct the view of the anterior commissure during indirect laryngoscopy. Contains pits for mucous glands and occasional perforations, which may facilitate cancer spread to the preepiglottic space. Clinical Significance: Cancer Spread: Supraglottic cancers can invade the pre-epiglottic space through epiglottic perforations. Non-Essential for Swallowing: The epiglottis can be safely amputated in cases of cancer or trauma without significant risk of aspiration. (Option D ruled out)



References:

Dhingra's Diseases Of Ear, Nose And Throat, & Head and Neck Surgery, 8th edition, Page 331

Scott-Brown’s Otorhinolaryngology Head and Neck Surgery , 8th Edition, 3rd Volume, Pages 886, 887.

Logan Turner’s Diseases Of Nose, Throat And Ear Head and Neck Surgery, 11th edition. Page 150

↑ *Back to this question in Part A*

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Q19: A 60-year-old male presents with hoarseness of voice and breathing difficulties following minor neck trauma. During evaluation, imaging reveals calcified structures in the laryngeal region. What is the most likely cause for this finding? (Q847865)

A. Displacement of the thyroid cartilage from its normal position

B. Formation of fibrous tissue in the cricoid cartilage

C. Inflammatory changes in the arytenoid cartilage

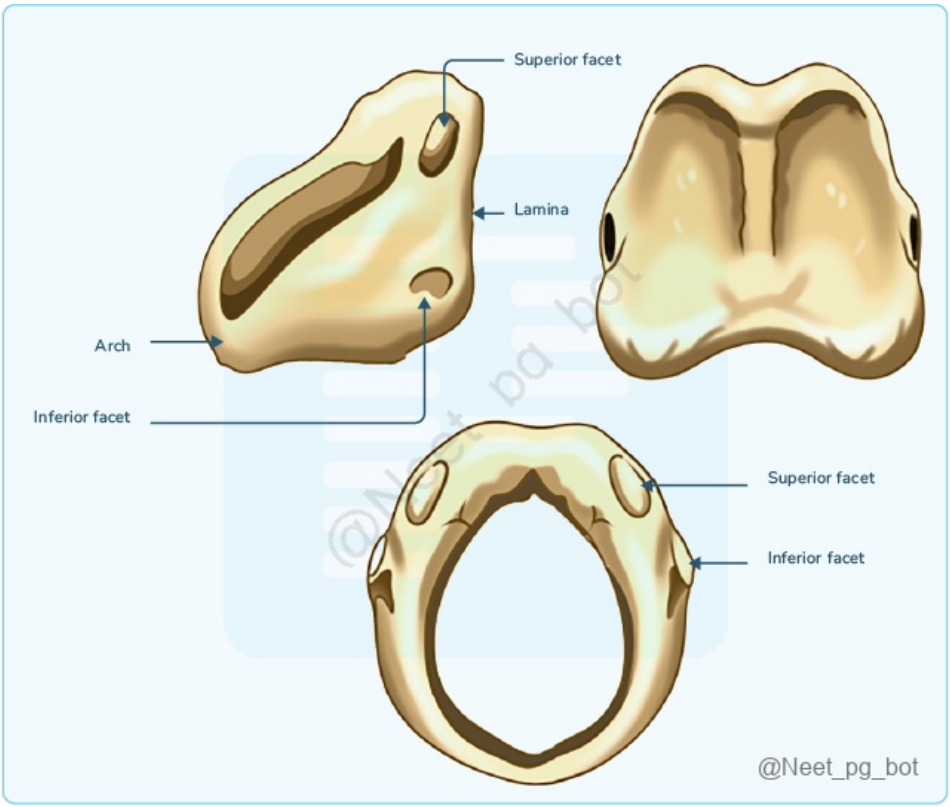
D. Age-related ossification of cricoid cartilage

Correct Answer: D. Age-related ossification of cricoid cartilage

■ *Listen (English)*

■ *Listen (Hindi)*

Explanation: The cricoid cartilage, made of hyaline cartilage , tends to calcify as part of the aging process, typically beginning around 25 and completing by 65, leading to changes seen on imaging. Cricoid Cartilage Complete ring : The only laryngeal cartilage forms a full ring, resembling a signet ring with a broader posterior lamina and a narrow anterior arch. Clinical relevance : In children, the cricoid cartilage is smaller in diameter than the glottis, making it the narrowest part of the airway, crucial for choosing the correct endotracheal tube size. Calcification in older adults can appear as a foreign body on X-rays. Subglottic foreign bodies may lodge near the cricoid cartilage, especially in children. Displacement of the thyroid cartilage from its normal position (Option A): Displacement of the thyroid cartilage, such as dislocation from the cricoid, is not suggested by the presence of calcified structures on imaging. Formation of fibrous tissue in the cricoid cartilage (Option B): The cricoid cartilage is primarily hyaline cartilage, and fibrous tissue is not a typical finding.it can be associated with prolonged ET tube insertion Inflammatory changes in the arytenoid cartilage (Option C): Inflammatory conditions of the arytenoid cartilage might cause vocal cord dysfunction or airway obstruction, but would not lead to calcified structures in the cricoid cartilage.



References:

Dhingra's Diseases Of Ear, Nose And Throat, & Head and Neck Surgery, 8th edition, Pages.331,332,335

Scott-Brown’s Otorhinolaryngology Head and Neck Surgery , 8th Edition, 3rd Volume, Page 886

Airway Foreign Bodies

↑ *Back to this question in Part A*

@Neet_pg_bot

Q20: Which of the following statements about the thyroid cartilage is correct? (Q847864)

A. Smallest cartilage in the larynx.

B. The alae of the thyroid cartilage meet at an angle of 120° in males.

C. It is an unpaired hyaline cartilage.

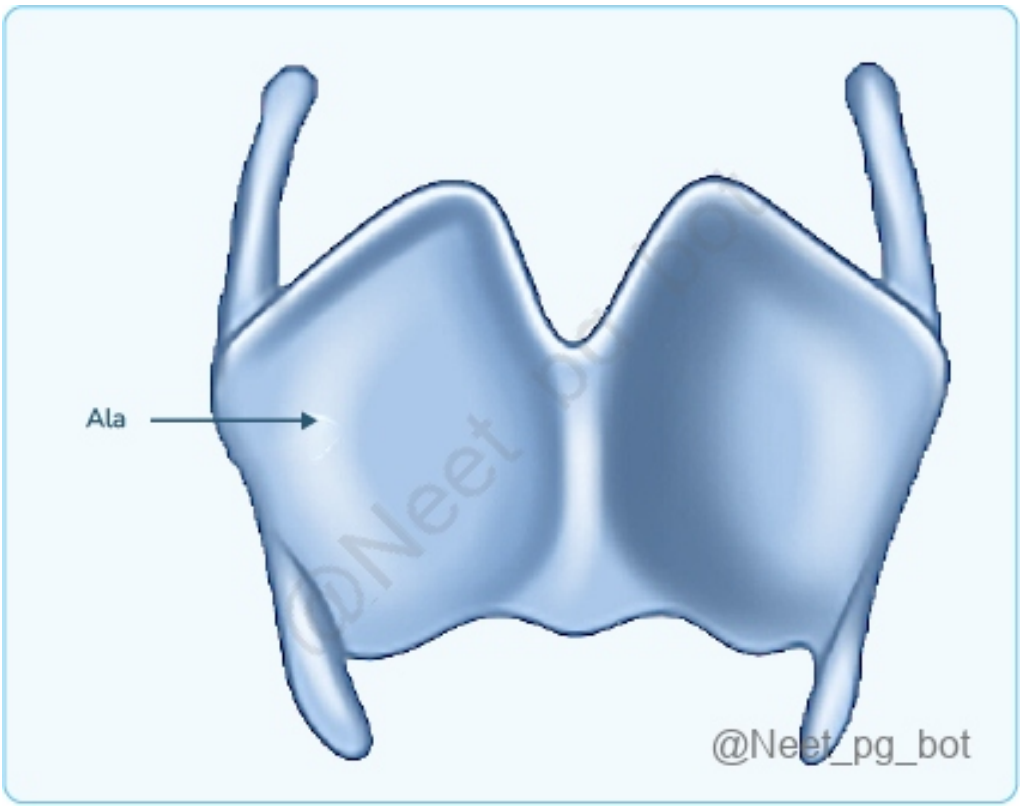
D. Foreign bodies are typically arrested below the vocal cords

Correct Answer: C. It is an unpaired hyaline cartilage.

■ *Listen (English)*

■ *Listen (Hindi)*

Explanation: The thyroid cartilage is an unpaired hyaline cartilage of the larynx. Thyroid Cartilage The thyroid cartilage is the largest cartilage in the larynx. (Option A ruled out) It is an unpaired hyaline cartilage of the larynx. (Option C) It has two alae (wings) that meet at an angle: 90° in males and 120° in females. (Option B ruled out) The vocal cords are attached to the middle of this thyroid angle. Most foreign bodies in the larynx get trapped above the vocal cords above the middle of the thyroid cartilage. (Option D ruled out) An emergency airway can be created by piercing the cricothyroid membrane, a procedure known as cricothyrotomy.



References:

Dhingra's Diseases Of Ear, Nose And Throat, & Head and Neck Surgery, 8th edition, Page 331

Scott-Brown’s Otorhinolaryngology Head and Neck Surgery , 8th Edition, 3rd Volume, Pages 885, 886.

Logan Turner’s Diseases Of Nose, Throat And Ear Head and Neck Surgery, 11th edition. Page 150

↑ *Back to this question in Part A*

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• [04_Larynx] 026 Voice Pathologies And Congenital Lesions Of Larynx

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[04_Larynx] 026 Voice Pathologies And Congenital Lesions Of Larynx — Quick Jump

Q1 (p. 1407)	*Q2 (p. 1409)*	*Q3 (p. 1411)*	*Q4 (p. 1413)*	*Q5 (p. 1415)*	*Q6 (p. 1418)*
Q7 (p. 1420)	*Q8 (p. 1420)*	*Q9 (p. 1422)*	*Q10 (p. 1423)*	*Q11 (p. 1425)*	*Q12 (p. 1427)*
Q13 (p. 1429)	*Q14 (p. 1431)*	*Q15 (p. 1431)*	*Q16 (p. 1434)*	*Q17 (p. 1435)*	

Q1: A baby presents with biphasic stridor and severe respiratory obstruction necessitating intubation. Identify the false statement about this condition. (Q847910)

A. Presents with a weak, high-pitched, squeaky voice

B. A CO2 laser is used in the endoscopic management of this condition

C. Commonly affects the glottis

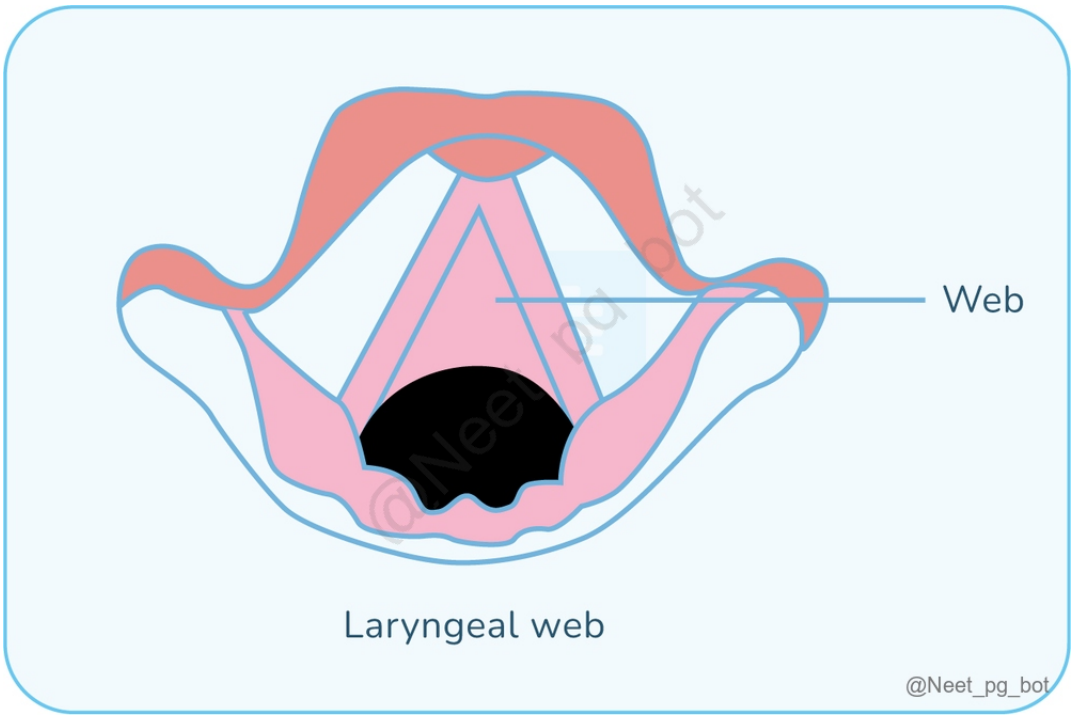
D. The cry is normal in this condition

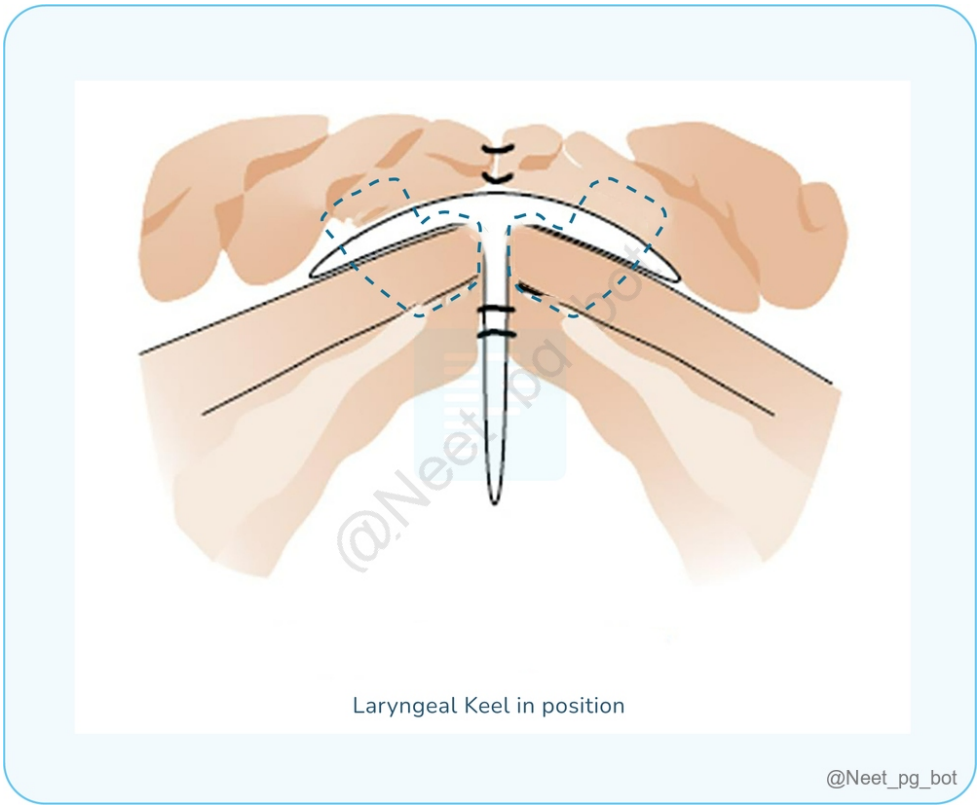
Correct Answer: D. The cry is normal in this condition

■ *Listen (English)*

■ *Listen (Hindi)*

Explanation: The clinical scenario points to the diagnosis of a laryngeal web that causes a weak cry from birth and does not present with a normal cry like laryngomalacia or other congenital laryngeal abnormalities. Laryngeal webs Laryngeal webs are formed due to the failure of complete canalization of the larynx during embryogenesis. It leads to the formation of glottic (Option C) or, very rarely, a supraglottic web and causes variable degrees of respiratory obstruction and dysphonia as per the length of the vocal cord involved. Clinical features Severe respiratory obstruction Dysphonia Biphasic stridor Weak , high - pitched , squeaky voice (Option A) Weak cry or aphonia from birth Management (depends on thickness of web) Thin web: endoscopic division along the margin of one vocal cord with a knife or CO2 laser (Option B) Thick web: excision via laryngofissure and a silicon keel is placed endoscopically to prevent recurrence for 2 weeks





References:

Dhingra's Diseases Of Ear, Nose And Throat, & Head and Neck Surgery, 8th edition, Page 344.

Scott-Brown’s Otorhinolaryngology Head and Neck Surgery , 8th Edition, Page 335.

↑ *Back to this question in Part A*

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Q2: A 3-year-old presents with sudden coughing and wheezing after eating peanuts. A chest X-ray is taken and shown below. What is the most likely type of bronchial obstruction? {{caption_text}} (Q847918)

A. Total obstruction

B. Partial obstruction

C. Bilateral obstruction

D. One-way (check valve) obstruction

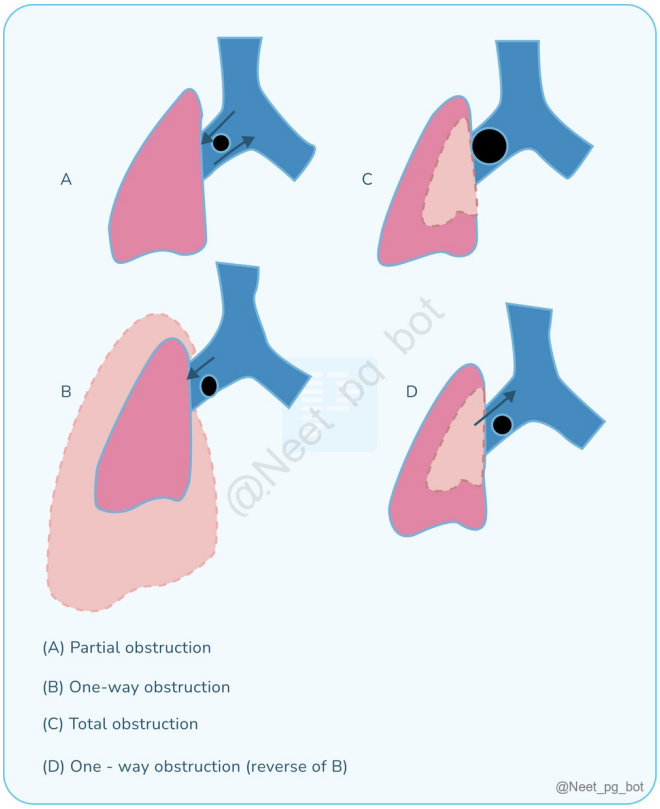
Correct Answer: D. One-way (check valve) obstruction

■ *Listen (English)*

■ *Listen (Hindi)*

Explanation: The chest X-ray showing hyperinflation of the left lung with a mediastinal shift indicates a one-way (check valve) obstruction . This occurs when the foreign body allows air to enter but prevents it from exiting,

leading to trapped air and overinflation (obstructive emphysema). Bronchial Foreign Body: Common Location Right bronchus (due to its wider lumen and alignment with the trachea) Clinical Triad Cough, wheezing, and diminished air entry to the lung. Late Features Lung collapse, emphysema, pneumonitis, bronchiectasis, or lung abscess. Types of Obstruction Partial Obstruction: (Option B) Air can pass in and out Cause only wheezing One-way Obstruction: (Option D) Air can enter (during inspiration) but not exit Cause emphysema of the lungs Total Obstruction: (Option A) Air cannot enter or exit Cause obstructive atelectasis One-way Obstruction : Air can exit (during expiration) but not enter Cause atelectasis Complication Obstructive Emphysema: Air trapped in the lungs due to a check-valve mechanism. Spontaneous Pneumothorax: Due to rupture of emphysematous bullae. Lung Collapse: Due to complete bronchial obstruction. Chronic Complications: Retained foreign bodies may lead to pneumonitis, bronchiectasis, or lung abscess. Investigation Plain X-ray Chest (PA and Lateral Views): Fluoroscopy/Videofluoroscopy: Evaluation during inspiration and expiration can be made. CT Chest Management Emergency removal of foreign bodies is not typically indicated unless: Airway obstruction is present. Foreign bodies are of vegetable origin (e.g., seeds) and are likely to swell. Bilateral obstruction (Option C) of bronchus with foreign bodies are more critical as it can cause rapid deterioration and often requires high-pressure ventilation, which may exacerbate complications like pneumothorax and pneumomediastinum.



References:

Dhingra's Diseases Of Ear, Nose And Throat, & Head and Neck Surgery, 8th edition, Pages 375-378

https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6848494/#

↑ *Back to this question in Part A*

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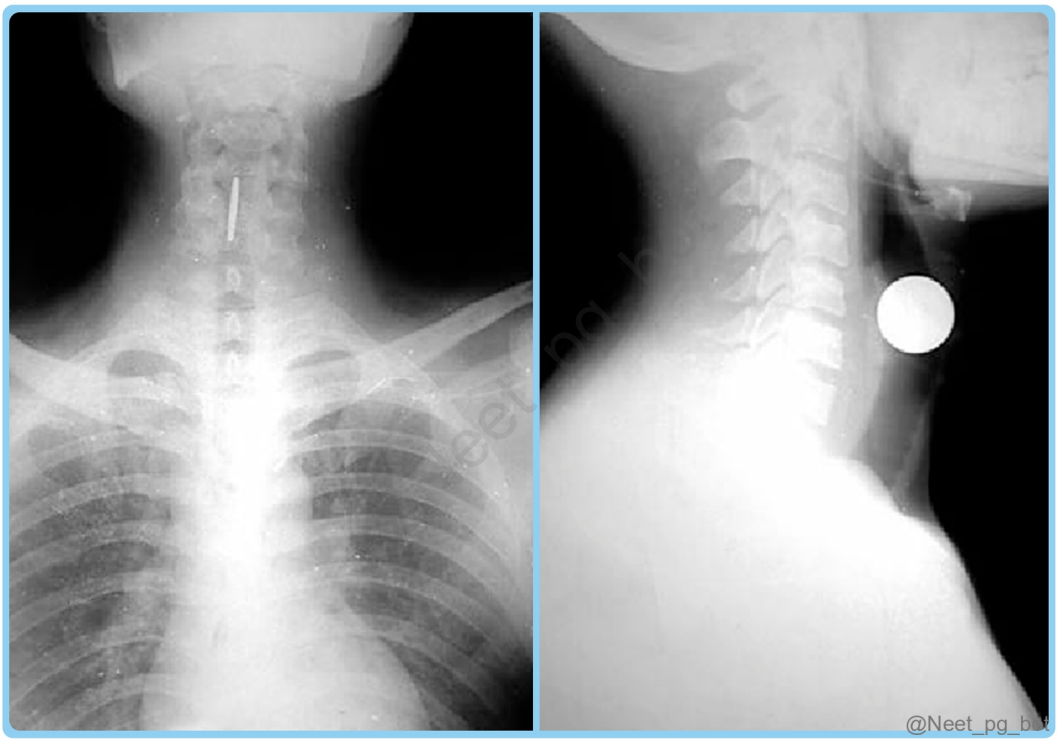
Q3: A 5-year-old child presents with complete airway obstruction after swallowing a coin and is showing signs of hypoxia. The Heimlich maneuver has failed. X-rays of the neck are shown below. What is the most appropriate next step in management? {{caption_text}} (Q847917)

A. Use of a dormia basket

B. Perform emergency tracheostomy

C. Attempt direct laryngoscopy and removal

D. Initiate advanced airway management with intubation



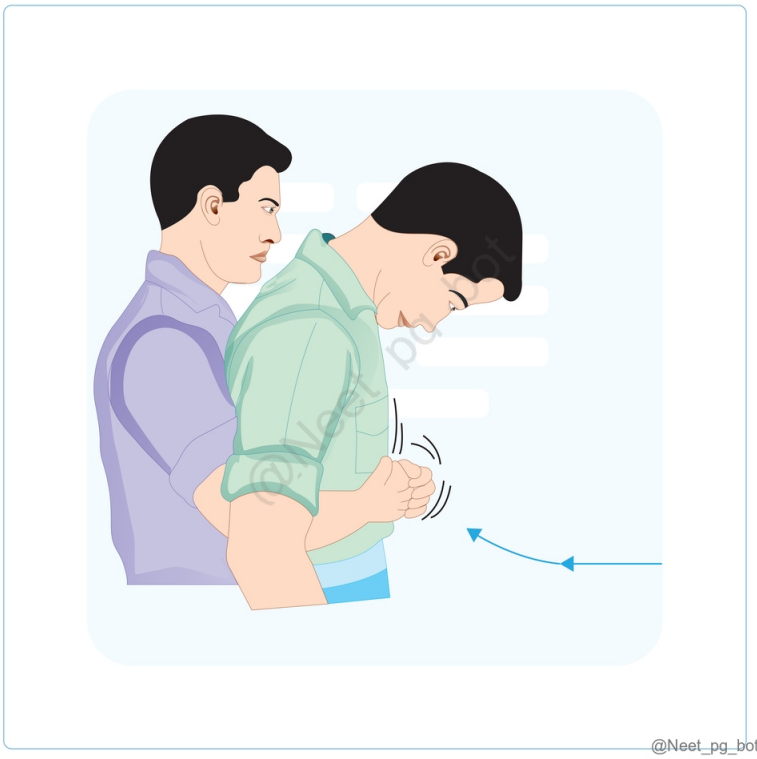
Correct Answer: B. Perform emergency tracheostomy

■ *Listen (English)*

■ *Listen (Hindi)*

Explanation: In cases of complete airway obstruction caused by a laryngeal foreign body , where measures such as the Heimlich maneuver have failed , an emergency tracheostomy is necessary to secure the airway and facilitate ventilation. Tracheal Foreign Body Laryngeal Foreign Body Sharp Foreign Body: Cough and hemoptysis. Loose Foreign Body (e.g., seed): May move between carina and vocal cords, causing: "Audible slap" and "palpatory thud" Asthmatoid wheeze heard best at patient’s open mouth Complete Obstruction: Can cause asphyxia and sudden death unless urgent resuscitative measures are taken urgently. Partial Obstruction: Cause discomfort or pain in throat, hoarseness, stridor, cough, aphonia, dyspnea, wheezing, and hemoptysis. Radiology: Soft Tissue

X-ray: PA and lateral views of neck in its extended position for radio-opaque and sometimes radiolucent foreign body in larynx/trachea. Emergency removal of foreign bodies is not typically indicated unless: Airway obstruction is present. Foreign bodies are of vegetable origin (e.g., seeds) and likely to swell. Methods for Foreign Body Removal Rigid bronchoscopy. Bronchoscopy with C-arm fluoroscopy. Use of Dormia basket or Fogarty's balloon for rounded objects. (Option A) Tracheostomy first followed by bronchoscopy through the tracheostome. Thoracotomy and bronchotomy for peripheral foreign bodies. Flexible fiberoptic bronchoscopy in selected adult patients. Complete Obstruction: A large bolus of food above the vocal cords may cause total aphonia (inability to cry for help). Immediate First Aid Measures: Back pounding. Turn the patient upside down. Back Blows (for infants <1 year): Place the infant face down over the rescuer’s arm, head lower than the trunk, and deliver five back blows between the scapulae. {{caption_text}} Heimlich Maneuver (for >1 year): Should not be done if only partial obstruction, for fear of causing total obstruction Procedure: Stand behind the patient and wrap arms around the lower chest. Perform four abdominal thrusts to use residual air in the lungs to dislodge the foreign body. {{caption_text}} If Heimlich fails: Perform cricothyrotomy or emergency tracheostomy to secure the airway. (Option B) Post-Emergency: Foreign body removal using direct laryngoscopy or laryngofissure if the object is impacted. (Option C) Initiate advanced airway management with intubation (Option D): Intubation is unlikely to succeed due to the obstruction; emergency tracheostomy provides immediate access to the airway, which is critical in a hypoxic situation.



References:

Dhingra's Diseases Of Ear, Nose And Throat, & Head and Neck Surgery, 8th Edition, Page 375- 378

OP Ghai Essential Pediatrics, 10th Edition, Page 776

↑ *Back to this question in Part A*

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Q4: A 70-year-old woman in need of long-term airway maintenance was treated by tracheostomy. The tracheostomy tube has developed a partial obstruction in the following days. Which of the following steps is not necessary to manage this situation? (Q847916)

A. Decannulation and reintubation

B. Suctioning with sterile catheters

C. Humidification and saline instillation

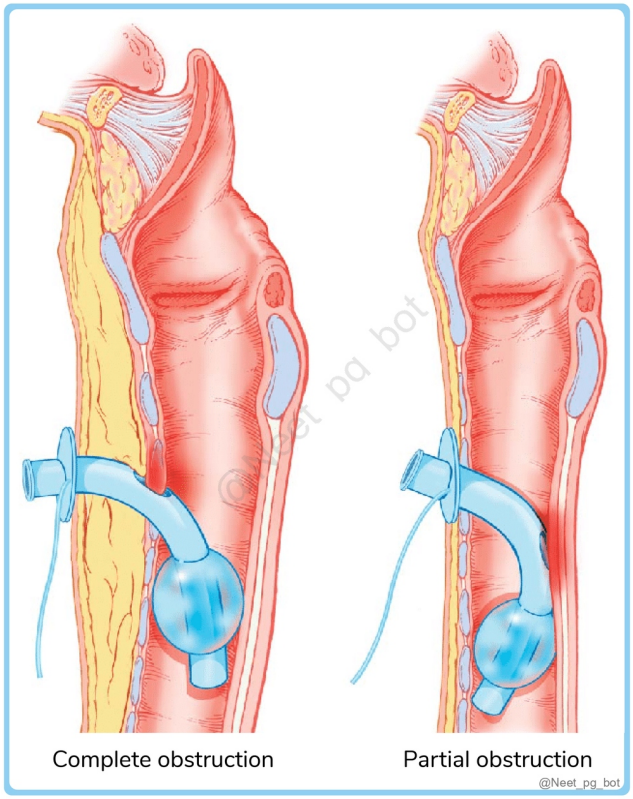
D. Administering mucolytics

Correct Answer: A. Decannulation and reintubation

■ *Listen (English)*

■ *Listen (Hindi)*

Explanation: The scenario here is of partial obstruction that does not need decannulation and reintubation which is preferred in cases of complete obstruction . Management of Tracheostomy Tube Obstruction Partial Obstruction Management Constant Supervision: Monitor the patient for signs of obstruction; a nurse or relative should be present. Communication: Provide the patient with a bell or paper pad and pencil for communication. Suctioning: (Option B) Perform suction every 30 minutes as needed. Use sterile catheters; only apply suction while withdrawing to prevent mucosal injury. Prevent Crusting and Tracheitis: Humidification: Use a humidifier, steam tent, or ultrasonic nebulizer. Saline Instillation: Instill normal or hypotonic saline or Ringer's lactate every 2-3 hours to loosen crusts. (Option C) Mucolytics: Consider acetylcysteine to liquefy thick secretions. (Option D) Complete Obstruction Management Immediate Response: If obstruction is suspected, ensure the tracheostomy tube is not blocked or displaced. Assess for any displacement or blockage of the tube. Decannulation : Preparation Plugging Monitoring Reintubation: Be prepared for immediate reintubation if the patient cannot tolerate the obstruction. Complications to Monitor Immediate : Hemorrhage Apnea due to CO■ washout Pneumothorax from pleural injury Injury to recurrent laryngeal nerves Aspiration of blood Injury to the esophagus, potentially causing tracheoesophageal fistula Intermediate : Reactionary or secondary bleeding Displacement of the tube {{caption_text}}



References:

Dhingra's Diseases Of Ear, Nose And Throat, & Head and Neck Surgery, 8th edition, Page 372.

↑ *Back to this question in Part A*

Q5: A 60-year-old patient with severe asthma and airway edema is admitted to the ICU after multiple failed intubation attempts. Which type of procedure is most suitable for ensuring long-term airway management? (Q847915)

A. High tracheostomy

B. Low tracheostomy

C. Mid tracheostomy

D. Cricothyrotomy

Correct Answer: C. Mid tracheostomy

■ *Listen (English)*

■ *Listen (Hindi)*

Explanation: Mid-tracheostomy is preferred for long-term airway access and minimizes complications. Tracheostomy: Is making an opening in the anterior wall of the trachea and converting it into a stoma on the skin surface. Types: High Tracheostomy (Option A) Mid-Tracheostomy (Option C) Low Tracheostomy (Option B) Location: Done above the thyroid isthmus (isthmus lies against 1st, 2nd, and 4th tracheal rings) and involves the 1st tracheal ring. Risks: Perichondritis of cricoid cartilage and subglottic stenosis. Only Indication: Carcinoma of the larynx (since the entire larynx will be removed, and a new tracheostome will be made lower). Location: Done through the 2nd or 3rd tracheal rings and involves the division of or retraction of the thyroid isthmus to expose the trachea. Most Preferred technique The procedure Location: Done below the level of thyroid isthmus (below the 3rd tracheal ring). Challenges: Trachea is deeper at this level. Close proximity to large blood vessels. Difficulty with tracheostomy tube impinging on the suprasternal notch. {{caption_text}} {{caption_text}} Cricothyrotomy (Option D) is not suitable for prolonged ventilation; it is a temporary measure and should be followed by a tracheostomy once the patient is stabilized.

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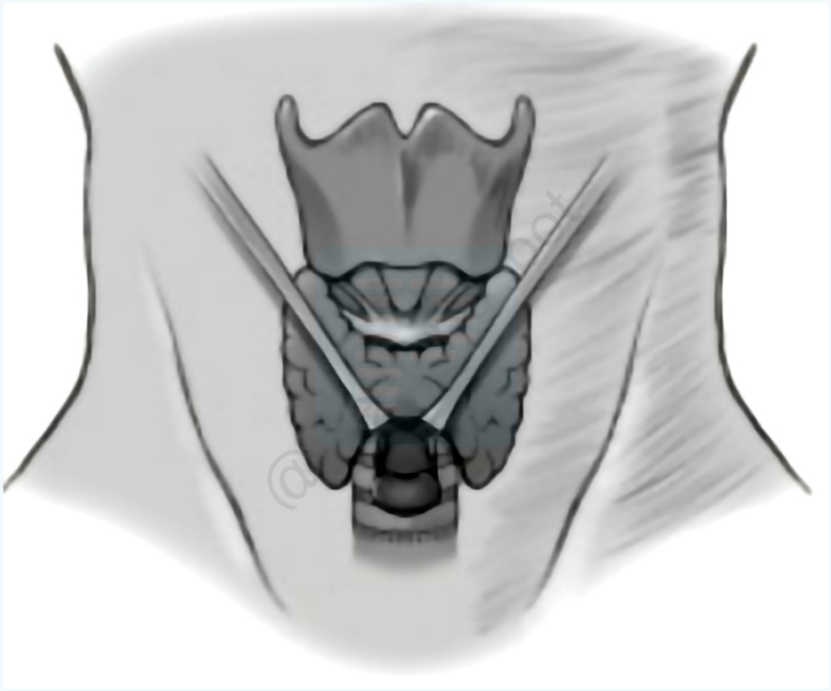

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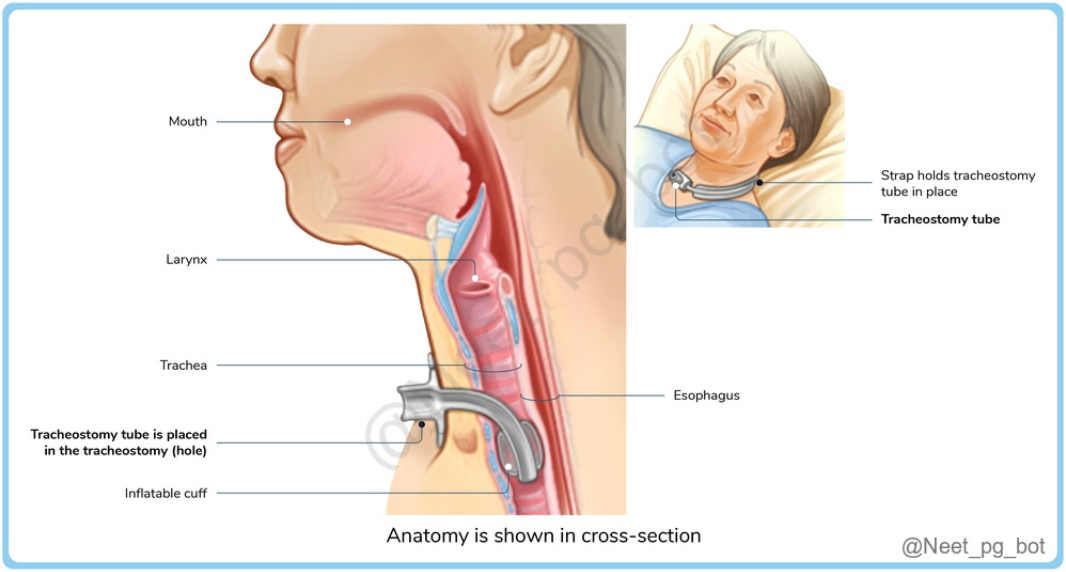

References:

Dhingra's Diseases Of Ear, Nose And Throat, & Head and Neck Surgery, 8th edition, Pages 369, 370

↑ *Back to this question in Part A*

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Q6: A 34-year-old patient presents to the emergency department with severe maxillofacial trauma. He cannot be intubated and is showing signs of hypoxia. What is the next best step? (Q847914)

A. Bag-mask ventilation

B. Cricothyrotomy

C. Endotracheal intubation

D. Supraglottic airway device

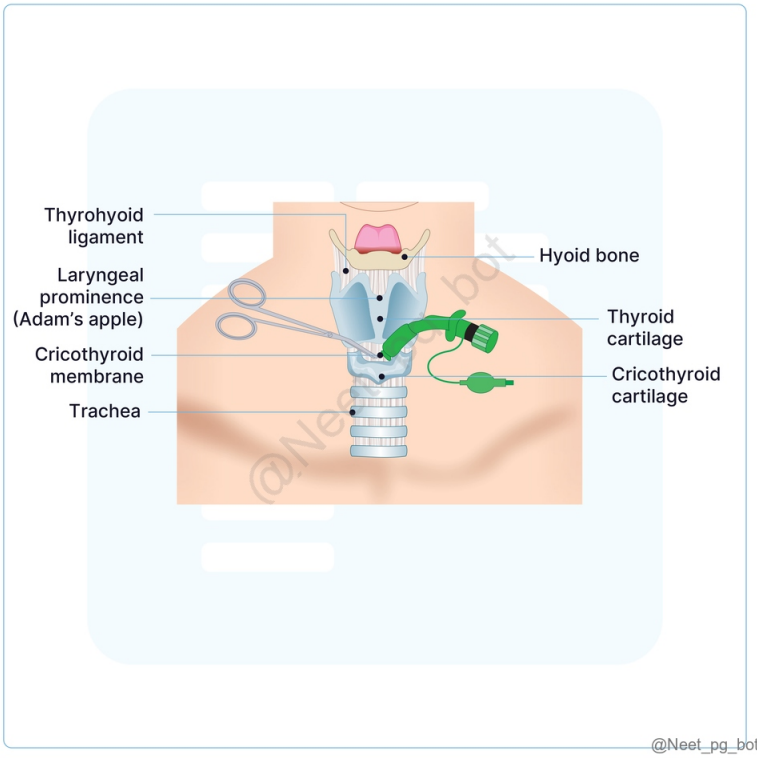
Correct Answer: B. Cricothyrotomy

■ *Listen (English)*

■ *Listen (Hindi)*

Explanation: Cricothyrotomy quickly establishes an airway when intubation fails, especially in cases of severe maxillofacial trauma , to prevent hypoxia. Cricothyrotomy Definition Procedure for opening the airway through the cricothyroid membrane. Indication Emergency cricothyrotomy is indicated in any CICO (Cannot Intubate, Cannot Oxygenate) scenario. Situations that may lead to CICO include: Oral or maxillofacial trauma Cervical

spine trauma Profuse oral hemorrhage Copious emesis Anatomic abnormalities preventing endotracheal intubation Clinical Significance Cricothyrotomy is the final step in the difficult airway algorithm for CICO scenarios. Types 1. Needle or Small Bore Cannula Cricothyrotomy: 2. Large Cannula Cricothyrotomy: 3. Surgical Cricothyrotomy: Complications Bleeding Lacerations of tracheal cartilage Perforation of the trachea Creation of a false tract Infection Long-term complications: Subglottic stenosis, Voice change Contraindications No absolute contraindications in CICO scenarios. Relative contraindications: Known tracheal surgery Fractured larynx Laryngotracheal disruption Children Image Bag-mask ventilation (Option A) is ineffective in patients with maxillofacial trauma due to disarranged anatomy and potential bleeding, which hinder proper mask fit and air transfer to the lungs. Endotracheal intubation (Option B) is likely to be difficult in maxillofacial trauma patients due to obstructed views of the vocal cords from blood, secretions, and tissue debris. Supraglottic airway devices (Option C) may not be suitable for maxillofacial trauma patients due to limited oral space and the risk of displacement, making them unsuitable for definitive airway management.



References:

Dhingra's Diseases Of Ear, Nose And Throat, & Head and Neck Surgery, 8th Edition, Page 373

Scott-Brown's Otorhinolaryngology Head and Neck Surgery, 8th Edition, Volume 2, Page 319, 320, 321

https://www.ncbi.nlm.nih.gov/books/NBK537350/

https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4486512/

↑ *Back to this question in Part A*

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Q7: A 14-day-old neonate presents with stridor. Which condition is not typically associated with stridor in this age group? (Q847913)

A. Epiglottitis

B. Choanal atresia

C. Intubation trauma

D. Vocal cord paralysis

Correct Answer: A. Epiglottitis

■ *Listen (English)*

■ *Listen (Hindi)*

Explanation: Epiglottitis is now more common in children aged 6 to 12 years and adults post-Haemophilus influenzae type b (Hib) vaccination, making it less typical in neonates compared to other causes of stridor. Causes of Stridor: Causes Naso- and Oropharyngeal Laryngeal Tracheal Congenital Choanal atresia (Option B) Choanal stenosis Mid-nasal stenosis Pyriform aperture stenosis Glioma Encephalocele Meningocele Dermoid/teratoma Craniofacial abnormalities Micrognathia- glossoptosis Lingual thyroid Lymphovascular malformation Laryngomalacia Vocal cord palsy (Option D) Laryngeal stenosis Laryngeal cysts Webs Laryngeal atresia Vallecular cyst Arytenoid fixation Posterior laryngeal cleft Tracheal stenosis Tracheal atresia Trapped first tracheal ring Complete rings Micro (stovepipe) trachea Haemangioma Primary and secondary tracheomalacia-vascular compression Acquired - Neonates Neonatal rhinitis Intubation trauma (Option C) Surgical trauma (e.g. laser) Laryngeal stenosis Arytenoid fixation Reflux laryngitis Post-intubation/ instrumentation/ tracheal stenosis Reflux tracheitis Acquired - Children Allergic rhinitis Adenoiditis Adenotonsillar hypertrophy Foreign body Non-allergic rhinitis Retropharyngeal abscess Infectious mononucleosis Ludwig's angina Thermal and caustic burns Intubation trauma Croup Recurrent respiratory papillomatosis Hereditary angioedema Epidermolysis bullosa Foreign body Dislocated arytenoid Epiglottitis (Option A) Trauma -fracture Caustic and thermal burns Haemangioma Lymphovascular malformation Croup Bacterial tracheitis Foreign body Localized malacia secondary to a tracheostomy or TOF repair Thyroid masses Lymphovascular malformation Mediastinal tumors

References:

Scott-Brown’s Otorhinolaryngology Head and Neck Surgery , 8th Edition, 2nd Volume, Page 315

https://www.ncbi.nlm.nih.gov/books/NBK430960/#

↑ *Back to this question in Part A*

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Q8: A 3-year-old child has stridor only during inspiration. Which of the following conditions is most likely responsible? (Q847912)

A. Bronchial foreign body

B. Laryngeal papillomas

C. Retropharyngeal abscess

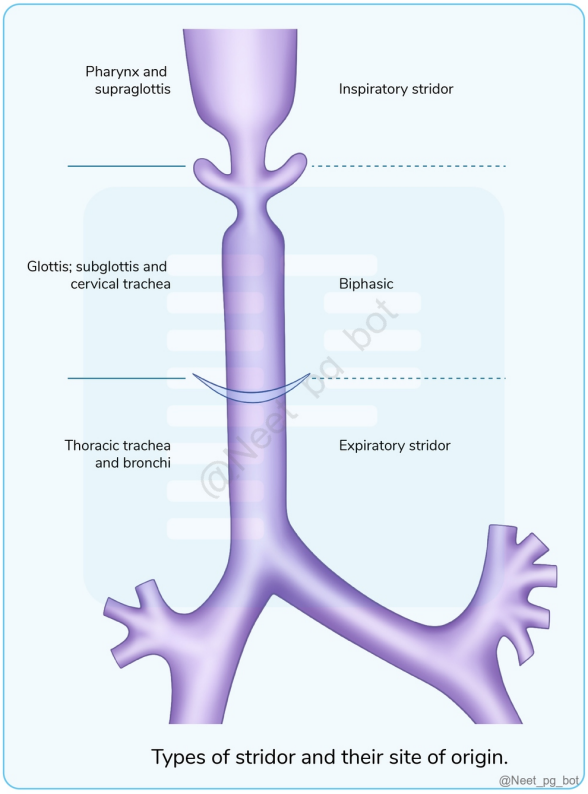
D. Subglottic stenosis

Correct Answer: C. Retropharyngeal abscess

■ *Listen (English)*

■ *Listen (Hindi)*

Explanation: Inspiratory stridor is typically due to extrathoracic obstruction , such as a retropharyngeal abscess , which causes airway collapse during inspiration as intratracheal pressure falls below atmospheric pressure. Stridor: Noisy respiration produced by turbulent airflow through the narrowed air passages. Types: Stridor 1. Inspiratory Stridor 2. Expiratory Stridor 3. Biphasic Stridor Site of Lesion Produced in obstructive lesions of supraglottis or pharynx (extrathoracic obstruction). Produced in lesions of the thoracic trachea, primary and secondary bronchi (intrathoracic obstruction). Produced in lesions of glottis, subglottis and cervical trachea. Mechanism In extrathoracic obstruction: During inspiration → intratracheal pressure falls below atmospheric pressure → airway collapse In intrathoracic obstruction: During expiration → elevated pleural pressure compresses the airway → reduction in airway size at the site of obstruction In glottic or subglottic obstruction: Airway segment → remains unchanged during respiration Example Laryngomalacia Retropharyngeal abscess (Option C) Bronchial foreign body (Option A) Tracheal stenosis Laryngeal papillomas (Option B) Vocal cord paralysis Subglottic stenosis (Option D)



Types of stridor and their site of origin.

