KMC 2024, ENT SOLVED

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Quick Recap:

1. **CSOM with Cholesteatoma: Persistent discharge, attic pearl-white mass suggests chronic suppurative otitis media.**
2. **Bezold's Abscess: Mastoid erosion with sternocleidomastoid swelling indicates Bezold's abscess.**
3. **Lateral Sinus Thrombosis: Fever, rigors, and mixed hearing loss in cholesteatoma points to lateral sinus thrombosis.**
4. **Parapharyngeal Abscess: Sore throat, trismus, and swelling behind jaw extending posterior to tonsil suggest parapharyngeal abscess.**
5. **T4a Laryngeal Cancer: Fixed vocal cords with thyroid cartilage invasion is staged as T4a.**
6. **Airway in Laryngeal Cancer: Advanced laryngeal carcinoma requires tracheostomy between second and third tracheal rings.**
7. **Pharyngeal Pouch: Dysphagia and regurgitation with barium swallow showing constant filling indicates a pharyngeal pouch.**
8. **Acute Otitis Media in Children: Red, bulging tympanic membrane due to shorter and wider Eustachian tube.**
9. **Vocal Cord SCC: Hoarseness and ulcerated vocal cord lesion indicate squamous cell carcinoma.**
10. **Gradenigo Syndrome: Foul discharge, retro-orbital pain, and 6th nerve palsy point to acute petrositis.**
11. **Petrositis: Triad of otorrhea, retro-orbital pain, and cranial nerve involvement indicates petrositis.**
12. **Myringotomy with Grommet: Persistent otitis media unresponsive to antibiotics is managed with myringotomy and grommet insertion.**
13. **Early Laryngeal Cancer (T1a): Localized lesion with normal vocal cord mobility is staged as T1a.**
14. **Conductive Hearing Loss: Adenoid hypertrophy causing Eustachian tube obstruction leads to conductive hearing loss.**
15. **T1a SCC Management: Cordectomy is effective for localized T1a stage laryngeal carcinoma.**
16. **Secretory Otitis Media: Dull tympanic membrane with type B tympanogram suggests secretory otitis media.**
17. **Posterior Epistaxis: Severe bleeding is managed with sphenopalatine artery ligation.**
18. **Facial Nerve Paralysis in CSOM: Erosion of facial nerve canal due to chronic otitis media leads to facial nerve paralysis.**
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21. **Leukoplakia: Non-removable white patches in a smoker indicate leukoplakia.**
22. **Ludwig's Angina Cause: Dental infection commonly causes Ludwig's angina via Streptococcus viridans.**
23. **T1a SCC Treatment: Radiotherapy is the standard treatment for early-stage laryngeal cancer.**
24. **CSOM Organism: Pseudomonas aeruginosa is a common cause of discharge in chronic suppurative otitis media.**
25. **Adenoidectomy with Grommets: Enlarged adenoids with hearing loss is treated with adenoidectomy and grommet insertion.**
26. **Re-Bronchoscopy in Foreign Body: Hypoxia after bronchoscopy suggests residual foreign body requiring re-bronchoscopy.**
27. **Dysphagia in Vocal Cord Paralysis: Decreased pharyngeal pressure gradient and glottic closure lead to dysphagia.**
28. **Erythroplakia Diagnosis: White-red spots in oral cavity of tobacco users indicate erythroplakia.**
29. **Peritonsillar Abscess: Sore throat, trismus, and uvula deviation to the opposite side indicate peritonsillar abscess.**
30. **Culture for Tonsillitis: Throat culture is the gold standard for diagnosing streptococcal pharyngitis.**
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33. **Strep Pyogenes in Pharyngitis: Streptococcus pyogenes can lead to rheumatic fever and valvular heart disease.**
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43. **Laryngomalacia: Inspiratory stridor in infants with soft aryepiglottic folds indicates laryngomalacia.**
44. **Nasal Foreign Body: Foul-smelling unilateral discharge in children indicates a nasal foreign body.**

45. **Modified Radical Mastoidectomy: Cholesteatoma with mastoid involvement requires modified radical mastoidectomy.**
46. **Unilateral Tonsillar Malignancy: Suspicion of malignancy necessitates early tonsil surgery.**
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58. **Allergic Fungal Sinusitis: Chronic symptoms with hyperdense opacity near the orbit on CT indicate allergic fungal sinusitis.**
59. **CT for Acute Sinusitis: CT nose and PNS are used to evaluate the extent of mucosal disease in sinusitis.**
60. **Uncinectomy First in FESS: Uncinectomy is the initial step in surgery for ethmoidal polyps to access the sinuses.**

Question 1

A 15-year-old patient has presented to OPD with foul-smelling discharge from the right ear and decreased hearing level for the last 1 year. On otoscopic examination, a cholesteatoma is seen in the attic region as pearl-white material. CT scan shows hypodense opacity in the right mastoid antrum. What is the most likely diagnosis in this case?

A) Acute Suppurative Otitis Media
B) Chronic Suppurative Otitis Media
C) Otosclerosis
D) Secretory Otitis Media
E) Tympanosclerosis

- **Correct Option**: **B) Chronic Suppurative Otitis Media**
    - **Explanation**: Chronic Suppurative Otitis Media (CSOM) often presents with a persistent ear discharge and hearing loss. The presence of cholesteatoma, a pearl-white mass seen in the attic region, strongly

suggests CSOM as it is a common complication of this condition. Cholesteatoma leads to chronic infection, and hypodense opacity in the mastoid antrum is consistent with this diagnosis.

- **Why Other Options Are Incorrect**:
    - **A) Acute Suppurative Otitis Media**: This condition typically presents with a shorter duration of symptoms and acute inflammation. It is unlikely to cause cholesteatoma or such prolonged symptoms as seen here.
    - **C) Otosclerosis**: Otosclerosis is characterized by abnormal bone growth in the ear, leading to progressive hearing loss but without discharge or cholesteatoma.
    - **D) Secretory Otitis Media**: This is often a self-limiting condition with effusion in the middle ear but lacks chronic discharge and cholesteatoma.
    - **E) Tympanosclerosis**: Tympanosclerosis involves calcification in the tympanic membrane and middle ear but does not lead to cholesteatoma or foul-smelling discharge.

Question 2

A 15-year-old patient has presented to a consultant clinic for complaining of right ear discharge, swelling, and pain for the last 20 days. The consultant notices a swelling and labels it as an extracranial complication of chronic suppurative otitis media along the sternocleidomastoid muscle. CT Scan shows erosion of the bone at the mastoid angle. What is the most likely diagnosis in this case?

A) Bezold's Abscess
B) Citelli Abscess
C) Luc's Abscess
D) Mastoid Abscess
E) Zygomatic Abscess

- **Correct Option**: **A) Bezold's Abscess**
    - **Explanation**: Bezold's abscess is an extracranial complication of chronic suppurative otitis media (CSOM) that occurs when infection spreads from the mastoid tip to the surrounding tissue, specifically into the sheath of the sternocleidomastoid muscle. Bone erosion in the mastoid region, as noted in the CT scan, is characteristic of this abscess.
- **Why Other Options Are Incorrect**:
    - **B) Citelli Abscess**: This abscess is located in the posterior belly of the digastric muscle and is not typically associated with the mastoid angle.
    - **C) Luc's Abscess**: Luc's abscess is an uncommon form of mastoiditis that does not involve erosion of the mastoid cortex.
    - **D) Mastoid Abscess**: A mastoid abscess is usually confined to the mastoid process itself and does not extend down to the sternocleidomastoid region.
    - **E) Zygomatic Abscess**: This would involve the zygomatic bone, not the mastoid or sternocleidomastoid region.

Question 3

A 12-year-old patient has presented to the Emergency Room complaining of fever and rigors for the last 4 days. He is also a diagnosed case of cholesteatoma in the left ear. The consultant advised a Magnetic Resonance Venography to show venous flow, and PTA shows mixed hearing loss. What is the most likely clinical diagnosis in this case?

A) Acute mastoiditis
B) Acute pyogenic meningitis
C) Cerebellar abscess
D) Lateral sinus thrombosis
E) Otitic hydrocephalus

- **Correct Option**: **D) Lateral sinus thrombosis**
    - **Explanation**: Lateral sinus thrombosis is a known complication of chronic otitis media with cholesteatoma. Fever and rigors with an existing ear condition and mixed hearing loss point towards an intracranial complication. The use of MR Venography is also indicative of a suspicion for venous thrombosis.
- **Why Other Options Are Incorrect**:
    - **A) Acute mastoiditis**: While mastoiditis is a complication of cholesteatoma, it typically presents with localized symptoms around the mastoid rather than systemic signs like fever and rigors alone.
    - **B) Acute pyogenic meningitis**: Although meningitis could present with fever and rigors, it would likely show additional neurological signs and symptoms that are not indicated here.
    - **C) Cerebellar abscess**: This would likely present with cerebellar signs like ataxia or dizziness, which are not mentioned in the case.
    - **E) Otitic hydrocephalus**: Otitic hydrocephalus is rare and usually presents with increased intracranial pressure symptoms rather than fever and rigors.

Question 4

An 11-year-old boy was brought to the emergency room by his mother complaining of unilateral sore throat, headache, and difficulty in mouth opening for the last 7 days. On examination, a palpable swelling is noticed at level-2 behind the angle of the jaw, and on oral cavity examination, swelling has extension posterior to the posterior pillar of the tonsil on the same side. What is the most likely diagnosis in this case?

A) Unilateral tonsillitis
B) Peritonsillar abscess
C) Parapharyngeal abscess
D) Pleomorphic adenoma
E) Retropharyngeal abscess

- **Correct Option**: **C) Parapharyngeal abscess**
    - **Explanation**: A parapharyngeal abscess can present with unilateral sore throat, trismus (difficulty opening the mouth), and swelling behind the angle of the jaw. The extension posterior to the posterior pillar of the tonsil suggests the involvement of the parapharyngeal space.
- **Why Other Options Are Incorrect**:

- **A) Unilateral tonsillitis**: While this can cause sore throat, it does not usually cause trismus or such a deep swelling.
- **B) Peritonsillar abscess**: Although it causes sore throat and difficulty opening the mouth, it usually presents with swelling that is closer to the tonsil and does not extend as far posteriorly.
- **D) Pleomorphic adenoma**: This is a benign salivary gland tumor, which typically does not present with acute symptoms like sore throat or fever.
- **E) Retropharyngeal abscess**: This would present with midline posterior pharyngeal wall swelling rather than swelling at the angle of the jaw.

Question 5

A 55-year-old man was brought to the emergency room complaining of hoarseness of voice for the last 7 months that is progressive and now having difficulty in breathing for the last three days. He has a history of Carcinoma Larynx for which he received radiation. Flexible laryngoscopy shows fixed vocal cords with ulcerated growth, and CT Scan shows heterogeneously enhancing lesion involving vocal cords and thyroid cartilage. What is the most appropriate T-stage classification for this patient?