References:

Dhingra's Diseases Of Ear, Nose And Throat, & Head and Neck Surgery, 8th edition, Page 345

Scott-Brown’s Otorhinolaryngology Head and Neck Surgery , 8th Edition, 2nd Volume, Page 312

https://www.ncbi.nlm.nih.gov/books/NBK525995/

↑ *Back to this question in Part A*

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Q9: A 4-month-old baby is having an inspiratory stridor that has worsened from the day of onset. An endoscopy is done and shows a compressible, pear-shaped red swelling in the subglottis on the left side. The baby also has a reddish lesion over her trunk. What is the first line of treatment for this condition? (Q847911)

A. CO2 laser ablation

B. Intralesional steroid injection

C. Propranolol

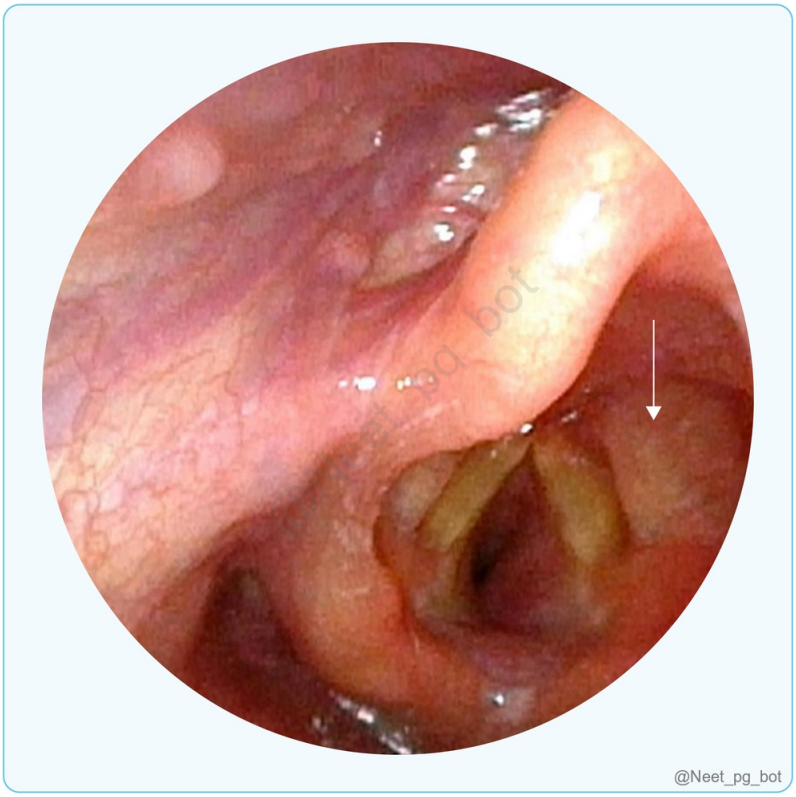
D. Submucous resection

Correct Answer: C. Propranolol

■ *Listen (English)*

■ *Listen (Hindi)*

Explanation: The clinical scenario here points to the diagnosis of subglottic hemangioma, and the first line of treatment for this condition is propranolol. Subglottic hemangioma is a benign endothelial cell tumor that occurs at the subglottis. It has a proliferative phase of 6-12 months and a complete involution over 1-5 years. Clinical features Presents in the first few weeks or within the first 6 months Biphasic stridor that worsens progressively; crying will increase the stridor Normal cry 50% of patients have a coexisting cutaneous lesion Investigation s Endoscopy: Typical compressible, pear-shaped red swelling in the subglottis on one side (left>right). Larger hemangiomas are seen as circumferential and may extend into the trachea, surrounding soft tissues, and mediastinum. MRI is done if spread beyond the airway is suspected. Treatment: Old modalities that are not followed now include: Radiotherapy CO2 laser ablation (Option A) Systemic steroids Intralesional steroid injection followed by intubation (Option B) Interferon alpha-2a Propranolol is the first-line treatment, given for at least 12 months and then weaned off. It reduces stridor. Steroids can be used for acute management or with propranolol for unresponsive lesions. Submucosal resection (Option D) is an alternative for non-circumferential hemangiomas and those not involving vocal cords. {{caption_text}}



References:

Scott-Brown’s Otorhinolaryngology Head and Neck Surgery , 8th Edition, Page 338.

↑ *Back to this question in Part A*

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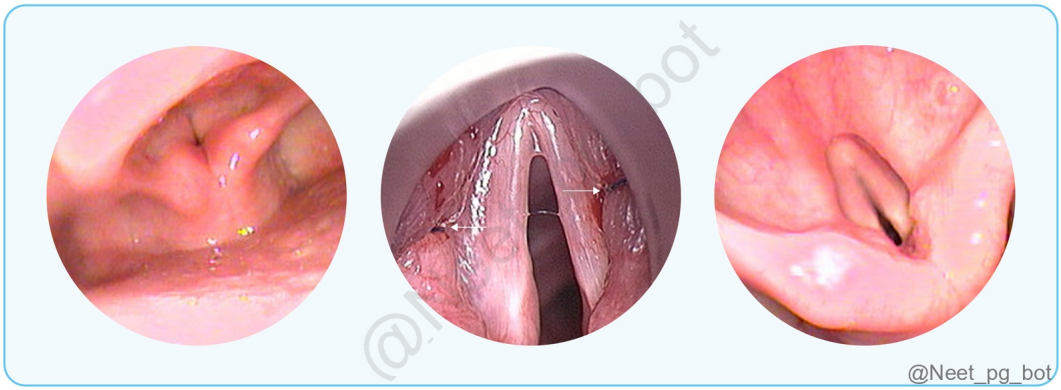
Q10: A 55-year-old woman presents with complaints of a low-pitched voice and a sensation of throat tightness for several months. A laryngoscopic image (shown below) reveals abnormal vibratory patterns of the false vocal cords (ventricular folds). Based on the image and clinical presentation, what is the most likely diagnosis? {{caption_text}} (Q847902)

A. Mixed Dysphonia

B. Dysphonia Plica Ventricularis

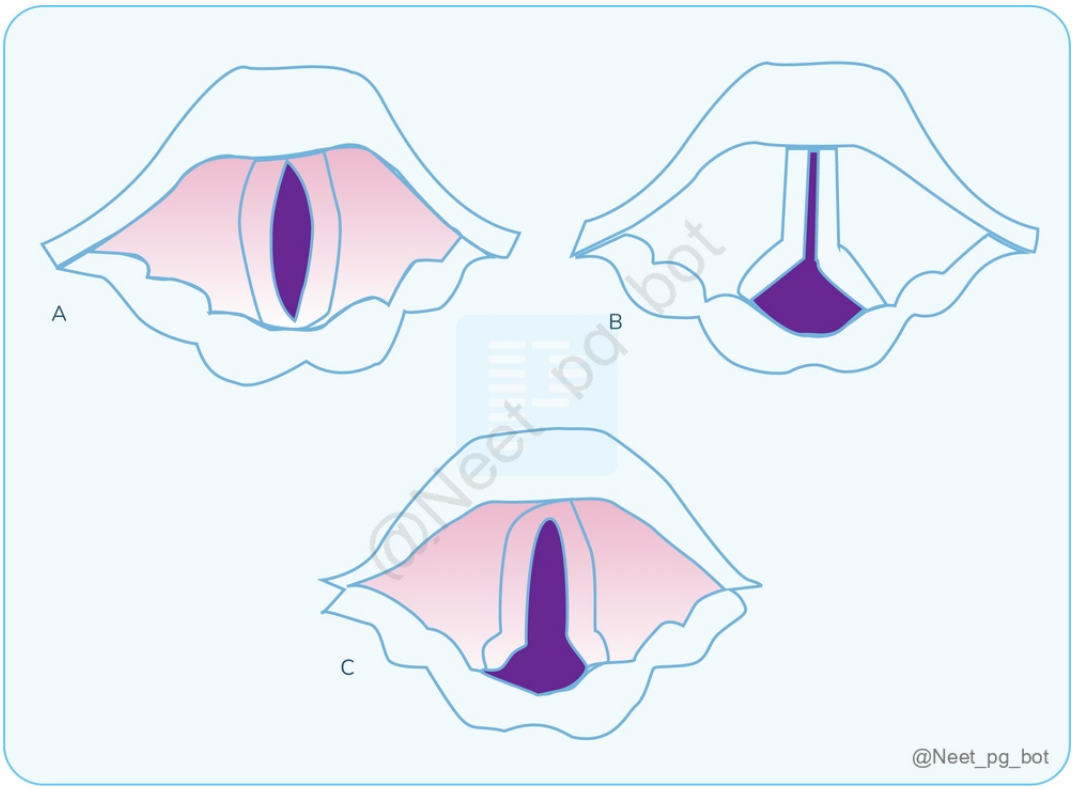
C. Adductor Dysphonia

D. Abductor Dysphonia



Correct Answer: B. Dysphonia Plica Ventricularis

Explanation: The patient presents with a low-pitched voice and a sensation of throat tightness, which are hallmark symptoms of Dysphonia Plica Ventricularis . This condition occurs when the false vocal cords (ventricular folds), which normally do not participate in sound production, are abnormally engaged during phonation. The laryngoscopic image showing abnormal vibratory patterns of the f alse vocal cords further supports this diagnosis. Dysphonia Plica Ventricularis (Ventricular dysphonia): Definition Dysphonia Plica Ventricularis is a voice disorder where the false vocal cords (ventricular folds) vibrate instead of the true vocal cords, leading to their hypertrophy and affecting voice quality. Characteristics Low-pitched voice Diminished voice quality Causes Organic Pathology: Structural abnormalities affecting the false vocal cords Functional Dysphonia: Improper voice use or strain Diagnosis Laryngeal Examination: Laryngoscopy to visualize and assess false cord hypertrophy Voice Assessment: Evaluates vocal quality, pitch, and range Management Speech Therapy: Corrects vocal habits and techniques Counseling: Educates on voice care to prevent further damage Surgical Intervention: Considered if symptoms persist despite therapy, to reduce hypertrophy and improve voice quality Spasmodic Dysphonia : Spasmodic dysphonia is a neurological voice disorder characterized by involuntary spasms of the laryngeal muscles, which disrupt normal voice production. This condition is associated with various neurological disorders, including Parkinsonism and Alzheimer's disease, and can also be linked to other dystonias like oromandibular dystonia and blepharospasm. Types of spasmodic dysphonia: Type Cause Voice Quality Treatment A. Adductor (Option C) Spasm of thyroarytenoid muscles Strained, croaky Botox into thyroarytenoid muscle B. Abductor (Option D) Spasm of posterior cricoarytenoid muscles Breathy, weak Botox into posterior cricoarytenoid muscle C. Mixed (Option A) Combination of adductor and abductor spasms Variable (strained and breathy) Botox into both muscle groups



References:

Dhingra's Diseases Of Ear, Nose And Throat, & Head and Neck Surgery, 8th Edition, Page 366,367,368

https://pubmed.ncbi.nlm.nih.gov/12792323/

https://www.nidcd.nih.gov/health/spasmodic-dysphonia

↑ *Back to this question in Part A*

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Q11: Which of the following statements about subglottic stenosis is true? (Q847909)

A. Grade II presents with 71-99% obstruction

B. Grade I subglottis stenosis usually requires surgical intervention

C. A subglottic diameter of less than 4mm in a full-term neonate makes the diagnosis

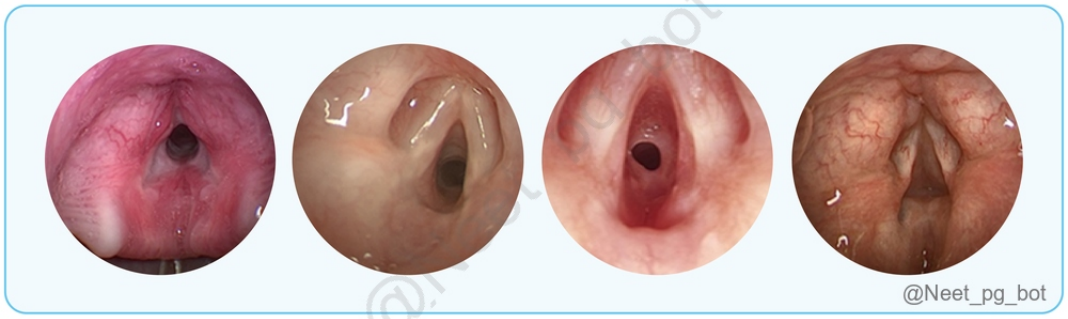
D. The degree of strictures is measured by MRI

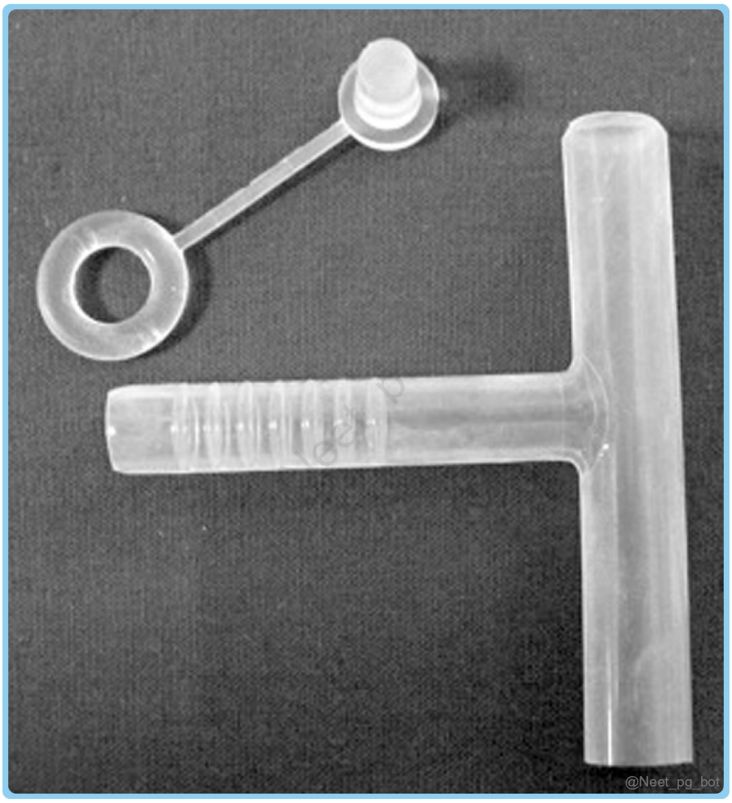
Correct Answer: C. A subglottic diameter of less than 4mm in a full-term neonate makes the diagnosis

■ *Listen (English)*

■ *Listen (Hindi)*

Explanation: The diagnosis of subglottic stenosis is made according to the subglottic diameter in neonates. Congenital subglottic stenosis is caused due to the gross thickening of the anterior lamina of the abnormal cricoid or a small, elliptical, thickened cricoid with excessive submucosal soft tissue. There may also be anterior fusion of the vocal cords, leading to a web formation with subglottic extension. Diagnosis is made according to the subglottic diameter: Full-term neonate: <4mm (normal 4.5-5.5mm) (Option C) Preterm neonate: <3mm (normal 3.5mm) Clinical features Biphasic stridor Normal cry Recurrent croup if superimposed edema from upper respiratory tract infections (URTIs) is present. Investigations (Option D): The gold standard for pediatric airway evaluation is rigid endoscopy . Microlaryngoscopy and bronchoscopy (MLB) determine the exact location of the stenosis. MRI helps measure the degree of strictures. The Myer-Cotton grading of laryngotracheal stenosis Management Grade I: 0-50% obstruction Grade I subglottic stenosis usually requires no surgical intervention. (Option B) Grade II: 51-70% obstruction (Option A) Grade II stenosis can be reconstructed by means of a laryngotracheal reconstruction (LTR). Grade III: 71-99% obstruction Mild grade III stenosis repaired by anterior graft with posterior cricoid split +/- posterior cartilage grafting. Severe grade III stenosis repaired by anterior and posterior grafts . Grade IV: 100% obstruction Grade IV stenosis needs anterior and posterior grafts with prolonged stenting. Partial cricotracheal resection (PCTR) can be done for severe grade III and grade IV stenosis. {{caption_text}} Other treatment modalities: Mitomycin C Montgomery T-Tube {{caption_text}}





References:

Dhingra's Diseases Of Ear, Nose And Throat, & Head and Neck Surgery, 8th edition, Page 344.

Scott-Brown’s Otorhinolaryngology Head and Neck Surgery , 8th Edition, 2nd Volume, Page 336, 337, 349.

https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6459742/

https://www.ncbi.nlm.nih.gov/pmc/articles/PMC9839252/

↑ *Back to this question in Part A*

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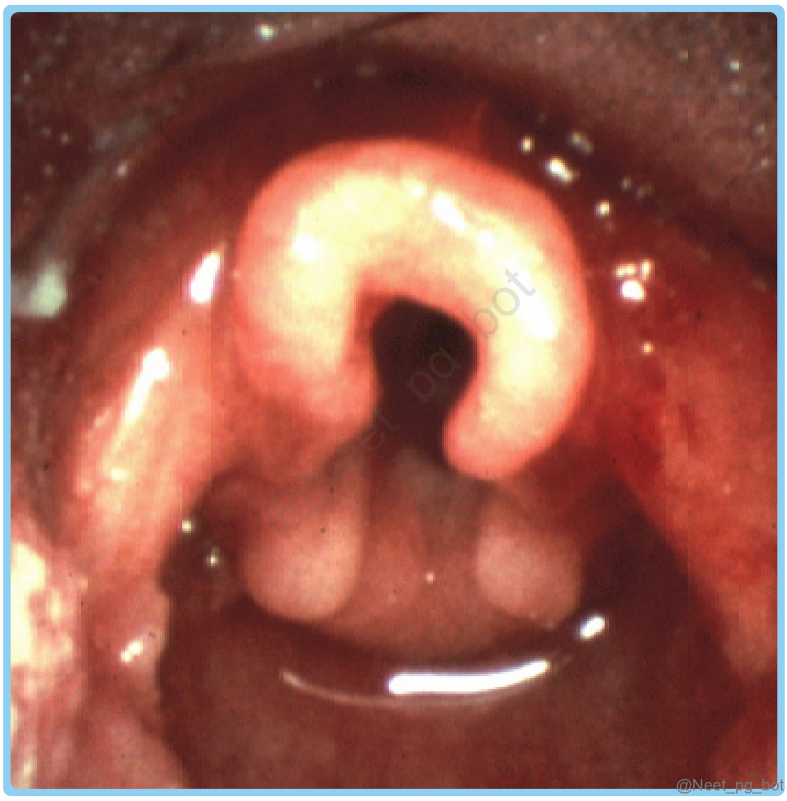
Q12: A newborn baby presents with an inspirational stridor immediately after birth, which increases on crying. The stridor is alleviated when the baby is placed in the prone position, and the cry is normal. The flexible laryngoscopy is shown as follows. {{caption_text}} (Q847908)

A. Congenital subglottic stenosis

B. Subglottic hemangioma

C. Laryngeal web

D. Laryngomalacia

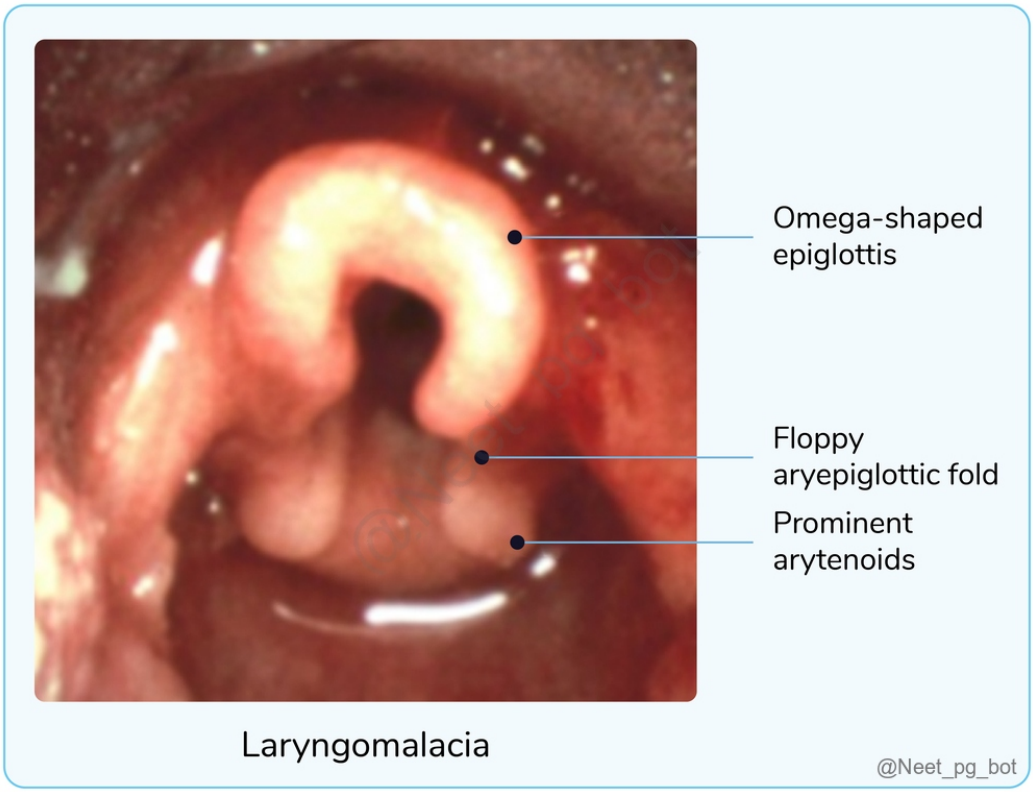


Correct Answer: D. Laryngomalacia

■ *Listen (English)*

■ *Listen (Hindi)*

Explanation: The scenario here points to the diagnosis of laryngomalacia , which presents with a stridor that increases on crying and an omega-shaped glottis on laryngoscopy. Laryngomalacia or Congenital Laryngeal Stridor Most common congenital abnormality of the larynx. During inspiration, an excessively flaccid supraglottic larynx gets sucked in and causes the symptoms. Clinical Features Presents at birth or immediately after Stridor: Increases on crying (increased negative intrathoracic pressure pulls the epiglottis inward, covering the laryngeal inlet) Stridor present in supine position (as the epiglottis covers the laryngeal inlet) Subsides in prone position (as the epiglottis falls away from the larynx) Cyanosis seen sometimes Normal cry Usually disappears by 2 years of age Investigations Direct laryngoscopy: Elongated epiglottis, curled upon itself giving an “omega-shaped” appearance . Floppy aryepiglottic folds Prominent aretynoids Flexible laryngoscopy is the most preferred Management Conservative treatment in most cases Tracheostomy: If severe respiratory obstruction Supraglottoplasty: If severe laryngomalacia {{caption_text}} Congenital subglottic stenosis (Option A) is a congenital condition where there is an abnormal thickening of the cricoid cartilage or fibrous tissue below the vocal cords. It may be asymptomatic until upper respiratory tract infections lead to dyspnoea and stridor . The cry is normal. Subglottic hemangioma (Option B) is also a congenital condition but presents only by 3-6 months of age as hemangioma grows in size and causes stridor . Agitation and crying may increase the obstruction. Laryngeal web (Option C) is caused due to incomplete recanalization of the larynx and presents with airway obstruction, weak cry, or aphonia from birth.



References:

Dhingra's Diseases Of Ear, Nose And Throat, & Head and Neck Surgery, 8th Edition, Page 344

↑ *Back to this question in Part A*

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Q13: A 38-year-old male presents with a change of voice for 3 months and, on examination, is found to have unilateral superior laryngeal nerve paralysis that has no scope for improvement. Which of the following thyroplasty is recommended in this case? (Q847907)

A. Type II

B. Type IV

C. Type III

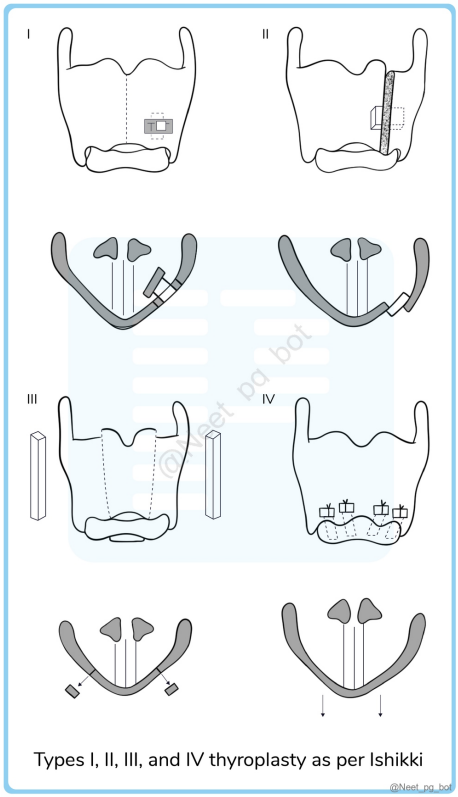
D. Type I

Correct Answer: D. Type I

■ *Listen (English)*

■ *Listen (Hindi)*

Explanation: The superior laryngeal nerve (external branch) supplies the cricothyroid muscle , which primarily acts as a tensor of the vocal cords and also contributes to fine adduction . In SLN paralysis , the cricothyroid muscle is non-functional: Vocal cord loses tension (↓ pitch control) Also develops relative abduction/lateralisation due to unopposed abductors This leads to poor glottic closure and a weak voice In real clinical practice, the major problem affecting voice is incomplete adduction (glottic gap) rather than just loss of pitch. Thyroplasty Types (Isshiki Classification) Type Procedure What it does Indications (When used) Key Clinical Use Type I Medialization thyroplasty Pushes the vocal cord medially Unilateral vocal cord paralysis (esp. weak/abducted cord) Improves glottic closure → voice strength (Option D) Type II (Option A ruled out) Lateralization thyroplasty Pulls the vocal cord laterally Adductor spasmodic dysphonia Reduces excessive adduction Type III (Option C ruled out) Relaxation thyroplasty Shortens & relaxes the vocal cords Puberphonia (high-pitched voice in males) Decreases pitch Type IV (Option B ruled out) Cricothyroid approximation Lengthens & tenses the vocal cord Androphonia, pitch insufficiency Increases pitch



Types I, II, III, and IV thyroplasty as per Ishikki

References:

Dhingra's Diseases Of Ear, Nose And Throat, & Head and Neck Surgery, 8th edition, Page 351.

Scott-Brown’s Otorhinolaryngology Head and Neck Surgery , 8th Edition, 3rd Volume, Pages 863, 991, 1001, 1107.

↑ *Back to this question in Part A*

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Q14: During an indirect laryngoscopy, which of the following laryngeal structures is typically not visible? (Q847906)

A. Vocal Cords

B. Pyriform Fossa

C. Arytenoid Cartilages

D. Anterior commisure

Correct Answer: D. Anterior commisure

■ *Listen (English)*

■ *Listen (Hindi)*

Explanation: The anterior commissure lies anteriorly and inferiorly . It is hidden by the angle of reflection of the mirror The epiglottis and tongue base often obscure the view Hence, it is poorly visualized or not visualized on indirect laryngoscopy Direct laryngoscopy or flexible endoscopy is required for proper assessment of the anterior commissure. Indirect laryngoscopy Uses a laryngeal mirror placed in the oropharynx Provides a reflected view of the larynx Best visualizes supraglottic and posterior glottic structures Structures visible on indirect laryngoscopy Epiglottis Aryepiglottic folds Arytenoid cartilages Vestibular (false) vocal cords True vocal cords (partially) Pyriform fossae Postcricoid region Posterior pharyngeal wall

References:

Dhingra's Diseases Of Ear, Nose And Throat, & Head and Neck Surgery, 8th edition, Pages 455, 497, 498.

https://ncbi.nlm.nih.gov/books/NBK513224/

↑ *Back to this question in Part A*

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Q15: A patient is scheduled for surgery to remove a benign mass from the larynx. For direct laryngoscopy, which of the following positions is most preferred to provide optimal visualization and access to the larynx? (Q847905)

A. Rose position

B. Fowler's position

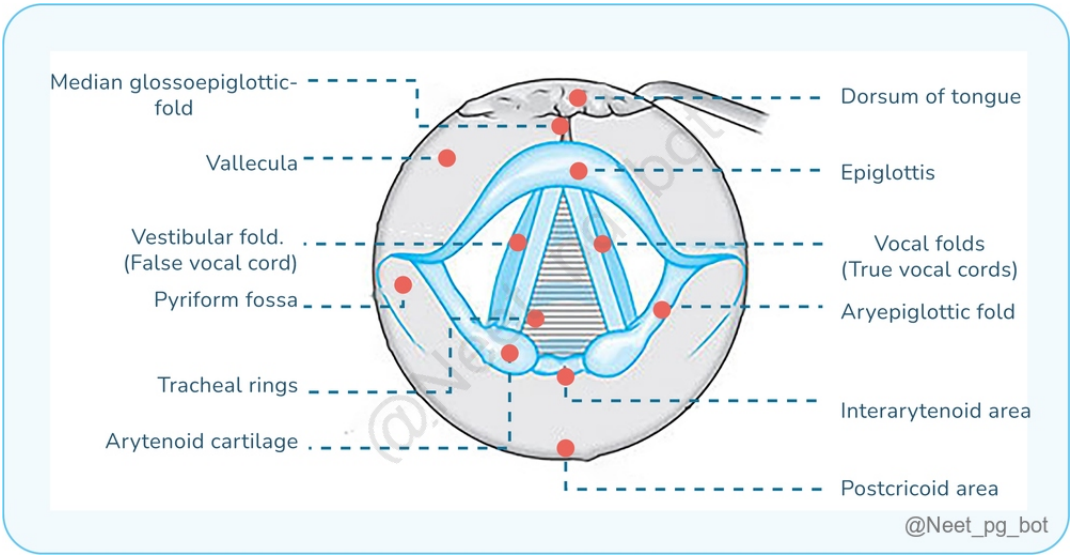
C. Barking dog position

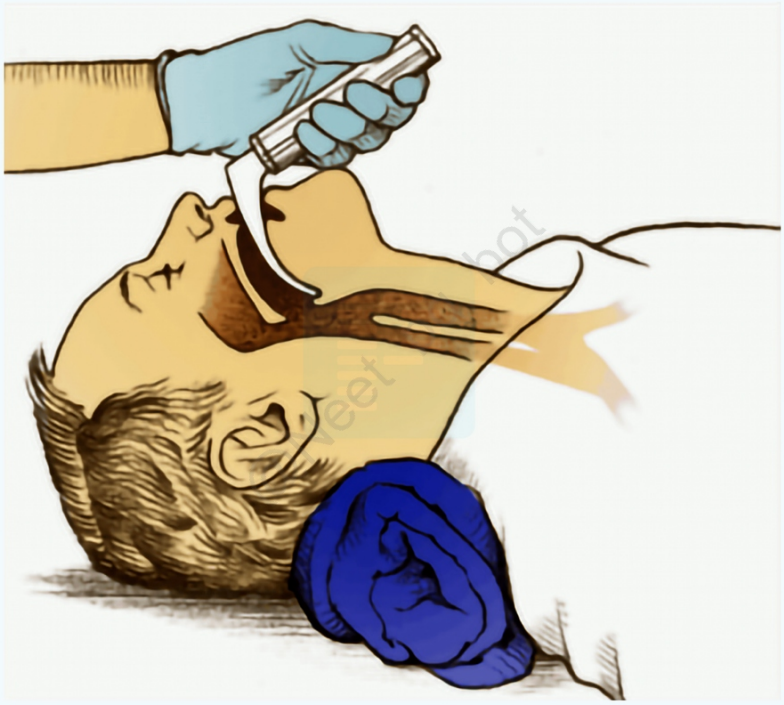
D. Supine neutral position

Correct Answer: C. Barking dog position

- *Listen (English)*
- *Listen (Hindi)*

Explanation: Barking dog position: Supine with the head tilted back and neck extended. Optimal for laryngoscopy as it aligns the oral, pharyngeal, and laryngeal axes, enhancing visibility and access to the larynx. Direct Laryngoscopy The "barking-dog" (Boyce's) position involves neck flexion on the thorax and head extension at the atlanto-occipital joint. (Option C) Complications Injury to Lips/Tongue Dental Injury Bleeding: From the operative site. Laryngeal Edema: Potentially leading to respiratory distress. Rose position (Option A): The patient is placed in a supine position with the head extended and supported by a pillow or ring placed under the shoulders. This facilitates neck extension, Commonly used for procedures involving the mouth, throat, and larynx, such as tonsillectomy, adenoidectomy, and endotracheal intubation. The position allows for optimal visualization of the airway and easier access for surgical procedures in the head and neck region. Fowler's position (Option B) : Seated with the back of the bed elevated. This position can hinder airway alignment, making visualization of the larynx challenging. Fowler's position is a seated position (45-60 degrees) used for: Respiratory Support: Enhances lung expansion for easier breathing. Cardiovascular Stability: Improves venous return and reduces heart workload. Gastrointestinal Motility: Aids digestion and reduces aspiration risk. Supine Neutral position (Option D): Flat with the head in a natural alignment. Not ideal for laryngoscopy; may require adjustments for proper laryngeal visualization. {{caption_text}}





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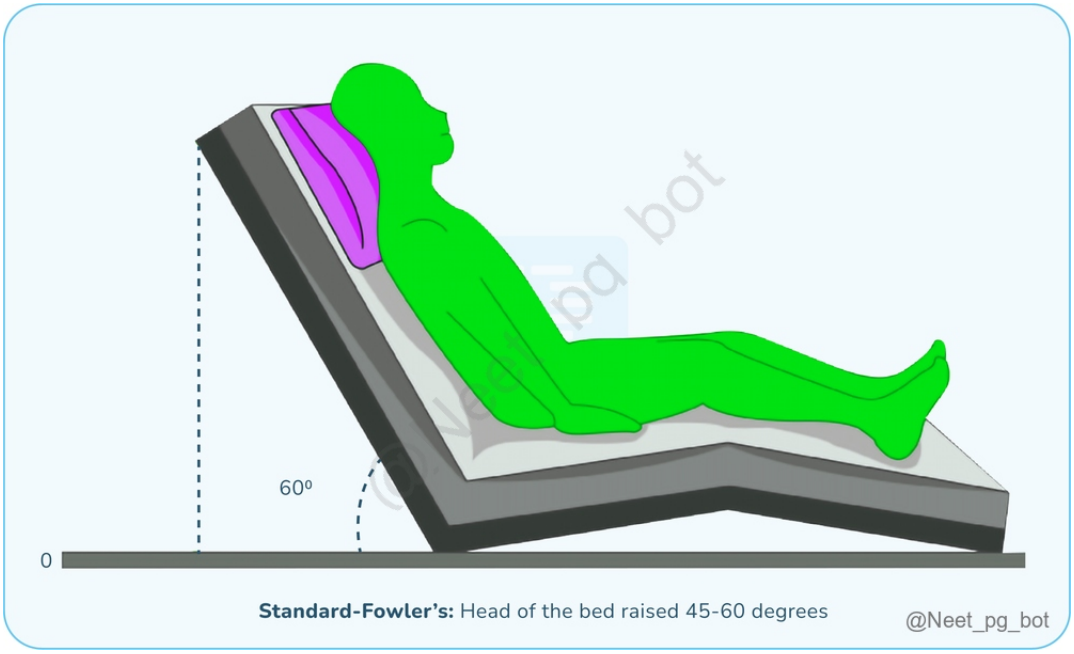

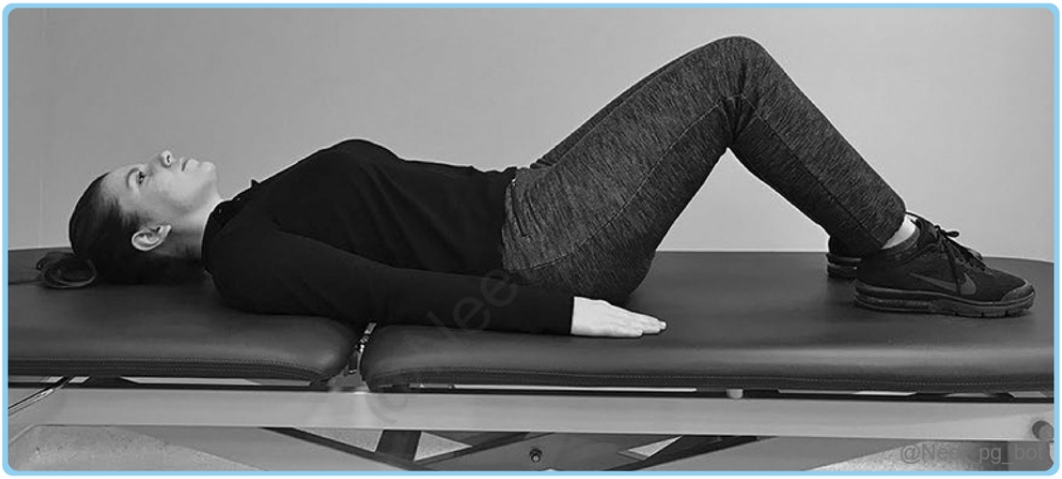

References:

Dhingra's Diseases Of Ear, Nose And Throat, & Head and Neck Surgery, 8th edition, Pages 455, 497, 498.

https://ncbi.nlm.nih.gov/books/NBK513224/

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Q16: A 35-year-old teacher complains of hoarseness, vocal fatigue, and a weak voice, especially after prolonged speaking. Laryngoscopic examination reveals keyhole appearance of the glottis during phonation. What is the most likely diagnosis?

(Q847904)

A. Puberphonia

B. Phonasthenia

C. Functional aphonia

D. Hysteric aphonia

Correct Answer: B. Phonasthenia

■ *Listen (English)*

■ *Listen (Hindi)*

Explanation: Characteristic Phonasthenia Puberphonia (Option A) Functional Aphonia (Option C) Hysteric Aphonia (Option D) Definition Vocal fatigue due to weakness in the thyroarytenoid and interarytenoid muscles causing vocal cord bowing Mutational falsetto with persistent high-pitched voice after puberty, more common in males Psychogenic voice disorder with loss of voluntary voice despite normal vocal cord structure Conversion disorder with sudden voice loss due to psychological stress Features Weak, fatigued voice after speaking Keyhole appearance of the glottis from vocal cord bowing High-pitched voice not congruent with age or gender Thin, weak voice quality No structural abnormalities in the larynx or vocal cords Inability to produce voice voluntarily Able to cough or whisper, indicating normal vocal cord function Sudden inability to speak after emotional distress No organic pathology affecting the larynx Laryngoscopic Findings Keyhole appearance of the glottis from vocal cord bowing False vocal cord hypertrophy Vocal cords do not fully adduct during phonation but work normally during reflexive actions like coughing Vocal cords appear normal but may not come together during speech attempts. Patients can cough or whisper Management Voice therapy Thyroplasty for severe cases Voice Therapy: Type III Thyroplasty: Counseling and voice therapy Psychological support and speech therapy

References:

Dhingra's Diseases Of Ear, Nose And Throat, & Head and Neck Surgery, 8th edition, Pages 366, 367.

https://www.ncbi.nlm.nih.gov/books/NBK563182/

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Q17: A 16-year-old boy presents with a voice that sounds similar to that of a female, characterized by a high-pitched voice despite the completion of puberty. What could be a potential underlying cause related to the vocal cords for this condition? (Q847903)

A. Immature growth of vocal cords leading to lengthening of vocal cords

B. Immature growth of vocal cords leading to relative shortening of vocal cords

C. Immature growth of vocal cords leading to incomplete closure of the anterior part of vocal cords

D. Immature growth of vocal cords leading to excessive thickening of vocal cords

Correct Answer: B. Immature growth of vocal cords leading to relative shortening of vocal cords

■ *Listen (English)*

■ *Listen (Hindi)*

Explanation: The case describes puberphonia (mutational falsetto) → persistently high-pitched voice after puberty. Cause: Vocal cords fail to mature properly → they remain relatively short and thin . Short cords vibrate faster → high-pitched, feminine voice despite normal physical development. Normally in males, puberty causes cords to lengthen + thicken , deepening the voice. When this maturation is incomplete → pitch does not drop . Treatment: Voice therapy (mainstay); resistant cases → Type III thyroplasty Immature growth of vocal cords leading to lengthening of vocal cords (Option A) : Lengthening typically results in a deeper voice, not a higher-pitched one. Immature growth of vocal cords leading to incomplete closure of the anterior part of vocal cords (Option C): Incomplete closure usually causes hoarseness, not a high-pitched voice. Immature growth of vocal cords leading to excessive thickening of vocal cords (Option D): Excessive thickening results in a deeper voice, not a higher-pitched one.

References:

Dhingra's Diseases Of Ear, Nose And Throat, & Head and Neck Surgery, 8th Edition, Page 367.

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• [04_Larynx] 027 Laryngeal Paralysis And Laryngeal Carcinoma

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[04_Larynx] 027 Laryngeal Paralysis And Laryngeal Carcinoma — Quick Jump

Q1 (p. 1437)	*Q2 (p. 1438)*	*Q3 (p. 1439)*	*Q4 (p. 1440)*	*Q5 (p. 1441)*	*Q6 (p. 1442)*
Q7 (p. 1443)	*Q8 (p. 1444)*	*Q9 (p. 1445)*	*Q10 (p. 1446)*	*Q11 (p. 1447)*	*Q12 (p. 1449)*
Q13 (p. 1450)	*Q14 (p. 1452)*	*Q15 (p. 1453)*	*Q16 (p. 1454)*	*Q17 (p. 1456)*	*Q18 (p. 1457)*

Q1: A 60-year-old male with a history of persistent hoarseness, throat pain, and difficulty swallowing was recently diagnosed with Laryngeal Carcinoma. Which of the following is not a known risk factor for developing laryngeal cancer in this patient? (Q848027)

A. Heavy smoking and alcohol consumption

B. Genetic predisposition due to Fanconi anemia

C. Exposure to coal dust

D. Exposure to EBV

Correct Answer: D. Exposure to EBV

■ *Listen (English)*

■ *Listen (Hindi)*

Explanation: EBV is associated with Nasopharyngeal carcinoma and is less commonly linked to laryngeal cancer compared to other risk factors. Risk Factors and Etiology of Laryngeal Cancer: Tobacco Use :(most common cause) Smoking is a well-established risk factor due to carcinogens like benzopyrene and other hydrocarbons. Alcohol Consumption : Alcohol use is a significant risk factor, with a synergistic effect when combined with smoking. Synergistic Effect : The combined effect of tobacco and alcohol is greater than the sum of their individual effects and has a 15-fold increased risk of laryngeal cancer compared to using either factor alone. (Option A ruled out) Radiation Exposure : Previous radiation treatment to the neck for benign conditions or laryngeal papilloma can increase the risk of developing laryngeal cancer. Genetic Factors : Reports from Japanese and Russian studies suggest that genetic predisposition may play a role in familial cases of laryngeal cancer. Genetic syndromes like Fanconi anemia and congenital dyskeratosis are also associated with a higher risk. (Option B ruled out) Occupational Exposure : Exposure to occupational hazards such as asbestos, polycyclic aromatic hydrocarbons, wood dust, coal dust, cement dust, mustard gas, and petroleum products has been linked to laryngeal cancer. (Option C ruled out) Demographic Data : Laryngeal cancer is significantly more common in males compared to females, with a reported male-to-female ratio of 4–5 : 1 Lower socioeconomic status and manual ‘blue-collar’ occupations also experience a higher risk. HPV HPV 6 and 11 cause juvenile respiratory papillomatosis, which rarely undergoes malignant change Sexual behaviors and HPV infection are strongly

associated with oropharyngeal cancers, but there is limited epidemiological evidence connecting these factors with laryngeal cancers. Unlike oropharyngeal cancer, current studies do not show an improved prognosis for HPV-positive laryngeal tumors.

References:

Dhingra's Diseases Of Ear, Nose And Throat, & Head and Neck Surgery, 8th Edition, Pages 358, 357

Scott-Brown’s Otorhinolaryngology Head and Neck Surgery , 8th Edition, 3rd Volume, Pages 237, 238

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Q2: A 58-year-old male presents with progressive hoarseness of voice and mild dyspnea on exertion. He underwent coronary artery bypass grafting 6 months ago. A fiberoptic laryngoscopy reveals left-sided vocal cord paralysis in the paramedian position. A chest CT scan shows no mediastinal mass or aortic enlargement. Electromyography of the laryngeal muscles reveals denervation. What is the most likely cause of his vocal cord paralysis? (Q848035)

A. Left atrial enlargement due to mitral valve disease

B. Post-surgical trauma to the recurrent laryngeal nerve (RLN)

C. Compression of the recurrent laryngeal nerve by aortic aneurysm

D. Idiopathic unilateral vocal cord paralysis

Correct Answer: B. Post-surgical trauma to the recurrent laryngeal nerve (RLN)

■ *Listen (English)*

■ *Listen (Hindi)*

Explanation: The given scenario involves delayed unilateral vocal cord paralysis (ULVCP) following coronary artery bypass grafting (CABG), with an absence of extrinsic compressive factors like a mediastinal mass or aortic aneurysm. The left RLN is anatomically vulnerable during thoracic surgeries like CABG due to its course under the aortic arch. Surgical trauma, especially stretching or manipulation during cardiac or thoracic procedures, can result in delayed RLN injury, manifesting as vocal cord paralysis. Electromyography (EMG) showing denervation of laryngeal muscles supports a nerve injury rather than compression. Causes of Vocal Cord paralysis: Malignancy Iatrogenic surgical trauma Idiopathic Non-surgical trauma Intubation Neurological disorders Infections - Lyme disease, Herpes zoster, EBV, HSV, CMV, in immunocompromised patients. Causes of RLN Injury: Trauma to the neck Thyroid disease and surgery CA cervical esophagus, CA apex of right lung Cervical lymphadenopathy Subclavian artery aneurysm Tuberculosis of cervical pleura Idiopathic Additionally, the Left RLN (which has a longer course than the right) can be injured in the mediastinum due to: Bronchogenic cancer Carcinoma thoracic esophagus Aortic aneurysm Mediastinal lymphadenopathy Idiopathic Enlarged left auricle Intrathoracic surgery

Left atrial enlargement due to mitral valve disease (Option A): While left atrial enlargement from mitral valve disease can compress the left RLN as it loops around the aortic arch (causing Ortner's syndrome), this patient has no echocardiographic or clinical evidence of mitral valve disease or left atrial enlargement. Compression of the recurrent laryngeal nerve by aortic aneurysm (Option C): Aortic aneurysms can cause RLN compression, leading to left-sided vocal cord paralysis. However, in this case, the chest CT scan ruled out aortic aneurysm or other compressive lesions, making this diagnosis less likely. Idiopathic unilateral vocal cord paralysis (Option D): Idiopathic causes account for a significant portion (20%) of unilateral vocal cord paralysis. However, given this patient's history of recent cardiac surgery, an idiopathic cause is less likely than iatrogenic trauma.

References:

Dhingra's Diseases Of Ear, Nose And Throat, & Head and Neck Surgery, 8th Edition, Pages 347-351.

Logan Turner's Diseases Of Nose, Throat And Ear Head and Neck Surgery, 11th Edition, Pages 302, 303.

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Q3: In a patient who has undergone a total laryngectomy, a portable vocal rehabilitation device needs to be prescribed immediately post-surgery. Choose the device from the given options: (Q848034)

A. Electrolarynx

B. Transoral pneumatic device

C. Blom-Singer or Panje prosthesis

D. Esophageal speech

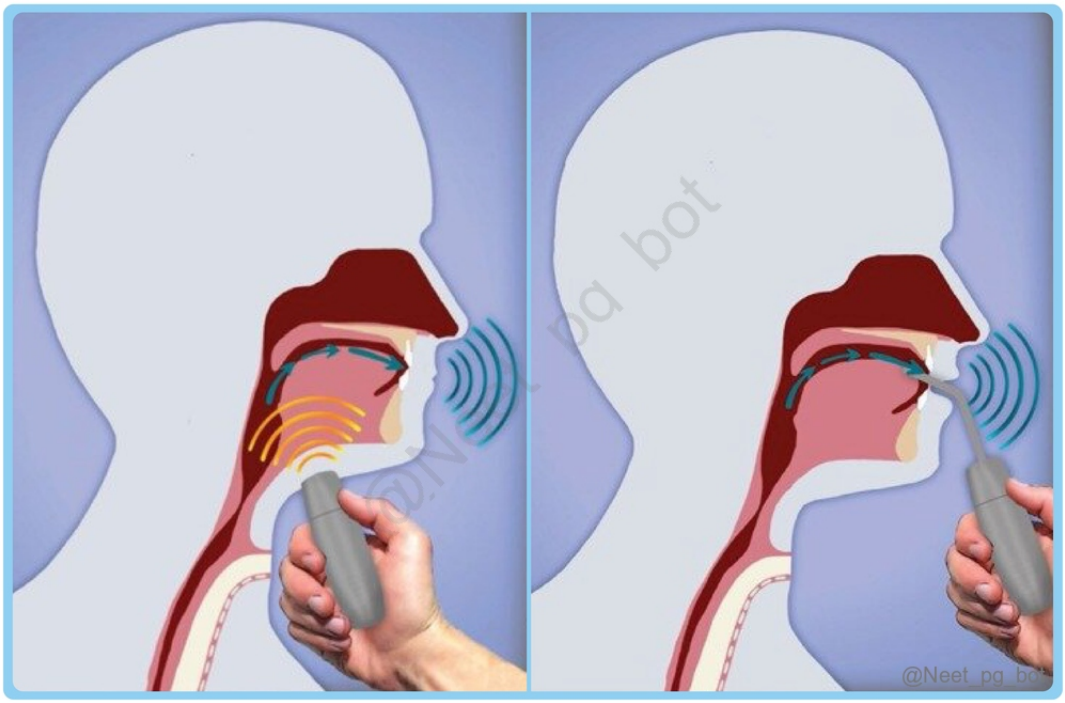
Correct Answer: A. Electrolarynx

■ *Listen (English)*

■ *Listen (Hindi)*

Explanation: The electrolarynx allows for immediate speech production after surgery, making it a practical solution for patients who need to communicate right away. It is a transistorized, battery-operated portable device. Vocal rehabilitation-methods: After laryngectomy, the patient loses his speech completely. The various methods by which communication can be established are given below: Oesophageal Speech In this, the patient is taught to swallow air and hold it in the upper esophagus and then slowly eject it from the esophagus into the pharynx. The patient can speak 6-10 words before re-swallowing air. The voice is rough but loud and understandable. Artificial Larynx It is used in those who fail to learn oesophageal speech. Electrolarynx: Its vibrating disc is held against the soft tissues of the neck and a low-pitched sound is produced in the hypopharynx which is further modulated into speech by the tongue, lips, teeth, and palate. Transoral pneumatic device (Option B) It is a transoral device. Here vibrations produced in a rubber diaphragm are carried by a plastic tube into the back of the oral cavity where sound is converted into speech by modulators. This is a pneumatic type of device and uses expired air from the

tracheostome to vibrate the diaphragm. Tracheo-Oesophageal Speech Here an attempt is made to carry air from the trachea to the esophagus or hypopharynx by the creation of a skin-lined fistula or by placement of an artificial prosthesis. The vibrating column of air entering the pharynx is then modulated into speech. This technique has the disadvantage of food entering the trachea. These days prostheses (Blom-Singer or Panje) are being used to shunt air from the trachea to the esophagus (Option C) They have inbuilt valves which work only in one direction thus preventing problems of aspiration.



References:

Dhingra's Diseases Of Ear, Nose And Throat, & Head and Neck Surgery, 8th Edition, Page 365

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Q4: In a patient diagnosed with stage 3 laryngeal carcinoma with no involvement of thyroid cartilage, the patient is unwilling to undergo chemoradiotherapy. What will be the treatment of choice in this case? (Q848033)

A. Total laryngectomy

B. Conservative Surgery

C. Micro laryngeal surgery

D. Vertical hemilaryngectomy

Correct Answer: A. Total laryngectomy

■ *Listen (English)*

■ *Listen (Hindi)*

Explanation: In the given case scenario of stage 3 laryngeal carcinoma with no involvement of thyroid cartilage since the patient is not willing to do chemoradiotherapy, total laryngectomy would be the treatment of choice. Treatment of Stage 3 and Stage 4A of Laryngeal Carcinoma: Concurrent Chemo-RT: for stage 3 and early stage 4 (Cisplatin/ Carboplatin/Cetuximab). This treatment is suitable for all the stage 3 & stage 4a cases which do not involve any cartilage(thyroid/cricoid). Near Total Laryngectomy: Stage 3 and Stage 4a cases with one arytenoid spared. It is the treatment of choice in stage 3 & stage 4a cases involving thyroid/cricoid cartilage. Total laryngectomy Indications: T4a with thyroid cartilage invasion. Stage 3 and 4a who cannot tolerate chemotherapy. Stage 3 and 4 recurrent tumours Bilateral arytenoid involvement. Conservative Surgery (Option B) is done in cases of recurrence when the radiation therapy fails to treat. Micro laryngeal surgery (Option C) is done for stages 1 and 2 when the carcinoma is in the middle 1⁄3 of the vocal cord. Vertical hemilaryngectomy (Option D) is done in cases of recurrence where one-half of the larynx (vertical) is involved along with subglottic extension not more than 1cm. This is a type of conservative surgery done in stages 1 and 2 of laryngeal carcinoma.

References:

Dhingra's Diseases Of Ear, Nose And Throat, & Head and Neck Surgery, 8th Edition, Page 363

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Q5: A 55-year-old patient is diagnosed with glottic carcinoma involving the right side of the vocal cord. The tumor extends to the supraglottis with impaired vocal cord mobility. What is the most appropriate primary treatment for this patient? (Q848032)

A. Total laryngectomy

B. Radiotherapy

C. Endoscopic CO2 laser excision

D. Vertical hemilaryngectomy

Correct Answer: D. Vertical hemilaryngectomy

■ *Listen (English)*

■ *Listen (Hindi)*

Explanation: According to stage grouping, T2N0M0 glottic carcinoma is grouped under Stage II . For Stage II carcinoma along with impaired cord mobility, radiotherapy is not preferred because of the possibility of developing perichondritis which would require total laryngectomy afterwards. For these patients, the best option is

to do conservative surgery such as vertical hemilaryngectomy . Treatment of Stage I and Stage II Laryngeal Carcinoma TNM Staging Stage Grouping Treatment T1N0M0 Stage I Glottic- Radiotherapy or Endoscopic CO2 laser resection Supraglottic- Radiotherapy or Endoscopic CO2 laser resection Subglottic- Radiotherapy T2N0M0 Stage II Glottic- Radiotherapy- when the cord is mobile Vertical hemilaryngectomy- when cord mobility is impaired or Involvement of anterior commissure/arytenoid Supraglottic- Supraglottic laryngectomy with/without neck dissection- when lung function is good Supraglottic laryngectomy with/without neck dissection + Radiotherapy- when lung function is poor Subglottic- Radiotherapy Total laryngectomy (Option A) is not the primary choice of treatment in T2 laryngeal carcinoma. It is mostly preferred for T3 and T4. Radiotherapy (Option B) alone will not be sufficient, as the patient has impaired vocal cord mobility and is showing vocal cord involvement. Endoscopic CO2 laser excision (Option C) is done only in cases where vocal cord mobility is not impaired.

References:

Dhingra's Diseases Of Ear, Nose And Throat, & Head and Neck Surgery, 8th Edition, Page 363, 364

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Q6: A 55-year-old man presents with hoarseness and difficulty swallowing. Laryngoscopy reveals a tumor involving both vocal cords with normal mobility. There is no evidence of spread beyond the larynx or lymph node involvement. Based on the TNM classification of laryngeal carcinoma, what is the most appropriate staging for this patient's condition? (Q848031)

A. T1a N0

B. T1b N0

C. T2 N0

D. T3 N0

Correct Answer: B. T1b N0

■ *Listen (English)*

■ *Listen (Hindi)*

Explanation: Based on the site of lesion, the patient has a diagnosis of glottic laryngeal carcinoma. Tumor limited to both vocal cords represents T1b stage of glottic laryngeal carcinoma. Supraglottis T1 Tumor is limited to one subsite of supraglottis with normal vocal cord mobility. T2 Tumor invades mucosa of more than one adjacent subsites of supraglottis or glottis or region outside the supraglottis (e.g. mucosa of base of tongue, vallecula, medial wall of pyriform sinus) without fixation of the larynx. T3 Tumor is limited to the larynx with vocal cord fixation and/or invades any of the following: postcricoid area, pre-epiglottic tissues, paraglottic space and/or minor thyroid cartilage invasion. T4a Tumor invades through the thyroid cartilage and/or invades tissues beyond the

larynx (e.g. trachea, soft tissues of neck including deep extrinsic muscle of tongue, strap muscles, thyroid or esophagus). T4b Tumor invades prevertebral space, encases carotid artery or invades mediastinal structures Glottis T1 Tumor limited to vocal cord(s) (may involve anterior or posterior commissures) with normal mobility. T1a Tumor is limited to one vocal cord. (Option A) T1b Tumor involves both vocal cords. T2 Tumor extends to supraglottis and/or subglottis, and/or with impaired vocal cord mobility. (Option C) T3 Tumor is limited to the larynx with vocal cord fixation and/or invades paraglottic space and/or minor thyroid cartilage erosion. (Option D) T4a Tumor invades through thyroid cartilage and/or invades tissues beyond the larynx (e.g. trachea, soft tissues of neck including deep extrinsic muscles of the tongue, strap muscles, thyroid, or esophagus). T4b Tumor invades prevertebral space, encases the carotid artery or invades mediastinal structures. Subglottis T1 Tumor is limited to the subglottis. T2 Tumor extends to the vocal cord(s) with normal or impaired mobility. T3 Tumor limited to larynx with vocal cord fixation. T4a Tumor invades cricoid or thyroid cartilage and/or invades tissues beyond the larynx (e.g. trachea, soft tissues of neck including deep extrinsic muscle of tongue, strap muscles, thyroid or esophagus). T4b Tumor invades prevertebral space, encases the carotid artery or invades mediastinal structures. Regional lymph nodes (N) Nx Regional lymph nodes cannot be assessed. N0 No regional lymph node metastasis. N1 Metastasis in a single ipsilateral lymph node, 3 cm or less in greatest dimension. N2 Metastasis in a single ipsilateral lymph node, more than 3 cm but not more than 6 cm in greatest dimension, or multiple ipsilateral lymph nodes, none more than 6 cm in greatest dimension, or bilateral or contralateral lymph nodes, none more than 6 cm in the greatest dimension. N2a Metastasis in a single ipsilateral lymph node more than 3 cm but not more than 6 cm in greatest dimension. N2b Metastasis in multiple ipsilateral lymph nodes, none more than 6 cm in greatest dimension. N2c Metastasis in bilateral or contralateral lymph nodes, none more than 6 cm in greatest dimension Na Metastasis in a lymph node more than 6 cm in the greatest dimension Distant metastasis Mx Distant metastasis cannot be assessed M0 No Distant metastasis M1 Distant metastasis

References:

Dhingra's Diseases Of Ear, Nose And Throat, & Head and Neck Surgery, 8th Edition, Pages 359, 360

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Q7: A 58-year-old woman presents with progressive stridor and difficulty breathing for the past 2 months. Laryngoscopy reveals a mass in the subglottic region with normal appearing and mobile vocal cords. Which of the following statements about subglottic carcinoma is incorrect? (Q848030)

A. Hoarseness is typically a late symptom

B. Lymphatic spread is common to prelaryngeal and paratracheal nodes

C. It often presents with airway obstruction as an early symptom

D. Prognosis is generally better than glottic carcinoma

Correct Answer: D. Prognosis is generally better than glottic carcinoma

■ *Listen (English)*

■ *Listen (Hindi)*

Explanation: Prognosis for subglottic carcinoma is generally worse than glottic carcinoma because of: Late symptomatology Early lymphatic spread Poor differentiation on histopathological examination Subglottic laryngeal carcinoma Incidence Least common site of laryngeal cancer (1-5% of cases) Site Extends from undersurface of vocal cords to lower border of cricoid cartilage Vocal cord involvement Usually late; vocal cords often appear normal in early stages Local Spread Can spread circumferentially, invade cricothyroid membrane, thyroid gland, and trachea Lymphatic spread Common to prelaryngeal, pretracheal, paratracheal, and lower jugular nodes (Option B) Symptoms Early: Stridor, laryngeal obstruction (Option C) Late: Hoarseness, cough, hemoptysis (Option A) Histopathology Poorly differentiated Predominantly squamous cell carcinoma Prognosis Generally worse than glottic carcinoma due to late diagnosis and higher rate of lymph node metastasis

References:

Dhingra's Diseases Of Ear, Nose And Throat, & Head and Neck Surgery, 8th Edition, Pages 358, 361

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Q8: A 60-year-old man presents with persistent hoarseness for the past 2 months. Laryngoscopy reveals a small lesion on the anterior third of the right vocal cord with normal cord mobility. Further investigations lead to the diagnosis of Glottic laryngeal carcinoma. Which of the following statements about the condition is incorrect ? (Q848029)

A. It is the most common site of origin for glottic carcinoma

B. Hoarseness is typically an early symptom

C. Lymph node metastases are common in early stages

D. Histopathologically well differentiated and less malignant

Correct Answer: C. Lymph node metastases are common in early stages

■ *Listen (English)*

■ *Listen (Hindi)*

Explanation: Nodal metastases are typically never seen in glottic laryngeal carcinoma. There are few lymphatics in vocal cords, and nodal metastases are practically never seen, unless the disease spreads beyond the region of the membranous cord. Glottic laryngeal carcinoma Incidence Most common site of laryngeal cancer origin (Option A) Site Free edge and upper surface of vocal cord, mainly in anterior and middle third Vocal cord involvement

Involvement of vocal cord occurs early so the patient presents early with hoarseness of voice (Option B) Vocal cord fixation indicates spread to thyroarytenoid muscle and is a bad prognostic sign Lymphatic spread Rare due to few lymphatics in vocal cords Local Spread Can spread locally to anterior commissure, opposite cord, arytenoid region, ventricle, false cord, and subglottic region Symptoms Hoarseness is an early sign; stridor and laryngeal obstruction in advanced cases Histopathology Well differentiated and less malignant (Option D)

References:

Dhingra's Diseases Of Ear, Nose And Throat, & Head and Neck Surgery, 8th Edition, Pages 358-361

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Q9: A 58-year-old man presents with dysphagia, throat pain, and a palpable neck mass. Laryngoscopy reveals a lesion on the epiglottis. Further investigations lead to the diagnosis of Laryngeal carcinoma.Which of the following is not a typical characteristic of this condition? (Q848028)

A. Bilateral lymph node metastases are common but occurs late

B. Hoarseness is usually a late symptom

C. The most common histological type is squamous cell carcinoma

D. It may spread to the pre-epiglottic space

Correct Answer: A. Bilateral lymph node metastases are common but occurs late

■ *Listen (English)*

■ *Listen (Hindi)*

Explanation: The involvement of epiglottis in laryngeal carcinoma is indicative of supraglottic laryngeal carcinoma , in which nodal metastases occur early and are commonly bilateral. Supraglottic Laryngeal Carcinoma Incidence Less frequent than glottic cancer; about 30-35% of all laryngeal cancers Site Majority on epiglottis, false cords, followed by aryepiglottic folds Vocal cord involvement Usually late; vocal cords often spared in early stages Lymphatic spread Early and often bilateral Upper and middle jugular nodes commonly involved Cancer of infrahyoid epiglottis & anterior ventricular band may extend into pre-epiglottic space (Option D) Symptoms Early: Often silent, dysphagia, throat pain Late: Hoarseness, weight loss, respiratory obstruction, halitosis (Option B) Histopathology 90-95% squamous cell carcinoma (Option C) Others include verrucous carcinoma, spindle cell carcinoma Highly anaplastic Prognosis Generally worse than glottic cancer due to: Late diagnosis High rate & early lymph node metastasis Anaplastic nature

References:

Dhingra's Diseases Of Ear, Nose And Throat, & Head and Neck Surgery, 8th Edition, Page 358

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Q10: Which of the following statements about the laryngeal nerve supply is incorrect? (Q847987)

A. The right recurrent laryngeal nerve arises from the vagus at the level of the subclavian artery, while the left recurrent laryngeal nerve arises at the level of the arch of the aorta.

B. The internal branch of the superior laryngeal nerve provides sensory innervation to the larynx below the vocal cords.

C. The external branch of the superior laryngeal nerve innervates the cricothyroid muscle.

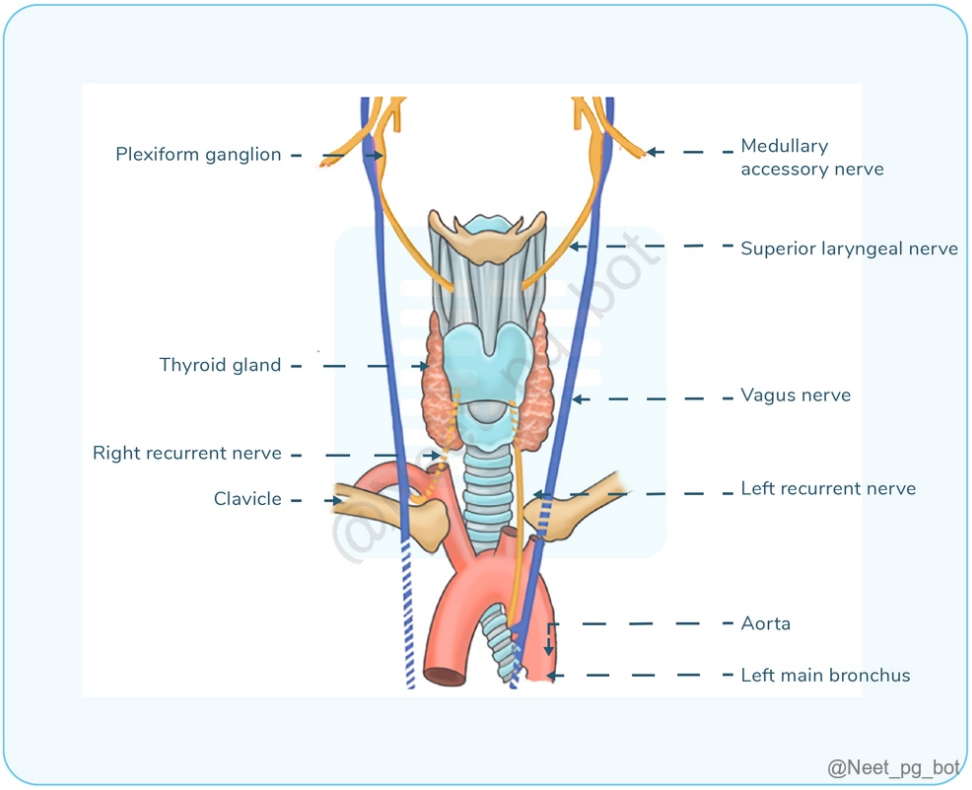
D. The left recurrent laryngeal nerve has a longer course than the right, making it more prone to paralysis.

Correct Answer: B. The internal branch of the superior laryngeal nerve provides sensory innervation to the larynx below the vocal cords.

■ *Listen (English)*

■ *Listen (Hindi)*

Explanation: The larynx receives both motor and sensory nerve supply from branches of the vagus nerve. Motor innervation : Recurrent laryngeal nerve - All muscles that move the vocal cords, including abductors, adductors, and tensors. Except the cricothyroid muscle. External branch of the superior laryngeal nerve - cricothyroid muscle. (Option C) Sensory innervation : The internal branch of the superior laryngeal nerve - above the vocal cords. (Option B) Recurrent laryngeal nerve - below the vocal cords. Recurrent laryngeal nerve anatomy : The right recurrent laryngeal nerve branches from the vagus at the level of the subclavian artery, looping around it before ascending between the trachea and esophagus. (Option A) The left recurrent laryngeal nerve arises at the arch of the aorta, loops around it, and ascends along the tracheoesophageal groove, giving it a longer course compared to the right nerve, making it more prone to injury. (Option A and D) Superior laryngeal nerve : Origin - from the inferior ganglion of the vagus nerve; courses behind the internal carotid artery; divides into external and internal branches at the level of the greater cornua of the hyoid bone. The external branch innervates the cricothyroid muscle. The internal branch provides sensory innervation to the larynx and hypopharynx after piercing through the thyrohyoid membrane.



References:

Dhingra's Diseases Of Ear, Nose And Throat, & Head and Neck Surgery, 8th Edition, Page 347

↑ *Back to this question in Part A*

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Q11: During a thyroidectomy, the surgeon encounters difficulty identifying the external branch of the superior laryngeal nerve (EBSLN). To improve nerve visualization, the surgeon decides to explore a specific avascular space between the upper pole of the thyroid gland and the cricothyroid muscle. Which of the following spaces is the surgeon aiming to open to aid in the preservation of the EBSLN? (Q847995)

A. Reinke’s Space

B. Reeve’s space

C. Space of Boyer

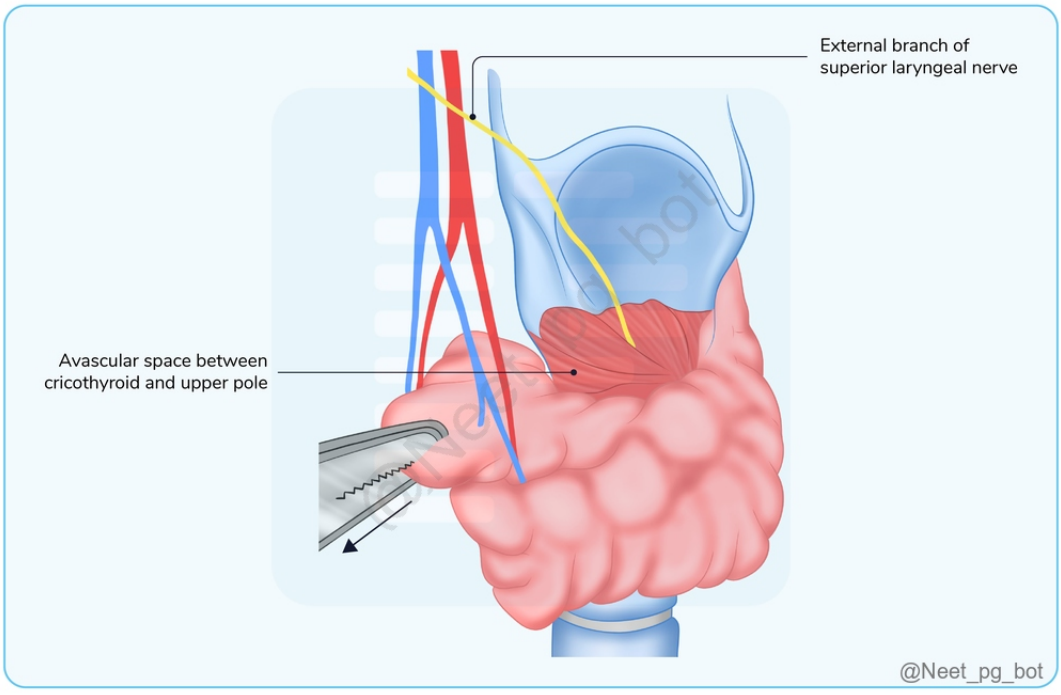
D. Paraglottic Space

Correct Answer: B. Reeve’s space

■ *Listen (English)*

■ *Listen (Hindi)*

Explanation: Reeve’s Space is the avascular space between the upper pole of the thyroid gland and the cricothyroid muscle. Identifying and opening this space is crucial for locating and preserving the external branch of the superior laryngeal nerve (EBSLN). Cricothyroid space of Reeves: An avascular space crucial for the identification and preservation of the external branch of the superior laryngeal nerve (EBSLN). Location : Found between the upper pole of the thyroid gland and the cricothyroid muscle. Identification : Achieved by performing medial dissection at the superior pole of the thyroid gland. Opening the Space : The ipsilateral thyroid lobe is pulled downward and outward. Relation to Joll’s Triangle : Opening Reeve’s Space helps in accessing and exposing Joll’s Triangle (sternothyroid-laryngeal triangle), which is used to identify the EBSLN. Reinke’s Space (Option A) is located under the epithelium of the vocal cords and is involved in conditions like Reinke’s edema. It does not relate to the identification of the EBSLN. Space of Boyer (Option C) or the Preepiglottic Space is bounded by the thyroid cartilage, thyrohyoid membrane, hyoepiglottic ligament, and the quadrangular membrane. It is not related to the external branch of the superior laryngeal nerve (EBSLN). Paraglottic Space (Option D) is located between the thyroid cartilage and the ventricle, and it is continuous with the preepiglottic space. This space is not specifically used for identifying the EBSLN but is more relevant in cases of laryngeal tumors.



References:

Important Triangles in Thyroid Surgery

The rationale of triangles in relation to thyroid surgery

Dhingra's Diseases Of Ear, Nose And Throat, & Head and Neck Surgery, 8th Edition, Page 334

↑ *Back to this question in Part A*

Q12: Joll's Triangle is used to identify which of the following nerves? (Q847994)

A. Recurrent Laryngeal Nerve

B. External Branch of the Superior Laryngeal Nerve

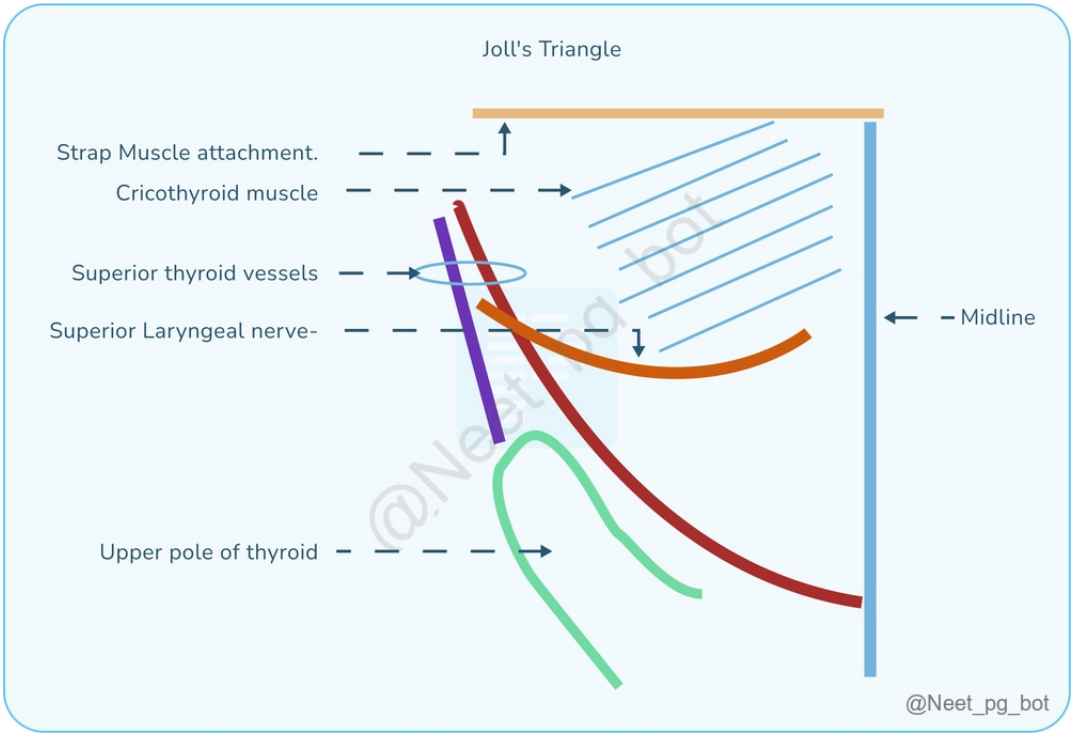
C. Internal Branch of the Superior Laryngeal Nerve

D. Vagus Nerve

Correct Answer: B. External Branch of the Superior Laryngeal Nerve

- *Listen (English)*
- *Listen (Hindi)*

Explanation: Joll's Triangle is designed to help identify and preserve the external branch of the superior laryngeal nerve (EBSLN) during surgery. Joll's Triangle (Sternothyroid-laryngeal triangle) An anatomical landmark used for identifying and preserving the external branch of the superior laryngeal nerve (EBSLN). Superior border by the upper attachment of the strap muscles. Medial border by the midline of the neck. Lateral border by the upper pole of the thyroid gland and the superior thyroid vessels. Floor of the Triangle: The EBSLN is located in the floor of the triangle, which is delineated by the cricothyroid muscle. Joll's Triangle is not used for locating the Recurrent laryngeal nerve (Option A) or Internal Branch of the Superior Laryngeal Nerve (Option C) or Vagus Nerve (Option D).



References:

drsanu.com/articles/important-triangles-in-thyroid-surgery/

www.ijashnb.org/article-download/full-text/7215#

↑ *Back to this question in Part A*

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Q13: Which of the following triangles is not used to identify the recurrent laryngeal nerve? (Q847993)

A. Joll’s triangle

B. Simon’s triangle

C. Beahr’s triangle

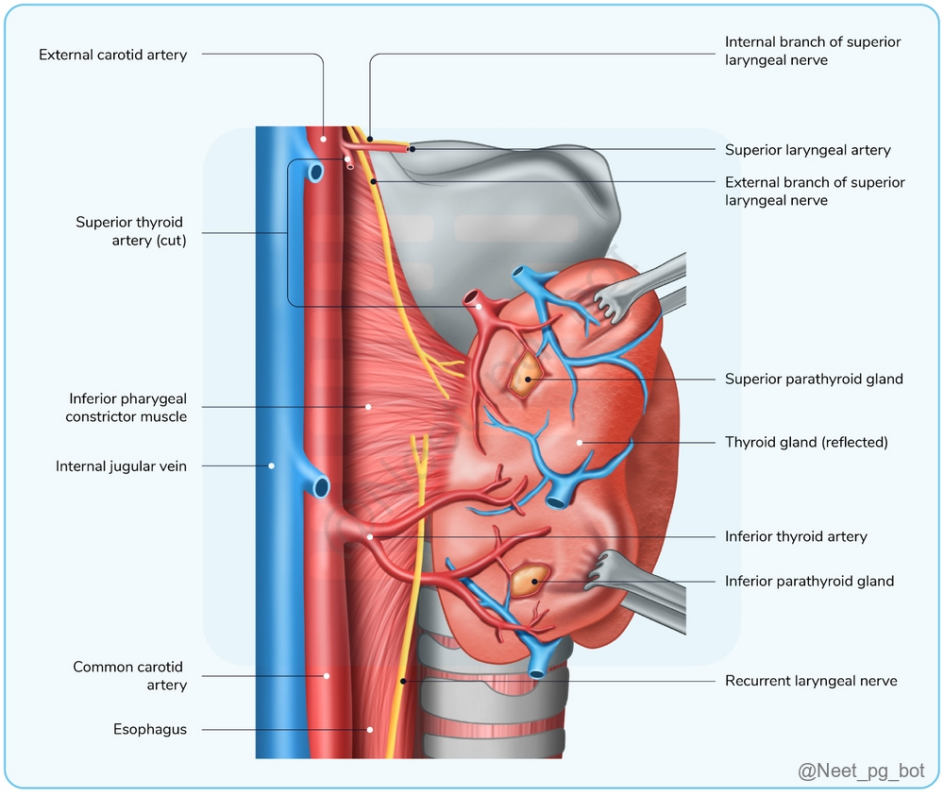
D. Lore’s triangle

Correct Answer: A. Joll’s triangle

■ *Listen (English)*

■ *Listen (Hindi)*

Explanation: Joll’s Triangle is specifically used for identifying and preserving the external branch of the superior laryngeal nerve (EBSLN), not the recurrent laryngeal nerve (RLN). RLN identification triangles Description Beahrs Triangle (Riddle’s Triangle) (Option C) Boundaries: Common carotid artery (base) Inferior thyroid artery (superior) Recurrent laryngeal nerve (third side) Location: Posterior to thyroid gland in the tracheoesophageal groove. Importance: Used to safeguard the recurrent laryngeal nerve during thyroid surgery Simon’s Triangle (Option A) Boundaries: Common carotid artery (lateral) Esophagus (medial) Inferior thyroid artery (superior) Importance: RLN crosses the triangle and is identified intraoperatively. Lore’s Triangle (Option D) Boundaries: Trachea/esophagus (medial) Common carotid artery (lateral) Surface of the inferior pole of thyroid (superior) Importance: Used for identification of the recurrent laryngeal nerve. Recurrent Laryngeal Nerve (RLN) Triangle Boundaries: Apex: Thoracic inlet (inferior) Medial: Trachea Lateral: Medial edge of retracted strap muscles Superior: Lower edge of inferior thyroid pole Importance: RLN exits as a single trunk at the thoracic inlet.


External carotid artery
Internal branch of superior laryngeal nerve
Superior laryngeal artery
External branch of superior laryngeal nerve
Superior thyroid artery (cut)
Superior parathyroid gland
Inferior pharygeal constrictor muscle
Thyroid gland (reflected)
Internal jugular vein
Inferior thyroid artery
Inferior parathyroid gland
Common carotid artery
Recurrent laryngeal nerve
Esophagus
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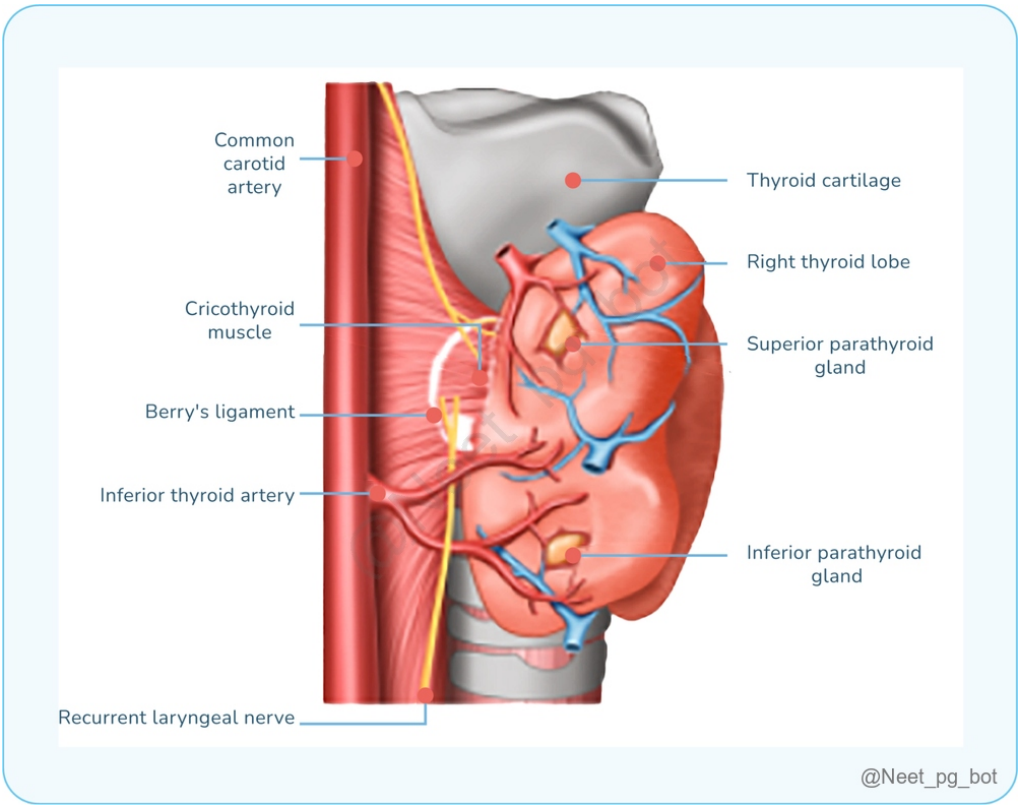
Common carotid artery
Thyroid cartilage
Right thyroid lobe
Cricothyroid muscle
Superior parathyroid gland
Berry's ligament
Inferior thyroid artery
Inferior parathyroid gland
Recurrent laryngeal nerve
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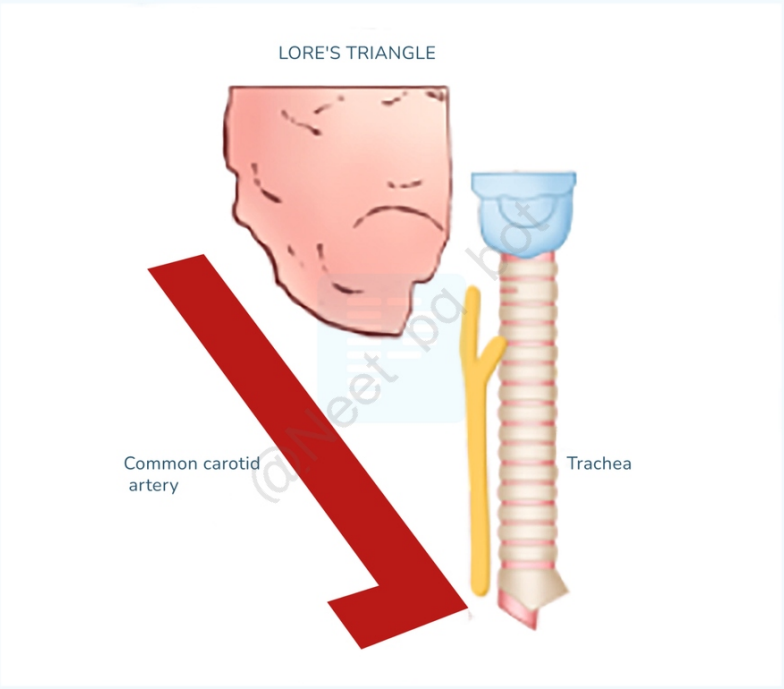

References:

drsanu.com/articles/important-triangles-in-thyroid-surgery/

www.ijashnb.org/article-download/full-text/7215#

↑ *Back to this question in Part A*

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Q14: A 55-year-old male underwent total thyroidectomy for a large multinodular goiter. Postoperatively, he presents with complete loss of voice, frequent aspiration of liquids, and an inability to cough effectively. On laryngoscopy, both vocal cords are found in a cadaveric position, and there is no sensation in the larynx. He is also experiencing difficulty breathing and frequent episodes of bronchopneumonia. What is the most likely diagnosis? (Q847992)

A. Bilateral superior laryngeal nerve paralysis

B. Bilateral recurrent laryngeal nerve paralysis

C. Unilateral recurrent and superior laryngeal nerve paralysis

D. Bilateral recurrent and superior laryngeal nerve paralysis

Correct Answer: D. Bilateral recurrent and superior laryngeal nerve paralysis

■ *Listen (English)*

■ *Listen (Hindi)*

Explanation: Bilateral recurrent and superior laryngeal nerve paralysis explains the complete loss of voice (aphonia), total paralysis of both vocal cords in the cadaveric position, laryngeal anesthesia, aspiration, and recurrent bronchopneumonia described in the scenario. It is a known complication of thyroid surgery. Feature Unilateral Combined Paralysis Bilateral Combined Paralysis Affected Nerves One side (Recurrent and Superior Laryngeal Nerves) Thyroid surgery is the most common cause. Both sides (Recurrent and Superior Laryngeal Nerves) Vocal Cord Position Paralyzed cord in cadaveric position (3.5 mm from midline) Healthy cord unable to fully approximate paralyzed cord Both cords in the cadaveric (Intermediate) position (neutral, apart from midline) Complete lack of movement in both cords Clinical Features All the muscles of the larynx on one side are paralyzed except the interarytenoid. Hoarseness : Due to glottic incompetence Aspiration : Liquids pass through the glottis Ineffective cough : Due to air waste from incomplete vocal fold closure Mild aspiration risk Breathing: Usually unaffected as airway remains adequate Speech: Weak or breathy, but functional All the laryngeal muscles are paralyzed. Total anesthesia of the larynx. Aphonia : Complete loss of voice as cords do not meet Severe aspiration : Total glottic incompetence, laryngeal anesthesia Inability to cough : Cords cannot meet to generate pressure for coughing Bronchopneumonia: Due to frequent aspiration of secretions into the lungs Respiratory distress : Due to compromised airway and retention of secretions Speech : Completely absent Treatment Voice therapy - for compensation by the healthy cord Injection laryngoplasty (temporary or permanent fillers) Thyroplasty Type I with or without arytenoid adduction Tracheostomy to clear pulmonary secretions Gastrostomy to prevent aspiration and maintain nutrition Epiglottopexy to prevent aspiration Vocal cord plication to prevent aspiration Total laryngectomy or diversion procedures in severe cases Bilateral superior laryngeal nerve paralysis (Option A) primarily affects the cricothyroid muscles , leading to a weak and husky voice, but not complete aphonia or significant airway obstruction. There is typically upper laryngeal anesthesia causing aspiration and coughing fits, but both vocal cords remain mobile. This does not fully explain the severe symptoms described in the scenario (total voice loss and significant aspiration). Bilateral recurrent laryngeal nerve paralysis (Option B) leads to airway obstruction with both cords in a median or paramedian position, causing dyspnea and stridor , but the voice would typically remain intact. The airway compromise described here is much more severe, and aphonia and laryngeal anesthesia suggest additional nerve involvement. Unilateral recurrent and superior laryngeal nerve paralysis (Option C) would cause hoarseness and aspiration on one side, but not complete aphonia or severe respiratory issues. The healthy side usually compensates, which is inconsistent with the symptoms described in the scenario (bilateral involvement, total loss of voice).

References:

Dhingra's Diseases Of Ear, Nose And Throat, & Head and Neck Surgery, 8th Edition, Pages 350, 351

↑ *Back to this question in Part A*

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Q15: A 45-year-old professional singer presents with complaints of vocal fatigue and difficulty producing high-pitched sounds for the last 3 months. She denies any

difficulty in swallowing or breathing. On laryngoscopic examination, no significant abnormalities are seen, and one vocal cord appears to be in normal resting position while other vocal cord is in abducted position . What is the most likely diagnosis? (Q847991)

A. Bilateral SLN palsy

B. Unilateral SLN palsy

C. Unilateral RLN palsy

D. Bilateral RLN palsy

Correct Answer: B. Unilateral SLN palsy

■ *Listen (English)*

■ *Listen (Hindi)*

Explanation: In this scenario, the patient is a professional singer who reports difficulty with high-pitched sounds, which is a hallmark of unilateral SLN palsy . The external branch of the superior laryngeal nerve innervates the cricothyroid muscle , which tenses the vocal cords, crucial for producing high-pitched sounds. In unilateral SLN palsy, the patient does not experience breathing or swallowing difficulties, and laryngoscopic examination may appear normal. Unilateral SLN Palsy Motor Loss: Cricothyroid muscle - decreased ability to tense the vocal cord. Sensory Loss: Above the vocal cord on the affected side. Vocal Cord Position: The affected vocal cord appears shortened and wavy ; may exhibit flapping due to loss of tension. Other Features: Askew position of the glottis with the anterior commissure rotated towards the healthy side. Voice changes such as weakness and inability to raise pitch, affecting singing ability. Treatment: Primarily voice therapy to improve vocal function and manage symptoms. Bilateral SLN palsy (Option A): The patient would have more pronounced symptoms, including a monotonous voice, significant difficulty with high-pitched sounds, and aspiration due to poor sensation in the upper larynx. Unilateral RLN palsy (Option C) Causes hoarseness and, on laryngoscopy, shows one vocal cord in a paramedian position . In contrast, this patient's difficulty is specifically related to high-pitched sounds , pointing to SLN involvement rather than RLN. Bilateral RLN palsy (Option D): It is a severe condition that typically results in stridor or significant respiratory difficulty due to both vocal cords being fixed in the paramedian position. The absence of breathing or swallowing problems in this patient rules out bilateral RLN palsy.

References:

Dhingra's Diseases Of Ear, Nose And Throat, & Head and Neck Surgery, 8th Edition, Page 350.

↑ *Back to this question in Part A*

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Q16: A 45-year-old female presents with hoarseness , shortness of breath and stridor following thyroid surgery. Laryngoscopy reveals bilateral vocal cord paralysis with

both cords fixed in paramedian position. Which of the following is the most appropriate immediate management? (Q847990)

A. Tracheostomy

B. Vocal cord lateralization

C. Arytenoidectomy

D. Observation and voice therapy

Correct Answer: A. Tracheostomy

■ *Listen (English)*

■ *Listen (Hindi)*

Explanation: This patient presents with symptoms and laryngoscopic findings consistent with bilateral recurrent laryngeal nerve (RLN) palsy, likely due to iatrogenic injury during thyroid surgery. In bilateral RLN palsy, both vocal cords are typically fixed in a paramedian or intermediate position, leading to a narrow airway . This can cause severe dyspnea and stridor , potentially life-threatening complications. The immediate priority in managing such cases is to secure the airway, which is best achieved through a tracheostomy . Recurrent laryngeal nerve (RLN) palsy can occur either unilaterally or bilaterally, leading to varying clinical manifestations and airway complications. Vocal cord lateralization (Option B): While this is a treatment option for bilateral RLN palsy, it is not the immediate management of choice. This procedure is typically considered after the airway is secured and the patient is stabilized. Arytenoidectomy (Option C): This is another surgical option for treating bilateral RLN palsy, but like vocal cord lateralization, it's not the immediate management of choice. This is usually considered at a later stage if other options fail. Observation and voice therapy (Option D): This approach is inadequate for bilateral RLN palsy with significant airway compromise. While voice therapy can be beneficial in the long-term management of RLN palsy, it does not address the immediate airway emergency presented in this scenario.

	U/L incomplete palsy	B/L incomplete palsy	U/L complete palsy	B/L complete palsy
Speech	Normal/hoarseness	Normal	Aphonia	Aphonia
Respiration	Normal	Stridor (Life threatening)	Normal	Normal
Aspiration	—	—	Occasional	Chronic
Cough	Normal	Normal	Ineffective	—
Overall presentation	Asymptomatic	Stridor	Aphonia + occasional aspiration	Aphonia + Chronic aspiration ↓ Recurrent chest infections
Management	Conservative	• Immediate: Tracheostomy • Later: Lateralization of vocal cord	Medialization of vocal cord	Tracheostomy + Epiglottopexy

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References:

Dhingra's Diseases Of Ear, Nose And Throat, & Head and Neck Surgery, 8th Edition, Pages 348, 349.