A) T0
B) T1a
C) T2
D) T3
E) T4a

- **Correct Option**: **E) T4a**
  - **Explanation**: T4a stage refers to moderately advanced local disease where the cancer has invaded the thyroid cartilage and possibly beyond. Given the fixed vocal cords, ulcerated growth, and CT findings showing invasion into the thyroid cartilage, this stage is appropriate.
- **Why Other Options Are Incorrect**:
  - **A) T0**: T0 indicates no evidence of primary tumor, which is not applicable here.
  - **B) T1a**: T1a is for cancer limited to one vocal cord without impaired mobility, which is not the case here.
  - **C) T2**: T2 applies to cancer that has invaded the supraglottis or subglottis but has not fixed the vocal cords or invaded the thyroid cartilage.
  - **D) T3**: T3 involves fixation of the vocal cords but no invasion into the thyroid cartilage. Here, the thyroid cartilage involvement points towards T4a.

Question 6

A 45-year-old man has been brought to the emergency room complaining of hoarseness of voice for the last 14 months that is progressive and now having difficulty in breathing for the last two days. He has a history of Carcinoma Larynx for which he received radiation. The patient has developed decreased saturation for which intervention is needed. What is the best airway management option in this case?

A) Endotracheal Intubation
B) High Tracheostomy
C) Low Tracheostomy
D) Percutaneous Tracheostomy
E) Tracheostomy between ring two and three of trachea

- **Correct Option**: **E) Tracheostomy between ring two and three of trachea**
    - **Explanation**: For patients with a history of carcinoma larynx and difficulty breathing, tracheostomy is preferred over endotracheal intubation as it provides a secure airway. Performing a tracheostomy between the second and third tracheal rings is typically ideal, as it avoids complications associated with high or low tracheostomy placement, especially in patients with a history of laryngeal carcinoma and post-radiation changes.
- **Why Other Options Are Incorrect**:
    - **A) Endotracheal Intubation**: While intubation is used in emergencies, it's not ideal for long-term management in cases of upper airway obstruction due to tumor or post-radiation changes.
    - **B) High Tracheostomy**: A high tracheostomy may risk injuring the vocal cords or adjacent structures, which is not ideal in this patient with laryngeal carcinoma.
    - **C) Low Tracheostomy**: This option is more technically challenging and unnecessary in this situation.
    - **D) Percutaneous Tracheostomy**: Percutaneous tracheostomy is usually avoided in patients with head and neck cancers due to altered anatomy and increased risk of complications.

Question 7

A 60-year-old man has presented to a specialist outpatient complaining of painful swallowing, hoarseness of voice, and occasional regurgitation of food for the last 8 months. Examination of the neck and indirect laryngoscopy are unremarkable. His Hb level is 9.5 g/dl, Total leucocyte count 15000 mcl. Repeated water-soluble barium swallow shows a constant filling on the side of the neck. What is the most likely diagnosis in this case?

A) Laryngocele
B) Oesophageal carcinoma
C) Pharyngeal pouch
D) Piriform sinus carcinoma
E) Post cricoid carcinoma

- **Correct Option**: **C) Pharyngeal pouch**
    - **Explanation**: A pharyngeal pouch (Zenker's diverticulum) can present with symptoms such as painful swallowing, regurgitation of food, and sometimes hoarseness if it presses against the laryngeal structures. The presence of a "constant filling" on barium swallow is characteristic of a pharyngeal pouch.
- **Why Other Options Are Incorrect**:
    - **A) Laryngocele**: A laryngocele is an air-filled dilation of the saccule of the laryngeal ventricle, which usually does not cause regurgitation of food or show up as constant filling in a barium swallow.
    - **B) Oesophageal carcinoma**: This condition might present with dysphagia and regurgitation but is typically associated with weight loss and not constant filling on one side of the neck.

- **D) Piriform sinus carcinoma**: Although it could cause similar symptoms, it would more likely show a mass on laryngoscopy rather than a pouch-like filling on barium swallow.
- **E) Post cricoid carcinoma**: This would typically show a mass effect and might lead to dysphagia but would not present as a constant filling defect in a barium swallow.

Question 8

A 5-year-old patient is brought to a consultant clinic by his parents complaining of pain in his right ear of sudden onset of three hours duration. Otoscopy shows red congested Tympanic membrane with bulge in the centre and the patient is febrile too. What is the most likely route of spread of infection in this case?

A) Direct spread from external ear
B) Haematogenous spread
C) Infection of the Para Nasal Sinus
D) Patulous Eustachian Tube
E) Shorter and wider Eustachian Tube

- **Correct Option**: **E) Shorter and wider Eustachian Tube**
  - **Explanation**: In young children, the Eustachian tube is anatomically shorter and more horizontal, which makes it easier for pathogens from the nasopharynx to travel to the middle ear, leading to acute otitis media. This explains the red, bulging tympanic membrane observed on otoscopy.
- **Why Other Options Are Incorrect**:
  - **A) Direct spread from external ear**: This would typically involve the outer ear canal and does not account for a bulging tympanic membrane seen in middle ear infections.
  - **B) Haematogenous spread**: While possible in systemic infections, haematogenous spread is not a common route for isolated acute otitis media.
  - **C) Infection of the Para Nasal Sinus**: Although nearby, sinus infections typically do not directly cause acute middle ear infections.
  - **D) Patulous Eustachian Tube**: A patulous Eustachian tube is abnormally open and does not increase the risk of infection spread; it is more associated with symptoms of autophony.

Question 9

A 55-year-old patient has presented to the outpatient department complaining of a change in voice for the last 3 months that is persistent and progressive in nature. Her Flexible Endoscopy shows a fungating, ulcerative lesion involving the anterior one-third of the right vocal cord, but both vocal cords are mobile. What is the most likely diagnosis in this case?

A) Arytenoid granuloma
B) Cord papilloma
C) Squamous cell carcinoma
D) Vocal cord nodule
E) Vocal cord polyp

- **Correct Option**: **C) Squamous cell carcinoma**
    - **Explanation**: Squamous cell carcinoma is a common malignancy of the larynx that often presents with progressive hoarseness or voice change. The presence of a fungating, ulcerative lesion on the vocal cord is suggestive of malignancy, particularly squamous cell carcinoma.
- **Why Other Options Are Incorrect**:
    - **A) Arytenoid granuloma**: Typically presents as a small, smooth lesion rather than a fungating, ulcerative mass. It is often due to chronic irritation or intubation trauma.
    - **B) Cord papilloma**: Vocal cord papillomas are usually exophytic, warty growths associated with HPV and do not typically present as an ulcerative lesion.
    - **D) Vocal cord nodule**: Vocal nodules are benign, symmetrical lesions associated with vocal overuse. They are not fungating or ulcerative.
    - **E) Vocal cord polyp**: Polyps are benign lesions often caused by vocal strain or irritation. They are usually smooth and non-ulcerative.

Question 10

A 19-year-old patient was diagnosed as a case of Gradenigo syndrome due to Chronic Suppurative Otitis Media 7 days ago. On examination, the post-aural area is tender with scanty foul-smelling discharge from the left ear. Pure tone audiometry shows mixed hearing loss. What is the most likely cause responsible for this condition?

A) Acute mastoid abscess
B) Acute petrositis
C) Chronic otitis media
D) Luc's abscess
E) Secretory otitis media

- **Correct Option**: **B) Acute petrositis**
    - **Explanation**: Gradenigo syndrome is typically associated with petrositis (infection of the petrous part of the temporal bone), chronic otitis media, and cranial nerve involvement. Symptoms include foul-smelling discharge, hearing loss, and post-aural tenderness, which align with acute petrositis in this case.
- **Why Other Options Are Incorrect**:
    - **A) Acute mastoid abscess**: While mastoid abscess can present with discharge and hearing loss, Gradenigo syndrome is more specifically linked with petrositis.
    - **C) Chronic otitis media**: This condition is an underlying factor, but it does not explain the acute symptoms of Gradenigo syndrome on its own.
    - **D) Luc's abscess**: This is an unusual complication of otitis media but does not present with the characteristic features of Gradenigo syndrome.
    - **E) Secretory otitis media**: This condition typically does not present with foul-smelling discharge or symptoms as severe as those in Gradenigo syndrome.

Question 11

A 24-year-old patient has a history of foul-smelling discharge from the right ear for the last 7 years. On examination, he has attic defect and granulation tissue. For the last 7 days, he has developed a triad of ear discharge, retro-orbital pain, and 6th nerve paralysis. Audiometry showed profound hearing loss. What is the most likely cause in this patient?

A) Cavernous sinus thrombosis
B) Lateral sinus thrombosis
C) Labyrinthitis
D) Luc's abscess
E) Petrositis

- **Correct Option**: **E) Petrositis**
    - **Explanation**: Petrositis, an infection of the petrous part of the temporal bone, is known to cause a triad of symptoms: otorrhea (ear discharge), retro-orbital pain, and sixth cranial nerve palsy (Gradenigo syndrome). This matches the clinical picture presented, making petrositis the most likely diagnosis.
- **Why Other Options Are Incorrect**:
    - **A) Cavernous sinus thrombosis**: This can cause cranial nerve palsies and retro-orbital pain but is typically associated with infections that spread from the face or sinuses, not directly from chronic ear disease.
    - **B) Lateral sinus thrombosis**: While associated with chronic ear infections, lateral sinus thrombosis usually presents with systemic signs such as fever and does not commonly involve the sixth cranial nerve.
    - **C) Labyrinthitis**: This condition affects the inner ear, causing vertigo and hearing loss but does not explain sixth nerve palsy or retro-orbital pain.
    - **D) Luc's abscess**: This is a rare complication of otitis media but does not typically cause sixth nerve palsy or retro-orbital pain.

Question 12

A 17-year-old patient has presented to outpatient complaining of right ear pain for the last 3 days. On otoscopic examination, the tympanic membrane is red and congested. The patient received oral antibiotics and nasal sprays but is not relieved. What is the most effective treatment option in this patient to avoid complications?

A) Intravenous Venous Antibiotics
B) Nasal topical steroids
C) Myringotomy with grommet insertion
D) Tympanocentesis in anterior superior quadrant
E) Tympanocentesis in anterior inferior quadrant

- **Correct Option**: **C) Myringotomy with grommet insertion**
    - **Explanation**: Myringotomy with grommet insertion is effective in relieving pressure and draining middle ear fluid, especially in cases where conservative treatments such as antibiotics and nasal sprays have failed. This procedure helps prevent complications associated with persistent otitis media.
- **Why Other Options Are Incorrect**:

- **A) Intravenous Venous Antibiotics**: Although IV antibiotics can be used in severe infections, they do not address the mechanical issue of fluid buildup behind the tympanic membrane.
- **B) Nasal topical steroids**: While they may help reduce nasal congestion, they do not address the middle ear pathology directly.
- **D & E) Tympanocentesis**: Tympanocentesis is used for fluid aspiration but does not provide a long-term solution like grommet insertion.