↑ *Back to this question in Part A*

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Q17: A 45-year-old male patient presents with hoarseness of voice following a thyroidectomy. On laryngoscopic examination, his vocal cord is found to be in the paramedian position. What is the most likely diagnosis? (Q847989)

A. Bilateral recurrent laryngeal nerve (RLN) paralysis

B. Unilateral recurrent laryngeal nerve (RLN) paralysis

C. Superior laryngeal nerve (SLN) paralysis

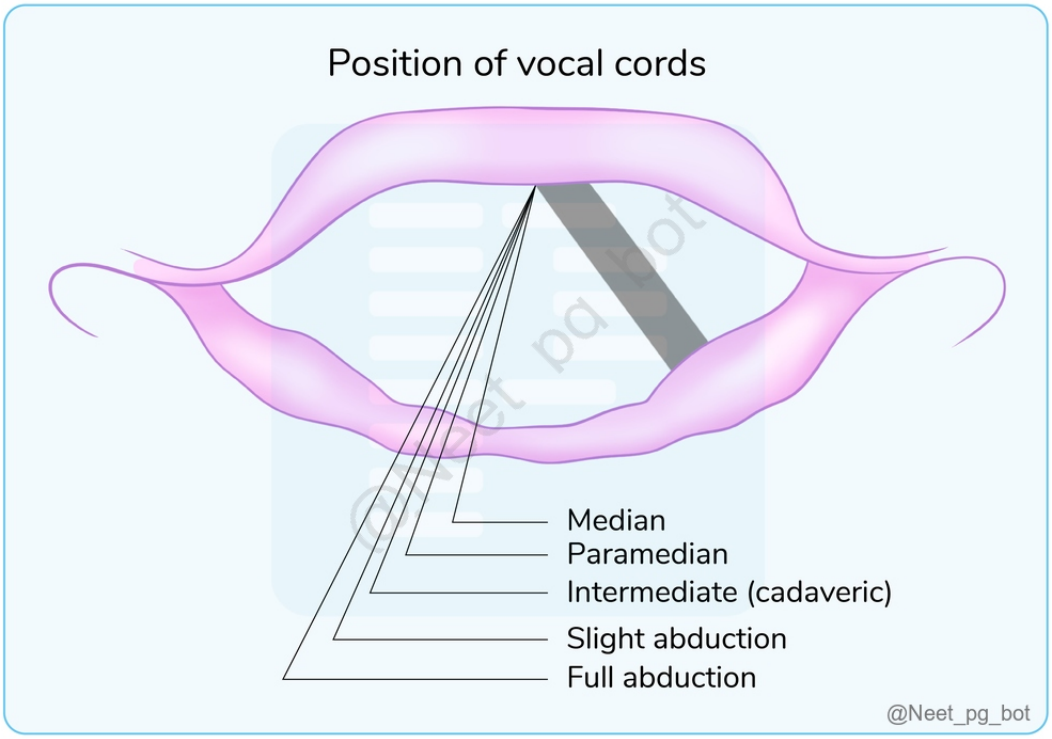
D. Paralysis of both RLN and SLN

Correct Answer: B. Unilateral recurrent laryngeal nerve (RLN) paralysis

■ *Listen (English)*

■ *Listen (Hindi)*

Explanation: In unilateral RLN paralysis , the affected vocal cord typically rests in the paramedian position. The vocal cord is approximately 1.5 mm from the midline, and this position allows for a strong whisper but impaired phonation. Vocal cord positions in healthy and diseased states: Position of Vocal Cords Location from Midline Healthy State Diseased State Median Midline Phonation RLN paralysis Paramedian 1.5 mm Strong whisper Unilateral RLN paralysis Intermediate (Cadaveric) 3 mm — Paralysis of both RLN & SLN Gentle abduction 7 mm Quiet respiration Paralysis of adductors Full abduction 9 mm Deep respiration — Bilateral RLN paralysis (Option A) would result in both cords being at the median or paramedian position, leading to significant airway obstruction. SLN paralysis (Option C) would cause difficulty with pitch control but not affect the cord position this way. Paralysis of both RLN and SLN (Option D) would result in an intermediate (cadaveric) position, not paramedian.



References:

Dhingra's Diseases of Ear, Nose and Throat & Head and Neck Surgery, 8th Edition, Page 348,349

Vocal Cord Paralysis | IntechOpen

↑ *Back to this question in Part A*

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Q18: Which of the following muscles is primarily responsible for adducting the vocal folds and closing the rima glottidis during phonation? (Q847988)

A. Posterior cricoarytenoid muscle

B. Lateral cricoarytenoid muscle

C. Thyroepiglotticus

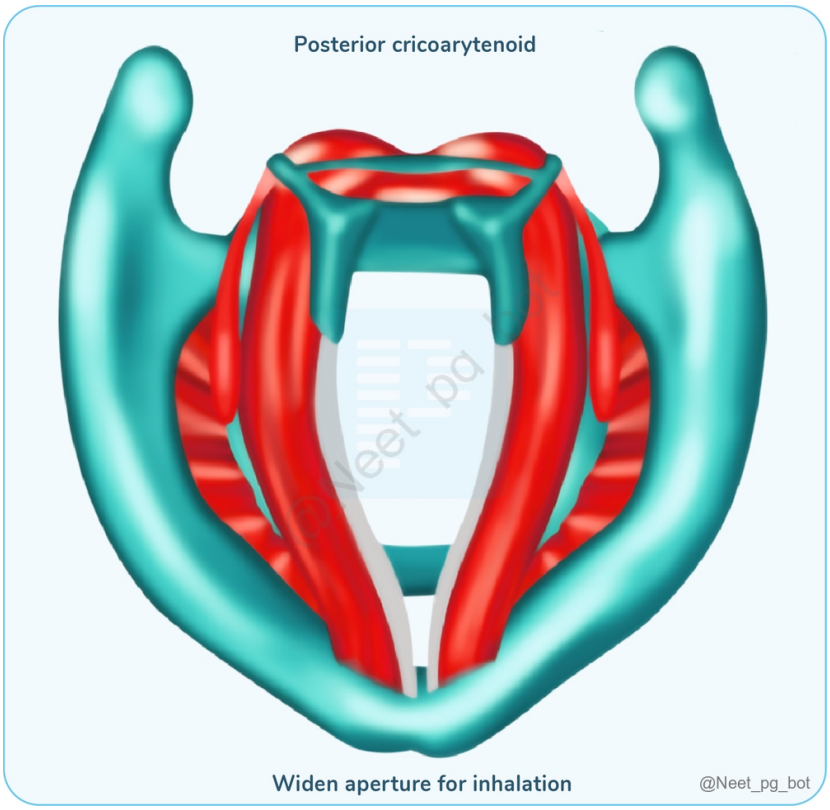
D. Thyrohyoid muscle

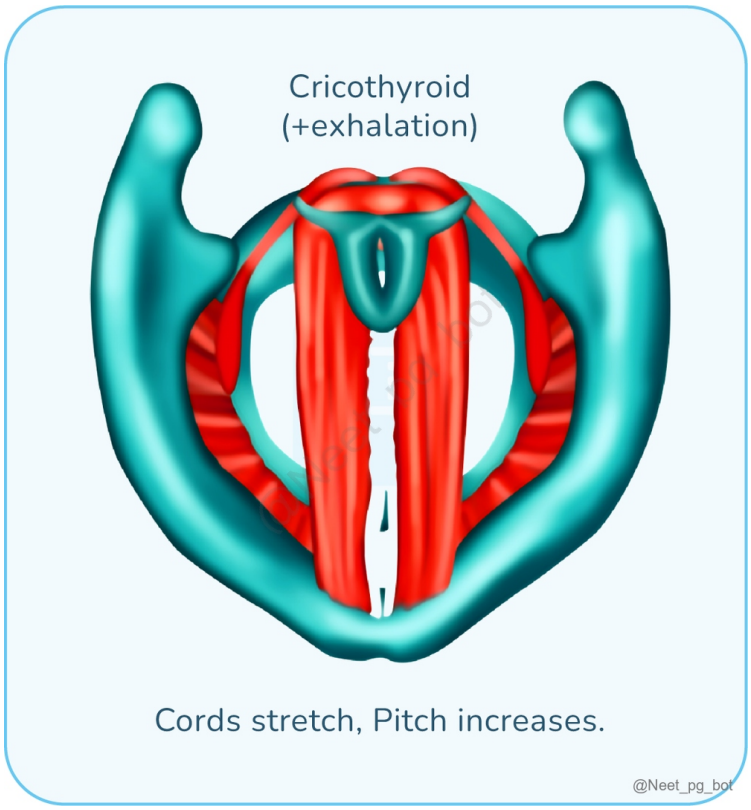
Correct Answer: B. Lateral cricoarytenoid muscle

■ *Listen (English)*

■ *Listen (Hindi)*

Explanation: The lateral cricoarytenoid muscle is primarily responsible for adducting the vocal folds and closing the rima glottidis during phonation. It rotates the arytenoid cartilage internally, bringing the vocal processes and vocal folds together. Phonation: The process of sound production in the larynx as air passes through the vocal cords. During this process, the vocal cords or vocal folds adduct and vibrate as air from the lungs passes through the narrow space between them, the glottis. Various intrinsic laryngeal muscles regulate the tension, length, and position of the vocal cords: Posterior cricoarytenoid muscle : vocal cord abduction , facilitating the opening of the rima glottidis. (Option A) Lateral cricoarytenoid, interarytenoid, and thyroarytenoid muscles : adduct the vocal cords, resulting in the closure of the rima glottidis. (Option B) Cricothyroid and vocalis muscles : Increase tension in the vocal cords. Thyroepiglottic muscle : Opens the laryngeal inlet. (Option C) Aryepiglottic and oblique arytenoid muscles : Close the laryngeal inlet. Phonation depends on neural control through the following nerves: The recurrent laryngeal nerve - most of the intrinsic laryngeal muscles The superior laryngeal nerve - the cricothyroid muscle- is essential for modulating pitch. Thyrohyoid muscle (Option D): This is an extrinsic laryngeal muscle. It elevates the larynx and depresses the hyoid bone. While it plays a role in laryngeal positioning, it does not directly adduct the vocal folds.





References:

Dhingra's Diseases Of Ear, Nose And Throat, & Head and Neck Surgery, 8th Edition, Pages 332, 333, 335.

Anatomy, Head and Neck: Cervical, Respiratory, Larynx, and Cricoarytenoid - StatPearls - NCBI Bookshelf

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Q37 (p. 1504)	*Q38 (p. 1504)*	*Q39 (p. 1505)*	*Q40 (p. 1506)*	*Q41 (p. 1507)*	*Q42 (p. 1508)*

Q1: Which vitamin deficiency leads to Laryngismus stridulus? (Q860085)

A. Vitamin K

B. Vitamin E

C. Vitamin D

D. Vitamin A

Correct Answer: C. Vitamin D

Explanation: Vitamin D deficiency is responsible for Laryngismus stridulus Laryngismus stridulus: Aspect Details Etiology Hypocalcemia (rickets, hypoparathyroidism) GERD Viral infections Allergies Stress/emotions Cold air, smoke Rare: neurological issues Symptoms Sudden stridor Breath-holding Cough/choke Cyanosis Anxiety Normal between attacks No fever (unless infection) Investigations Serum calcium, phosphate, vitamin D Chest X-ray Laryngoscopy (if needed) pH probe (for GERD) Allergy tests Treatment Acute: Calm child Humidified air Oxygen if needed Upright position Underlying cause: Correct calcium/vitamin D Treat GERD Avoid allergens Supportive care for infections Psychological support Prevention Adequate nutrition (vitamin D, calcium) Manage triggers Parental education Incorrect Options: Options A, B & D: Vitamin K, E and A deficiencies do not lead to Laryngismus stridulus.

References:

Diseases of Ear, Nose and Throat, PL Dhingra, 8th Edition, Page no: 279

↑ *Back to this question in Part A*

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Q2: Which of the following symptoms does a patient with Reinke's edema classically present with? (Q858052)

A. Diplophonia

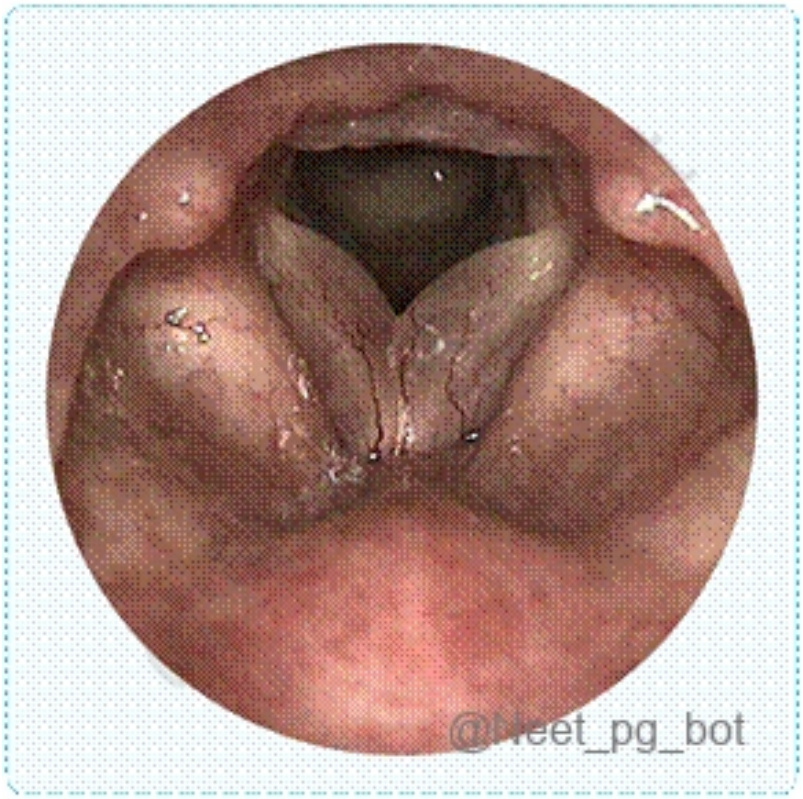
B. Dysphonia

C. Dysphagia of liquids more than solids

D. Dysphagia of solids more than liquids

Correct Answer: B. Dysphonia

Explanation: Dysphonia (altered voice quality) is the hallmark presentation of Reinke's edema Patients often have a deep, husky, or rough voice due to the edema affecting the vibration of the vocal cords. Reinke's Edema {{caption_text}} Causes : Chronic vocal cord irritation (voice misuse, heavy smoking). Aka smokers larynx Chronic sinusitis, laryngopharyngeal reflux. Myxoedema More common in middle-aged men and women. Clinical Features : Hoarseness or husky voice. Use of false vocal cords for voice production, leading to a low-pitched, rough voice. Examination : Laryngoscopy: Fusiform swelling of vocal cords with a pale, translucent appearance. Ventricular bands may be hyperaemic and hypertrophic, obscuring true cords. Treatment : Decortication of vocal cords : Removal of a strip of epithelium, first on one side, then the other after 3-4 weeks. Voice rest Speech therapy : To improve proper voice production. Diplophonia (Option A): A condition where two different pitches are heard simultaneously during phonation. It's more specific to vocal fold lesions but not classically seen in Reinke's edema. Dysphagia of liquids or solids (Option C): is not a symptom associated with Reinke's edema, Dysphagia of liquids or solids (Option D): is not a symptom associated with Reinke's edema



References:

Dhingra's Diseases Of Ear, Nose And Throat, & Head and Neck Surgery, Ed 8, Pg 342

Scott Brown ENT 8th edition. 3rd volume. Pg. 951,952

↑ *Back to this question in Part A*

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Q3: A patient who is a teacher by profession presents to the clinic with hoarseness of voice. What is the most likely diagnosis for this patient? (Q858098)

A. Vocal polyp

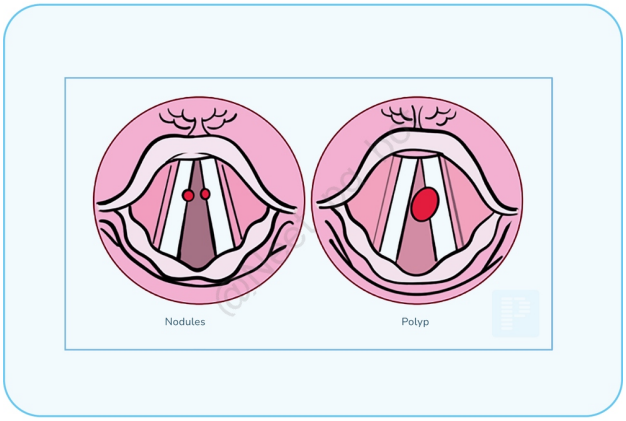
B. Vocal cyst

C. Vocal nodule

D. Reinke's oedema

Correct Answer: C. Vocal nodule

Explanation: The most likely diagnosis in a patient who is a teacher and presents with hoarseness of voice is vocal nodule. This is because vocal nodules are the most common benign vocal fold lesions in individuals who use their voice extensively, such as teachers, singers, and actors. Vocal nodules are caused by vocal abuse or misuse, resulting in repeated trauma to the vocal folds, leading to the formation of small, benign growths. Symptoms of vocal nodules include hoarseness, voice fatigue, and difficulty hitting high notes. Vocal nodule and Vocal polyp Vocal Nodule (Singer or screamer's nodule) Vocal Polyp (Option A) Cause Chronic vocal abuse (teachers, actors, vendors or pop singers.) Sudden Vocal abuse like shouting (Men in the age group of 30-50 years). Heavy smoking Laterality Bilateral or symmetrical Unilateral Location Free edge of vocal cord at the junction of anterior 1/3rd and posterior 2/3rd. This is the area of maximum vibration of the vocal cord. Same as vocal nodules. Appearance Sessile , Reddish in the early stage and white in the chronic stage Smooth and pedunculated. Symptoms Hoarseness, vocal fatigue and neck pain on prolonged phonation. Hoarseness of voice and diplophonia (double voice due to different vibrating frequencies of two vocal cords) Large polyps- dyspnea, stridor, choking. Treatment Initially, voice rest. If it fails - microscopic excision without injuring the vocal ligament Speech therapy Microscopic excision Speech therapy Vocal cysts (Option B): are fluid-filled sacs that can form on the vocal folds and are usually caused by a blocked mucous gland. Reinke's oedema (Option D): is a condition in which the vocal folds become swollen and fluid-filled due to chronic exposure to irritants such as smoking or gastroesophageal reflux disease (GERD). Although Reinke's oedema can cause hoarseness, it is less likely to be the cause in a patient who is a teacher and presents with hoarseness of voice.



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References:

Dhingra's Diseases Of Ear, Nose And Throat, & Head and Neck Surgery, Ed 8, Pg 352,353

Scott Brown ENT 8th edition. 3rd volume. Pg. 950,951

↑ *Back to this question in Part A*

Q4: Which of the following is true about laryngeal cancer stage T1bNOMO? (Q858110)

A. Both vocal cords involved and fixed

B. Both vocal cords involved, and no metastasis

C. One vocal cord involved and metastasis

D. One vocal cord involved, and mobile

Correct Answer: B. Both vocal cords involved, and no metastasis

Explanation: The T1bN0M0 stage of laryngeal cancer indicates that the tumor is confined to both vocal cords, and is not metastatized Laryngeal ca-TNM classification: Supraglottis T1 Tumor is limited to one subsite of supraglottis with normal vocal cord mobility. T2 Tumor invades mucosa of more than one adjacent subsites of supraglottis or glottis or region outside the supraglottis (e.g. mucosa of base of tongue, vallecula, medial wall of pyriform sinus) without fixation of the larynx. T3 Tumor is limited to the larynx with vocal cord fixation and/or invades any of the following: postcricoid area, pre-epiglottic tissues, paraglottic space and/or minor thyroid cartilage invasion. T4a Tumor invades through the thyroid cartilage and/or invades tissues beyond the larynx (e.g. trachea, soft tissues of neck including deep extrinsic muscle of tongue, strap muscles, thyroid or esophagus). T4b Tumor invades prevertebral space, encases carotid artery or invades mediastinal structures Glottis T1 Tumor limited to vocal cord(s) (may involve anterior or posterior commissures) with normal mobility. T1a Tumor is limited to one vocal cord. T1b Tumor involves both vocal cords. T2 Tumor extends to supraglottis and/or subglottis, and/or with impaired vocal cord mobility. T3 Tumor is limited to the larynx with vocal cord fixation and/or invades paraglottic space and/or minor thyroid cartilage erosion. T4a Tumor invades through thyroid cartilage and/or invades tissues beyond the larynx (e.g. trachea, soft tissues of neck including deep extrinsic muscles of the tongue, strap muscles, thyroid, or esophagus). T4b Tumor invades prevertebral space, encases the carotid artery or invades mediastinal structures. Subglottis T1 Tumor is limited to the subglottis. T2 Tumor extends to the vocal cord(s) with normal or impaired mobility. T3 Tumor limited to larynx with vocal cord fixation. T4a Tumor invades cricoid or thyroid cartilage and/or invades tissues beyond the larynx (e.g. trachea, soft tissues of neck including deep extrinsic muscle of tongue, strap muscles, thyroid or esophagus). T4b Tumor invades prevertebral space, encases the carotid artery or invades mediastinal structures. Regional lymph nodes (N) Nx Regional lymph nodes cannot be assessed. N0 No regional lymph node metastasis. N1 Metastasis in a single ipsilateral lymph node, 3 cm or less in greatest dimension. N2 Metastasis in a single ipsilateral lymph node, more than 3 cm but not more than 6 cm in greatest dimension, or multiple ipsilateral lymph nodes, none more than 6 cm in greatest dimension, or bilateral or contralateral lymph nodes, none more than 6 cm in the greatest dimension. N2a Metastasis in a single ipsilateral lymph node more than 3 cm but not more than 6 cm in greatest dimension. N2b Metastasis in multiple ipsilateral lymph nodes, none more than 6 cm in greatest dimension. N2c Metastasis in bilateral or contralateral lymph nodes, none more than 6 cm in greatest dimension Na Metastasis in a lymph node more than 6 cm in the greatest dimension Distant metastasis Mx Distant metastasis cannot be assessed M0 No Distant metastasis M1 Distant metastasis

References:

Diseases of Ear, Nose and Throat Dhingra 8th Edition Pg. 359, 360

↑ *Back to this question in Part A*

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Q5: Laryngeal crepitus is absent in which of the following conditions? (Q859356)

A. Post-cricoid malignancy

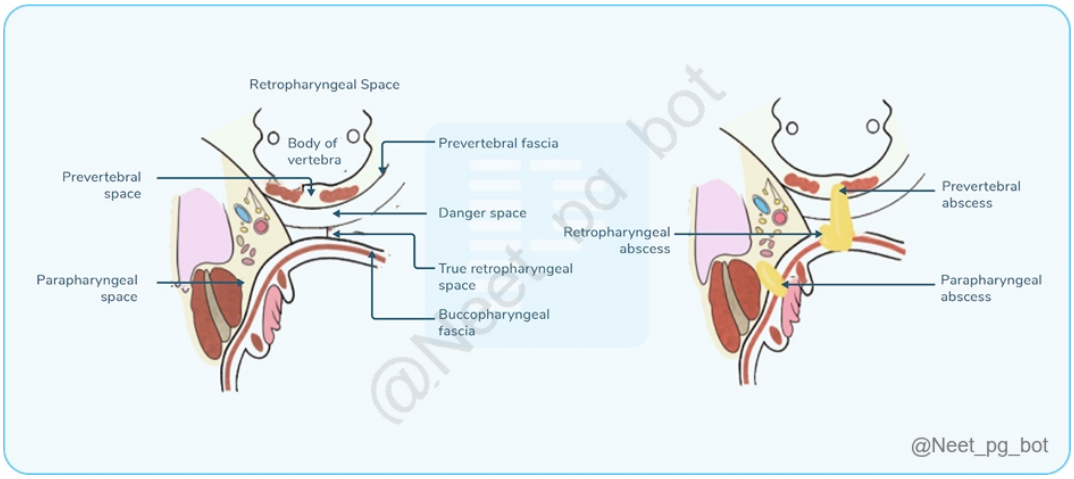
B. Hypopharyngeal abscess

C. Parapharyngeal abscess

D. Prevertebral abscess

Correct Answer: D. Prevertebral abscess

Explanation: Laryngeal crepitus refers to the movement of the larynx over the cervical spine during swallowing. It is absent when the larynx is fixed due to an underlying pathology. In a prevertebral abscess , infection spreads in the prevertebral space , restricting the mobility of the larynx, thus abolishing crepitus. {{caption_text}} Laryngeal Crepitus and Its Absence Condition Laryngeal Crepitus Presence Reason Post-cricoid malignancy Present (unless advanced) Tumors in this area usually do not fix the larynx early Hypopharyngeal abscess Present or reduced May affect laryngeal movement but not always abolish crepitus Parapharyngeal abscess Present or reduced Can restrict lateral movement but does not fix larynx completely Prevertebral abscess Absent Fixes the larynx to the spine, preventing movement Incorrect Options: Post-cricoid malignancy (Option A): is incorrect because early-stage malignancies do not fix the larynx. Crepitus is lost only in advanced cases where the tumor invades deeper tissues. Hypopharyngeal abscess (Option B): is incorrect because while it can partially restrict laryngeal movement, crepitus is not always completely absent unless the abscess is large. Parapharyngeal abscess (Option C): is incorrect because this abscess is lateral to the larynx and does not always cause fixation. However, extensive cases may restrict movement.



References:

Dhingra Diseases of Ear, Nose and Throat and Head and Neck Surgery 8th edition, pages 313-315

↑ *Back to this question in Part A*

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Q6: Which of the following organisms does not cause croup? (Q859367)

A. Parainfluenza 1

B. Parainfluenza 2

C. Rhinovirus

D. RSV

Correct Answer: C. Rhinovirus

Explanation: Croup (laryngotracheobronchitis) is a viral infection that causes subglottic airway inflammation , leading to barking cough, stridor, and hoarseness . It is most commonly caused by Parainfluenza viruses (types 1 and 2) , followed by RSV and influenza . Rhinovirus , however, is primarily associated with the common cold and does not typically cause croup. Croup (Laryngotracheobronchitis) Feature Description Cause Parainfluenza virus (Types 1, 2, 3) - most common , RSV, Influenza, Adenovirus Age Group 6 months - 3 years (most common) Symptoms 1. Barking cough 2. Inspiratory stridor 3. Hoarseness 4. Respiratory distress Steeple Sign on X-ray Subglottic narrowing on AP neck X-ray Treatment Mild: Supportive care, humidified air Moderate-Severe: Dexamethasone + Nebulized Epinephrine Incorrect Options: Parainfluenza 1 (Option A): is incorrect because Parainfluenza virus type 1 is the most common cause of croup . Parainfluenza 2 (Option B): is incorrect because Parainfluenza type 2 also causes croup, though less frequently than type 1 . RSV (Option D): is incorrect because Respiratory Syncytial Virus (RSV) can cause croup, though it is more commonly associated with bronchiolitis .

References:

Nelson Textbook of Pediatrics Edition 21 page no: 2202-2205

OP Ghai Essential Pediatrics Edition 10 page no:391, 392

https://www.ncbi.nlm.nih.gov/books/NBK441873/

https://www.ncbi.nlm.nih.gov/books/NBK431070/

https://pmc.ncbi.nlm.nih.gov/articles/PMC7173542/

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Q7: A 65 year old male presented with history of dysphagia, halitosis and aspiration pneumonia. A barium swallow was done and is given below. What is the diagnosis? (Q859372)

A. Diffuse oesophageal spasm

B. Achalasia cardia

C. Zenker's diverticulum

D. Esophageal cancer

Correct Answer: C. Zenker's diverticulum

Explanation: The patient presents with dysphagia, halitosis, and aspiration pneumonia , which are classical symptoms of Zenker's diverticulum . Barium swallow typically shows a posterior pharyngeal pouch originating from Killian's dehiscence . Zenker's Diverticulum Feature Description Definition A false diverticulum formed due to herniation of pharyngeal mucosa through Killian's dehiscence Cause Cricopharyngeal muscle dysfunction leading to increased pressure and pouch formation Symptoms 1. Dysphagia (difficulty swallowing) 2. Regurgitation of undigested food 3. Halitosis (bad breath) 4. Aspiration pneumonia Diagnosis Barium swallow X-ray (shows a posterior pharyngeal pouch) Treatment Endoscopic diverticulotomy (Dohlman's procedure) or open diverticulectomy in large cases Incorrect Options: Diffuse esophageal spasm (Option A): is incorrect because

diffuse esophageal spasm presents with intermittent chest pain and dysphagia , and barium swallow shows a "corkscrew esophagus" , not a diverticulum. Achalasia cardia (Option B): is incorrect because achalasia presents with progressive dysphagia to solids and liquids, with regurgitation . Barium swallow shows a "bird's beak" appearance , not a pharyngeal pouch. Esophageal cancer (Option D): is incorrect because esophageal cancer presents with progressive dysphagia, weight loss, and possible hematemesis . Barium swallow shows an irregular stricture with mucosal destruction , not a diverticulum.

References:

Sutton's Radiology and Imaging for Medical Students 7th edition Page no 547

Dhingra Diseases of Ear, Nose and Throat and Head and Neck Surgery 8th edition, page 323&324.

https://www.ncbi.nlm.nih.gov/pmc/articles/PMC1742115/#:~:text=Pharyngeal%20pouches%20occur%20most%20commonly,physiological%20abnormality%20of%20the%20cricopharyngeus.

↑ *Back to this question in Part A*

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Q8: What is the TNM staging for a patient with carcinoma in the pyriform fossa, presenting with a 5 cm lesion on laryngoscopy, non-mobile right vocal folds, no lymph node involvement, and no distant metastasis? (Q859378)

A. T2N0M0

B. T3N0M0

C. T4aN0M0

D. T4bN0M0

Correct Answer: B. T3N0M0

Explanation: The TNM staging for pyriform fossa carcinoma follows the AJCC (American Joint Committee on Cancer) classification. T3 : Tumor >4 cm or with vocal cord fixation N0 : No regional lymph node involvement M0 : No distant metastasis Since the patient has a 5 cm lesion (T3 criterion) and non-mobile vocal cords (vocal cord fixation), the correct stage is T3N0M0 . TNM Staging of Hypopharyngeal Cancer (Including Pyriform Fossa) Stage Tumor Size/Extent Vocal Cord Mobility Lymph Node Involvement Metastasis T1 Tumor confined to one subsite of hypopharynx Normal No nodes (N0) No (M0) T2 Tumor extends to more than one subsite or adjacent areas Normal N0 M0 T3 Tumor >4 cm or vocal cord fixation Fixed N0 M0 T4a Tumor invades adjacent structures (e.g., thyroid/cricoid cartilage, hyoid, thyroid gland, esophagus) Fixed N0/N+ M0 T4b Tumor invades prevertebral fascia, encases carotid artery, or involves mediastinal structures Fixed N0/N+ M0 Incorrect Options: T2N0M0 (Option A): is incorrect because T2 is for tumors extending to multiple subsites but <4 cm and without vocal cord fixation . T4aN0M0 (Option C): is incorrect because T4a requires invasion into adjacent structures (e.g., cartilage, esophagus), which is not mentioned in this case . T4bN0M0 (Option D): is incorrect because T4b involves

invasion of prevertebral fascia, carotid artery, or mediastinum, none of which are present in this case .

References:

Scott-Brown’s Otorhinolaryngology: Head and Neck Surgery; 7th EditionPg 2645,2646

↑ *Back to this question in Part A*

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Q9: A 3-month-old infant is brought in with persistent noisy breathing since birth, which worsens when crying or lying supine. On flexible laryngoscopy, an omega-shaped epiglottis, floppy aryepiglottic folds, and prominent arytenoid cartilages that collapse inward during inspiration are noted. What is the most likely diagnosis? (Q859381)

A. Vocal cord paralysis

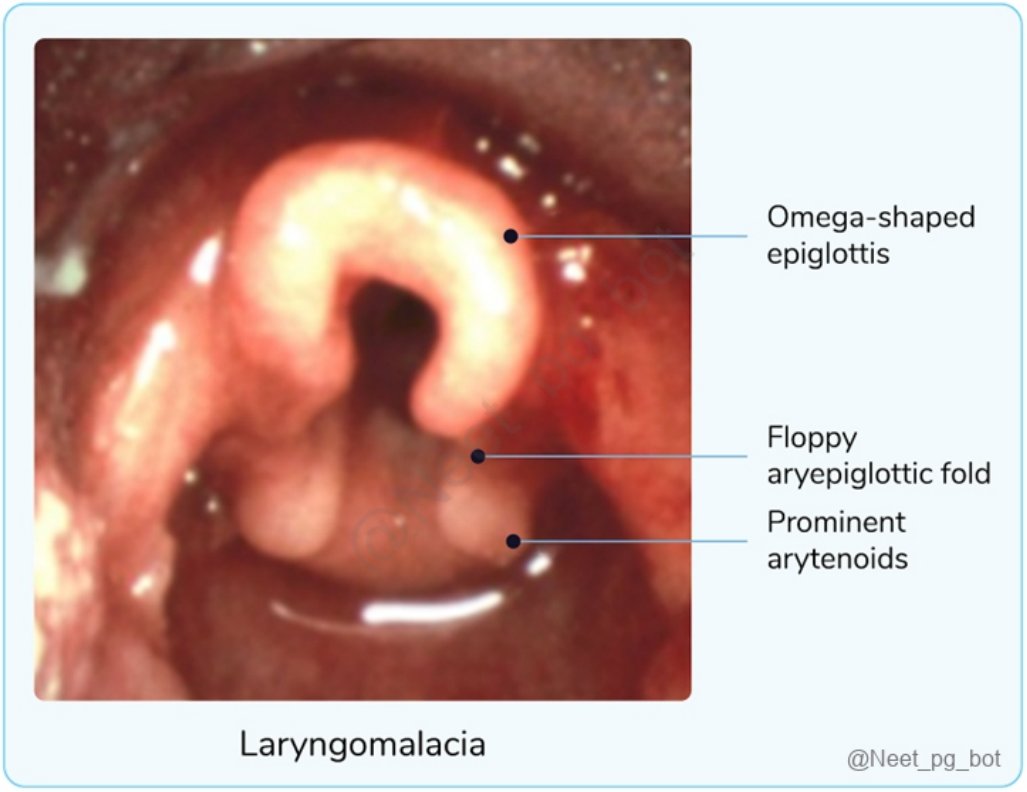
B. Subglottic stenosis

C. Laryngeal papilloma

D. Laryngomalacia

Correct Answer: D. Laryngomalacia

Explanation: Laryngomalacia is the most common cause of congenital stridor , presenting in infants with inspiratory stridor that worsens when supine or feeding . Laryngeal examination typically shows an omega-shaped epiglottis and redundant arytenoid mucosa , which collapse during inspiration. Laryngomalacia Feature Description Cause Congenital floppy laryngeal cartilage , especially affecting the epiglottis and arytenoids Symptoms Inspiratory stridor (worse when supine, feeding, or crying) Onset At birth or within the first few weeks of life , peaks at 4–8 months , resolves by 12–24 months Diagnosis Flexible laryngoscopy → shows omega-shaped epiglottis , redundant arytenoid mucosa Treatment Observation in mild cases, surgical intervention (supraglottoplasty) in severe cases {{caption_text}} Vocal cord paralysis (Option A): is incorrect because it causes biphasic stridor (both inspiratory and expiratory) and weak cry , unlike the isolated inspiratory stridor seen in laryngomalacia. Subglottic stenosis (Option B): is incorrect because it causes biphasic stridor and is often associated with prolonged intubation history . Laryngeal papilloma (Option C): is incorrect because it causes progressive hoarseness and voice changes , whereas laryngomalacia primarily causes stridor without voice involvement.



References:

Dhingra's Diseases Of Ear, Nose And Throat, & Head and Neck Surgery, 8th edition, Page 344.

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Q10: A patient presents with hoarseness of voice. On examination an ulceroproliferative mass is seen on the right vocal cord; the cord was however mobile. There is no lymph node involvement and no metastasis. Which of the following is the best treatment modality for this patient? (Q859402)

A. Total laryngectomy

B. Radiotherapy

C. Conservative laryngectomy

D. Chemotherapy

Correct Answer: B. Radiotherapy

Explanation: In this case, the patient presents with an ulceroproliferative mass on the right vocal cord with mobile vocal cords , no lymph node involvement , and no metastasis . This suggests an early-stage laryngeal carcinoma (likely T1 or T2), where the tumor is confined to the vocal cord without spread to adjacent tissues or lymph nodes. For early-stage tumors of the larynx, radiotherapy is the treatment of choice. It is effective in treating such localized tumors, helps preserve voice function, and avoids the need for more invasive procedures like surgery. Laryngeal Cancer Treatment: Laryngeal cancer typically presents with hoarseness , which may be the initial symptom. When a tumor is localized to the vocal cords (as in this case), and there is no evidence of regional lymph node involvement or distant metastasis , radiotherapy offers an effective non-surgical option. It preserves the vocal cords and the patient's voice function, making it the preferred treatment modality for early-stage cancers. In advanced laryngeal cancers (involving surrounding structures or metastasis), more radical treatments like total laryngectomy or chemotherapy may be necessary, but this is not the case here. Incorrect Options: Total laryngectomy (Option A): is incorrect because the tumor appears to be in an early, localized stage, and radiotherapy should be preferred for such cases to preserve the larynx and voice. Conservative laryngectomy (Option C): is incorrect because while partial laryngectomy may be considered for certain cases, radiotherapy is typically the first-line treatment for early-stage vocal cord cancer with no spread. Chemotherapy (Option D): is incorrect because chemotherapy is generally reserved for advanced or metastatic cancers , which is not the case in this patient, as there is no evidence of metastasis or lymph node involvement.

References:

P L Dhingra Diseases of Ear Nose and Throat and Head and Neck Surgery - 7th Edition • Page no: 351

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Q11: A young male who is a professional trumpet blower presented with a swelling on the left side of the neck. On examination, there is a gurgling sound when compressing the swelling. As the X-ray neck was inconclusive a CT neck was taken which is shown below. What is the most likely diagnosis? (Q859409)

A. Pharyngeal pouch

B. Laryngocele

C. Trachea-oesophageal fistula

D. Tonsillar

Correct Answer: B. Laryngocele

Explanation: The most likely diagnosis is Laryngocele . A laryngocele is an air-filled dilation of the saccule of the larynx, which can communicate with the laryngeal lumen. The gurgling sound when compressing the swelling suggests the presence of air or fluid within the sac. This condition is often associated with activities that increase intra-abdominal or intrathoracic pressure, such as blowing a trumpet or playing other wind instruments. The CT scan would reveal a characteristic air-filled structure adjacent to the larynx, confirming the diagnosis.
Laryngocele: A laryngocele is a condition where a portion of the laryngeal mucosa becomes dilated, typically due to increased pressure, causing an air-filled sac to form. It can be classified into internal (confined within the larynx) or external (extending outside the larynx into the neck). Laryngoceles are commonly seen in individuals who perform activities that involve frequent increases in intrathoracic or abdominal pressure, such as trumpet players or other wind instrument musicians. The clinical presentation may include a neck mass, hoarseness, or, as in this case, a gurgling sound when the mass is compressed. Incorrect Options: Pharyngeal pouch (Option A): is incorrect because a pharyngeal pouch (or Zenker's diverticulum) would present with dysphagia, regurgitation of food, and aspiration, but it is not associated with a gurgling sound on compression. Additionally, it would be located in the posterior aspect of the pharynx, not adjacent to the larynx. Tracheoesophageal fistula (Option C): is incorrect because a tracheoesophageal fistula is a congenital abnormal connection between the trachea and esophagus, typically diagnosed in infancy. It may present with choking or aspiration but would not present as a swelling with a gurgling sound in the neck of an adult, and a CT scan would show a connection between the trachea and esophagus, not a laryngeal dilation. Tonsillar (Option D): is incorrect because tonsillar swelling is typically associated with infections or tumors of the tonsils and would not produce a gurgling sound or the findings seen on CT imaging.

References:

Diseases of Ear, Nose & Throat - PL Dhingra - 6th Edition Page no 305

P L Dhingra Diseases of Ear Nose and Throat and Head and Neck Surgery - 8th Edition Page no 333, 345

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Q12: Which of the subsequent laryngeal cartilages is least prone to calcification? (Q857660)

A. Thyroid

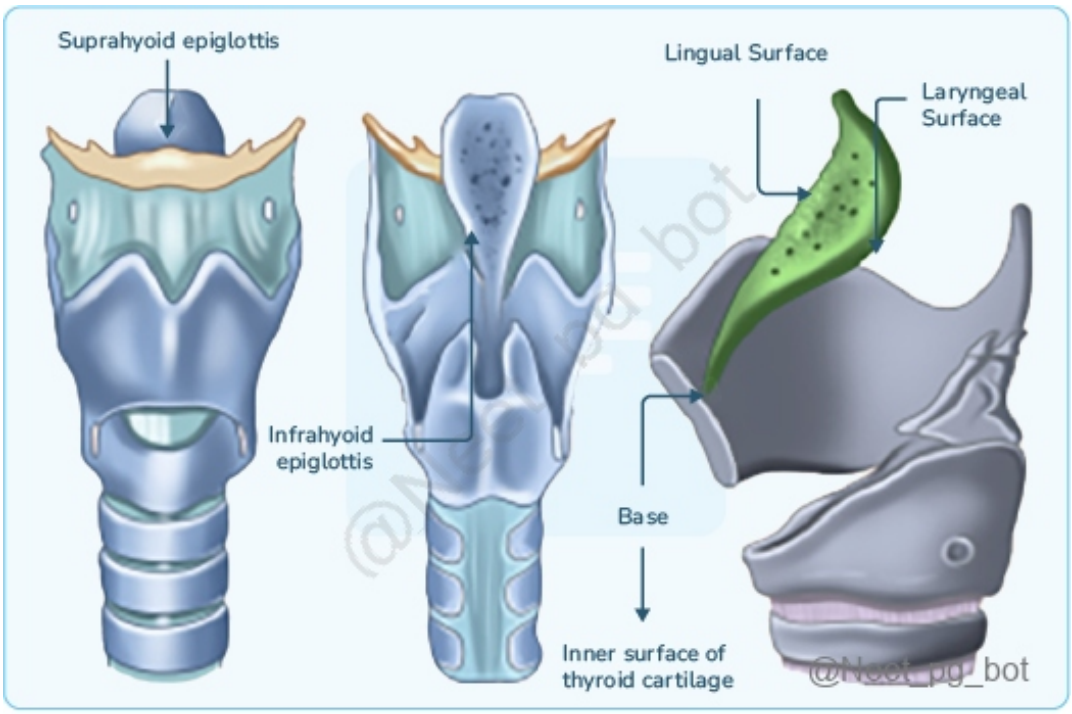
B. Cricoid

C. Arytenoid

D. Epiglottis

Correct Answer: D. Epiglottis

Explanation: Epiglottis is least prone to calcification because it is composed of elastic cartilage , which resists calcification compared to hyaline cartilage. Elastic cartilage maintains its flexibility and does not undergo the age-related ossification seen in other laryngeal cartilages. Type of Cartilage Paired Cartilage Unpaired Cartilage Hyaline Cartilage (Calcifies with age) Arytenoid Thyroid, Cricoid Elastic Cartilage Corniculate, Cuneiform Epiglottis Epiglottis Unpaired Elastic Cartilage Shape: Leaf-shaped yellow elastic cartilage. Location: Forms the anterior wall of the laryngeal inlet. Attachments: Connected to the hyoid bone by the hyoepiglottic ligament , dividing it into suprahyoid and infrahyoid portions. The petiole attaches it to the thyroid cartilage just above the vocal cords. Anterior Surface: Preepiglottic Space: Located in front of the epiglottis, between the anterior surface and the thyrohyoid membrane/upper thyroid cartilage. Filled with fat, it may be involved in supraglottic cancers or the base of tongue carcinomas. Posterior Surface: Tubercle of Epiglottis: A bulge that may obstruct the view of the anterior commissure during indirect laryngoscopy. Contains pits for mucous glands and occasional perforations, which may facilitate cancer spread to the preepiglottic space. Clinical Significance: Cancer Spread: Supraglottic cancers can invade the pre-epiglottic space through epiglottic perforations. Non-Essential for Swallowing: The epiglottis can be safely amputated in cases of cancer or trauma without significant risk of aspiration. {{caption_text}} Thyroid (Option A) : The thyroid cartilage is made of hyaline cartilage , which tends to calcify with age, especially after the third decade of life. Cricoid (Option B) : Like the thyroid cartilage, the cricoid cartilage is also composed of hyaline cartilage and is prone to calcification as part of the normal ageing process. Arytenoid (Option C) : The arytenoid cartilage consists of hyaline cartilage in its base and elastic cartilage in its apex, but the hyaline portion is susceptible to calcification over time.



References:

Dhingra ENT 8th edition. Page 331

Scott Brown ENT, 3rd Volume, 8th edition, Page. 884, 885 (PDF Pg. 3858, 3859)

Logan Turner ENT 11th edition. Page 149, 150

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Q13: Which of the statement is true regarding laryngomalacia? (Q860440)

A. Expiratory stridor

B. Breathing Improves in supine position

C. Most common congenital abnormality in infants

D. Surgical management is required in most children

Correct Answer: C. Most common congenital abnormality in infants

Explanation: Laryngomalacia is characterised by excessive flaccidity of epiglottis or supraglottis (Malacia: Weakness/ flaccidity of tissue). Laryngomalacia or congenital laryngeal stridor Most common congenital

abnormality of the larynx. During inspiration, an excessively flaccid supraglottic larynx gets sucked in and causes the symptoms. Clinical features: Presents at birth or immediately after Stridor: Increases on crying (increased negative intrathoracic pressure pulls the epiglottis inward, covering the laryngeal inlet) Stridor present in supine position (as the epiglottis covers the laryngeal inlet) Subsides in prone position (as the epiglottis falls away from the larynx) Cyanosis seen sometimes Normal cry Usually disappears by 2 years of age Investigations: Direct laryngoscopy: Elongated epiglottis, curled upon itself giving an “omega-shaped” appearance . Floppy aryepiglottic folds Prominent aretynoids Flexible laryngoscopy is the most preferred Management: Conservative treatment in most cases Tracheostomy: If severe respiratory obstruction Supraglottoplasty: If severe laryngomalacia Incorrect Options: Expiratory stridor (Option A) : This is a wrong statement as laryngomalacia is associated with Inspiratory stridor Improve in supine position (Option B): This condition worsens in supine position. Surgical management is required in most children (Option D): Laryngomalacia usually resolves by 1-2 years of age and can be managed conservatively.Surgical management plays a role if conservative management fails to resolve.