Question 13

A 40-year-old man has presented to outpatient complaining of hoarseness of voice for the last 15 months that is persistent and progressive. Neck examination is normal and indirect laryngoscopy shows ulcerated growth on left vocal cord anterior one-third with normal movements. His flexible endoscopy shows same findings only white patch on right cord. What is the most likely T Stage of the disease in this case?

A) Stage 1
B) Stage 1a
C) Stage 1b
D) Stage 2a
E) Stage 2b

- **Correct Option**: **B) Stage 1a**
  - **Explanation**: Stage 1a refers to a localized carcinoma that involves only one vocal cord without affecting vocal cord mobility. The ulcerated growth on the left vocal cord anterior third with normal movements fits this staging.
- **Why Other Options Are Incorrect**:
  - **A) Stage 1**: Although this is also early-stage cancer, Stage 1 is too general and does not specify the unilateral involvement.
  - **C) Stage 1b**: Stage 1b would involve both vocal cords, which is not the case here.
  - **D & E) Stage 2a / 2b**: Stage 2 refers to cancer that has started to invade adjacent areas, which is not evident here.

Question 14

A 9-year-old patient has presented to outpatient department complaining of nasal obstruction and decreased hearing level in both ears. Examination shows high arched palate and dull tympanic membrane with loss of landmarks. X-Ray nasopharynx shows enlarged Adenoids. What is the most likely type of hearing loss in this case?

A) Conductive hearing loss
B) Mixed hearing loss
C) Profound hearing loss
D) Sensory Neural Hearing loss
E) Sudden Sensory Neural Hearing loss

- **Correct Option**: **A) Conductive hearing loss**

- **Explanation**: Enlarged adenoids can obstruct the Eustachian tubes, leading to fluid accumulation in the middle ear and conductive hearing loss. This type of hearing loss is common in pediatric patients with nasal obstruction due to adenoid hypertrophy.

- **Why Other Options Are Incorrect**:
  - **B) Mixed hearing loss**: Mixed hearing loss involves both conductive and sensorineural elements, which is not indicated here.
  - **C) Profound hearing loss**: Profound hearing loss is typically severe and would not be solely caused by adenoid hypertrophy.
  - **D & E) Sensory Neural Hearing loss**: Sensorineural hearing loss involves damage to the inner ear structures, which is not related to adenoid-induced Eustachian tube dysfunction.

Question 15

A 45-year-old man has presented to outpatient department complaining of hoarseness of voice for the last 18 months that is persistent and progressive. He is farmer by profession. His neck examination is normal and indirect laryngoscopy shows ulcerated growth on right vocal cord anterior mid portion with normal movements. His flexible endoscopy shows same findings, the patient is staged as T1a N0 M0. Histopathology report shows Squamous Cell Carcinoma. After counseling for treatment he is reluctant to go for Radiotherapy. What is the most likely next treatment option in this case?

A) Chemotherapy
B) Cordectomy
C) Partial laryngectomy
D) Total laryngectomy
E) Sub epithelial Cordectomy

- **Correct Option**: **B) Cordectomy**
  - **Explanation**: For early-stage T1a glottic carcinoma confined to one vocal cord with normal movement, cordectomy is a suitable and effective treatment option, particularly for patients who do not prefer radiotherapy. It provides local control with minimal invasiveness.

- **Why Other Options Are Incorrect**:
  - **A) Chemotherapy**: Chemotherapy is not the primary treatment for early-stage localized glottic carcinoma.
  - **C) Partial laryngectomy**: Partial laryngectomy is more extensive than necessary for a T1a lesion.
  - **D) Total laryngectomy**: This is reserved for advanced cases with extensive disease, not suitable for T1a.
  - **E) Sub epithelial Cordectomy**: This technique may not be sufficient to excise the entire lesion, especially if it is ulcerated.

Question 16

A 9-year-old boy has presented to a consultant outpatient complaining of bilateral decreased hearing level for the last 2 months. Otoscopy shows dull tympanic membrane, and Tympanometry reveals type B tympanogram. What is the most likely diagnosis in this case?

A) Acute suppurative otitis media
B) Chronic otitis media
C) Retracted tympanic membrane
D) Secretory otitis media
E) Tympanosclerosis

- **Correct Option**: **D) Secretory otitis media**
    - **Explanation**: Secretory otitis media (also known as otitis media with effusion) commonly presents with a dull tympanic membrane and a type B tympanogram, which indicates fluid in the middle ear without active infection. This condition often leads to conductive hearing loss.
- **Why Other Options Are Incorrect**:
    - **A) Acute suppurative otitis media**: This condition typically presents with ear pain, fever, and purulent discharge, which are not mentioned here.
    - **B) Chronic otitis media**: Chronic otitis media is usually associated with a perforated tympanic membrane and ongoing discharge, not a dull tympanic membrane.
    - **C) Retracted tympanic membrane**: Retraction is a sign of Eustachian tube dysfunction but does not usually present with type B tympanogram.
    - **E) Tympanosclerosis**: Tympanosclerosis involves calcification in the tympanic membrane and often results in visible white plaques rather than a dull tympanic membrane with a type B tympanogram.

Question 17

A 40-year-old hypertensive man presented to the emergency department with a history of sudden-onset severe epistaxis. After proper history, examination, and investigation, anterior nasal packing was done but was unsuccessful. You are called for vessel ligation under general anesthesia through an endoscope. What is the most appropriate vessel to be ligated through endoscope to stop bleeding?