References:

Diseases of Ear, Nose and Throat, PL Dhingra, 8th Edition, Page no: 331

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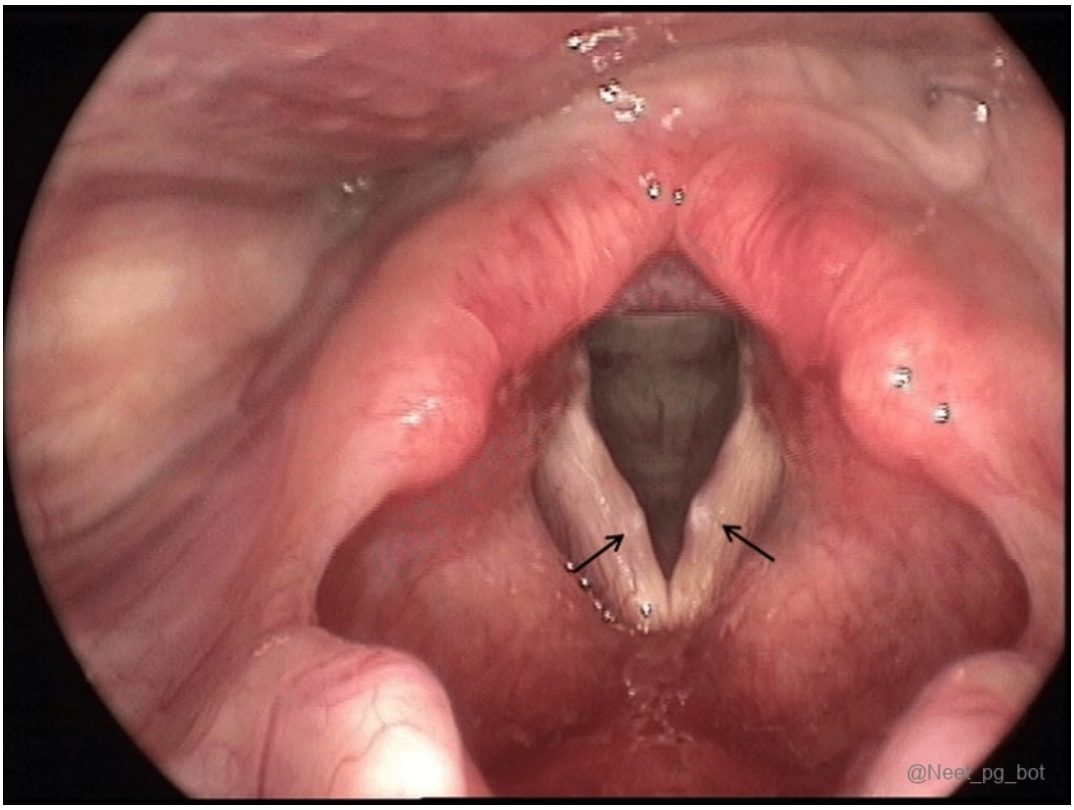
Q14: A 45-year-old teacher presents to the physician with complaints of hoarseness and voice fatigue. She reports that these symptoms have been gradually worsening over the past few months, especially towards the end of the school day. She denies any history of smoking or excessive alcohol consumption. Flexible laryngoscopy image is given below. what is the diagnosis? (Q860469)

A. Vocal nodule

B. Reinkes edema

C. Vocal polyp

D. Keratosis larynx



Correct Answer: A. Vocal nodule

Explanation: Vocal nodule is a bilateral sessile swelling at the region of junction of anterior and middle 1/3rd of vocal cords It is mostly seen in teachers, singers, etc Vocal Nodule (Singer or screamer's nodule) Cause Chronic vocal abuse (teachers, actors, vendors or pop singers.) Laterality Bilateral or symmetrical Location Free edge of vocal cord at the junction of anterior 1/3rd and posterior 2/3rd. This is the area of maximum vibration of the vocal cord. Appearance Sessile , Reddish in the early stage and white in the chronic stage Symptoms Hoarseness, vocal fatigue and neck pain on prolonged phonation. Treatment Initially, voice rest. If it fails - microscopic excision without injuring the vocal ligament Speech therapy Reinkes edema (Option B): This is an accumulation of the oedematous tissue or the myxomatous tissue in Reinke's space. It involves the anterior ■ rd which is the membranous portion of the vocal cord. It has a Bag with a water-like appearance due to bilateral symmetrical swellings of the vocal cord Vocal polyp (Option C): This is a unilateral pedunculated lesion present at the junction of anterior and middle ■ rd of vocal chords. Keratosis larynx (Option D): Caused due to chronic irritation by smoking, tobacco chewing, excessive voice abuse, and reflux; Can be treated by Stripping of the vocal cord.

References:

Diseases of Ear, Nose and Throat, PL Dhingra, 8th Edition, Page no: 331

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Q15: A 2-year-old child presents to the emergency department with a barking cough and noisy breathing. An anteroposterior view of x ray of the neck shows a steeple sign. What type of stridor is most commonly associated with this presentation? (Q860482)

A. Inspiratory

B. Expiratory

C. Biphasic

D. Uniphasic

Correct Answer: Unknown

Explanation: Croup (acute laryngotracheobronchitis), with subglottic narrowing (steeple sign), typically causes inspiratory stridor due to partial upper airway obstruction at the level of the subglottis. Croup mainly affects subglottic region (below the vocal cords). Subglottic narrowing increases airway resistance during inspiration , causing inspiratory stridor. Biphasic stridor suggests fixed obstruction (e.g., subglottic stenosis, tumors). Expiratory stridor is usually seen in lower airway obstruction (e.g., bronchiolitis). Biphasic stridor (C) : Suggestive of fixed obstruction at the glottic or subglottic level (e.g., stenosis), not typical in croup. Expiratory stridor (B) : Seen in lower airway obstruction (bronchi/bronchioles). Uniphasic stridor (D) : Not a standard classification; stridor is referred to by respiratory phase.

References:

Diseases of Ear, Nose and Throat, PL Dhingra, 8th Edition, Page no: 267

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Q16: Which of the following are the causes of stridor in neonates: a. Laryngomalacia b. Subglottic stenosis c. Recurrent respiratory papillomatosis d. Hemorrhagic polyp (Q865392)

A. b, c

B. a, b

C. a, d

D. b,d

Correct Answer: B. a, b

Explanation: Stridor is a high-pitched, noisy respiration caused by partial obstruction of the airway at the level of the naso- or oropharynx, larynx and trachea . In neonates, it is usually congenital or due to structural abnormalities. Causes Naso- and Oropharyngeal Laryngeal Tracheal Congenital Choanal atresia Choanal stenosis Mid-nasal stenosis Pyriform aperture stenosis Glioma Encephalocele Meningocele Dermoid/teratoma Craniofacial abnormalities Micrognathia- glossoptosis Lingual thyroid Lymphovascular malformation Laryngomalacia Vocal cord palsy Laryngeal stenosis Laryngeal cysts Webs Laryngeal atresia Vallecular cyst Arytenoid fixation Posterior laryngeal cleft Subglottic stenosis Tracheal atresia Trapped first tracheal ring Complete rings Micro (stovepipe) trachea Haemangioma Primary and secondary tracheomalacia- vascular compression Acquired - Neonates Neonatal rhinitis Intubation trauma Surgical trauma (e.g. laser) Laryngeal stenosis Arytenoid fixation Reflux laryngitis Post-intubation/ instrumentation/ tracheal stenosis Reflux tracheitis Acquired - Children Allergic rhinitis Adenoiditis Adenotonsillar hypertrophy Foreign body Non-allergic rhinitis Retropharyngeal abscess Infectious mononucleosis Ludwig's angina Thermal and caustic burns Intubation trauma Croup Recurrent respiratory papillomatosis Hereditary angioedema Epidermolysis bullosa Foreign body Dislocated arytenoid Epiglottitis Trauma -fracture Caustic and thermal burns Haemangioma Lymphovascular malformation Hemorrhagic polyps Croup Bacterial tracheitis Foreign body Localized malacia secondary to a tracheostomy or TOF repair Thyroid masses Lymphovascular malformation Mediastinal tumors

References:

Scott-Brown’s Otorhinolaryngology Head and Neck Surgery , 8th Edition, 2nd Volume, Page 315

https://www.ncbi.nlm.nih.gov/books/NBK430960/#

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Q17: Identify the structure on AP barium swallow (Q866314)

A. Pyriform Sinus

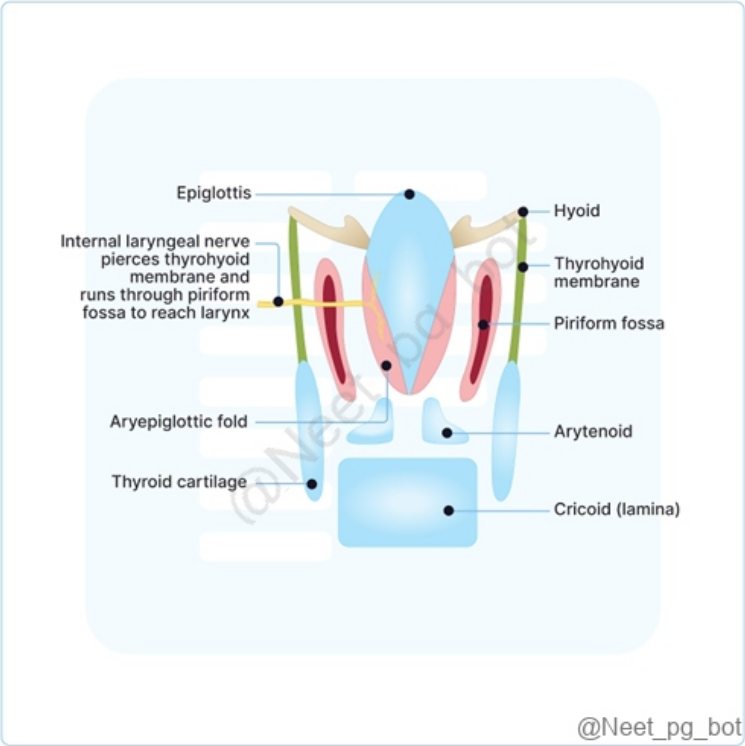
B. Epiglottis

C. Vallecula

D. Thyroid cartilage

Correct Answer: A. Pyriform Sinus

Explanation: Pyriform Sinus The AP barium swallow image shows bilateral contrast-filled recesses lateral to the laryngeal inlet. These are characteristic of the pyriform fossae (also called piriform sinuses), which are pharyngeal recesses on each side of the laryngeal orifice. Pyriform Sinus: Part of the laryngopharynx (hypopharynx). Lies on each side of the laryngeal inlet. Shaped like an inverted tear-drop recess. Bounded by: Medially: Aryepiglottic fold + laryngeal inlet. Laterally: Thyroid cartilage & thyrohyoid membrane. Posteriorly: Pharyngeal wall. Clinical Significance: Foreign body impaction: Fish bones often lodge here → pain & risk of mucosal injury. Cancer: Hypopharyngeal cancers often start in pyriform fossa → late presentation. Surgical importance: Care to avoid injury to internal laryngeal nerve during endoscopic removal. Epiglottis (Option B): Midline structure, not paired; appears as a thin flap, not recesses. Vallecula (Option C): Between base of tongue & epiglottis, higher up than the structures seen here. Thyroid cartilage (Option D): Skeletal framework, not contrast-filled space.



References:

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↑ *Back to this question in Part A*

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Q18: A 72-year-old female smoker presents with a long history of hoarseness and difficulty swallowing. Laryngoscopy and biopsy confirm a large, advanced squamous cell carcinoma that involves both vocal cords and extends into the subglottic region and the thyroid cartilage. The tumor is not amenable to radiation therapy alone. Based on the extent and location of the tumor, which of the following surgical procedures is most appropriate to ensure complete tumor removal with adequate margins and control the disease? (Q866512)

A. Partial laryngectomy

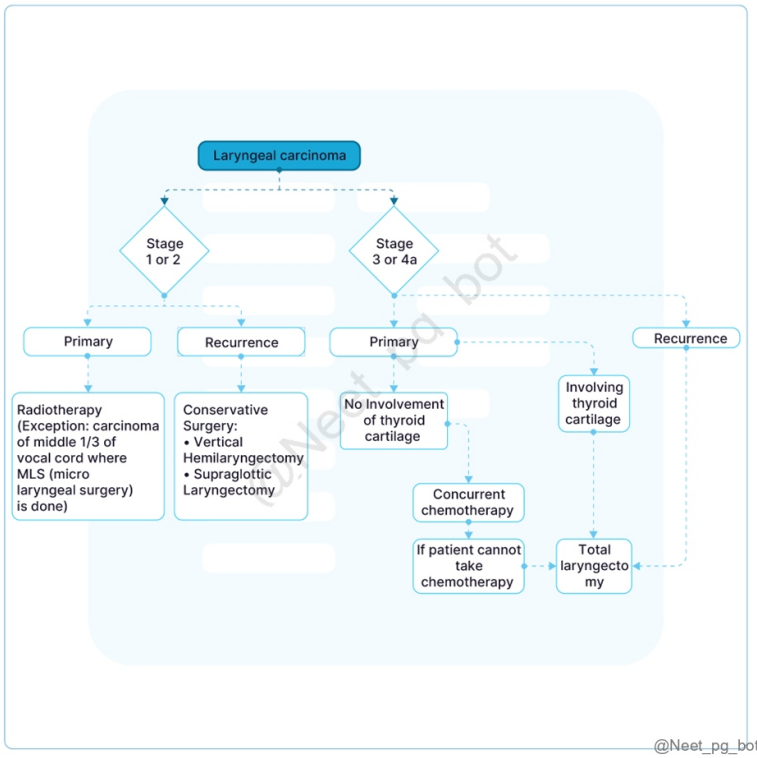
B. Total laryngectomy

C. Emergency tracheostomy

D. Submental tracheostomy

Correct Answer: B. Total laryngectomy

Explanation: The above features point to a T4a laryngeal cancer (invasion through the thyroid cartilage and/or extension beyond the larynx) , which necessitates a total laryngectomy for complete tumor clearance and disease control. A total laryngectomy involves removal of the entire larynx, including the vocal cords , and is the standard surgical treatment for locally advanced laryngeal cancers not suitable for organ-preserving therapy (e.g., radiation or chemoradiation). Incorrect Options: Partial laryngectomy (Option A) is reserved for early-stage tumors with unilateral involvement and without cartilage invasion. It cannot achieve adequate margins in a tumor involving both vocal cords, subglottis, and thyroid cartilage. Tracheostomy-Emergency (Option C) or Submental (Option D) is a temporary airway procedure, not a definitive treatment for carcinoma. While it may be needed in airway obstruction, it does not address tumor clearance.



References:

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↑ *Back to this question in Part A*

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Q19: A patient presents with a fish bone stuck in the pyriform sinus. During the removal procedure, there is accidental nerve injury. Which nerve is most likely to be damaged? (Q866705)

A. Recurrent laryngeal nerve

B. Glossopharyngeal nerve

C. Internal branch of the superior laryngeal nerve

D. External branch of the superior laryngeal nerve

Correct Answer: C. Internal branch of the superior laryngeal nerve

Explanation: The internal branch of the superior laryngeal nerve pierces the thyrohyoid membrane along with the superior laryngeal artery to supply sensory innervation to the mucosa of the larynx above the vocal cords, the pharynx, and the pyriform sinus . In cases of foreign body removal from the pyriform sinus, this nerve lies in close proximity and is at high risk of injury. Damage results in loss of sensation in the supraglottic larynx and pyriform sinus, predisposing to aspiration because the protective cough reflex is lost. This nerve is a branch of the vagus nerve and has no motor component - purely sensory in this region. Incorrect Options: Recurrent laryngeal nerve (Option A): Supplies motor innervation to all intrinsic laryngeal muscles except cricothyroid and sensory innervation below the vocal cords. It is not exposed during pyriform sinus procedures. Glossopharyngeal nerve (Option B): Provides sensation to the oropharynx, posterior one-third of the tongue, and tonsillar region, not the pyriform sinus. External branch of the superior laryngeal nerve (Option D): Supplies motor innervation to the cricothyroid muscle and is located more superficially, away from the pyriform sinus mucosa, making injury unlikely during this procedure.

↑ *Back to this question in Part A*

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Q20: A professional singer presents with difficulty in raising the pitch of her voice following thyroid surgery. There is no hoarseness, but high-pitched voice production is impaired. Which nerve is most likely injured? (Q866708)

A. External branch of the superior laryngeal nerve (EBSLN)

B. Internal branch of the superior laryngeal nerve (IBSLN)

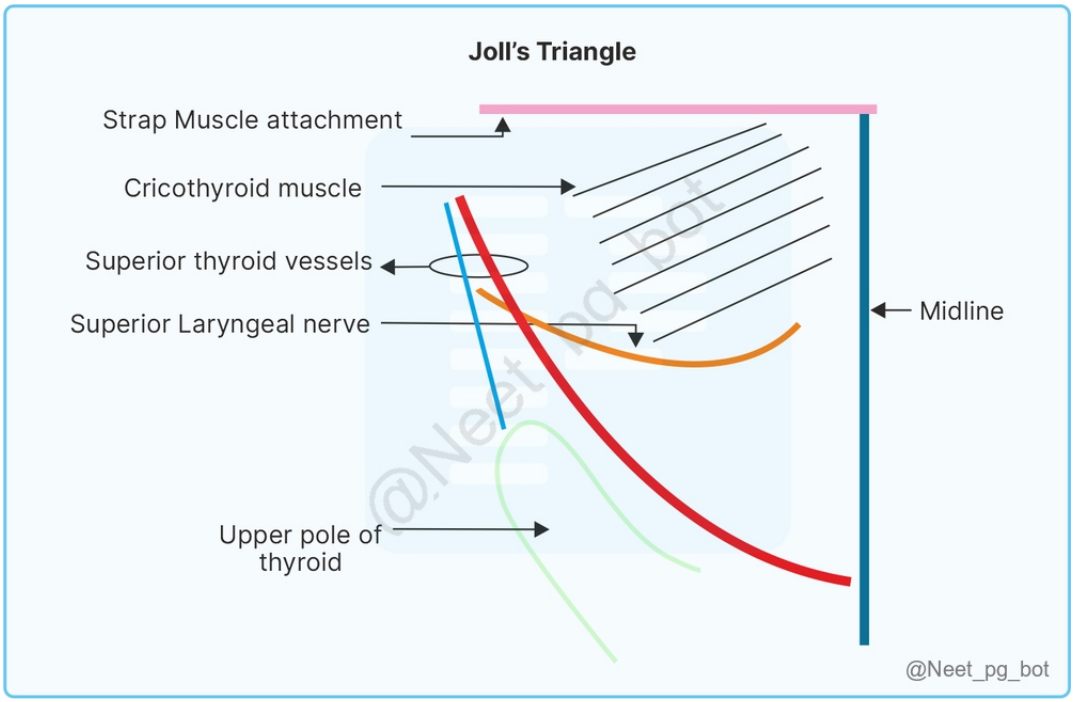
C. Recurrent laryngeal nerve (RLN)

D. Glossopharyngeal nerve

Correct Answer: A. External branch of the superior laryngeal nerve (EBSLN)

Explanation: The EBSLN innervates the cricothyroid muscle , which tenses the vocal cords to produce high-pitched sounds. Injury during thyroid surgery can cause inability to raise pitch without causing hoarseness, since vocal cord mobility is preserved. Professional voice users (singers, actors) often notice this subtle change more than regular speakers. Unilateral SLN Palsy Motor Loss: Cricothyroid muscle - decreased ability to tense the vocal cord. Sensory Loss: Above the vocal cord on the affected side. Vocal Cord Position: The affected vocal cord appears shortened and wavy ; may exhibit flapping due to loss of tension. Other Features: Askew position of the glottis with the anterior commissure rotated towards the healthy side. Voice changes such as weakness and inability to raise pitch, affecting singing ability. Treatment: Primarily voice therapy to improve vocal function and manage symptoms. Bilateral SLN Palsy Motor Loss: Both cricothyroid muscles - bilateral loss of vocal cord tension. Sensory Loss: Above the vocal cords bilaterally. Vocal Cord Position: Both vocal cords may be shortened and lack tension , potentially leading to difficulties with voice production. Other Features: Inhalation of food and secretions resulting in coughing and choking . The voice is weak and husky . Treatment: Tracheostomy with a cuffed tube and esophageal feeding tube, if aspiration is severe. Epiglottopexy (reversible) - close laryngeal inlet - to protect the lungs from aspiration. Voice pitch improvement through surgical approximation of the thyroid and

cricoid cartilages. Joll's Triangle (Sternothyroid-laryngeal triangle) An anatomical landmark used for identifying and preserving the external branch of the superior laryngeal nerve (EBSLN). Superior border by the upper attachment of the strap muscles. Medial border by the midline of the neck. Lateral border by the upper pole of the thyroid gland and the superior thyroid vessels. Floor of the Triangle: The EBSLN is located in the floor of the triangle, which is delineated by the cricothyroid muscle. Incorrect Options: Internal branch of the superior laryngeal nerve (IBSLN) (Option B): Provides sensory supply to the mucosa above the vocal cords; injury leads to loss of laryngeal sensation, not pitch alteration. Recurrent laryngeal nerve (RLN) (Option C): Supplies all intrinsic laryngeal muscles (except cricothyroid); injury causes hoarseness due to vocal cord palsy, not isolated pitch change. Glossopharyngeal nerve (Option D): Provides sensation to the oropharynx and taste to the posterior third of the tongue; unrelated to pitch control.



References:

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↑ *Back to this question in Part A*

@Neet_pg_bot

Q21: Which of the following subunit is associated with inspiratory stridor? (Q866740)

A. Glottic

B. Supraglottic

C. Subglottic

D. Trachea

Correct Answer: B. Supraglottic

Explanation: Stridor is a high-pitched, harsh sound due to turbulent airflow through a partially obstructed upper airway. Inspiratory stridor specifically occurs when obstruction is at or above the level of the vocal cords, because negative intrathoracic pressure during inspiration tends to collapse the upper airway. Supraglottic structures include: Epiglottis Aryepiglottic folds False vocal cords Obstruction here (e.g., epiglottitis, laryngomalacia, tumors) narrows the airway at a point where airflow is very sensitive to pressure changes during inspiration. During inspiration → pressure above the glottis becomes subatmospheric → floppy tissue collapses inward → stridor. Incorrect Options: Glottic (Option A): Glottic obstruction (true vocal cords) can cause biphasic stridor (both inspiratory & expiratory), because the obstruction is fixed at the narrowest part of the larynx. Subglottic (Option C): Subglottic narrowing (e.g., croup, subglottic stenosis) usually produces biphasic stridor as well, due to fixed airway narrowing just below the cords. Trachea (Option D): Tracheal obstruction typically causes expiratory stridor or wheeze if intrathoracic, or biphasic if upper trachea is affected. Inspiratory-only stridor is less typical.

↑ *Back to this question in Part A*

@Neet_pg_bot

Q22: Which of the following symptoms is a 27-year-old female patient presenting with thyroid swelling is unlikely to experience due to compression of adjacent structures? (Q857376)

A. Hoarseness of voice due to recurrent laryngeal nerve compression

B. Dysphagia due to oesophagus compression

C. Superior vena cava syndrome

D. None of the above

Correct Answer: Unknown

Explanation: Thyroid swelling can compress adjacent structures in the neck, leading to symptoms like hoarseness and dysphagia. However, involvement of the superior vena cava is unlikely due to its location in the superior mediastinum. Hoarseness of voice due to recurrent laryngeal nerve involvement Dysphagia due to esophageal compression Dyspnea due to tracheal compression Neck discomfort or pain from local inflammation or stretch The superior vena cava is not anatomically adjacent to the thyroid gland. Compression typically occurs due to intrathoracic masses, not cervical thyroid enlargement

References:

Diseases of the Ear, Nose, and Throat, PL Dhingra, 8th Edition, Page no: 329

↑ *Back to this question in Part A*

@Neet_pg_bot

Q23: Which structures pass between structures passing between the superior and middle pharyngeal constrictor muscles.? (Q839978)

A. Stylopharyngeus muscle and glossopharyngeal nerve

B. Internal laryngeal nerve and superior laryngeal artery

C. Recurrent laryngeal nerve

D. Ascending palatine artery

Correct Answer: A. Stylopharyngeus muscle and glossopharyngeal nerve

Explanation: Correct Option A - Stylopharyngeus muscle and glossopharyngeal nerve: Stylopharyngeus muscle and glossopharyngeal nerve are the two structures passing between the superior and middle pharyngeal constrictor muscles. The contents are derived from the 3 rd pharyngeal arch. Incorrect Options: Option B - Internal laryngeal nerve and superior laryngeal artery: Internal laryngeal nerve and superior laryngeal artery passes in the space between the middle and inferior constrictor muscles. Option C - Recurrent laryngeal nerve: Recurrent laryngeal nerve passes in the space below the inferior constrictor muscles. Option D - Ascending palatine artery: Ascending palatine artery passes through the sinus of Morgagni (space between the base of the skull and superior constrictor muscles)

References:

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↑ *Back to this question in Part A*

@Neet_pg_bot

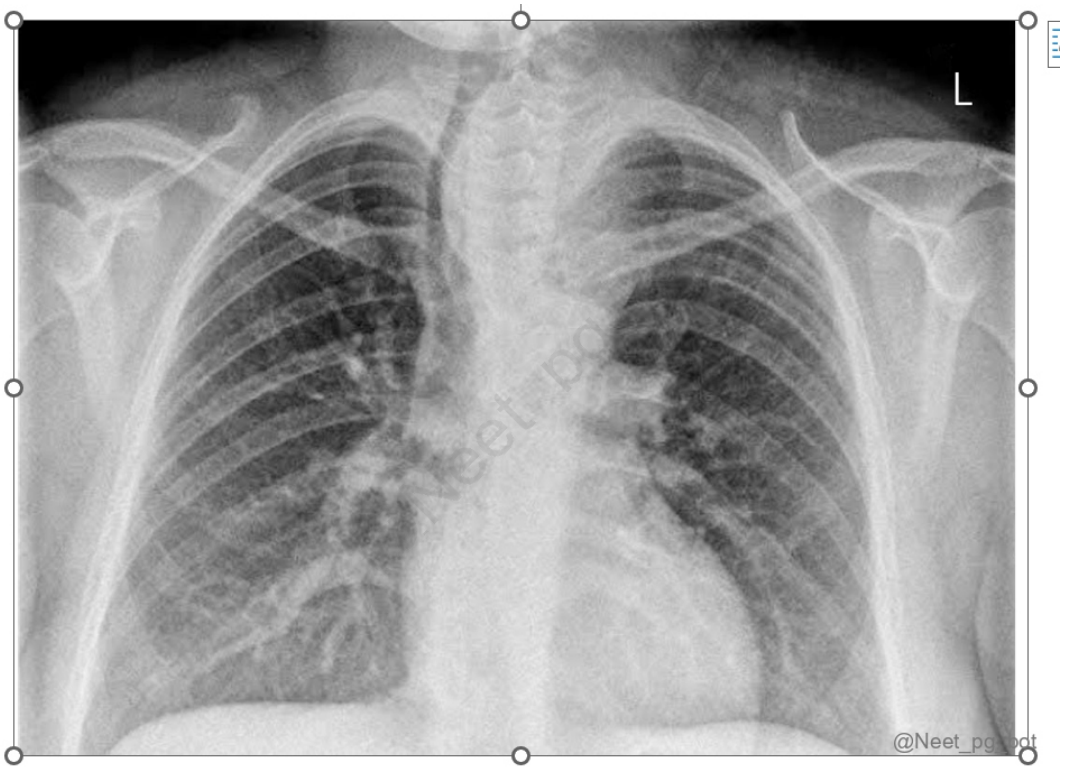
Q24: Based on the provided chest X-ray, which of the following procedures would be most challenging to perform? (Q843924)

A. Tracheostomy

B. Laryngeal Mask Airway (LMA) insertion

C. Ryle’s Tube (RT) insertion

D. Indirect laryngoscopy



Correct Answer: A. Tracheostomy

Explanation: Tracheostomy is a surgical procedure that requires precise midline access to the trachea. On the X-ray, the trachea is markedly deviated to the right. This deviation alters normal anatomical landmarks, making identification of the trachea difficult. There is an increased risk of injuring nearby structures such as major blood vessels or the esophagus. Therefore, tracheostomy in this patient is technically challenging and carries higher complication risk. Proper imaging and careful surgical planning are essential before attempting the procedure. Incorrect Options: Option B) Laryngeal Mask Airway (LMA) insertion : LMA sits above the glottis and does not require tracheal midline access. Tracheal deviation generally does not affect its placement. Option C) Ryle's Tube (RT) insertion : Nasogastric tube passes through the esophagus into the stomach. Minor tracheal deviation may slightly alter esophageal orientation but usually does not make insertion difficult. Option D) Indirect laryngoscopy : Visualization of vocal cords via mirror is mostly unaffected by tracheal deviation. Unless there is a large neck mass, glottic view is not significantly altered.

References:

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↑ *Back to this question in Part A*

@Neet_pg_bot

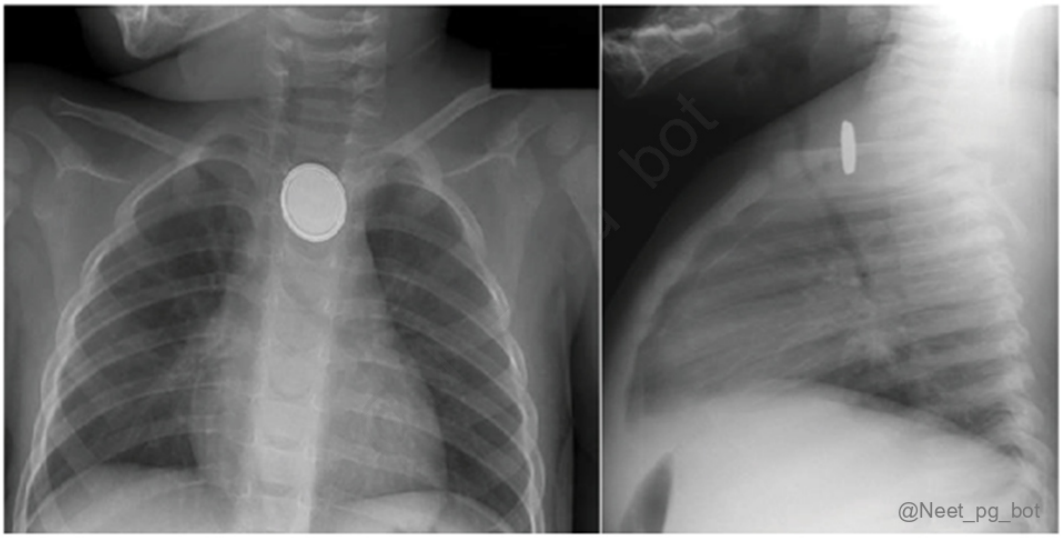
Q25: Which of the following signs can be appreciated in the given X-ray? (Q843926)

A. Steeple sign

B. String sign

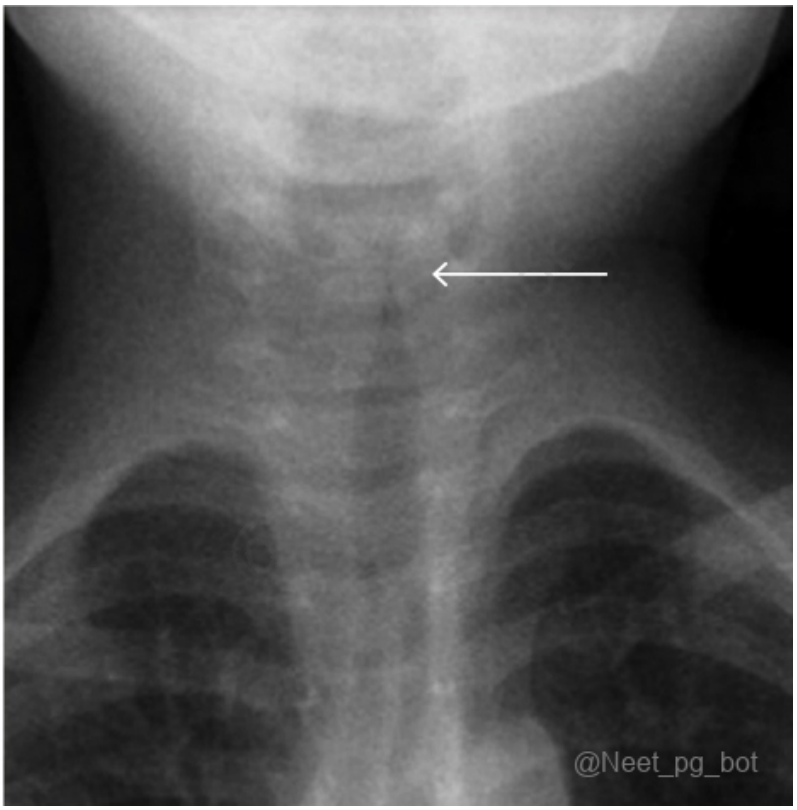
C. Thumb sign

D. Double ring sign



Correct Answer: D. Double ring sign

Explanation: Correct Option D - Double ring sign: A double Ring sign is observed on the given X-ray and is characteristic of a button battery aspiration. The double ring appearance is due to the unique structure of a button battery, where the edge of the battery gives a double contour. Incorrect Options: Option A - Steeple Sign: The steeple sign is associated with croup (laryngotracheobronchitis). Option B - String Sign: The string sign is observed in pyloric stenosis. Option C - Thumb Sign: The thumb sign is associated with epiglottitis.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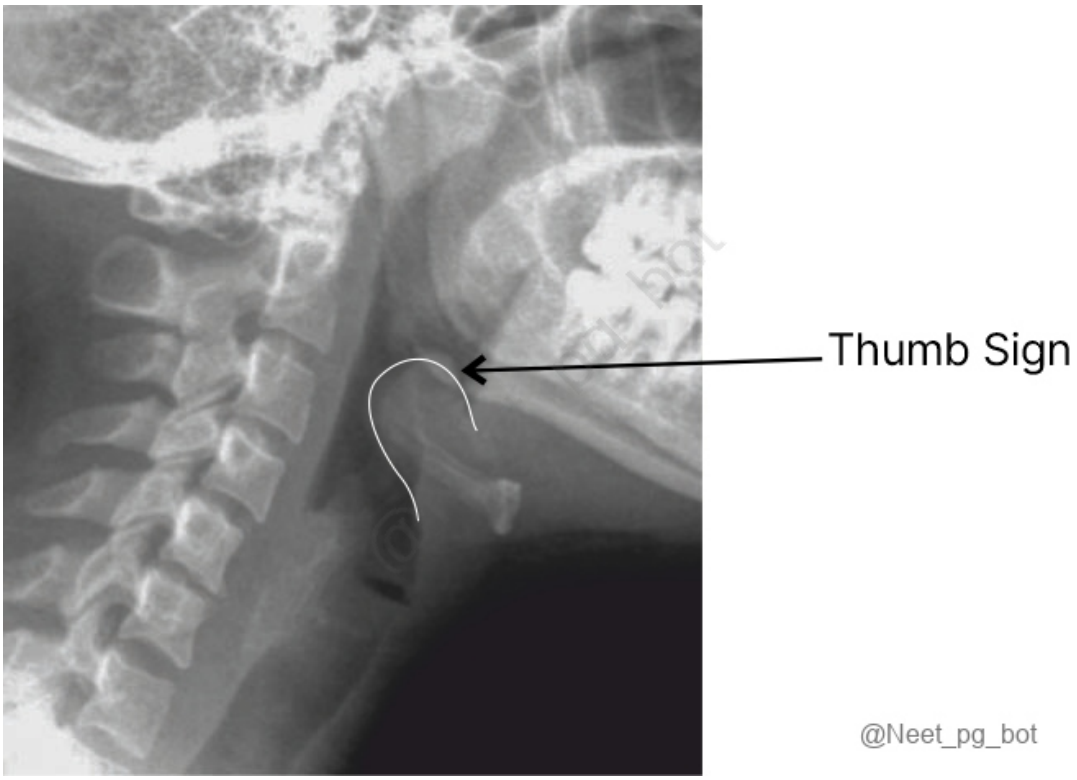

References:

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↑ *Back to this question in Part A*

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Q26: A patient with prolonged intubation complained of respiratory distress. Which of the following staging systems is used to stage the condition shown in the image? (Q843977)

A. Cottom-Meyer classification

B. Radkowski classification

C. TNM classification

D. AJCC classification

Correct Answer: A. Cottom-Meyer classification

Explanation: Correct Option A - Cotton-Meyer classification: The Cottom-Meyer classification is specifically designed to stage laryngotracheal stenosis, particularly the narrowing of the airway after intubation or tracheostomy. It grades the stenosis based on the percentage of the lumen that is narrowed. Incorrect Options: Options B, C, and D are not used to classify subglottic stenosis.

References:

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↑ *Back to this question in Part A*

@Neet_pg_bot

Q27: A singer is finding difficulty in raising the pitch of her voice. On examination, her vocal cords were depressed and bowing. Which of the following muscles is involved? (Q844011)

A. Cricothyroid

B. Interarytenoid

C. Posterior cricoarytenoid

D. Lateral arytenoid

Correct Answer: A. Cricothyroid

Explanation: Correct Option A - Cricothyroid: The cricothyroid muscle is crucial for raising the pitch of the voice. It is a tensor muscle of the vocal cords. When there is dysfunction or paralysis of the cricothyroid muscle, the vocal cords are not properly tensed, leading to difficulty in raising the pitch. Incorrect Options: Option B and D - Interarytenoid and Lateral arytenoid are adductors of the vocal cord. Option C - The posterior cricoarytenoid is an abductor of the vocal cords.

References:

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↑ *Back to this question in Part A*

@Neet_pg_bot

Q28: Which of the following stains can be used to identify a laryngeal mass during laryngeal examination? (Q844018)

A. Congo red

B. Supravital stain

C. Silver nitrate

D. H and E

Correct Answer: B. Supravital stain

Explanation: Correct Option B - Supravital stain: The use of toluidine blue as a supravital stain during direct laryngoscopy is a reliable adjunct to the early and precise diagnosis of carcinoma of the larynx. Incorrect Options: Options A, C, and D are not used to identify a laryngeal mass during laryngeal examination.

↑ *Back to this question in Part A*

@Neet_pg_bot

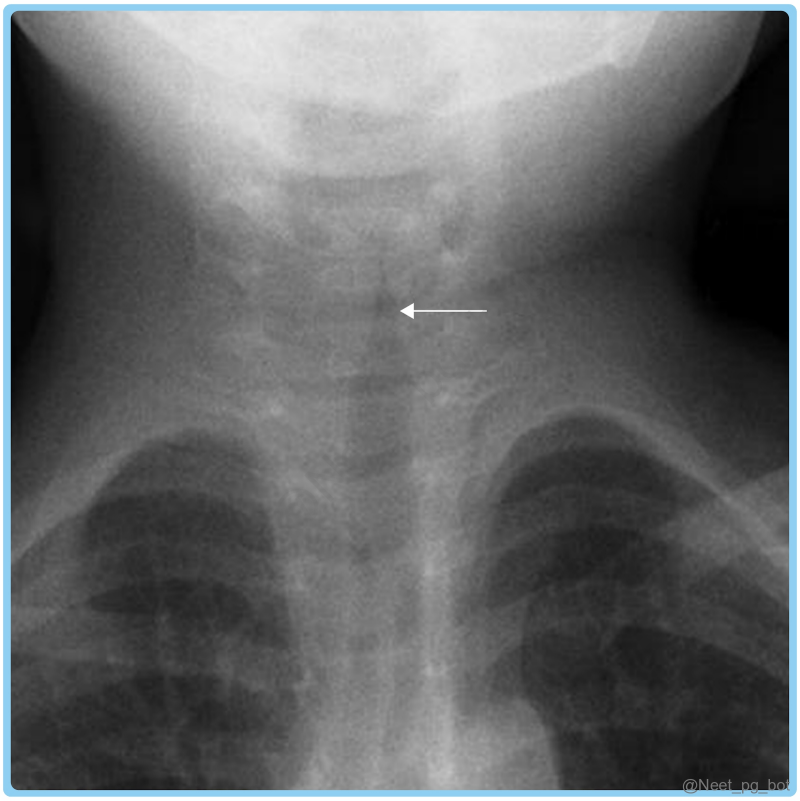
Q29: A patient was presented to the OPD with a sudden onset of shortness of breath. Identify the condition with the radiological image given below. (Q852642)

A. Epiglottitis

B. Laryngotracheobronchitis

C. Bronchitis

D. Laryngomalacia



Correct Answer: B. Laryngotracheobronchitis

Explanation: The patient presents with sudden onset of shortness of breath , which is a common symptom of respiratory distress in children or adults. The radiological image shows the "Steeple Sign" or a narrowing of the subglottic airway , which is characteristic of Laryngotracheobronchitis (commonly referred to as Croup). Other Options: Epiglottitis (Option A) : Characterized by supraglottic narrowing , often with a thumbprint sign on imaging, and presents with severe respiratory distress and drooling . Laryngomalacia (Option D) : A congenital condition causing floppy epiglottis , leading to stridor but typically diagnosed clinically, not with acute symptoms and not showing "steeple sign." Bronchitis (Option C) : Does not typically cause subglottic narrowing ; it involves inflammation of the bronchi and is usually seen in older children/adults with productive cough .

References:

Diseases of Ear, Nose, Throat - PL Dhingra, 8th edition, Pg 456

↑ *Back to this question in Part A*

@Neet_pg_bot

Q30: Which of the following is a life-threatening nerve injury? (Q853125)

A. Bilateral Complete RLN Palsy

B. Bilateral Partial RLN palsy

C. Unilateral complete RLN palsy

D. Unilateral partial RLN palsy

Correct Answer: A. Bilateral Complete RLN Palsy

Explanation: This condition leads to both vocal cords being fixed in a median or paramedian position, causing severe airway obstruction. Patients experience stridor and dyspnea, making this the most life-threatening form of recurrent laryngeal nerve (RLN) injury. Emergency management often requires tracheostomy or vocal cord lateralization surgery.

Type of palsy	Position of VC	Speech	Aspiration	Respiration	Management
U/L RLN	Mostly median, sometimes paramedian	Normal, Sometimes mild hoarseness initially	None	Normal	Conservative (Therefore this is the palsy with least consequences)
B/L RLN	Mostly median	Largely normal Sometimes mild hoarseness	None	Stridor and dyspnoea on exertion (therefore the most life threatening palsy	Usually one sided VC lateralisation (by Cordectomy or type II thyroplasty
U/L SLN	Normally moving curved VC	Weak Voice, voice fatigue, loss of timber and inability to raise pitch	Occasional	Normal	Conservative
B/L SLN	Normally moving VC but Both are curved	Husky voice	Present	Normal	Tracheostomy and epiglottopexy (To prevent aspiration)
U/L complete	Cadaveric	Initial dysphonia or aphonia subsequently hoarseness	Sometimes	Normal	Teflon/fat injection or Medialisation of VC (type I thyroplasty)
B/L complete	Both VC in cadaveric position	Aphonia	Severe aspiration episodes	Normal	Tracheoesophageal diversion (gold standard)/ Epiglottopexy or VC plication with tracheostomy

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References:

Dhingra's Diseases Of Ear, Nose And Throat, & Head and Neck Surgery, 8th edition, Pages 348, 349.

↑ *Back to this question in Part A*

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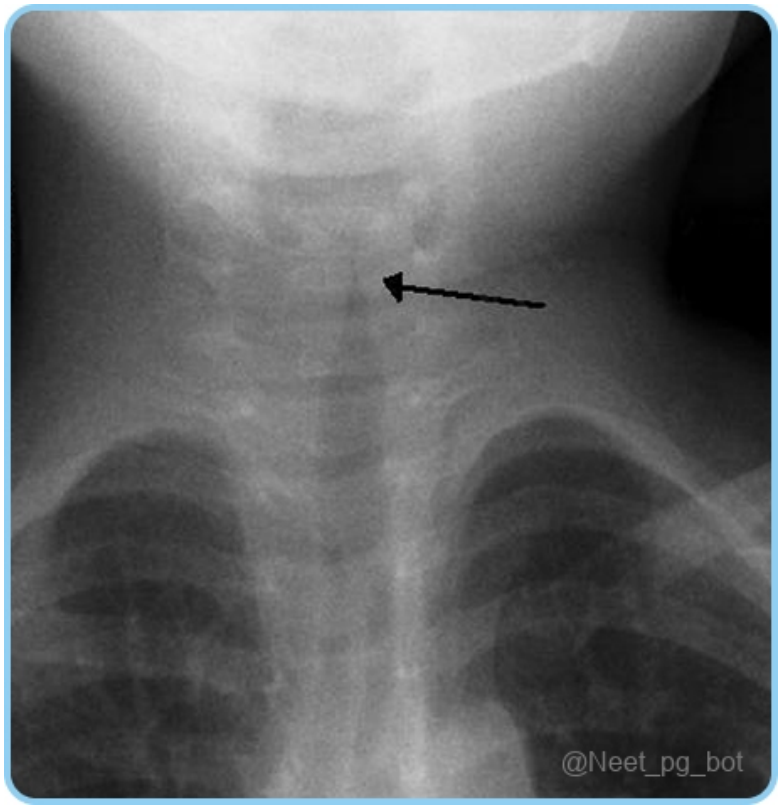
Q31: A 2-year-old child presented with the following X-ray finding. What is the most likely diagnosis? (Q854886)

A. Acute laryngotracheobronchitis

B. Acute epiglottitis

C. Acute pharyngitis

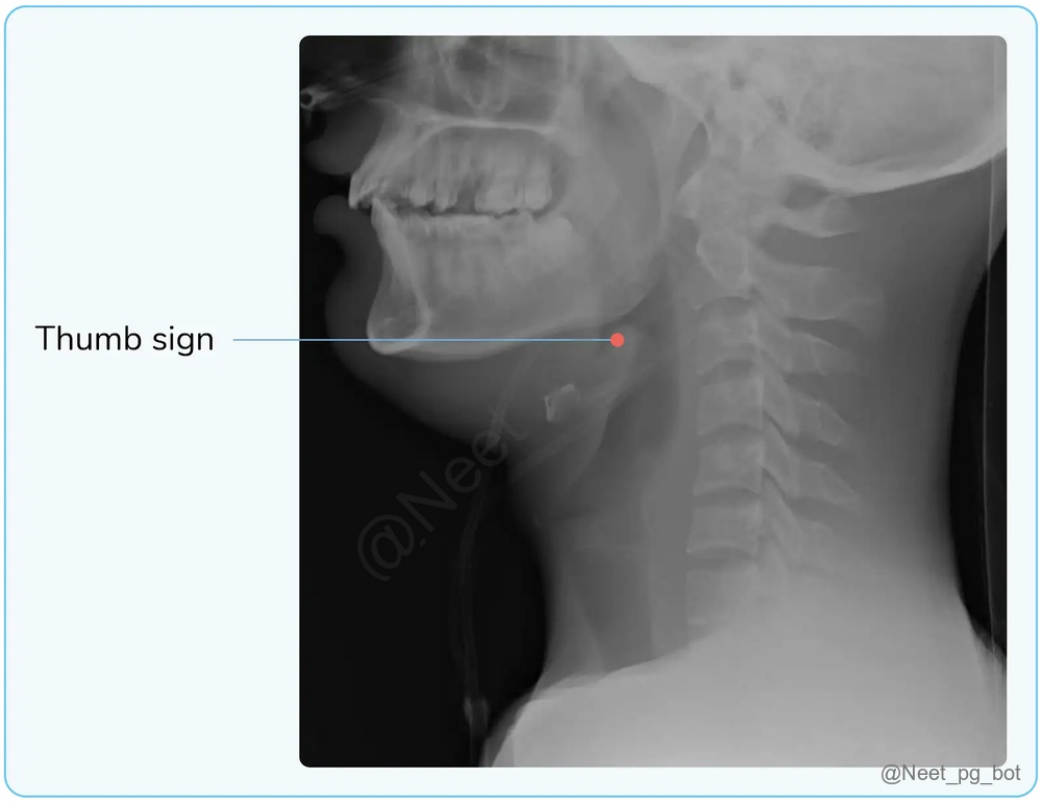
D. Parapharyngeal abscess

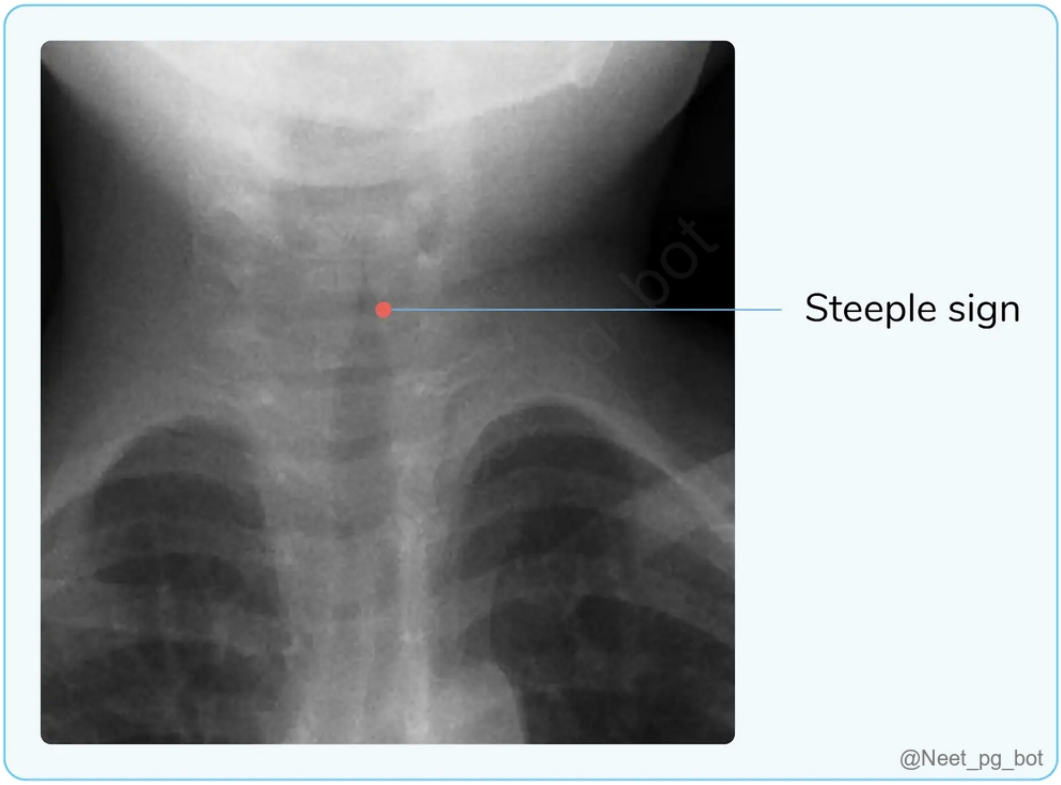


Correct Answer: A. Acute laryngotracheobronchitis

Explanation: cute laryngotracheobronchitis (Croup): The "steeple sign" seen on the X-ray is characteristic of acute laryngotracheobronchitis, commonly known as croup. This sign refers to the narrowing of the subglottic airway, which appears as a "steeple" or "church steeple" shape on the frontal view of the X-ray. Croup typically presents with symptoms such as a barking cough, stridor, and respiratory distress in children. Acute Laryngotracheobronchitis (Croup): Acute laryngotracheobronchitis, or croup, is a viral infection most commonly caused by parainfluenza viruses, although other viruses like RSV can also cause it. It leads to inflammation and swelling of the larynx, trachea, and bronchi, which results in airway narrowing and the characteristic "barking" cough. The "steeple sign" seen on X-ray is a diagnostic clue, reflecting subglottic narrowing, which is a hallmark of the disease. Diagnosis and Treatment of Acute Epiglottitis vs. Croup Aspect Acute Epiglottitis Croup (Acute Laryngotracheobronchitis) Diagnosis Visualisation: Red and swollen epiglottis (avoid indirect laryngoscopy to

prevent airway obstruction). Lateral Neck X-ray: "Thumb sign" indicating swollen epiglottis. Differentiated based on clinical features (e.g., absence of drooling, voice quality). The "steeple sign" on an X-ray AP view shows a narrowing of the upper airway, often seen in croup. X-Ray Imaging {{caption_text}} {{caption_text}} Hospitalisation Required due to the high risk of airway obstruction. Often necessary due to potential breathing difficulties. Treatment Antibiotics: Parenteral administration (e.g., ampicillin, third-generation cephalosporins). Steroids: Hydrocortisone or dexamethasone to reduce oedema. Hydration: IV fluids if needed. Humidified Oxygen: Via mist tent or croupette. Intubation or Tracheostomy: In cases of severe respiratory obstruction. Antibiotics: Ampicillin 50 mg/kg/day against the H. influenza virus. Humidification: Helps clear crusts and thick secretions that block the tracheobronchial tree. Steroids: to reduce oedema. Racemic Epinephrine: Used as a bronchodilator. Intubation or Tracheostomy: Considered if obstruction worsens or lasts beyond 72 hours. Acute epiglottitis (Option B)- is incorrect because while epiglottitis causes airway obstruction, it is typically associated with a "thumbprint sign" on X-ray, not the "steeple sign." This condition presents more acutely with drooling, difficulty swallowing, and a high fever. Acute pharyngitis (Option C)- is incorrect because acute pharyngitis does not cause a narrowing of the airway as seen in croup, and it does not present with the characteristic X-ray findings like the "steeple sign." Parapharyngeal abscess (Option D)- is incorrect because a parapharyngeal abscess would present with different symptoms, such as fever, neck swelling, and difficulty swallowing, but it does not typically cause the "steeple sign" on X-ray.





References:

Dhingra's Diseases Of Ear, Nose And Throat, & Head and Neck Surgery, 8th edition, Pages 339, 340

↑ *Back to this question in Part A*

@Neet_pg_bot

Q32: A 55-year-old patient comes with hoarseness of voice and difficulty swallowing. The patient was diagnosed with laryngeal carcinoma, and surgical management was done. The post-operative image of the patient is given below. Which of the following surgery was done on this patient? (Q855206)

A. Partial laryngectomy

B. Percutaneous tracheostomy

C. Standard tracheostomy

D. Total laryngectomy

Correct Answer: D. Total laryngectomy

Explanation: Correct Option: D) Total laryngectomy A total laryngectomy is a surgical procedure in which the entire larynx is removed. This procedure is typically performed in advanced laryngeal cancer cases that have not responded to other treatments, such as radiation therapy or chemotherapy. During a total laryngectomy, the trachea is re-routed to the front of the neck to create an opening called a stoma, which serves as the new airway. This procedure has significant implications for speech and swallowing, and patients typically require extensive rehabilitation to learn new communication and eating methods Indications for total laryngectomy: T4a with thyroid cartilage invasion. Stage 3 and 4a who cannot tolerate chemotherapy. Stage 3 and 4 recurrent tumours Bilateral arytenoid involvement. Incorrect Options: Partial laryngectomy (Option A): A partial laryngectomy is a surgical procedure in which only a part of the larynx is removed, leaving the rest of the organ intact. Percutaneous tracheostomy (Option B): Percutaneous tracheostomy is a minimally invasive procedure where a tube is inserted into the trachea via a small neck incision. It's commonly used for temporary or permanent airway support in conditions like obstructive sleep apnea or chronic respiratory failure, but it's not suitable for treating laryngeal cancer. Standard tracheostomy (Option C): A standard tracheostomy involves creating a neck incision to access the trachea, commonly used for temporary or permanent airway support in breathing difficulties. However, it's typically avoided in laryngeal cancer cases as it doesn't address the cancerous tissue in the larynx

References:

Diseases of the Ear, Nose, Throat, 8th Edition, Page no: 379

↑ *Back to this question in Part A*

@Neet_pg_bot

Q33: What nerve is most likely to be damaged when the cough reflex is impaired due to alcohol ingestion and other conditions, resulting in the prevention of foreign body entry into the laryngeal inlet? (Q855570)

A. Internal laryngeal nerve

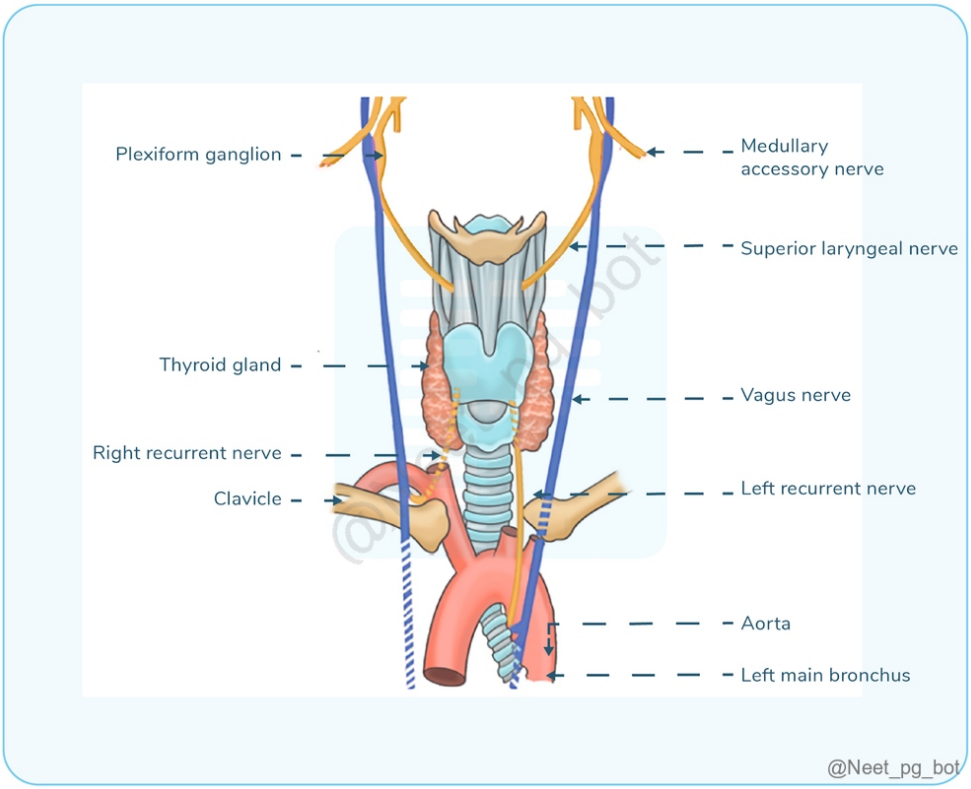
B. Glossopharyngeal nerve

C. External laryngeal nerve

D. Recurrent laryngeal nerve

Correct Answer: A. Internal laryngeal nerve

Explanation: The internal laryngeal nerve is a branch of the superior laryngeal nerve, which is, in turn, a branch of the vagus nerve. It supplies the laryngeal mucosa above the vocal cords and prevents aspiration of any foreign substances by protective cough reflex. Alcohol ingestion can cause alcohol-induced inhibition of the Central Nervous System, which can affect the internal laryngeal nerve, resulting in reduced laryngeal sensations and masked laryngeal reflexes. The larynx receives both motor and sensory nerve supply from branches of the vagus nerve. Motor innervation : Recurrent laryngeal nerve - All muscles that move the vocal cords, including abductors, adductors, and tensors. Except the cricothyroid muscle. External branch of the superior laryngeal nerve - cricothyroid muscle. (Option C ruled out) Sensory innervation : The internal branch of the superior laryngeal nerve - above the vocal cords. (Option A) Recurrent laryngeal nerve - below the vocal cords. Recurrent laryngeal nerve anatomy : (Option D ruled out) The right recurrent laryngeal nerve branches from the vagus at the level of the subclavian artery, looping around it before ascending between the trachea and esophagus. The left recurrent laryngeal nerve arises at the arch of the aorta, loops around it, and ascends along the tracheoesophageal groove, giving it a longer course compared to the right nerve, making it more prone to injury. Superior laryngeal nerve : Origin - from the inferior ganglion of the vagus nerve; courses behind the internal carotid artery; divides into external and internal branches at the level of the greater cornua of the hyoid bone. The external branch innervates the cricothyroid muscle. The internal branch provides sensory innervation to the larynx and hypopharynx after piercing through the thyrohyoid membrane. Glossopharyngeal nerve (CN IX): This nerve provides sensory innervation to the posterior third of the tongue, pharynx, and tonsils. While it contributes to the gag reflex and has some role in swallowing, it's not the primary nerve responsible for sensation in the supraglottic larynx that triggers the cough reflex.



References:

Dhingra's Diseases of Ear, Nose and Throat & Head and Neck Surgery 8th Edition, Pg. 347

↑ *Back to this question in Part A*

@Neet_pg_bot

Q34: CT scan of a patient with laryngeal carcinoma is shown below. What is the staging? (Q855759)

A. T1NOMO

B. T4N1MO

C. T2N1MO

D. T3NOMO

Correct Answer: B. T4N1MO

Explanation: The TNM staging of this patient with laryngeal carcinoma is T4N1M0 since there is an invasion of the tumor into the cricoid and thyroid cartilage, and there is an extension of the tumor into adjacent soft tissues of the neck, which includes the strap muscles, thyroid, and deep extrinsic muscles of the tongue. There is single, ipsilateral lymph node involvement measuring less than 3cm in size with no distant metastasis. Subglottis T1 Tumor is limited to the subglottis. (Option A ruled out) T2 Tumor extends to the vocal cord(s) with normal or impaired mobility. (Option C ruled out) T3 Tumor limited to larynx with vocal cord fixation. (Option D ruled out) T4a Tumor invades cricoid or thyroid cartilage and/or invades tissues beyond the larynx (e.g. trachea, soft tissues of neck including deep extrinsic muscle of tongue, strap muscles, thyroid or esophagus). (Option B) T4b Tumor invades prevertebral space, encases the carotid artery or invades mediastinal structures. Regional lymph nodes (N) Nx Regional lymph nodes cannot be assessed. N0 No regional lymph node metastasis. N1 Metastasis in a single ipsilateral lymph node, 3 cm or less in greatest dimension. N2 Metastasis in a single ipsilateral lymph node, more than 3 cm but not more than 6 cm in greatest dimension, or multiple ipsilateral lymph nodes, none more than 6 cm in greatest dimension, or bilateral or contralateral lymph nodes, none more than 6 cm in the greatest dimension. N2a Metastasis in a single ipsilateral lymph node more than 3 cm but not more than 6 cm in greatest dimension. N2b Metastasis in multiple ipsilateral lymph nodes, none more than 6 cm in greatest dimension. N2c Metastasis in bilateral or contralateral lymph nodes, none more than 6 cm in greatest dimension Na Metastasis in a lymph node more than 6 cm in the greatest dimension Distant metastasis Mx Distant metastasis cannot be assessed M0 No Distant metastasis M1 Distant metastasis

References:

Diseases of Ear, Nose and Throat Dhingra 8th Edition Pg. 359, 360

↑ *Back to this question in Part A*

Q35: Which of the following is not employed in post-laryngectomy rehabilitation? (Q856051)

A. Tracheoesophageal prosthesis

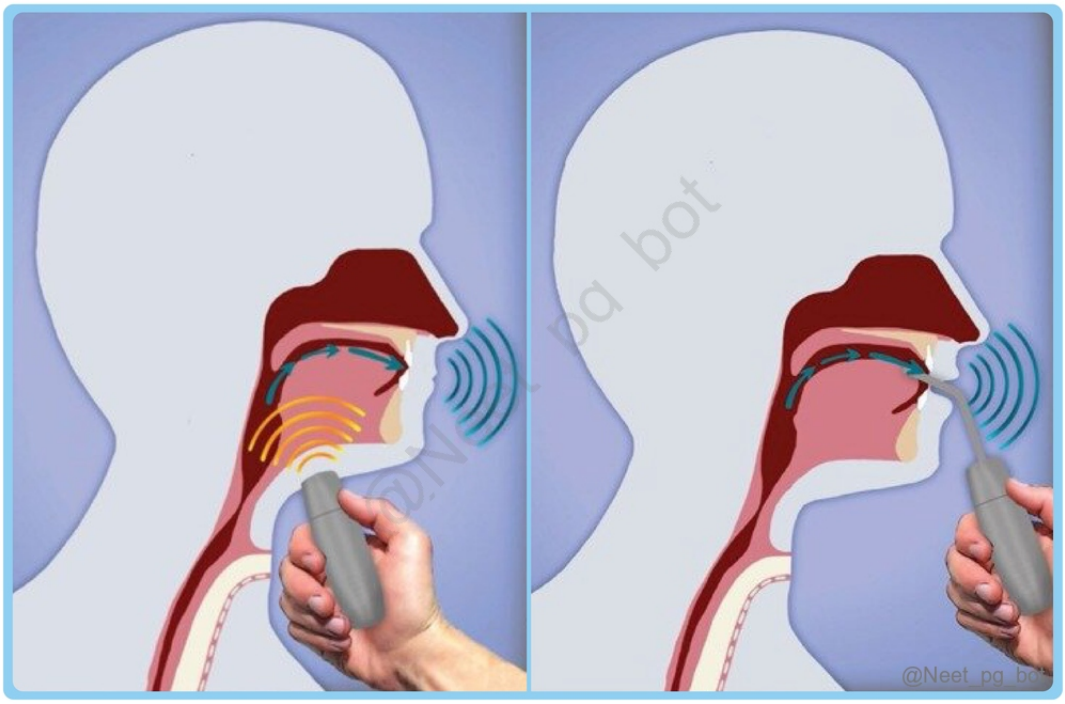
B. Esophageal speech

C. Super supraglottic swallow

D. Polite yawning

Correct Answer: C. Super supraglottic swallow

Explanation: The super supraglottic swallow is not employed in post-laryngectomy rehabilitation because the anatomical structures it targets (vocal folds) are no longer present. Vocal rehabilitation-methods: After laryngectomy, the patient loses his speech completely. The various methods by which communication can be established are given below: Oesophageal Speech (Option B ruled out) In this, the patient is taught to swallow air and hold it in the upper esophagus and then slowly eject it from the esophagus into the pharynx. The patient can speak 6-10 words before re-swallowing air. The voice is rough but loud and understandable. Artificial Larynx It is used in those who fail to learn oesophageal speech. 1. Electrolarynx: Its vibrating disc is held against the soft tissues of the neck and a low-pitched sound is produced in the hypopharynx which is further modulated into speech by the tongue, lips, teeth, and palate. 2. Transoral pneumatic device It is a transoral device. Here vibrations produced in a rubber diaphragm are carried by a plastic tube into the back of the oral cavity where sound is converted into speech by modulators. This is a pneumatic type of device and uses expired air from the tracheostome to vibrate the diaphragm. Tracheo-Oesophageal Speech (Option A ruled out) Here an attempt is made to carry air from the trachea to the esophagus or hypopharynx by the creation of a skin-lined fistula or by placement of an artificial prosthesis. The vibrating column of air entering the pharynx is then modulated into speech. This technique has the disadvantage of food entering the trachea. These days prostheses (Blom-Singer or Panje) are being used to shunt air from the trachea to the esophagus They have inbuilt valves which work only in one direction thus preventing problems of aspiration. Olfactory Rehabilitation: (Option D ruled out) After laryngectomy, smell is lost because air no longer passes through the nose. This also means patients can't detect dangerous environmental odours like smoke or gas. To address this, a technique called "polite yawning" can be taught. This involves: Lowering the jaw, floor of mouth, and tongue while keeping lips closed. This creates negative pressure in the mouth and throat, drawing air through the nose. Repeating this maneuver several times can help restore some sense of smell and allow detection of environmental hazards.



References:

Diseases of Ear, Nose and Throat, Dhingra, 8th Edition, Page 365

↑ *Back to this question in Part A*

@Neet_pg_bot

Q36: What is a drug called Mitomycin-C used for in medical treatment? (Q856216)

A. Subglottic stenosis

B. Rhinocerebral mucormycosis

C. Adenoidectomy

D. Tympanoplasty

Correct Answer: A. Subglottic stenosis

Explanation: : Incorrect because the treatment of rhinocerebral mucormycosis primarily involves amphotericin B and surgical debridement , not Mitomycin-C. Adenoidectomy (Option C): Incorrect because Mitomycin-C is not used in routine adenoidectomy . The procedure involves surgical removal of hypertrophied adenoid tissue without the need for an antifibrotic agent. Tympanoplasty (Option D): Incorrect because Mitomycin-C is not used in tympanoplasty . This procedure aims to repair the tympanic membrane and ossicular chain, and there is no role for an antifibrotic agent.

References:

Scott-Brown's Otorhinolaryngology and Head and Neck Surgery 8th Edition - 2018 • Page no: 1088, 1083

↑ *Back to this question in Part A*

@Neet_pg_bot

Q37: What is the most likely reason for a patient experiencing breathing difficulties and unsuccessful extubation after undergoing a total thyroidectomy? (Q856219)

A. Superior laryngeal nerve injury

B. Unilateral recurrent laryngeal nerve injury

C. Bilateral recurrent laryngeal nerve injury

D. Hematoma

Correct Answer: C. Bilateral recurrent laryngeal nerve injury

Explanation: : Incorrect because this nerve supplies the cricothyroid muscle , affecting voice modulation and pitch , but does not cause airway obstruction . Unilateral recurrent laryngeal nerve injury (Option B): Incorrect because unilateral RLN injury leads to hoarseness , not significant respiratory distress or extubation failure . The contralateral vocal cord compensates , allowing adequate breathing. Hematoma (Option D): Incorrect because while a postoperative neck hematoma can cause airway compression , it typically presents with swelling, bruising, and respiratory distress within a few hours postoperatively. Immediate surgical evacuation would relieve symptoms, unlike bilateral RLN injury , which persists despite hematoma evacuation.

References:

Diseases of Ear, Nose & Throat - PL Dhingra - 8th Edition, Page no: 348, 349

↑ *Back to this question in Part A*

@Neet_pg_bot

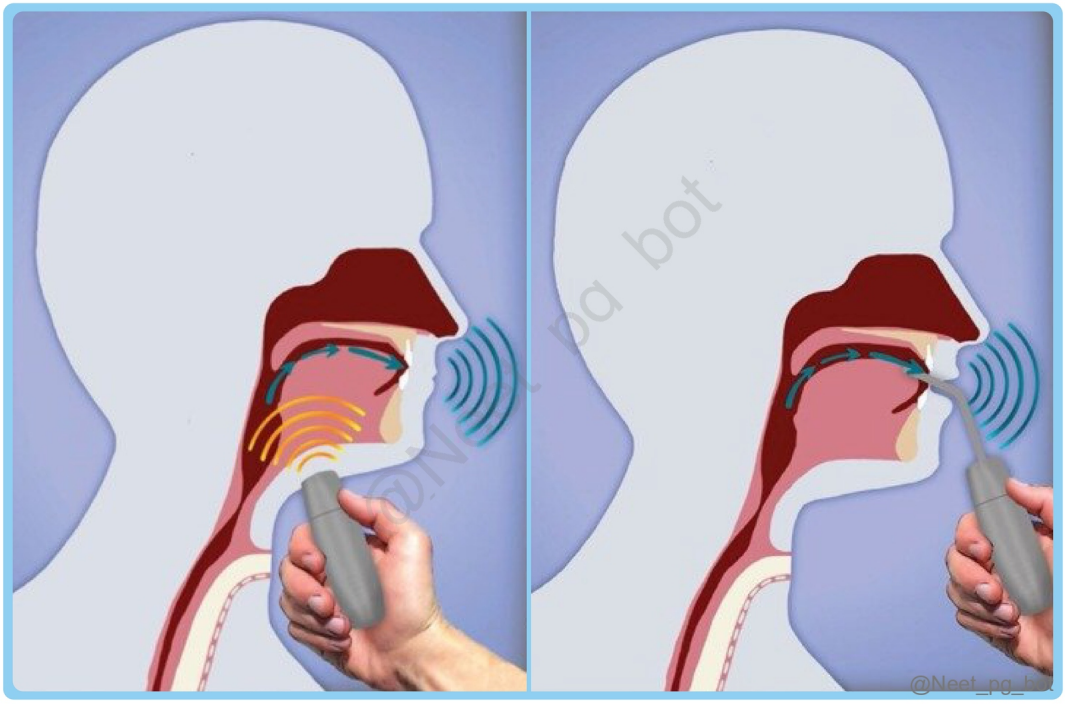
Q38: In a patient with laryngeal cancer who has undergone a total laryngectomy, determine the mode of voice production depicted in the provided image. (Q856778)

A. Tracheoesophageal prosthesis

B. Chicago implant

C. Electro larynx

D. Esophageal speech



Correct Answer: C. Electro larynx

Explanation: Electro larynx : After a total laryngectomy, patients can use an electro larynx for voice production. It is a handheld device that vibrates to generate sound, which the patient then shapes into speech by moving their mouth. The electro larynx is an effective alternative for patients who cannot use a tracheoesophageal prosthesis and provides a mechanical, yet functional, voice. Electro Larynx: The electro larynx is commonly used in patients who have undergone a total laryngectomy , a procedure that removes the larynx and disrupts normal voice production. The device works by emitting vibrations, which the patient can articulate to form words. Although it can be mechanical-sounding, it remains a popular and accessible method for speech restoration. Incorrect Options: Tracheoesophageal prosthesis (Option A): is incorrect because it involves the use of a small valve between the trachea and esophagus to produce speech, not a mechanical device. Chicago implant (Option B): is incorrect because the Chicago implant is a type of prosthesis used for tracheoesophageal speech but does not directly generate sound like the electro larynx. Esophageal speech (Option D): is incorrect because this method involves swallowing air and releasing it from the esophagus to produce speech, which is different from using a mechanical device like the electro larynx.

References:

Diseases of Ear, Nose & Throat - PL Dhingra - 8th Edition • Page no: 365

↑ *Back to this question in Part A*

@Neet_pg_bot

Q39: How should a patient with diphtheria and right vocal fold palsy be treated? (Q856974)

A. Wait and watch

B. Gelfoam injection

C. Thyroplasty type 1

D. Fat injection

Correct Answer: A. Wait and watch

Explanation: n cases of vocal fold palsy caused by diphtheria , the condition is often due to neuropathy from toxin effects , which may be temporary and reversible . Therefore, the standard initial management is “wait and watch” for potential spontaneous recovery of nerve function. Thyroplasty Type I(Option C): or medialization procedures are typically reserved for persistent or long-standing paralysis where no improvement is seen after an observation period (usually 6 months or more). Gelfoam injection (Option B) : Gelfoam injection is sometimes used in laryngeal procedures for temporary volume augmentation, but it is not the definitive treatment for vocal fold paralysis. It may not provide long-term results compared to thyroplasty. Fat injection (Option D) : Fat injection, similar to Gelfoam, is another method for increasing vocal fold bulk and improving closure, but it is less commonly used for permanent correction compared to thyroplasty. Fat injections can lead to resorption over time, reducing their long-term efficacy.

References:

Diseases of Ear, Nose, Throat - PL Dhingra, 8th edition, Page 350, 351

↑ *Back to this question in Part A*

@Neet_pg_bot

Q40: Which of the following treatment options is not recommended for a 4-year-old boy presenting with low-grade fever, inspiratory stridor, and barking cough for the past 5 days? The examination shows a hoarse voice, a moderately inflamed pharynx, and a slightly increased respiratory rate. The chest x-ray reveals subglottic narrowing resembling a steeple. (Q793588)

A. Nebulized racemic epinephrine

B. Parenteral cefotaxime

C. Helium oxygen mixture

D. Intramuscular dexamethasone

Correct Answer: B. Parenteral cefotaxime

Explanation: Option B. Parenteral cefotaxime: Indication : Cefotaxime is an antibiotic used to treat bacterial infections. Mechanism : It is a third-generation cephalosporin antibiotic effective against a broad spectrum of bacteria. Recommendation : Not recommended for croup, which is typically caused by a viral infection. Antibiotics like cefotaxime are not effective against viruses and therefore are not used in the treatment of viral croup unless there is a secondary bacterial infection, which is not indicated in this case. Other Options Option A. Nebulized racemic epinephrine: Indication : Used for moderate to severe croup to reduce airway swelling and relieve symptoms of stridor. Mechanism : Acts as a vasoconstrictor to reduce edema in the subglottic space. Recommendation : Appropriate for the treatment of croup. Option C. Helium oxygen mixture (Heliox): Indication : Used in severe cases of upper airway obstruction to improve airflow and reduce the work of breathing. Mechanism : Heliox is a mixture of helium and oxygen that is less dense than air, allowing it to flow more easily through narrowed airways. Recommendation : Appropriate as an adjunctive treatment in severe cases of croup to reduce respiratory distress. OptionD. Intramuscular dexamethasone: Indication : Used to reduce inflammation and edema in the airway. Mechanism : Dexamethasone is a corticosteroid that decreases inflammation and swelling in the subglottic area. Recommendation : Appropriate for the treatment of croup. It has been shown to reduce the severity and duration of symptoms.

References:

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↑ *Back to this question in Part A*

@Neet_pg_bot

Q41: What investigation is carried out immediately after a child is suspected of having inhaled a foreign body? (Q820363)

A. Rigid bronchoscopy

B. Chest X-ray

C. Direct laryngoscopy

D. Flexible endoscopy

Correct Answer: B. Chest X-ray

Explanation: Correct Option B - Chest X-ray: After a child inhales or ingests a foreign body, a chest X-ray is often the initial investigation carried out. A chest X-ray can help identify the location and potential presence of a foreign body in the lungs or airways. It provides a quick and non-invasive way to assess the situation and determine the appropriate course of action. Incorrect Options: Option A - Rigid bronchoscopy : Rigid bronchoscopy is a procedure in which a rigid tube is inserted into the airways to visualize and remove foreign bodies or other obstructions. While this is indeed a procedure that may be carried out to remove a foreign body from a child's lung, it is not typically the immediate investigation performed right after a child ingests or inhales a foreign body.

Option C - Direct laryngoscopy: Direct laryngoscopy is a procedure that involves examining the larynx (voice box) and adjacent structures using a laryngoscope. While this procedure might be used to examine the upper airway and larynx, it is not typically the first investigation performed when a foreign body is suspected in the lower airways or lungs. Option D - Flexible endoscopy: Flexible endoscopy involves using a flexible tube with a camera on the end to visualize internal structures. While this procedure can be used to examine the airways and remove foreign bodies, it might not be the immediate investigation performed right after a child inhales or ingests a foreign body.

References:

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↑ *Back to this question in Part A*

@Neet_pg_bot

Q42: What is the probable cause of surgical emphysema in a patient following an emergency tracheostomy? (Q793619)

A. High tracheostomy

B. Tear in posterior tracheal wall

C. Block in tracheostomy

D. Tight suture around tracheostomy site

Correct Answer: D. Tight suture around tracheostomy site

Explanation: Correct Option: Option D: Tight suture around tracheostomy site (Correct Answer) Tight suturing around the tracheostomy site can obstruct the normal passage of air, causing air to escape into the surrounding subcutaneous tissues. This can lead to the accumulation of air under the skin, resulting in surgical emphysema. The tight suture creates a seal that prevents air from escaping through the tracheostomy tube, forcing it into the surrounding tissues instead. Incorrect Options: Option A. High tracheostomy: A high tracheostomy refers to a tracheostomy performed above the second or third tracheal cartilage. While a high tracheostomy can cause complications, such as injury to blood vessels or the thyroid gland, it is not directly associated with surgical emphysema. Option B: Tear in posterior tracheal wall A tear in the posterior tracheal wall can lead to air escaping into the mediastinum and potentially causing pneumomediastinum rather than subcutaneous emphysema. Option C. Block in tracheostomy: A block in the tracheostomy tube can lead to respiratory distress and the buildup of secretions. While it requires immediate attention, it is not directly related to surgical emphysema.

References:

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↑ *Back to this question in Part A*

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• [05_Miscellaneous] 029 Previous Year Questions

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[05_Miscellaneous] 029 Previous Year Questions — Quick Jump

Q1 (p. 1510) *Q2 (p. 1511)* *Q3 (p. 1512)*

Q1: What is the most probable reason for the swelling in the tonsils of a 40-year-old woman who has difficulty swallowing food, no past medical history of fever, sore throat, or smoking, but a family history of Marfan's syndrome in her father, and shows unilateral swelling of the tonsils along with pulsation upon oral examination? (Q859365)

A. Extracranial internal carotid artery aneurysm

B. Intracranial external carotid artery aneurysm

C. Extracranial external carotid artery aneurysm

D. Intracranial internal carotid artery aneurysm

Correct Answer: A. Extracranial internal carotid artery aneurysm

Explanation: The unilateral tonsillar swelling with pulsation suggests a vascular etiology , and the presence of Marfan’s syndrome in the family history increases the likelihood of an aneurysm due to connective tissue disorder . The extracranial internal carotid artery (ICA) aneurysm is a rare but recognized cause of tonsillar swelling and can mimic a mass lesion. It is located medially to the tonsil and can be identified by pulsation on examination. Extracranial Internal Carotid Artery Aneurysm Feature Description Cause Weakening of ICA wall (due to atherosclerosis, Marfan’s syndrome, Ehlers-Danlos syndrome, infections, or trauma) Symptoms 1. Unilateral tonsillar swelling 2. Dysphagia (difficulty swallowing) 3. Pulsation on oral exam 4. Absence of infection or inflammatory signs Risk Factors Connective tissue disorders (Marfan's, Ehlers-Danlos), atherosclerosis, hypertension Complications Rupture, thrombosis, stroke, or cranial nerve compression Diagnosis CT/MR angiography, Doppler ultrasound Treatment Surgical repair or endovascular stenting Incorrect Options: Intracranial External Carotid Artery Aneurysm (Option B): is incorrect because the external carotid artery does not run close to the tonsils, and intracranial aneurysms do not present as tonsillar swelling . Extracranial External Carotid Artery Aneurysm (Option C): is incorrect because the external carotid artery runs laterally in the neck , not medially near the tonsils. Intracranial Internal Carotid Artery Aneurysm (Option D): is incorrect because an intracranial ICA aneurysm presents with stroke-like symptoms (headache, visual disturbances, or cranial nerve palsies) rather than tonsillar swelling .

References:

https://pmc.ncbi.nlm.nih.gov/articles/PMC6703024/

https://pmc.ncbi.nlm.nih.gov/articles/PMC5853199/

↑ *Back to this question in Part A*

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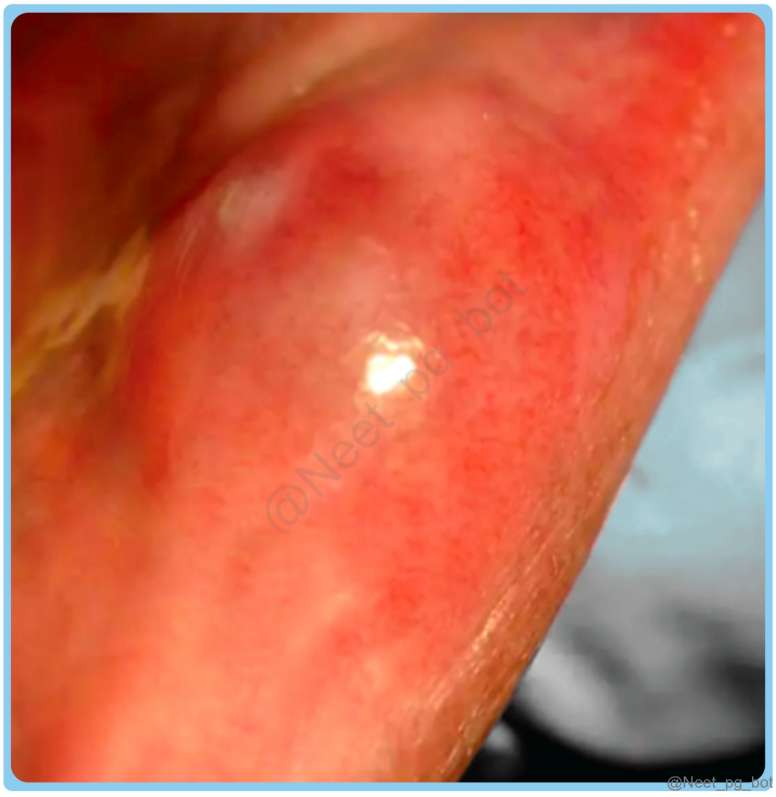
Q2: Which is the false statement among the following for the condition given in the picture? (Q859652)

A. Retention cyst of major salivary glands

B. Most common site is lower lip

C. It is a benign condition

D. Treatment is surgical excision



Correct Answer: A. Retention cyst of major salivary glands

Explanation: The lesion in the image is mucocele , which arises from minor salivary glands , most commonly located on the lower lip . It occurs due to extravasation or retention of mucus following ductal injury or obstruction. Therefore, the statement “Retention cyst of major salivary glands” is false , because: Retention cysts of major salivary glands (parotid, submandibular, sublingual) occur in those gland regions, not on the lower lip . Mucoceles originate from minor salivary glands , not major ones. Most common site is lower lip (Option B): This

is true. The lower lip is the most frequent site for mucoceles Is a benign condition: (Option C): This is true. Mucoceles are benign lesions. Treatment is surgical excision (Option D): This is true. The standard treatment for mucoceles is surgical excision.

References:

P L Dhingra Diseases of Ear Nose and Throat and Head and Neck Surgery - 7th Edition Page no: 252

P L Dhingra Diseases of Ear Nose and Throat and Head and Neck Surgery - 8th Edition Page no: 263

↑ *Back to this question in Part A*

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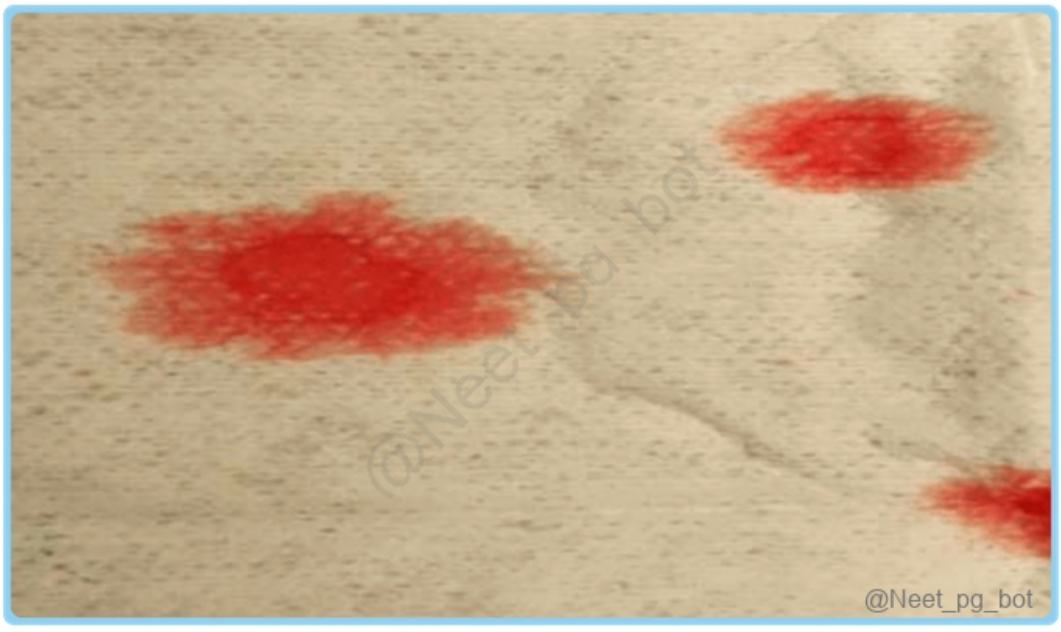
Q3: A 23-year-old male patient visits you reporting a nasal discharge that appears like the image shown on a handkerchief. Which of the following characteristics aids in identifying the presence of CSF rhinorrhoea in this patient? (Q859901)

A. Halo sign

B. Handkerchief sign

C. Schwartz sign

D. Phelps sign



Correct Answer: A. Halo sign

Explanation: The Halo sign is a classic characteristic used to identify CSF rhinorrhea . It is observed when nasal discharge on a handkerchief or tissue shows a central clear fluid surrounded by a ring of blood , creating a halo pattern. This indicates the presence of cerebrospinal fluid (CSF) leaking from the subarachnoid space into the nasal cavity, usually due to a fracture in the skull base, often in the area around the ethmoid sinuses . CSF Rhinorrhea: CSF rhinorrhea occurs when cerebrospinal fluid leaks from the brain's subarachnoid space into the nasal cavity. This may be due to a skull base fracture , usually from trauma or surgery. The Halo sign is diagnostic when the fluid leaks from the nose and has a clear center with a blood ring around it, indicative of CSF. Symptoms often include clear nasal discharge , headaches , and a history of trauma . Incorrect Options: Handkerchief sign (Option B) : is incorrect because it is not a widely recognized term in clinical practice and does not specifically refer to the pattern seen in CSF rhinorrhea. Schwartz sign (Option C) : is incorrect because it refers to a sign used in Biermer's disease (megaloblastic anemia) and is unrelated to CSF rhinorrhea. Phelps sign (Option D) : is incorrect because it does not refer to any known clinical sign associated with CSF rhinorrhea.

References:

Dhingra's Diseases Of Ear, Nose And Throat, & Head and Neck Surgery, Ed 8, Pg.191,192

Logan Turner’s Diseases of Nose, Throat and Ear, 11th Edition, Pg.88

Cribriform plate

↑ *Back to this question in Part A*

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• [06_ENT Surgeries] 030 Previous Year Questions

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[06_ENT Surgeries] 030 Previous Year Questions — Quick Jump

Q1 (p. 1514) *Q2 (p. 1514)* *Q3 (p. 1515)* *Q4 (p. 1516)* *Q5 (p. 1518)* *Q6 (p. 1519)* *Q7 (p. 1521)*

Q1: What is the appropriate approach to treat a child who is attending school and has a repeated occurrence of infections in the upper respiratory tract, difficulty in breathing through the nose, and hearing problems, along with the observation of a palate that is significantly raised in shape? (Q857645)

A. Tonsillectomy

B. Adenoidectomy

C. Adenoidectomy with grommet insertion

D. Myringotomy with grommet insertion

Correct Answer: C. Adenoidectomy with grommet insertion

Explanation: Adenoidectomy with grommet insertion is the preferred approach for a child presenting with recurrent upper respiratory tract infections, nasal breathing difficulty, hearing problems, and a high-arched palate. These symptoms suggest adenoid hypertrophy causing upper airway obstruction and Eustachian tube dysfunction, leading to otitis media with effusion (OME). Adenoidectomy relieves nasal obstruction and reduces recurrent infections. Grommet insertion helps in draining middle ear fluid, improving hearing. Tonsillectomy (Option A) : Tonsillectomy alone is not indicated as the child primarily has symptoms related to adenoid hypertrophy and Eustachian tube dysfunction, not recurrent tonsillitis. Adenoidectomy (Option B) : While adenoidectomy addresses the nasal obstruction and infections, it does not directly manage the hearing problems caused by OME. Grommet insertion is essential for addressing middle ear fluid. Myringotomy with grommet insertion (Option D) : While this resolves middle ear fluid, it does not address the underlying issue of adenoid hypertrophy causing nasal obstruction and recurrent infections.

References:

Diseases of Ear, Nose, Throat - PL Dhingra, 8th Edition, Pg 76, 77, 507 , 508

↑ *Back to this question in Part A*

@Neet_pg_bot

Q2: Which nerve is accountable for causing ear pain following a tonsillectomy procedure among the options provided? (Q857663)

A. Glossopharyngeal nerve

B. Facial nerve

C. Trigeminal nerve

D. Vagus nerve

Correct Answer: A. Glossopharyngeal nerve

Explanation: Glossopharyngeal nerve: The glossopharyngeal nerve (cranial nerve IX) provides sensory innervation to the oropharynx and tonsillar region. It also has referred sensory pathways to the ear through its tympanic branch (Jacobson's nerve). This referral pathway explains the ear pain commonly experienced after a tonsillectomy. Facial nerve (Option B) : The facial nerve (cranial nerve VII) is primarily involved in motor innervation to the muscles of facial expression and does not provide sensory innervation to the tonsillar or pharyngeal region. Trigeminal nerve (Option C) : The trigeminal nerve (cranial nerve V) provides sensory innervation to the face, including the external ear via its auriculotemporal branch, but it is not directly involved in tonsillar pain. Vagus nerve (Option D) : The vagus nerve (cranial nerve X) provides sensory innervation to parts of the larynx and pharynx, but it is less commonly associated with referred ear pain in tonsillectomy cases.