A) Anterior ethmoidal artery
B) Posterior ethmoidal artery
C) Septal branch of sphenopalatine artery
D) Septal branch of greater palatine artery
E) Septal branch of superior labial artery

- **Correct Option**: **C) Septal branch of sphenopalatine artery**
    - **Explanation**: The sphenopalatine artery is often the main artery involved in posterior epistaxis, especially in severe cases where anterior nasal packing fails. Endoscopic ligation of the sphenopalatine artery is a common and effective intervention for controlling posterior nosebleeds.
- **Why Other Options Are Incorrect**:
    - **A) Anterior ethmoidal artery**: This artery is usually involved in anterior epistaxis, which is often managed successfully with anterior nasal packing.

- **B) Posterior ethmoidal artery**: Although it can contribute to posterior epistaxis, it is less commonly targeted for ligation in endoscopic procedures compared to the sphenopalatine artery.
- **D) Septal branch of greater palatine artery**: This artery primarily supplies the hard palate and does not contribute significantly to epistaxis.
- **E) Septal branch of superior labial artery**: This is a branch of the facial artery and typically supplies the anterior part of the nasal septum, which is not the likely source in posterior epistaxis.

Question 18

A 16-year-old boy has presented to the Emergency Room with sudden onset of headache and vomiting. He has also a history of foul-smelling right ear discharge for the last 6 years. On examination, there is scanty discharge and granulation tissue in the attic region of the right ear and difficulty in closing the right eye. What is the most likely extra-cranial complication of Chronic Suppurative Otitis Media in this case?

A) Brain abscess
B) Epidural abscess
C) Facial nerve paralysis
D) Otitis hydrocephalus
E) Petrositis

- **Correct Option**: **C) Facial nerve paralysis**
  - **Explanation**: Chronic Suppurative Otitis Media (CSOM) can lead to facial nerve paralysis due to the erosion of the bony canal housing the facial nerve. The patient's symptoms of difficulty in closing the right eye indicate facial nerve involvement, making facial nerve paralysis the most likely complication.
- **Why Other Options Are Incorrect**:
  - **A) Brain abscess**: While a brain abscess is a potential complication of CSOM, it would typically present with more severe neurological signs rather than isolated facial nerve involvement.
  - **B) Epidural abscess**: This is another possible complication of CSOM but would also likely present with more generalized neurological signs rather than facial paralysis alone.
  - **D) Otitis hydrocephalus**: This condition is rare and would present with symptoms of increased intracranial pressure rather than facial nerve involvement.
  - **E) Petrositis**: Although petrositis can cause headache and cranial nerve palsies, it typically affects the sixth cranial nerve, leading to abducens palsy, not the seventh (facial) nerve.

Question 19

A 50-year-old male patient is coming to specialist outpatient complaining of difficulty in swallowing for liquids and solids, regurgitation of food, and occasionally chest pain for the last 2 years. He has a history of hospitalization for chest infection 9 months back. Examination of the neck is unremarkable, and indirect laryngoscopy shows pooling of saliva. Low molecular weight barium swallow shows classical bird beak appearance. What is the most effective treatment for this disease?

A) Botulinum toxin injection
B) Cardiomyotomy with partial fundoplication
C) Cardiomyotomy with complete fundoplication
D) Oesophageal dilatation
E) Oesophagectomy

- **Correct Option**: **B) Cardiomyotomy with partial fundoplication**
    - **Explanation**: The "bird beak" appearance on a barium swallow is characteristic of achalasia, a condition in which there is failure of relaxation of the lower esophageal sphincter. The most effective treatment for achalasia is a surgical procedure called Heller myotomy, often combined with partial fundoplication to prevent reflux.
- **Why Other Options Are Incorrect**:
    - **A) Botulinum toxin injection**: This is a less invasive treatment option but provides only temporary relief and is generally reserved for patients who are not surgical candidates.
    - **C) Cardiomyotomy with complete fundoplication**: Complete fundoplication can cause significant dysphagia and is typically avoided in achalasia treatment.
    - **D) Oesophageal dilatation**: While dilatation may provide temporary relief, it has a higher risk of recurrence and perforation compared to myotomy.
    - **E) Oesophagectomy**: This is a radical procedure reserved for advanced or complicated cases where other treatments have failed.

Question 20

A 51-year-old shopkeeper presented to the Consultant Clinic complaining of hoarseness of voice for the last 06 months, persistent and progressive. Flexible laryngoscopy shows right fixed vocal cord with ulcerated growth, and CT Scan shows heterogeneously enhancing lesion involving vocal cord with no extension to thyroid cartilage. What is the appropriate staging classification for this patient?

A) T1, N0, M0
B) T2, N0, M0
C) T3, N0, M0
D) T4a, N0, M0
E) T4b, N0, M0

- **Correct Option**: **C) T3, N0, M0**
    - **Explanation**: T3 stage in laryngeal cancer indicates that there is a tumor with vocal cord fixation but without extension to adjacent structures like the thyroid cartilage. The right fixed vocal cord and absence of thyroid cartilage invasion make T3 the appropriate staging.
- **Why Other Options Are Incorrect**:
    - **A) T1, N0, M0**: T1 indicates a tumor confined to one vocal cord with normal vocal cord mobility.
    - **B) T2, N0, M0**: T2 includes spread to the supraglottis or subglottis with impaired vocal cord movement but without fixation.

- **D) T4a, N0, M0**: T4a implies extension beyond the larynx into nearby structures like the thyroid cartilage.
- **E) T4b, N0, M0**: T4b indicates very advanced disease with extension to prevertebral space or encasing major arteries.