References:

Diseases of Ear, Nose, Throat - PL Dhingra, 8th edition, Page 303, 304

↑ *Back to this question in Part A*

@Neet_pg_bot

Q3: Dohlman’s procedure is for: (Q859369)

A. Meckel’s diverticulum

B. Zenker’s diverticulum

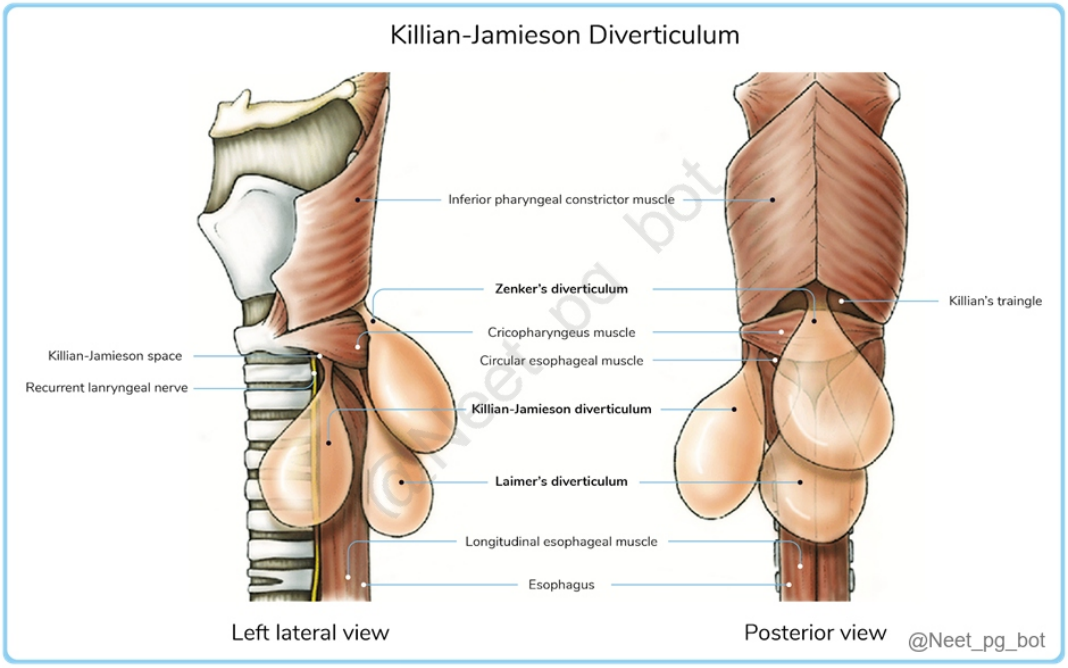
C. Bochadlek hernia

D. Menetrier’s disease

Correct Answer: B. Zenker’s diverticulum

Explanation: Dohlman’s procedure is a minimally invasive endoscopic technique used to treat Zenker’s diverticulum , a pharyngoesophageal pouch that forms due to cricopharyngeal muscle dysfunction . The procedure involves endoscopic diverticulotomy , which divides the cricopharyngeal bar , allowing food to pass freely into the

esophagus. Zenker’s Diverticulum & Dohlman’s Procedure Feature Description Definition Outpouching of mucosa through Killian’s dehiscence (weak area in the posterior pharynx) Cause Cricopharyngeal dysfunction leading to high pressure and diverticulum formation Symptoms 1. Dysphagia 2. Regurgitation of undigested food 3. Halitosis (bad breath) 4. Aspiration pneumonia Diagnosis Barium swallow X-ray (shows a posterior pharyngeal pouch) Treatment Dohlman’s procedure (endoscopic diverticulotomy) Open surgery if large {{caption_text}} Incorrect Options: Meckel’s diverticulum (Option A): is incorrect because Meckel’s diverticulum is a congenital remnant of the vitelline duct in the small intestine and is managed surgically by Meckel’s diverticulectomy , not Dohlman’s procedure. Bochdalek hernia (Option C): is incorrect because Bochdalek hernia is a congenital diaphragmatic hernia due to failure of the pleuroperitoneal membrane to close and is repaired via surgical closure of the diaphragm defect . Menetrier’s disease (Option D): is incorrect because Menetrier’s disease is a rare gastric hypertrophic condition with protein loss and increased mucus secretion , treated with medical therapy or gastrectomy in severe cases , not Dohlman’s procedure.



References:

Dhingra Diseases of Ear, Nose and Throat and Head and Neck Surgery 8th edition, page 323&324.

https://www.ncbi.nlm.nih.gov/pmc/articles/PMC1742115/#:~:text=Pharyngeal%20pouches%20occur%20most%20commonly,physiological%20abnormality%20of%20the%20cricopharyngeus.

↑ *Back to this question in Part A*

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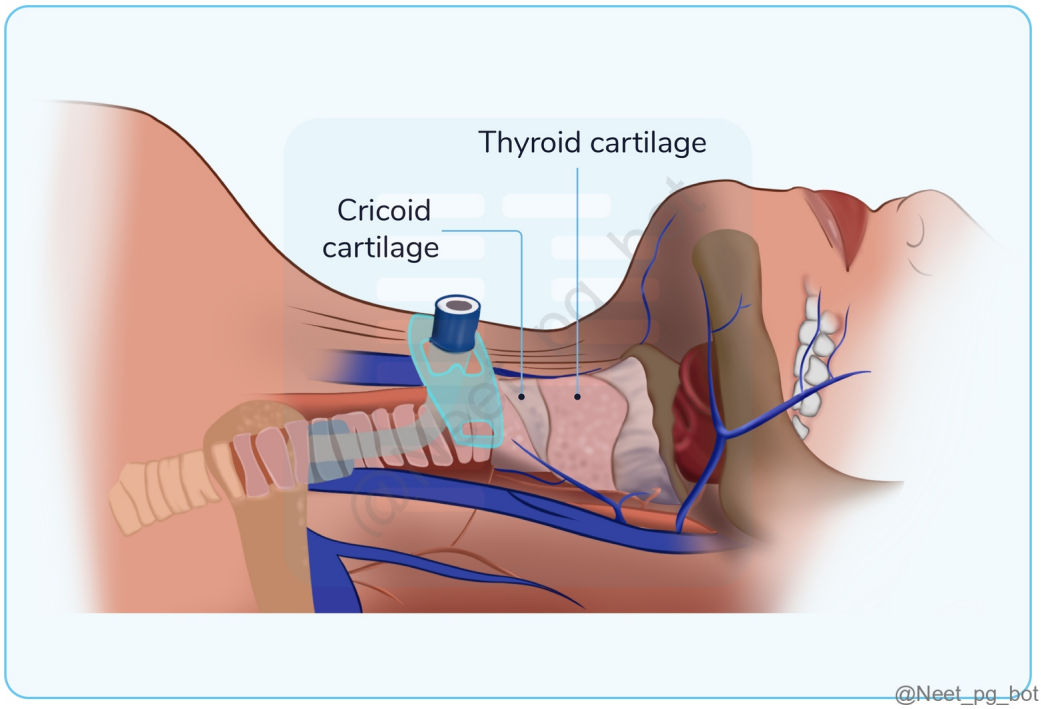
Q4: The image below shows a procedure that was done on the patient. What is the procedure? (Q859878)

A. Endotracheal intubation

B. Needle cricothyroidotomy

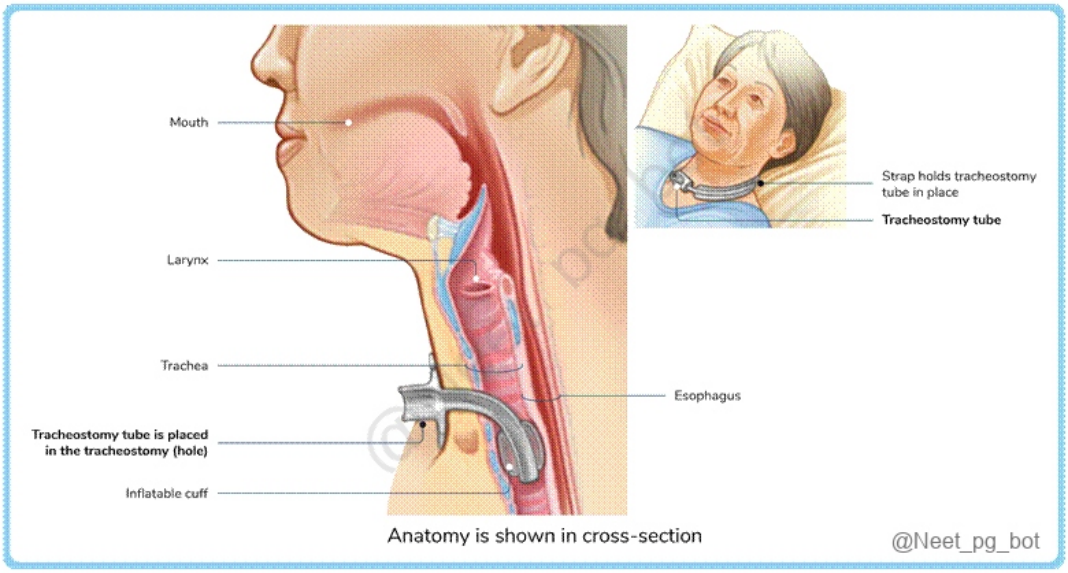
C. Tracheostomy

D. Oropharyngeal airway



Correct Answer: C. Tracheostomy

Explanation: A tracheostomy is a surgical procedure where an opening is created in the neck, directly into the trachea (windpipe), to provide an airway and to allow for breathing when the upper airway is blocked or compromised. This is usually performed in cases of long-term mechanical ventilation needs, upper airway obstruction, or trauma to the neck. Tracheostomy : Aspect Details Indications Upper airway obstruction (tumors, foreign body) Prolonged mechanical ventilation Neurological conditions (e.g., spinal cord injury) Procedure Incision made below vocal cords, tube inserted into trachea. Tube Types Cuffed: for ventilation support. Uncuffed: for stable airway or weaning. Complications Infection, bleeding, tracheal stenosis, accidental dislodgement, swallowing difficulty. Care Regular cleaning, monitoring for infection, and tube changes. Advantages Comfortable for long-term ventilation, lower risk of airway damage compared to intubation. {{caption_text}} Incorrect Options: Endotracheal intubation (Option A): is incorrect because it involves the insertion of a tube into the trachea via the mouth or nose, not through a neck incision. Needle cricothyroidotomy (Option B): is incorrect because this emergency procedure involves inserting a needle through the cricothyroid membrane in the neck to secure an airway in life-threatening situations, but does not involve creating a permanent opening as in a tracheostomy. Oropharyngeal airway (Option D): is incorrect because this is a device inserted into the mouth to maintain an open airway, typically in unconscious patients, and does not involve a surgical incision or permanent airway opening.



References:

Dhingra's Diseases Of Ear, Nose And Throat, & Head and Neck Surgery, 8th edition, Pages 369, 370

↑ *Back to this question in Part A*

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Q5: A female homemaker arrives with symptoms of nasal congestion, reduced sense of smell, and a dry discharge from the nose that is greenish and crusty. Upon examination, the nasal passages appear spacious, and the turbinates are found to be shriveled. Which surgical procedure would be suitable for this patient? (Q859902)

A. Submucous resection

B. Young’s operation

C. Septoplasty

D. Vidian neurectomy

Correct Answer: B. Young’s operation

Explanation: Young's operation is a surgical procedure used to treat atrophic rhinitis (also known as "ozena"), which is characterized by dryness of the nasal mucosa , crusting , and sometimes foul-smelling discharge . This condition can cause nasal congestion and a reduced sense of smell, which aligns with the symptoms described in this patient. Young’s operation involves removing the affected mucosa and sometimes involves creating a more functional nasal environment. Young’s Operation: Indication : Young’s operation is commonly used in cases of atrophic rhinitis where there is dry, crusty discharge from the nasal passages along with a reduced sense of smell

and nasal obstruction. Procedure : The surgery typically involves removing the affected, atrophic mucosa and possibly re-establishing the function of the nasal passages to improve breathing and reduce symptoms like dryness and crusting. Incorrect Options: Submucous resection (Option A) : is incorrect because it is performed to treat nasal septal deviation , not for conditions with excessive dryness or crusting, such as atrophic rhinitis. Vidian neurectomy (Option D) : is incorrect because Vidian neurectomy is used to reduce excessive nasal secretion in chronic rhinitis or other conditions with excessive nasal discharge, but not for atrophic rhinitis. Septoplasty (Option C) : is incorrect as it is performed for nasal septal deviation to correct airflow, but the patient in question is dealing with dryness and crusting, rather than a structural issue like septal deviation.

References:

Diseases of Ear, Nose, Throat - PL Dhingra, 8th edition, Pg - 210

Scott Brown ENT, 8th Edition Pg - 1180

↑ *Back to this question in Part A*

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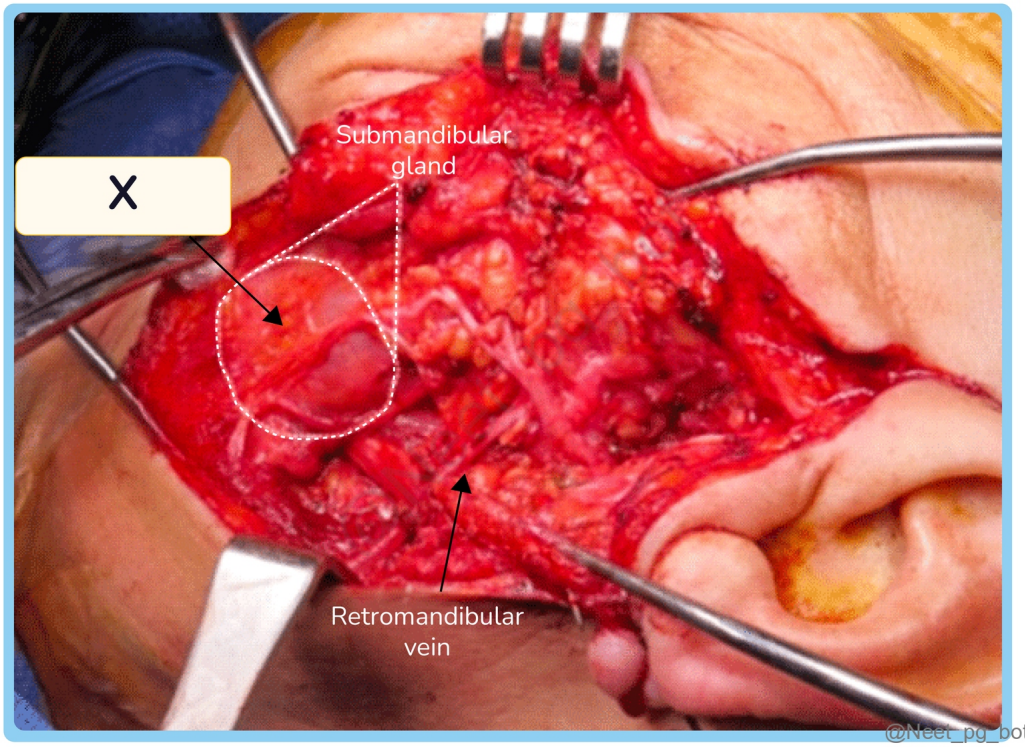
Q6: A structure passing deep to the submandibular gland and curving around the inferior border of the mandible during submandibular gland excision surgery. Identify the structure labeled ‘X’ in the following image. (Q866568)

A. Facial nerve

B. Marginal mandibular nerve

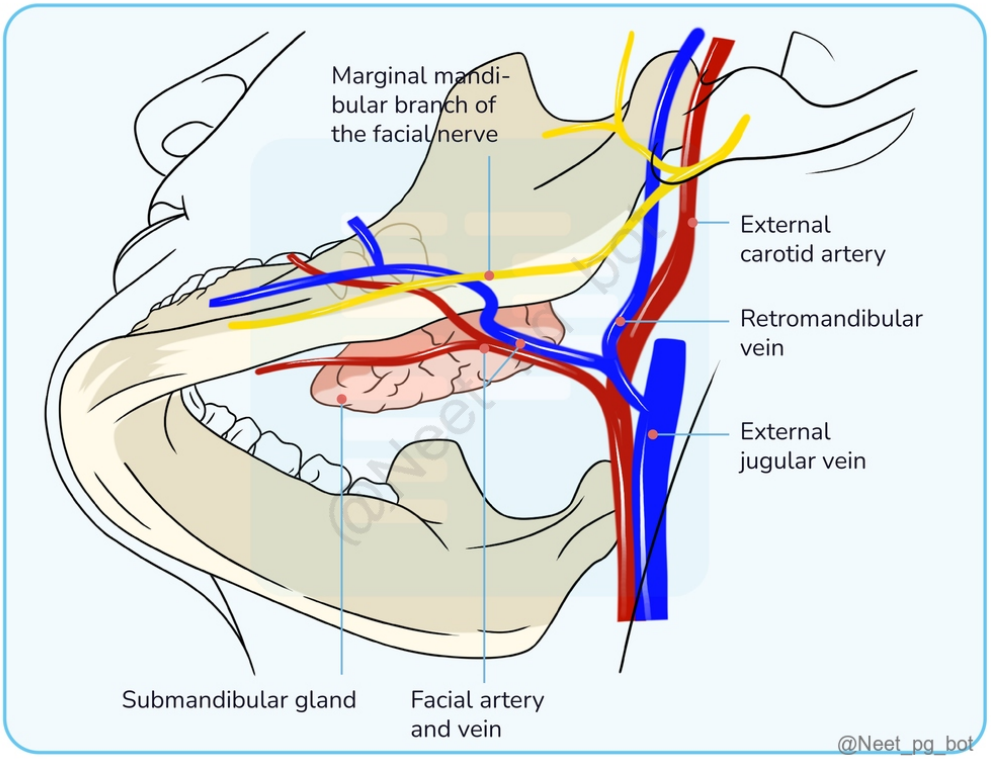
C. Facial artery

D. Trigeminal nerve



Correct Answer: C. Facial artery

Explanation: The structure marked ‘X’ is identified as the facial artery. In this image: The submandibular gland is clearly exposed. The vessel marked is coursing through or very close to the gland, which is a characteristic feature of the facial artery. It needs to be ligated and divided during submandibular gland removal. The facial artery is a key anatomical landmark during submandibular gland excision. It typically runs deep to or within the submandibular gland and is often seen as a prominent vessel in this surgical field. It originates from the external carotid artery , passes deep to the posterior belly of digastric and stylohyoid, and then enters the submandibular gland before looping over the mandible to supply the face. Incorrect Options: The facial nerve (Option A) does not run through the submandibular region. It enters the parotid gland and branches within it. Th e marginal mandibular nerve (Option B) is closely related to the submandibular gland and is at risk during surgery, it is a thin, delicate nerve running superficial to the gland, not a thick, pulsatile structure like in the image. The trigeminal nerve (Option D) and its major branches are not present in this surgical plane. It does not pass through or near the submandibular gland.



↑ *Back to this question in Part A*

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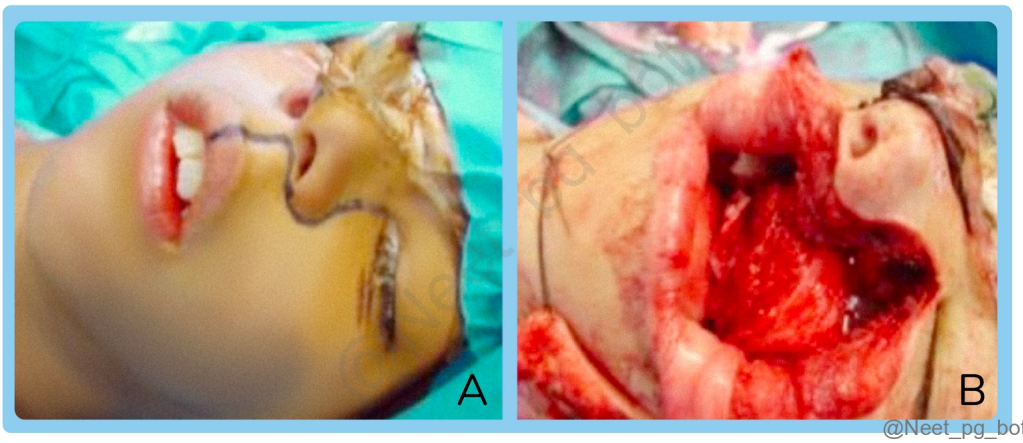
Q7: What surgery is being performed in the image shown? (Q866706)

A. Total ethmoidectomy

B. Partial ethmoidectomy

C. Total maxillectomy

D. Partial maxillectomy



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Correct Answer: C. Total maxillectomy

Explanation: The Weber–Ferguson incision is a classical surgical approach for accessing the maxilla and paranasal sinuses , providing wide exposure. The image shows an exposed maxillary cavity with removal of anterior and medial walls , which is characteristic of a total maxillectomy . Total maxillectomy involves removal of the entire maxilla, including anterior, medial, posterior, and inferior walls, usually performed for malignant tumors of the maxilla or advanced sinonasal malignancies. In the given scenario, the surgical field and the incision markings confirm the diagnosis of total maxillectomy . Incorrect Options: Total ethmoidectomy (Option A): Complete removal of the ethmoid air cells, done for extensive ethmoid sinus disease, not for lesions requiring maxillary bone removal. Partial ethmoidectomy (Option B): Involves selective removal of diseased ethmoid cells while preserving healthy mucosa, unrelated to the maxillary walls. Partial maxillectomy (Option D): Involves removal of only part of the maxilla (e.g., medial wall in medial maxillectomy) while sparing other bony walls; in the image, multiple walls are removed indicating a total, not partial, procedure.

References:

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↑ *Back to this question in Part A*

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• [07_Miscellaneous Topics] 031 Miscellaneous

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[07_Miscellaneous Topics] 031 Miscellaneous — Quick Jump

Q1 (p. 1523)	*Q2 (p. 1523)*	*Q3 (p. 1527)*	*Q4 (p. 1529)*	*Q5 (p. 1534)*	*Q6 (p. 1535)*
Q7 (p. 1536)	*Q8 (p. 1539)*	*Q9 (p. 1540)*	*Q10 (p. 1542)*	*Q11 (p. 1543)*	*Q12 (p. 1544)*
Q13 (p. 1546)	*Q14 (p. 1547)*	*Q15 (p. 1551)*	*Q16 (p. 1555)*		

Q1: A surgeon performs an elective tracheostomy. According to anatomical landmarks, where should the transverse incision be placed? (Q882303)

A. Immediately below thyroid cartilage

B. At the level of cricoid cartilage

C. Midway between the suprasternal notch and the lower border of the cricoid cartilage

D. One finger breadth above clavicle

Correct Answer: C. Midway between the suprasternal notch and the lower border of the cricoid cartilage

Explanation: Proper incision placement is key to a safe tracheostomy. A transverse incision placed approximately midway between the inferior border of the cricoid cartilage and the suprasternal notch allows for optimal access to the 2nd, 3rd, and 4th tracheal rings. This position avoids being too high, which risks injury to the cricoid cartilage (leading to subglottic stenosis), and too low, which risks injury to the great vessels of the superior mediastinum (e.g., the innominate artery). Incorrect Options: Option A: This location corresponds to the cricothyroid membrane, the site for a cricothyrotomy, not a tracheostomy. Option B: An incision directly on the cricoid is contraindicated. Option D is incorrect.

References:

Dhingra's Diseases Of Ear, Nose And Throat, & Head and Neck Surgery, 8th edition, Pages 342, 343

↑ *Back to this question in Part A*

@Neet_pg_bot

Q2: A 45-year-old patient is experiencing persistent headaches and frontal sinus pain. A radiograph is taken with the patient in a chin-down position to assess the involvement of the frontal sinus. What is this imaging view called? {{caption_text}}

(Q848012)

A. Waters' View

B. Pierre’s View

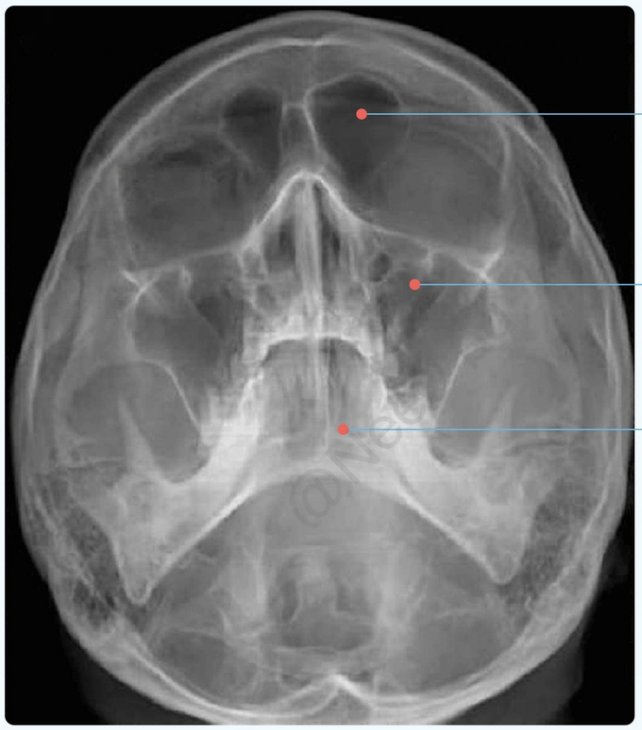
C. Caldwell View

D. Lateral View

Correct Answer: C. Caldwell View

- *Listen (English)*
- *Listen (Hindi)*

Explanation: The Caldwell view is specifically designed to visualize the frontal sinuses. In this view, the patient is positioned with the chin down, which projects the frontal sinuses prominently and clearly on the radiograph. Opacification of the frontal sinus, as seen in the image, indicates involvement of this sinus, which is best assessed using the Caldwell view. View Position Purpose Image Waters' View (Occipitomental View) (Option A) Chin-up position. Best view to visualize the maxillary sinus. {{caption_text}} Pierre’s View (Option B) Similar to Waters' view but with the mouth open . Best view to visualize the sphenoid sinus. {{caption_text}} Caldwell View (Occipitofrontal View) (Option C) Chin-down position. Best view to visualize the frontal sinus. {{caption_text}} Lateral View (Option D) Lateral (as the name indicates) Allows visualization of all sinuses (frontal, maxillary, sphenoid, and ethmoidal). Helps to understand the pneumatization pattern of the sphenoid sinus. {{caption_text}}



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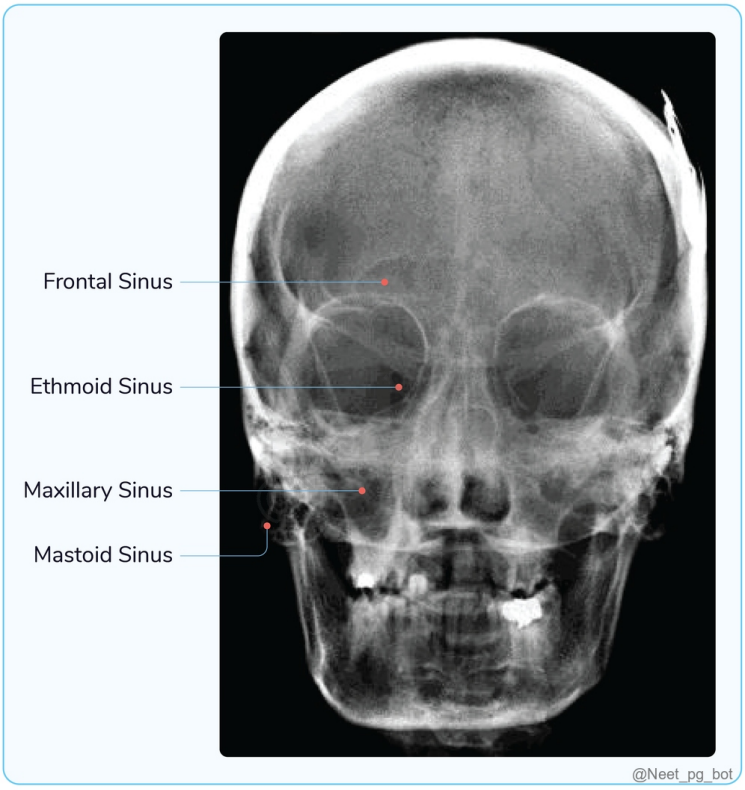
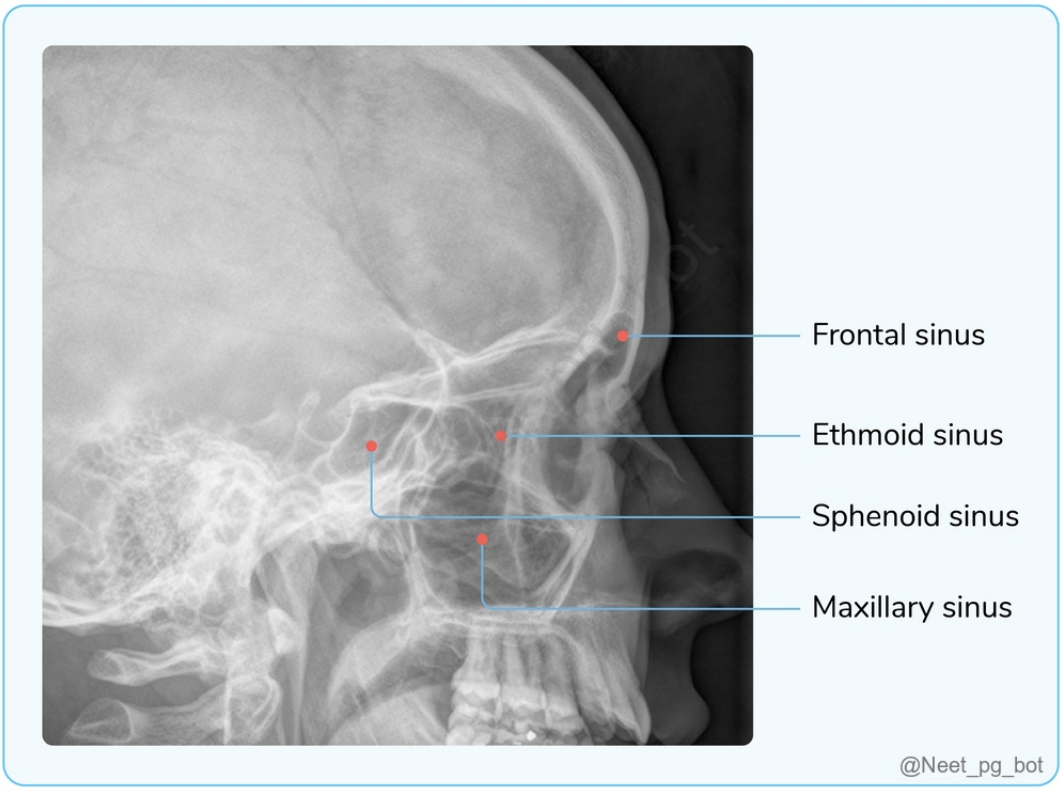




References:

Dhingra Diseases of Ear, Nose and Throat & Head and Neck Surgery, 8th Edition, Pages 509-511

↑ *Back to this question in Part A*

@Neet_pg_bot

Q3: Identify the structure indicated by the white arrow in the CT scan of the nose and paranasal sinuses shown below {{caption_text}} (Q848013)

A. Bulla Ethmoidalis

B. Haller Cell

C. Agger Nasi

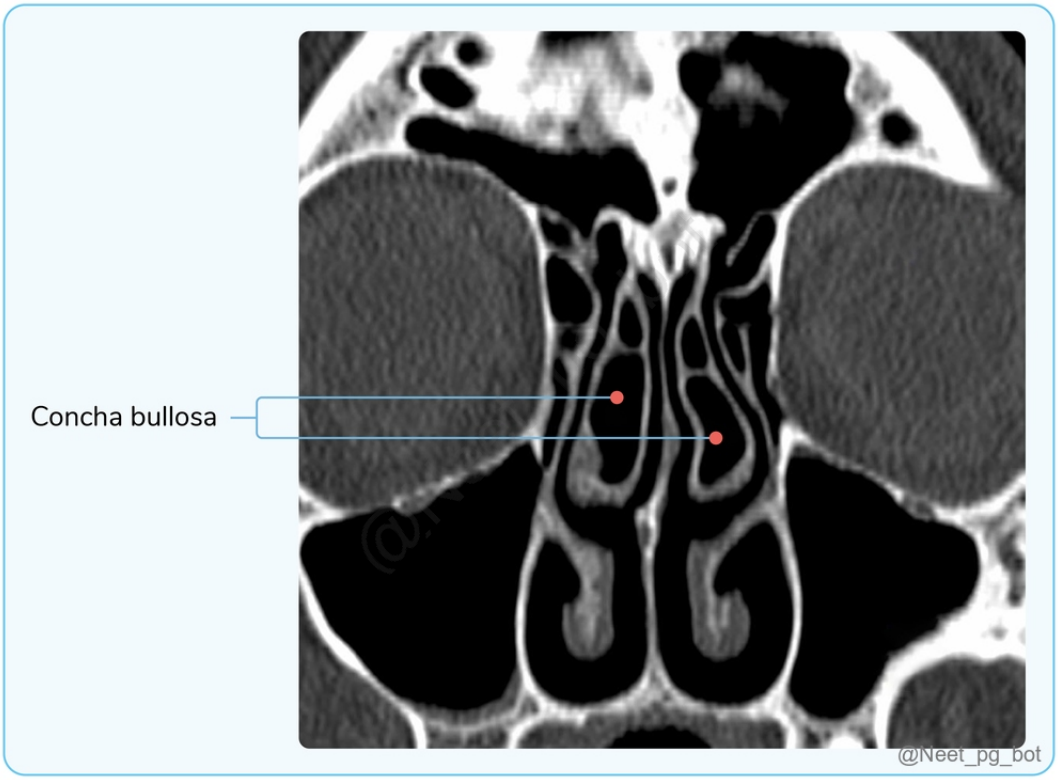
D. Concha bullosa

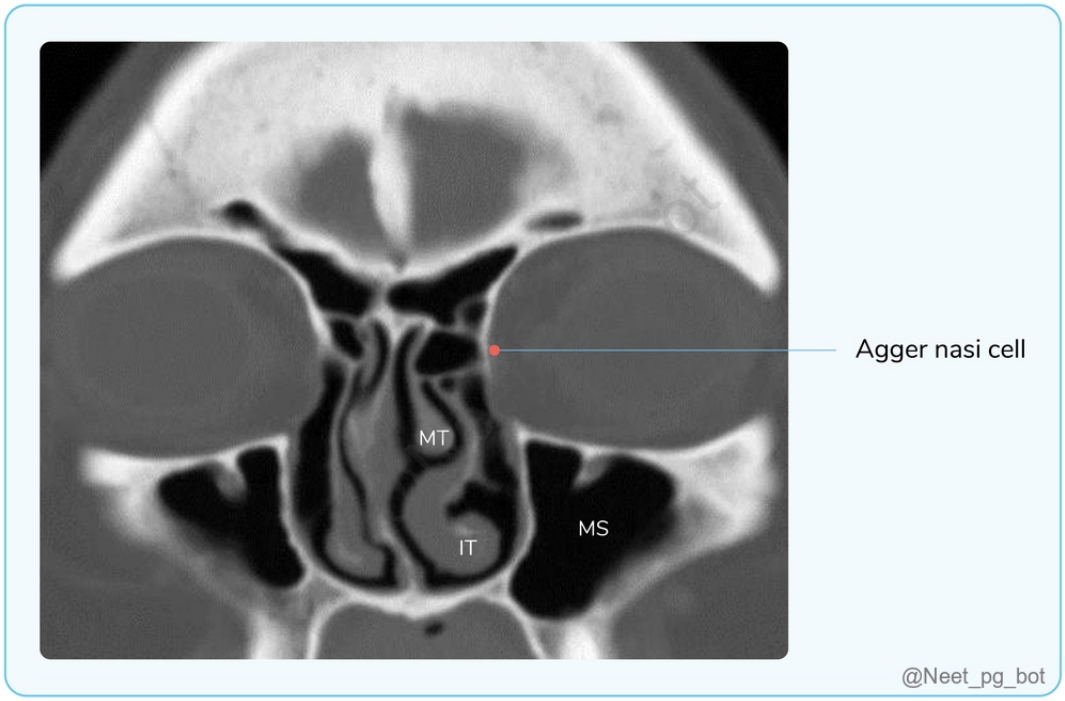
Correct Answer: B. Haller Cell

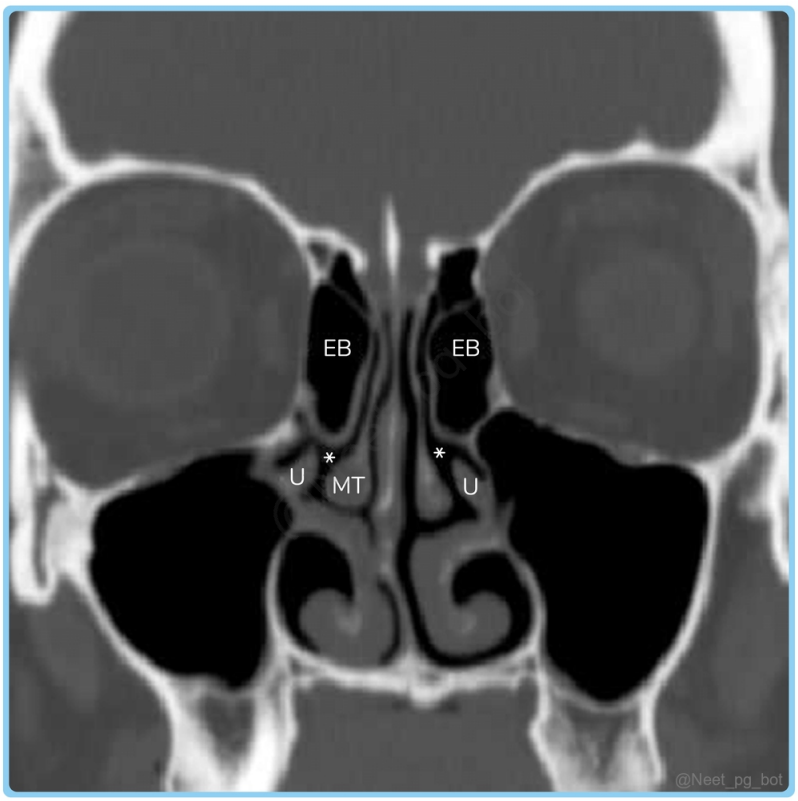
- *Listen (English)*
- *Listen (Hindi)*

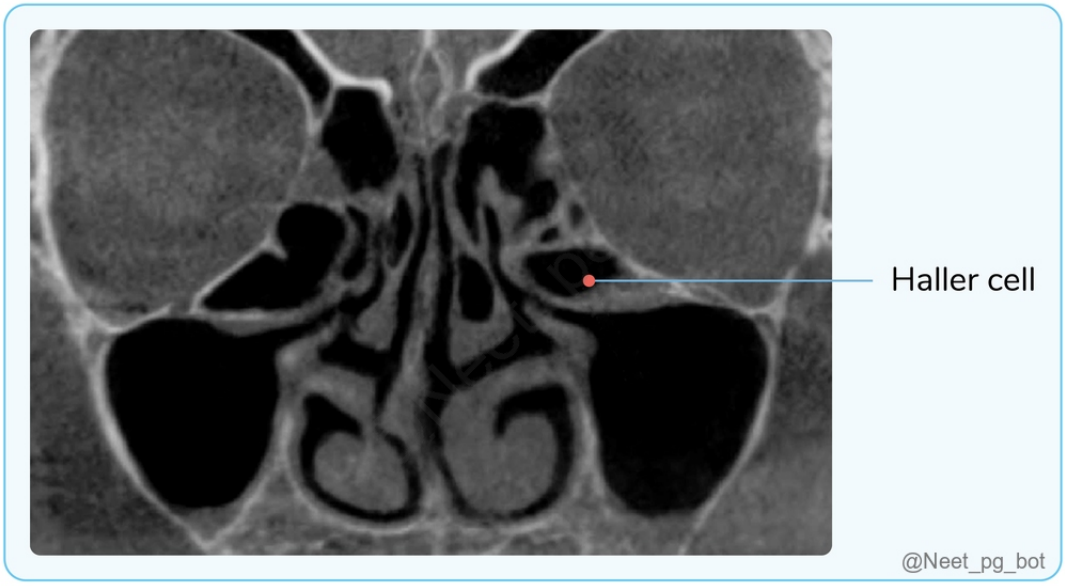
Explanation: The white arrow in the image points to the Haller Cell , an ethmoidal air cell located inferomedially near the orbit floor. CT Scan of Nose and Paranasal Sinuses Initial Cuts (Anterior to Posterior) Anterior Cut : Structures visible: Nasal cavity, nasal bone structures, cartilaginous septum, and frontal sinus Progressing cuts : Nasal bones and bony portion of septum Frontal sinus Middle Region Cuts Maxillary sinus Inferior turbinate and septum Middle turbinate Concha Bullosa (Option D ruled out) : Air-filled or pneumatized middle turbinate, which can cause headaches, due to obstruction or irritation of surrounding structures. Ethmoidal air cells Agger Nasi :

(Option C ruled out) : The anterior-most ethmoidal air cell, visible before the middle turbinate. Bulla Ethmoidalis (EB) (Option A ruled out) : The largest ethmoidal air cell, visible further posteriorly. Haller cell : Located inferomedially to the orbit, often extending below the middle turbinate, can contribute to obstruction or sinus issues. Posterior Cuts Sphenoid sinus Concha Bullosa Agger Nasi {{caption_text}} {{caption_text}} Bulla Ethmoidalis (EB) Haller Cell {{caption_text}} {{caption_text}}









References:

Dhingra Diseases of Ear, Nose and Throat & Head and Neck Surgery, 8th Edition, Page .219

↑ *Back to this question in Part A*

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Q4: A 30-year-old female presents with suspected mastoiditis. The ENT surgeon orders a Law’s view X-ray to assess the mastoid. Which of the following best describes this view? (Q848014)

A. Lateral oblique view with a 15º tilt

B. Lateral oblique view with a 30º tilt

C. AP view with a 30º tilt

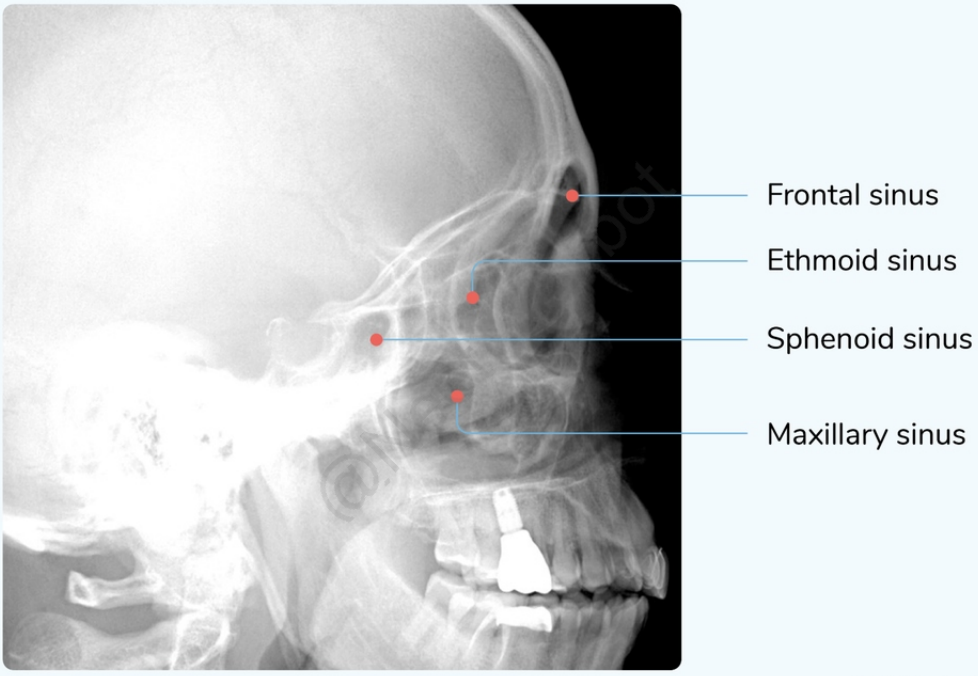
D. AP view with a 15º tilt

Correct Answer: A. Lateral oblique view with a 15º tilt

■ *Listen (English)*

■ *Listen (Hindi)*

Explanation: In Law’s view, the X-ray beam is angled 15º cephalocaudally while the patient’s sagittal plane is kept parallel to the film. This projection helps visualize the mastoid air cells and the external acoustic meatus (EAC). Radiographic Views for Mastoid: X-ray Projection Beam Angle & Positioning Structures Seen Clinical Applications Law's View (15° lateral oblique) {{caption_text}} Sagittal plane of the skull parallel to the film; 15° cephalocaudal beam angle (Option A). Mastoid air cells External Acoustic Meatus (EAC) Tympanic cavity Evaluation of mastoid air cells Mastoiditis Mastoid pneumatization Schuller's View (30° lateral oblique) Similar to Law's view, but the beam is angled 30° cephalocaudal (Option B) EAC superimposed on IAC Mastoid air cells Lateral sinus plate Condyle of mandible Attic-antral region Mastoiditis Destruction of intercellular septa Cholesteatoma Longitudinal petrous fracture Stenvers View (Axio-anterior oblique posterior) {{caption_text}} Head slightly flexed and rotated 45° opposite to the side under examination; beam angled 12° cephalad Posterior cranial fossa Semicircular canals IAC Vestibular system Acoustic neuroma Petrositis Cholesteatoma Towne's View (30° fronto-occipital axial) {{caption_text}} Anteroposterior view with 30° tilt from above and in front. (Option C) Both temporal bones Arcuate eminence Superior semicircular canal Mastoid antrum EAC Tympanic cavity Cochlea Acoustic neuroma Apical petrositis Transorbital View (AP/PA) {{caption_text}} Orbito-meatal line perpendicular to the film ; X-ray beam perpendicular to the film from the submental area EAC, Mastoid air cells, Mastoid process, Cochlea, IAC, Vestibule, Base of skull, Orbital rim General assessment of mastoid and adjacent structures Submentovertical View (full axial) {{caption_text}} Head and neck hyperextended, orbito-meatal line parallel to the film; beam at right angles to the film Skull base structures, Mastoid process, Petrous apex, Tympanic cavity Skull base fractures, mastoid involvement, temporal bone fracture There is no such view as AP view with a 15º tilt (Option D) in mastoid imaging.



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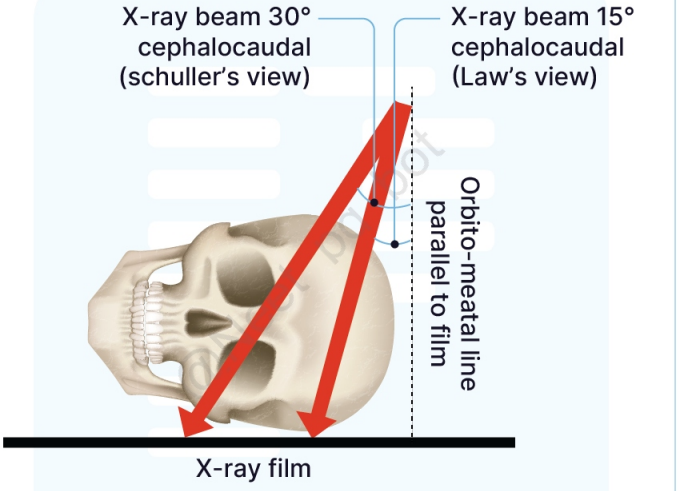

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References:

Dhingra Diseases of Ear, Nose and Throat & Head and Neck Surgery, 8th Edition, Page 509

https://epomedicine.com/medical-students/x-ray-of-mastoids/

↑ *Back to this question in Part A*

@Neet_pg_bot

Q5: Which of the following statements regarding sialography is false? (Q848015)

A. Sialography helps diagnose salivary duct issues.

B. Contrast dye is injected into the salivary duct.

C. Restricted dye flow indicates potential salivary stones.

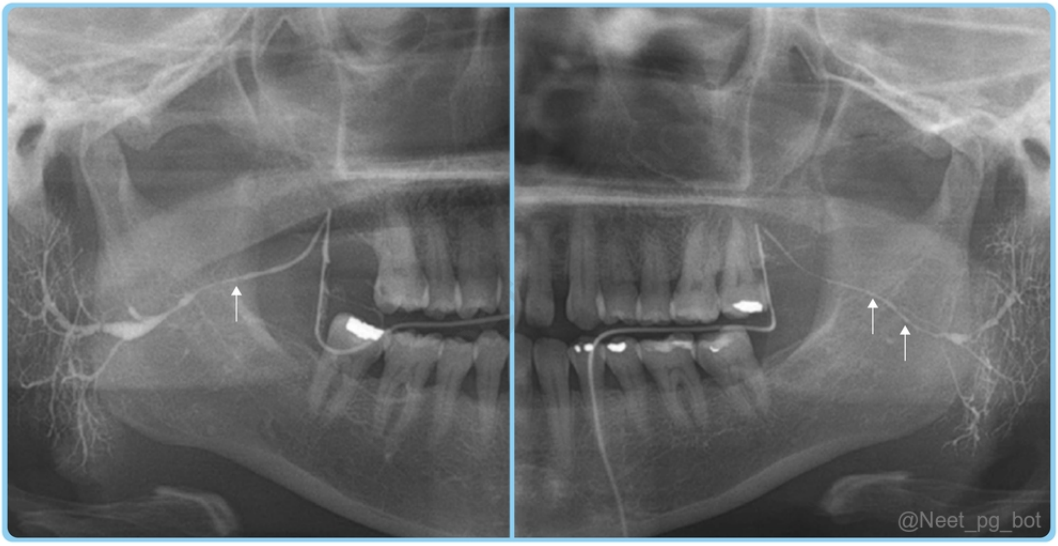
D. Dye is injected into the salivary gland’s blood vessels.

Correct Answer: D. Dye is injected into the salivary gland’s blood vessels.

■ *Listen (English)*

■ *Listen (Hindi)*

Explanation: In sialography, the contrast dye is injected directly into the salivary duct, not the blood vessels. This allows visualization of the ductal system and any blockages or abnormalities within it. A diagnostic method to evaluate salivary gland duct blockage. (Option A ruled out) Procedure for Parotid Gland Assessment: Cannulation: The parotid gland duct, located near the upper second molar, is cannulated. Dye Injection: A contrast dye is injected into the duct. (Option B ruled out) X-ray Imaging: An X-ray is taken after dye injection. Interpreting Results: Unrestricted Dye Flow: Indicates no obstruction in the duct. Restricted Dye Flow: May suggest issues such as: (Option C ruled out) Calculi (salivary stones) Duct ectasia (dilation of the duct) {{caption_text}}



References:

Dhingra Diseases of Ear, Nose and Throat & Head and Neck Surgery, 8th Edition, Page 273

https://www.ncbi.nlm.nih.gov/pmc/articles/PMC9406592/

↑ *Back to this question in Part A*

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Q6: A 6-year-old child presents with severe dysphagia, stridor, and a stiff neck. The physician orders a lateral soft tissue X-ray of the neck as shown. Which of the following is not a feature of this condition on the lateral soft tissue X-ray of the neck? (Q848016)

A. Widening of the Prevertebral Soft Tissue Shadow

B. Air Bubbles in the Soft Tissues

C. Loss of Normal Cervical Lordosis

D. Narrowing at the subglottic region.

Correct Answer: D. Narrowing at the subglottic region.

■ *Listen (English)*

■ *Listen (Hindi)*

Explanation: The clinical scenario and the imaging is suggestive of a retropharyngeal abscess , which is a collection of pus in the retropharyngeal space. Narrowing at the subglottic region (steeple sign) is a feature of croup (laryngotracheobronchitis) and is not associated with retropharyngeal abscess. Retropharyngeal abscess: It is caused by a collection of pus in the retropharyngeal space, typically presenting with symptoms such as severe sore throat, dysphagia (difficulty swallowing), stridor, and a stiff neck. Acute Retropharyngeal Abscess Chronic Retropharyngeal Abscess (Prevertebral Abscess) Causes Children: Lymphadenitis of lymph nodes of Rouvier Adults: Penetrating injury TB spine (Caries spine) Clinical features Dysphagia and difficulty in breathing Stridor and croupy cough Torticollis Bulge in posterior pharyngeal wall Discomfort in throat Dysphagia is not marked Posterior pharyngeal wall shows a fluctuant swelling centrally or on one side of midline Neck may show tuberculous lymph nodes O/E: Bulge on posterior pharyngeal wall Unilateral deviation Diffuse midline X-ray findings Widening of Prevertebral Soft Tissue Shadow: (Option A) Soft tissue shadow is twice the size of the vertebral body. Straightening of Cervical Spine: (Option C) Loss of normal curvature. Presence of Air Bubbles: (Option B) Indicates possible infection or abscess formation. X-rays are diagnostic in case of caries of cervical spine Treatment IV antibiotics → incision & drainage Antitubercular treatment

References:

Dhingra Diseases of Ear, Nose and Throat & Head and Neck Surgery, 8th Edition, Page 313.

↑ *Back to this question in Part A*

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Q7: A 45-year-old male presents with a slowly enlarging, painless neck mass near the angle of the mandible. An angiogram of the neck shows the image below: {{caption_text}} What is this sign known as? (Q848017)

A. Phelp sign

B. Dodd sign

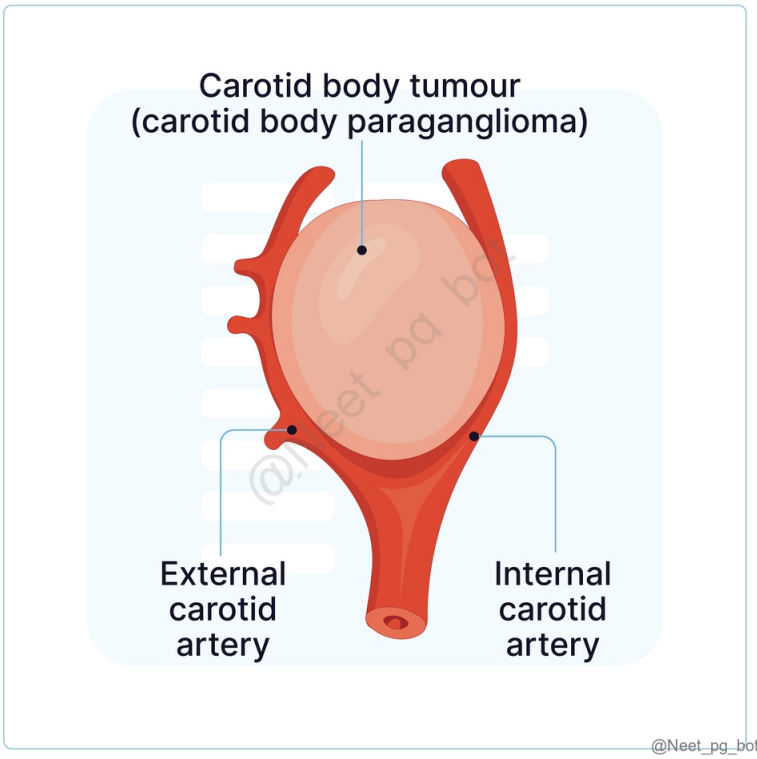
C. Steeple sign

D. Lyre sign

Correct Answer: D. Lyre sign

- *Listen (English)*
- *Listen (Hindi)*

Explanation: This clinical scenario is suggestive of a carotid body tumor (CBT), and the angiogram shows the characteristic Lyre sign. The Lyre sign refers to the splaying of the internal and external carotid arteries due to the tumor at the bifurcation of the common carotid artery. Phelp Sign (Option A) refers to erosion of the carotico jugular spine between the carotid canal and jugular fossa in glomus jugulare on CT. {{caption_text}} Dodd Sign (Option B) refers to the column of air present between the mass and the posterior pharyngeal wall in antro choanal polyp , on lateral x-ray of the skull. Steeple Sign (Option C) is seen on neck X-rays and is associated with croup (laryngotracheobronchitis), showing narrowing of the subglottic airway, resembling the steeple of a church. {{caption_text}}


Carotid body tumour
(carotid body paraganglioma)
External carotid artery
Internal carotid artery
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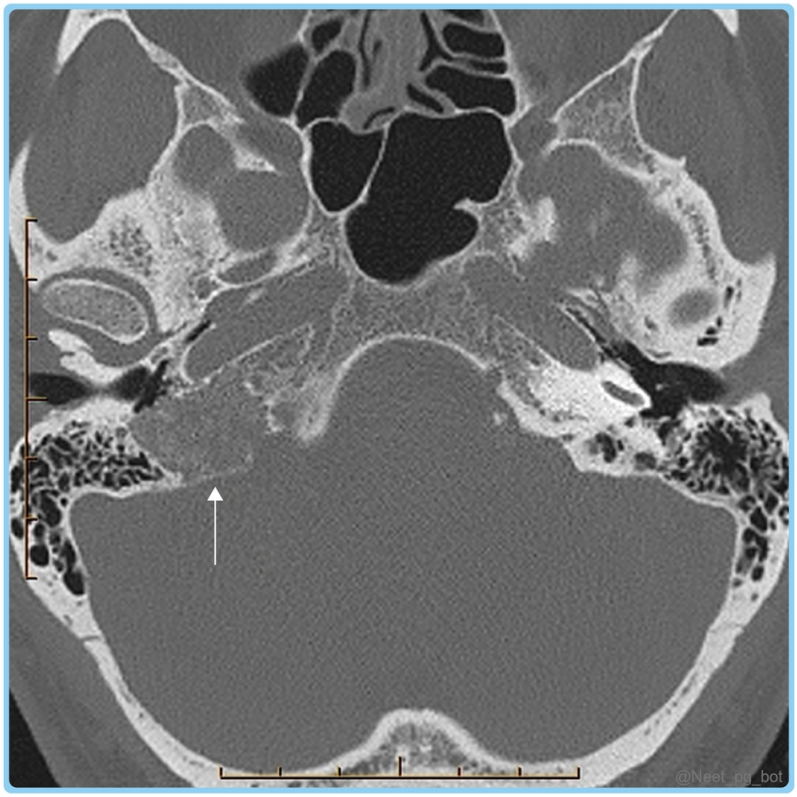
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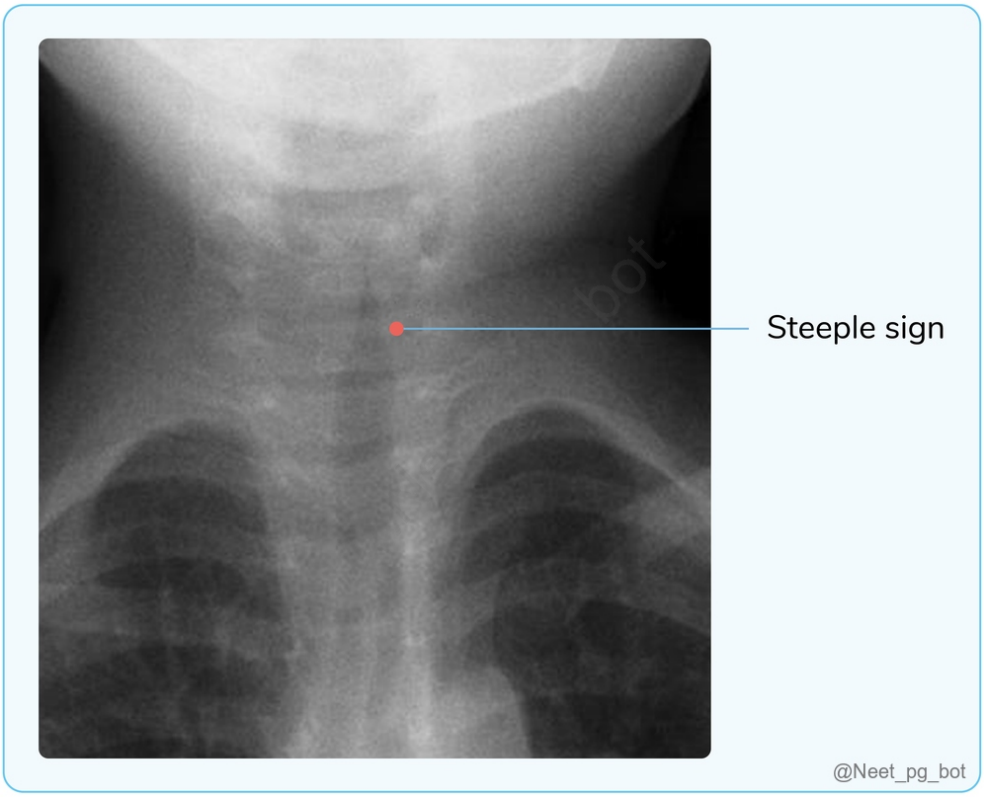

References:

Scott Brown’s otorhinolaryngology, 8th Edition, Page 160.

↑ *Back to this question in Part A*

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Q8: A 7-year-old male presents to the clinic with painful neck stiffness and torticollis four days after undergoing adenoidectomy for chronic adenoiditis. Physical examination reveals restricted neck movement in all directions and a “cock-robin” position of the head. Neurological examination is normal. Which of the following best describes the underlying condition? (Q848018)

A. Traumatic atlantoaxial subluxation following cervical injury

B. Non-traumatic atlantoaxial subluxation secondary to infection or surgery

C. Atlanto-occipital dislocation caused by a congenital cervical spine anomaly

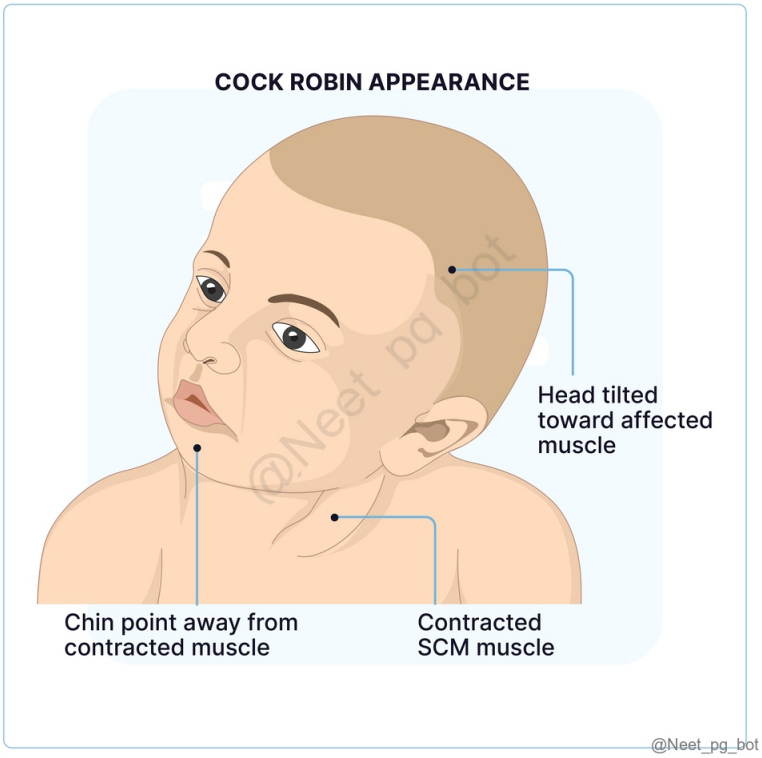
D. Acute cervical disc herniation causing torticollis

Correct Answer: B. Non-traumatic atlantoaxial subluxation secondary to infection or surgery

■ *Listen (English)*

■ *Listen (Hindi)*

Explanation: The child developed painful torticollis following a recent adenoidectomy, which is characteristic of Grisel's syndrome. This condition typically occurs due to nontraumatic causes such as an infection or surgery in the head and neck region. Grisel's Syndrome Etiology Nontraumatic atlantoaxial subluxation (Option B), often secondary to upper respiratory infections or post-surgery in the head and neck region (e.g., adenoidectomy). Pathophysiology Loosening of the transverse and alar ligaments due to inflammation in the atlantoaxial joint. Presentation Painful torticollis neck stiffness "Cock-robin" head position. Imaging X-ray or CT shows rotational subluxation of C1-C2. Management Early intervention with bed rest Cervical immobilization Antibiotics Anti-inflammatory agents to prevent neurological sequelae.



References:

Scott Brown’s Otorhinolaryngology (Volume 2), 8th Edition, Page 289

https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3982280/#:

https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3982280/#:

↑ *Back to this question in Part A*

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Q9: A 40-year-old male has a deviated septum with a significant dislocation at the caudal end. The surgeon prefers a unilateral approach, avoiding a full-thickness incision. Which incision is most appropriate in this case? (Q848019)

A. Killian’s incision

B. Hemitransfixion incision

C. Transfixion incision

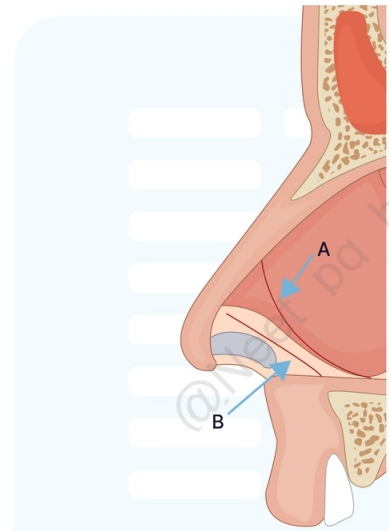
D. Horizontal incision on the spur

Correct Answer: B. Hemitransfixion incision

■ *Listen (English)*

■ *Listen (Hindi)*

Explanation: The patient has a caudal septal dislocation , which refers to a deviation or dislocation of the septal cartilage near the base of the nose (caudal end), for which either transfixion or hemitransfixion incision can be used. In this situation, the surgeon wants to access and correct the dislocated part without making an incision through the entire thickness of the septum. Hence, Hemitransfixion incision is appropriate in this scenario. Types of septal incisions for septoplasty Killian’s (Option A) In the nasal mucosa, cephalic to the caudal end of the septum Slightly curvilinear incision, 2-3 mm above the caudal end of septal cartilage on the concave side. Transfixion (Option C) Through and through incision , close to but caudal to caudal end of the septum. Used in caudal septal dislocation Hemitransfixion (Freer’s incision) (Option B) Same as the transfixion incision but on one side , not through and through. Used in caudal septal dislocation Septocolumellar incision between caudal end of septal cartilage and columella. Horizontal on the Spur (Option D) For endoscopic spurectomy. Mnemonic : Killian incision kills the septum, more complications, not done frequently Freer's incision -frees the septum, lesser complications, more commonly done



Septal incisions. (A) Killian's incision. (B) Hemitransfixion incision.

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References:

Dhingra Diseases of the Ear, Nose and Throat, 8th Edition, Pages 489 - 491.

↑ *Back to this question in Part A*

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Q10: A 45-year-old male presents with severe nasal obstruction, headaches, and a history of multiple nasal surgeries for chronic sinusitis and nasal polyps. On endoscopic examination, there is extensive polyposis with distortion of normal anatomical landmarks. The surgeon decides to use a posterior-to-anterior surgical approach for better access and disease clearance. Which surgical technique is most appropriate in this case? (Q848020)

A. Stammberger’s technique

B. Wigand’s technique

C. Messerklinger’s approach

D. Caldwell-Luc procedure

Correct Answer: B. Wigand’s technique

■ *Listen (English)*

■ *Listen (Hindi)*

Explanation: The Wigand technique, which proceeds from posterior to anterior, is ideal for cases of extensive polyposis or revision surgeries where anatomical landmarks have been distorted. In this scenario, the patient has undergone multiple surgeries, making this approach more suitable to ensure complete disease clearance along the skull base and medial orbital wall. Surgical approaches used in functional endoscopic sinus surgery (FESS): Stammberger’s technique (Option A) (Anterior to Posterior): The surgery starts at the uncinate process and extends posteriorly to the sphenoid sinus , offering a conservative, adjustable approach suited for early or localized disease . Wigand’s technique (Option B) (Posterior to Anterior): The surgery starts at the sphenoid sinus and advances anteriorly , using a more aggressive approach suited for extensive polyposis , revisions , or advanced disease with distorted anatomy. The Messerklinger approach (Option C) (similar to the Stammberger’s technique) is widely used for managing early disease affecting the anterior sinuses. The Caldwell-Luc procedure (Option D) is a surgical technique used to access the maxillary sinus by creating an opening in the anterior wall of the sinus, typically through the canine fossa. It is commonly performed to remove chronic infections, polyps, or tumors from the maxillary sinus.

References:

Dhingra Diseases of the Ear, Nose and Throat. Ed.8, page 494, 495.

↑ *Back to this question in Part A*

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Q11: Which of the following statements, regarding the different types of mastoidectomy, is CORRECT? (Q848021)

A. Canal Wall Down mastoidectomy preserves the integrity of the postero-superior canal wall

B. Schwartze’s mastoidectomy is a type of Canal Wall Down mastoidectomy

C. Modified radical mastoidectomy involves the removal of the postero-superior canal wall

D. In Canal Wall Up mastoidectomy, the mastoid cavity remains open.

Correct Answer: C. Modified radical mastoidectomy involves the removal of the postero-superior canal wall

■ *Listen (English)*

■ *Listen (Hindi)*

Explanation: Canal Wall Down mastoidectomy procedures involve removing the postero-superior canal wall , which leads to the creation of a mastoid cavity. Examples include modified radical mastoidectomy and radical mastoidectomy. Canal Wall Up mastoidectomy, such as simple or cortical mastoidectomy , retains the

postero-superior canal wall , avoiding the creation of a mastoid cavity. Types of mastoidectomy: Traditionally, classified as : Simple (cortical) mastoidectomy Modified radical mastoidectomy Radical mastoidectomy Depending on whether postero-superior canal is removed or not: Canal Wall Up mastoidectomy (Option D) Canal Wall Down mastoidectomy (Option A) CANAL WALL UP (CWU) CANAL WALL DOWN (CWD) Simple/ cortical/Schwartze's Mastoidectomy (Option B) Modified Radical Mastoidectomy/ Bondy's Procedure (Option C) Classic Intact Canal Wall, Combined Approach Tympanoplasty (CAT) Radical Mastoidectomy Atticotomy Atticoantrotomy

References:

Dhingra Diseases of the Ear, Nose and Throat. Ed.8, page 475 - 479.

↑ *Back to this question in Part A*

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Q12: A 28-year-old woman presents with a history of chronic otitis media. Examination shows a dry tympanic membrane perforation without active infection. She has a 30 dB hearing loss. Which of the following procedures is most appropriate to improve her hearing? (Q848022)

A. Myringotomy with grommet insertion

B. Myringoplasty using a temporalis fascia graft

C. Tympanostomy tube placement

D. Antibiotic therapy with corticosteroids

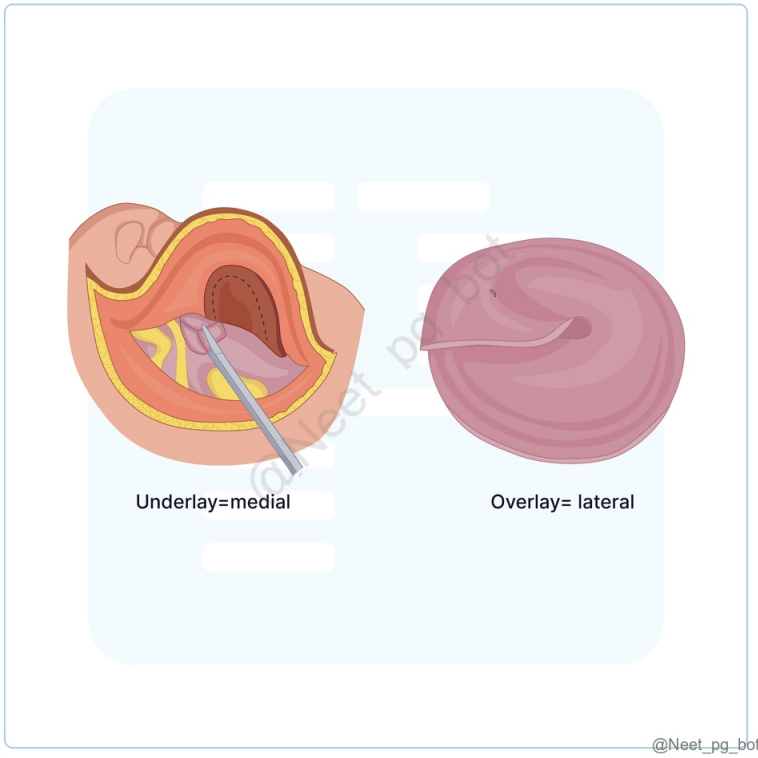
Correct Answer: B. Myringoplasty using a temporalis fascia graft

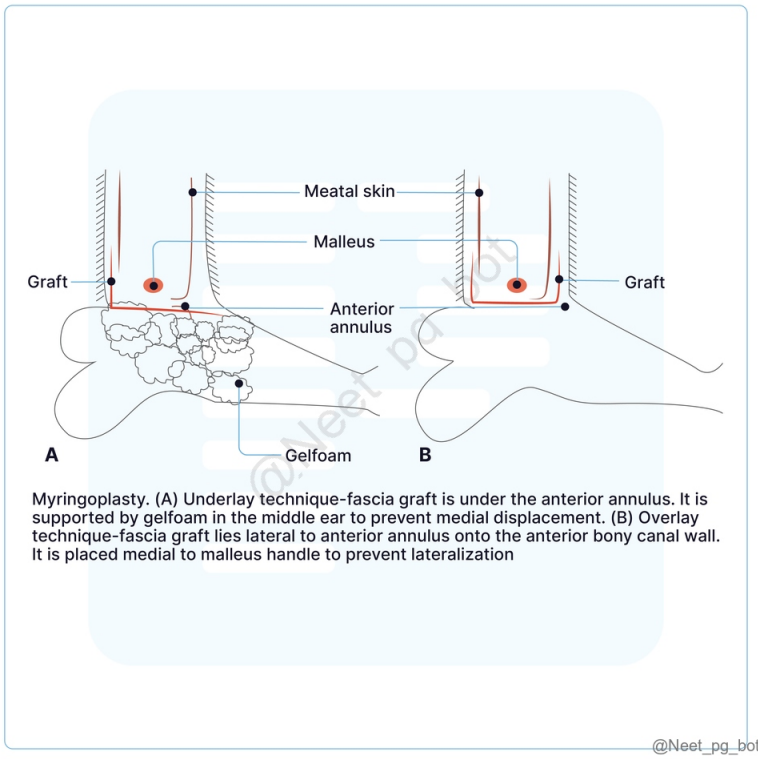
■ *Listen (English)*

■ *Listen (Hindi)*

Explanation: Myringoplasty is indicated in cases of dry tympanic membrane perforation to restore hearing. A graft such as temporalis fascia is commonly used. Myringoplasty (Type I tympanoplasty) (Option B) Purpose : Repair of tympanic membrane perforation using a graft (e.g., temporalis fascia, perichondrium, dura, vein, fascia, cadaver membrane). Techniques : Underlay Technique : Graft is placed medial to the perforation and supported by gelfoam. Overlay Technique : Graft is placed lateral to the fibrous layer after removing squamous epithelium. Indications Used to treat conductive hearing loss due to tympanic membrane perforation. Not indicated for treating otitis media with effusion (fluid accumulation without perforation). Hearing Improvement Hearing loss from tympanic membrane perforation : 10–40 dB. Hearing loss from ossicular interruption with an intact tympanic membrane: 54 dB. In chronic otitis media, the procedure is delayed until the ear is dry and free from cholesteatoma (a destructive epithelial growth in the middle ear). Myringotomy, Tympanostomy tube placement (Options A & C): used for ventilating the middle ear and has no role in repairing the tympanic membrane Antibiotic therapy with corticosteroids (Option D) : This treatment is useful in active infections but not in repairing perforations or

addressing hearing loss.





Myringoplasty. (A) Underlay technique-fascia graft is under the anterior annulus. It is supported by gelfoam in the middle ear to prevent medial displacement. (B) Overlay technique-fascia graft lies lateral to anterior annulus onto the anterior bony canal wall. It is placed medial to malleus handle to prevent lateralization

References:

Dhingra Diseases of Ear, Nose and Throat & Head and Neck Surgery, 8th Edition, Pages 36, 75, 77.

↑ *Back to this question in Part A*

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Q13: A 30-year-old patient with a chronic middle ear infection presents with a perforated tympanic membrane and erosion of the malleus. Based on Wullstein's classification of tympanoplasty, which type of tympanoplasty would be most appropriate for this patient? (Q848023)

A. Type I tympanoplasty

B. Type II tympanoplasty

C. Type III tympanoplasty

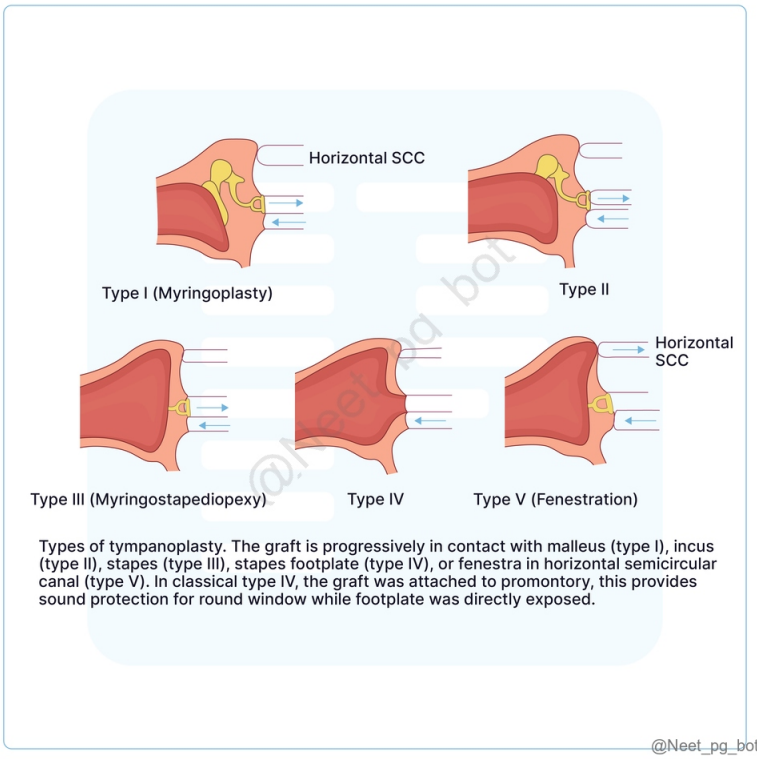
D. Type IV tympanoplasty

Correct Answer: B. Type II tympanoplasty

■ *Listen (English)*

■ *Listen (Hindi)*

Explanation: Type II tympanoplasty involves repairing a perforated tympanic membrane with erosion of the malleus, with the graft placed on the incus or remnant of the malleus, which matches the patient's condition. Types of Tympanoplasty (Wullstein's Classification) Tympanoplasty : Surgical procedure for eradicating disease and reconstructing the hearing mechanism. It may involve myringoplasty (repair of eardrum) and/or ossiculoplasty (repair of ossicles). Classification based on damaged middle ear parts: Type Description Type I (Myringoplasty) Repair of a perforated tympanic membrane with a graft. (Option A ruled out) Type II Graft placed on the incus or malleus remnant due to malleus erosion. (Option B) Type III Graft placed on the stapes head when malleus and incus are absent. (Option C ruled out) Type IV Graft placed between the oval and round windows when only the stapes footplate remains; cavum minor created. (Option D ruled out) Type V Fenestration in the horizontal semicircular canal, creating a new window with a graft. Performed when stapes footplate is fixed. Tympanoplasty is often combined with mastoidectomy . Performed when the ear is dry and free of cholesteatoma . Modifications mainly involve ossicular reconstruction .



Types of tympanoplasty. The graft is progressively in contact with malleus (type I), incus (type II), stapes (type III), stapes footplate (type IV), or fenestra in horizontal semicircular canal (type V). In classical type IV, the graft was attached to promontory, this provides sound protection for round window while footplate was directly exposed.

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References:

Dhingra Diseases of Ear, Nose and Throat & Head and Neck Surgery, 8th Edition, Pages 34, 35, 36, 37.

↑ *Back to this question in Part A*

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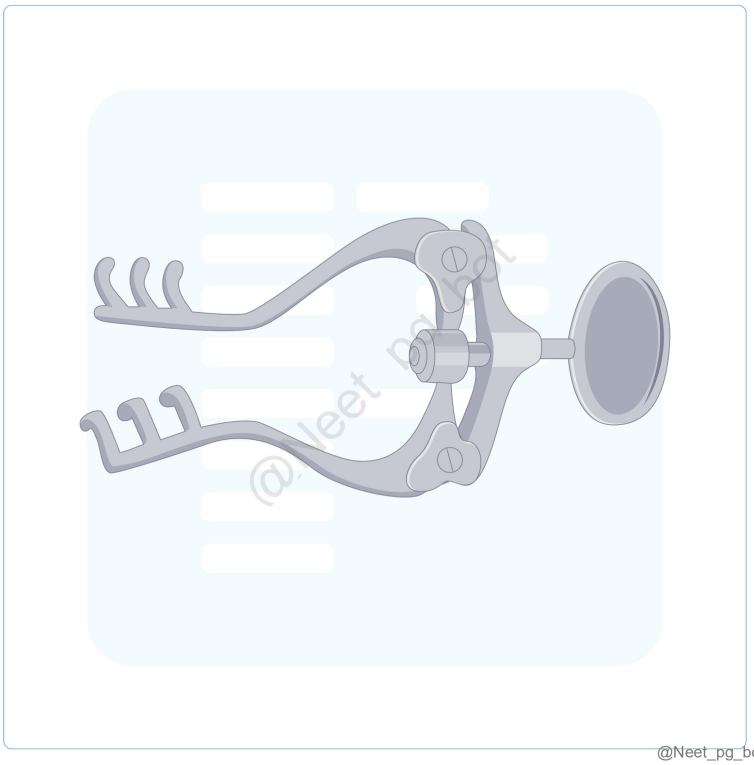
Q14: Identify the given instrument. (Q848024)

A. Mollison’s Mastoid Retractor

B. Jansen’s Mastoid Retractor

C. Lempert’s endaural retractor

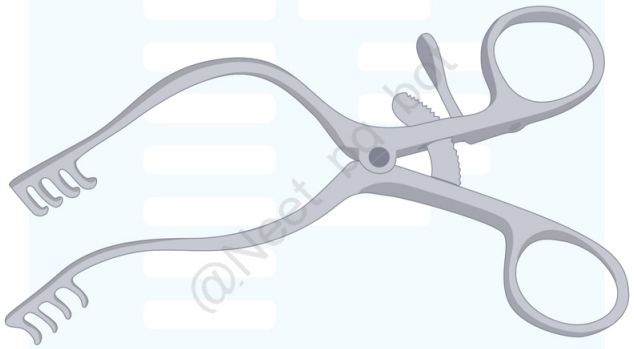
D. Lempert’s endaural speculum



Correct Answer: B. Jansen’s Mastoid Retractor

- *Listen (English)*
- *Listen (Hindi)*

Explanation: The given instrument is a Jansen’s Mastoid Retractor, which is self retaining and used in mastoidectomy. Types of Mastoid Retractors Mollison’s Mastoid Retractor: (Option A ruled out) Self-retaining Hemostatic (stops bleeding) (Mnemonic: Mollison has 8 letters , so it has 4*4 teeth for identification) Jansen’s Mastoid Retractor: (Option B) Self-retaining Similar to Mollison’s Use: Both retractors are used after incision and flap elevation to retract soft tissues. (Mnemonic: Jansen has 6 letters, so it ha 3*3 teeth for identification) Lempert’s endaural retractor (Option C) : Endaural approach during ear surgery. Lempert’s endaural speculum (Option D) : Opens the meatus for endaural incision or local injections. Perkin’s mastoid retractor: Self retaining Hemostatic Use : For retraction of soft tissue during mastoidectomy.



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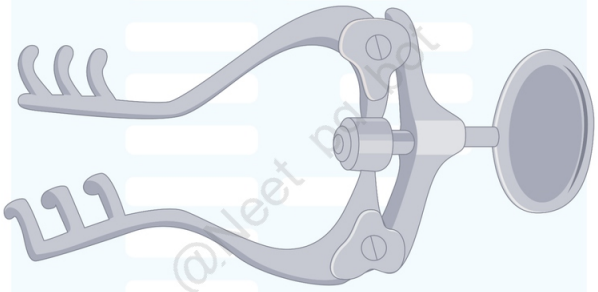

Jansen's self-retaining mastoid retractor. Used in mastoidectomy, similar to Mollison's retractor.

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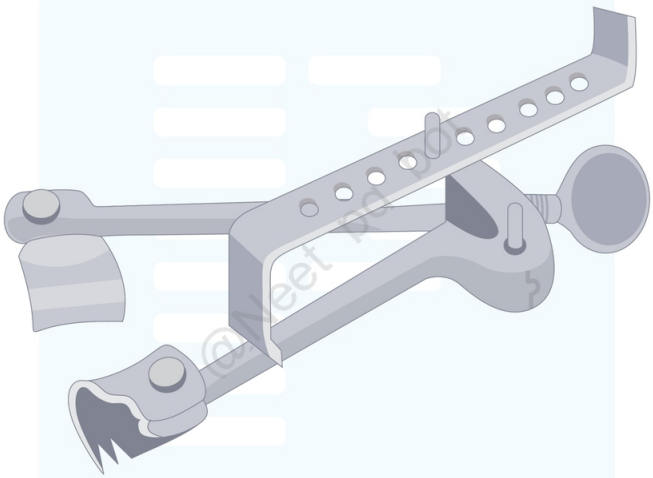

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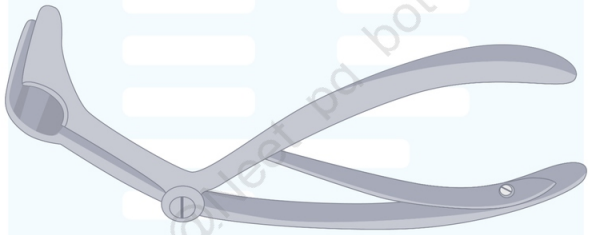

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References:

Dhingra Diseases of Ear, Nose and Throat & Head and Neck Surgery, 8th Edition, Pages 551

↑ *Back to this question in Part A*

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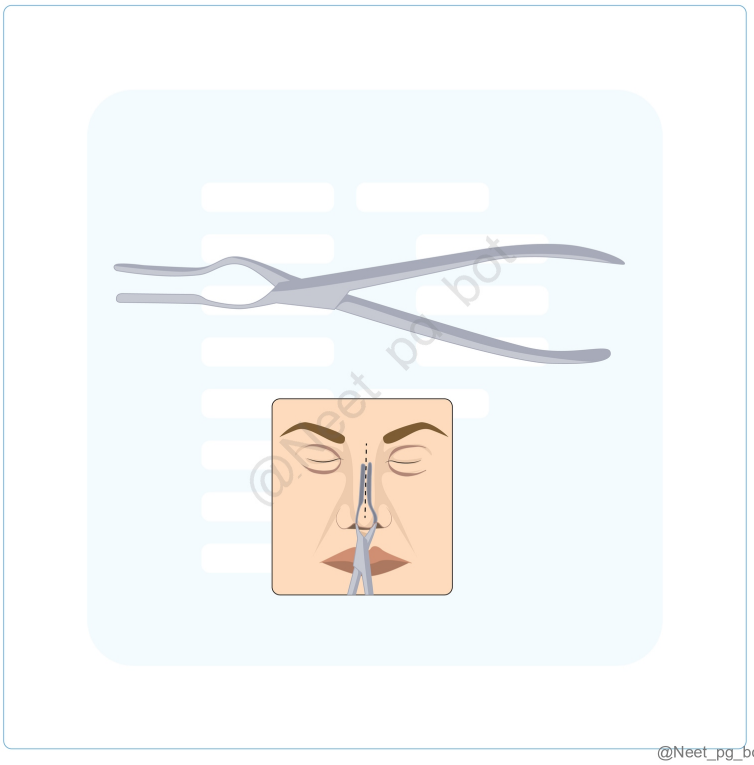
Q15: Identify the instrument used to reduce fractures of nasal septum. (Q848025)

A. Luc's Forceps

B. Ballenger Swivel Knives

C. Asch's Septum Forceps

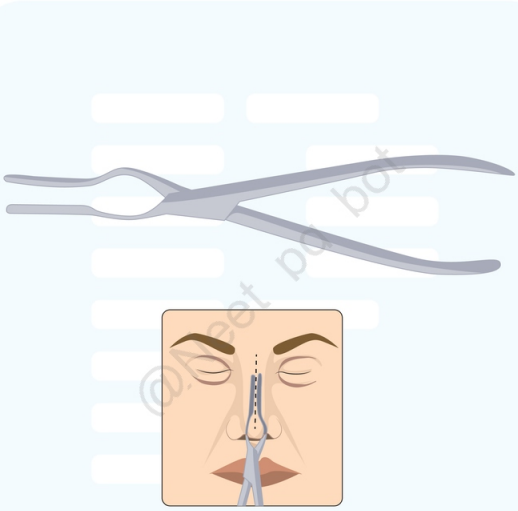
D. Walsham’s Forceps



Correct Answer: C. Asch's Septum Forceps

- *Listen (English)*
- *Listen (Hindi)*

Explanation: Asch’s forceps are used to reduce fractures of the nasal septum. Surgical Tools for Nasal Septum Procedures: Asch's Septum Forceps: (Option C) Reduces fractures.of nasal septum Walsham’s Forceps: (Option D ruled out) Reduce fractures of nasal bones. Ballenger Swivel Knives (Option B ruled out) Removes septal cartilage during Submucous Resection (SMR). Features: Rotating blade, various sizes. Luc's Forceps (Option A ruled out) Removes bone or cartilage during SMR.



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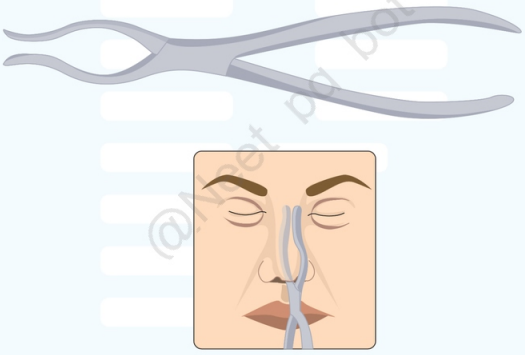

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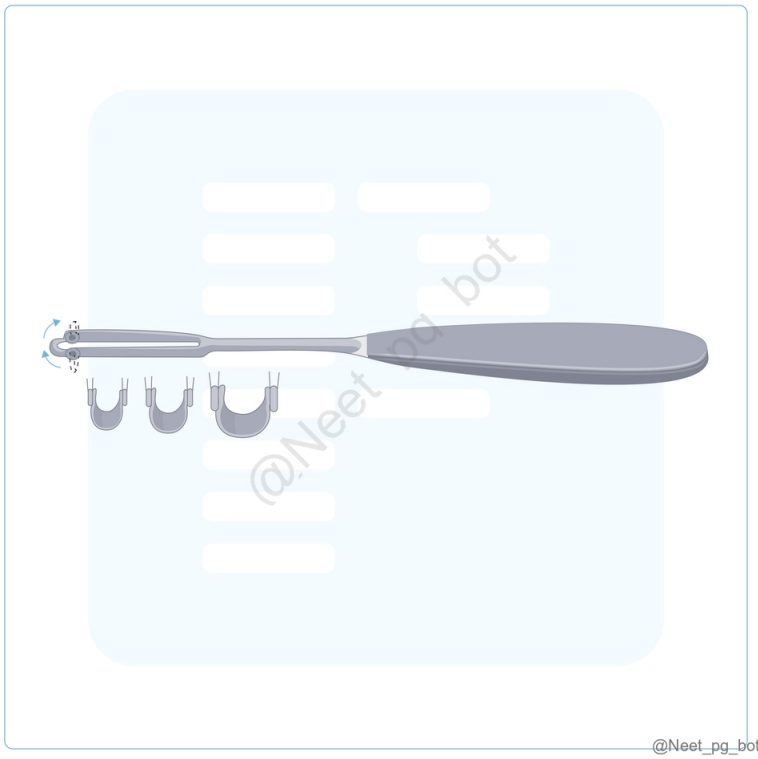

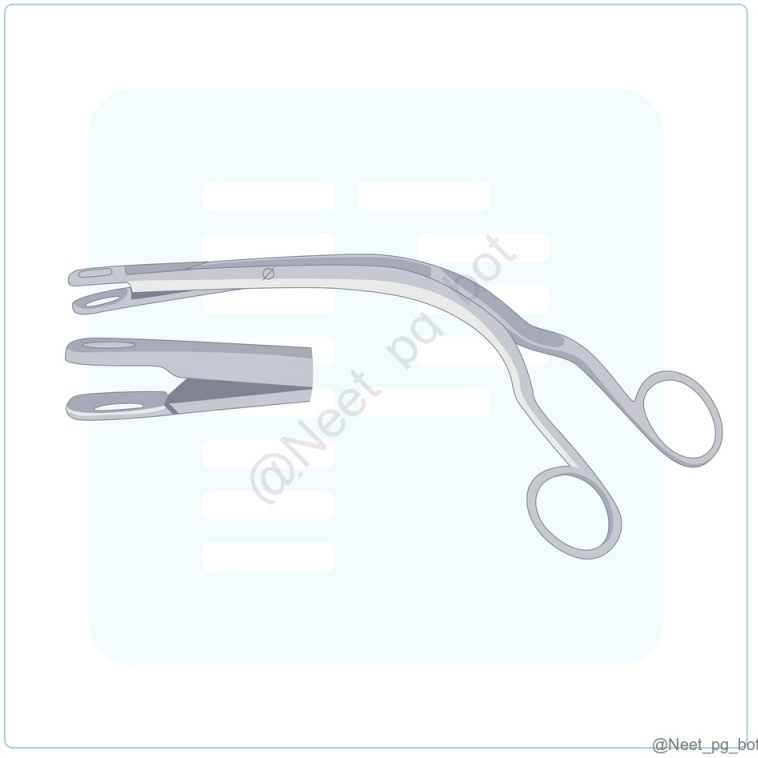

References:

Dhingra Diseases of Ear, Nose and Throat & Head and Neck Surgery, 8th Edition, Pages553. 555

↑ *Back to this question in Part A*

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Q16: Which of the following is not a characteristic of the Saint-Clair Thompson Adenoidectomy Curette? (Q848026)

A. It is held like a dagger in the dominant hand

B. It is used with limited direct visualization, often blind

C. It is used without the cage for larger pieces of adenoid tissue

D. The curette is inserted under the soft palate to remove tissue using an inferior to superior motion.

Correct Answer: C. It is used without the cage for larger pieces of adenoid tissue

■ *Listen (English)*

■ *Listen (Hindi)*

Explanation: The Saint-Clair Thompson Adenoidectomy Curette is used with a cage to capture and remove adenoid tissue effectively. Saint-Clair Thompson Adenoidectomy Curette with Cage Purpose : A specialized instrument for adenoidectomy to remove adenoid tissue while minimizing trauma. Design : Held like a dagger in the dominant hand (Option A ruled out) Features a cage to capture adenoid tissue, preventing aspiration into the lungs The cage can be dismantled for use without it Types : With Cage: Useful for larger pieces of adenoid tissue (Option C) Without Cage: Standard version without tissue-holding feature Technique : Performed blind, with limited direct visualization (Option B ruled out) A dental mirror or wide-angled rigid endoscope may assist with visibility Curette inserted under the soft palate, tissue removed using an inferior to superior motion (Option D ruled out)

References:

www.entinstruments.co.in/laryngology/st-claire-thompson-adenoid-currette

www.entinstruments.co.in/laryngology/mollisons-pillar-retractor-with-dissector

www.entinstruments.co.in/laryngology/eves-snare

↑ *Back to this question in Part A*

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