Question 21

A 45-year-old male patient is presented to otolaryngology specialist clinic complaining of hoarseness of voice for the last 3 months. He is a chronic smoker and was using medicines for heartburn. Flexible laryngoscopy shows grayish white patches on anterior two third of both mobile vocal cords. Under direct laryngoscopy, the plaques could not be easily excised. What is the most likely diagnosis in this case?

A) Contact ulcers
B) Hyperkeratosis
C) Leukoplakia
D) Verrucous carcinoma
E) Squamous cell carcinoma

- **Correct Option**: **C) Leukoplakia**
  - **Explanation**: Leukoplakia presents as white patches on the vocal cords, especially in smokers. The plaques are often non-removable and may be precancerous, which aligns with the patient's history and findings.
- **Why Other Options Are Incorrect**:
  - **A) Contact ulcers**: Contact ulcers are typically located at the posterior part of the vocal cords and present as ulcers rather than white patches.
  - **B) Hyperkeratosis**: Hyperkeratosis can appear as thickened areas but is usually more diffuse and less likely to be non-removable.
  - **D) Verrucous carcinoma**: This is a variant of squamous cell carcinoma that appears warty and exophytic rather than flat white patches.
  - **E) Squamous cell carcinoma**: Squamous cell carcinoma often presents as ulcerative or mass lesions, not as flat, non-removable white plaques.

Question 22

Question: A 17-year-old girl was brought to the emergency room complaining of difficulty in breathing for the last two days. She also gives a history of dental manipulation. On examination, the tongue is protruded with reduced movements. Which one of the following is the most likely organism responsible for this condition?

Answer Choices:

- A) *Haemophilus influenzae*
- B) *Pseudomonas aeruginosa*
- C) *Staphylococcus aureus*

- D) *Streptococcus pneumoniae*
- E) *Streptococcus viridans* (Correct Answer)

Correct Answer: E) *Streptococcus viridans*

Explanation:

This presentation is suggestive of **Ludwig's angina**, a potentially life-threatening cellulitis of the floor of the mouth. Ludwig's angina is typically caused by oral bacteria and often follows dental procedures or dental infections. The infection can spread rapidly, leading to swelling under the tongue, which causes the tongue to protrude and restricts airway movement, resulting in difficulty breathing.

Streptococcus viridans, part of the normal oral flora, is the most common causative organism for Ludwig's angina due to its prevalence in the mouth and association with dental infections.

- **Why Other Options Are Incorrect:**
    - **A) *Haemophilus influenzae*:** This organism can cause respiratory infections, particularly in children, but it is not commonly associated with Ludwig's angina or dental infections.
    - **B) *Pseudomonas aeruginosa*:** While *Pseudomonas* is a common cause of infections in immunocompromised patients or those with hospital-acquired infections, it is not a typical cause of Ludwig's angina.
    - **C) *Staphylococcus aureus*:** Although *Staphylococcus aureus* can cause various infections, it is not the most common organism responsible for Ludwig's angina, which is typically linked to oral flora.
    - **D) *Streptococcus pneumoniae*:** *Streptococcus pneumoniae* is more commonly associated with respiratory infections like pneumonia, sinusitis, and otitis media, rather than infections of the oral cavity leading to Ludwig's angina.

Question 23

A 45-year-old high school teacher has presented to outpatient complaining of hoarseness of voice for the last 16 months, persistent and progressive. Neck examination is unremarkable, and flexible laryngoscopy shows ulcerated growth on right vocal cord anterior one third with normal movements. This patient is staged as T1a N0 M0, according to AJCC. What is the most appropriate treatment option?

A) Cordectomy segmental
B) Chemoradiotherapy
C) Radiotherapy
D) Subepithelial Cordectomy
E) Total Laryngectomy

- **Correct Option**: **C) Radiotherapy**
    - **Explanation**: For T1a glottic carcinoma, radiotherapy is a standard and effective treatment option that preserves the voice quality. It is typically recommended for patients with early-stage glottic cancer with no nodal involvement.
- **Why Other Options Are Incorrect**:

- **A) Cordectomy segmental**: This is an alternative option but may be less desirable than radiotherapy for preserving voice quality.
- **B) Chemoradiotherapy**: This is usually reserved for more advanced cancers with nodal involvement.
- **D) Subepithelial Cordectomy**: This may be too conservative for an ulcerated growth, and radiotherapy provides better overall results for T1a stage.
- **E) Total Laryngectomy**: This is reserved for more advanced stages where laryngeal function cannot be preserved.

Question 24

A 12-year-old boy has come to outpatient clinic complaining of discharge from his right ear for the last 2 days. On examination, the tympanic membrane has central perforation with red congested mucosa and mucoid discharge. Which one of the following is the most likely causative organism responsible upon the report of culture and sensitivity test?

A) Haemophilus influenzae
B) Pneumococcus
C) Pseudomonas aeruginosa
D) Staphylococcus
E) Streptococcus

- **Correct Option**: **C) Pseudomonas aeruginosa**
  - **Explanation**: Pseudomonas aeruginosa is a common causative organism in cases of chronic suppurative otitis media with central tympanic membrane perforation and mucoid discharge, particularly when there is red, congested mucosa.
- **Why Other Options Are Incorrect**:
  - **A) Haemophilus influenzae**: More commonly associated with otitis media with effusion rather than suppurative otitis with perforation.
  - **B) Pneumococcus**: Typically seen in acute otitis media but less likely in chronic cases with perforation.
  - **D) Staphylococcus**: Staphylococcus can cause ear infections, but Pseudomonas is more common in chronic cases.
  - **E) Streptococcus**: More often associated with acute infections rather than chronic cases with perforation.

Question 25

A 7-year-old girl was brought to outpatient by her parents complaining of bilateral decreased hearing and nasal obstruction for the last 3 months. On otoscopy, she has bilateral dull tympanic membranes with loss of landmarks and is a mouth breather. Tympanometry reveals type B graph. What is the most effective treatment of choice in this case?

A) Adenotonsillectomy
B) Adenoidectomy with Grommets insertion
C) Conservative treatment with analgesics

D) Conservative treatment with antibiotics
E) Myringotomy with ventilation tube insertion

- **Correct Option**: **B) Adenoidectomy with Grommets insertion**
    - **Explanation**: Enlarged adenoids causing Eustachian tube obstruction is likely responsible for her symptoms of nasal obstruction, hearing loss, and type B tympanogram. Adenoidectomy with grommet insertion helps resolve both the adenoid hypertrophy and middle ear effusion.
- **Why Other Options Are Incorrect**:
    - **A) Adenotonsillectomy**: Tonsillectomy is unnecessary unless there is also chronic tonsillitis.
    - **C) Conservative treatment with analgesics**: This would not address the underlying cause of adenoid hypertrophy.
    - **D) Conservative treatment with antibiotics**: Antibiotics do not treat the obstruction caused by adenoids.
    - **E) Myringotomy with ventilation tube insertion**: This addresses middle ear effusion but does not resolve the nasal obstruction caused by enlarged adenoids.

Question 26

A 5-year-old boy is scheduled for diagnostic bronchoscopy. Clinical examination and X-Ray chest are normal. During rigid bronchoscopy, a piece of peanut was removed. In the recovery room the patient was not maintaining O2 saturation, with hyper resonant chest on percussion. What is the next step in the treatment of this patient?

A) Endotracheal intubation
B) Chest intubation
C) Re-Bronchoscopy
D) Tracheostomy
E) Ventilator support

- **Correct Option**: **C) Re-Bronchoscopy**
    - **Explanation**: The persistence of symptoms like hypoxia and hyper-resonance after bronchoscopy suggests a possible residual foreign body or air trapping due to incomplete removal. Re-bronchoscopy is warranted to ensure there is no remaining obstruction.
- **Why Other Options Are Incorrect**:
    - **A) Endotracheal intubation**: This does not address the potential foreign body issue.
    - **B) Chest intubation**: Not indicated unless there is pneumothorax or large air trapping.
    - **D) Tracheostomy**: This is unnecessary for airway management in this case.
    - **E) Ventilator support**: This may assist breathing temporarily but does not address the cause of hypoxia if a foreign body remains.

Question 27

A 40-year-old lady is coming to a specialist clinic complaining of difficulty in swallowing for the last 2 years. She has a history of total thyroidectomy for differentiated thyroid carcinoma 3 years back. Her Barium swallow is normal and flexible endoscopy shows right vocal cord paralysis. What is the most likely cause of dysphagia in this case?

A) Decreased pharyngeal gradient pressure and decreased glottis closure
B) Decreased pharyngeal gradient pressure and increased glottis closure
C) Increased pharyngeal gradient pressure and increased glottis closure
D) Increased pharyngeal gradient pressure and decreased glottis closure
E) Superior constrictor muscle and cricothyroid muscle dysfunction

- **Correct Option**: **A) Decreased pharyngeal gradient pressure and decreased glottis closure**
    - **Explanation**: Vocal cord paralysis can lead to decreased glottis closure, impacting swallowing and reducing the pharyngeal pressure gradient, which is necessary for effective bolus movement. This can result in dysphagia.
- **Why Other Options Are Incorrect**:
    - **B) Decreased pharyngeal gradient pressure and increased glottis closure**: Increased glottis closure is not consistent with vocal cord paralysis.
    - **C) Increased pharyngeal gradient pressure and increased glottis closure**: Both increased pressure and closure are unlikely in cases of vocal cord paralysis.
    - **D) Increased pharyngeal gradient pressure and decreased glottis closure**: Increased pharyngeal pressure is inconsistent with the typical presentation of vocal cord paralysis.
    - **E) Superior constrictor muscle and cricothyroid muscle dysfunction**: These muscles are not typically affected in vocal cord paralysis related to thyroidectomy complications.

Question 28

A 20-year-old boy presented to the Consultant Clinic complaining of sore throat and difficulty in swallowing for the last 06 months associated with fever, body aches, and pains. The patient is appearing in poor general condition. On examination of the oral cavity, mobile mucosal surfaces of the tongue have white reddish spots, multiple and tender to touch. What is the most likely clinical diagnosis in this case?

A) Aphthous ulcers
B) Erythroplakia
C) Leukoplakia
D) Submucosal fibrosis
E) Squamous cell carcinoma

- **Correct Option**: **B) Erythroplakia**
    - **Explanation**: Erythroplakia is a red patch or lesion that is often seen on the mucosal surfaces of the oral cavity and can be associated with sore, tender spots. This condition is more likely in patients with systemic symptoms and poor general condition, as leukoplakia tends to be less symptomatic.
- **Why Other Options Are Incorrect**:
    - **A) Aphthous ulcers**: Aphthous ulcers are typically isolated lesions, often recurrent, and do not usually present with widespread red patches.

- **C) Leukoplakia**: Leukoplakia presents as white patches and is generally not associated with tenderness.
- **D) Submucosal fibrosis**: This condition involves fibrosis and restriction of mouth opening, rather than red, tender lesions.
- **E) Squamous cell carcinoma**: Although squamous cell carcinoma can present with white or red patches, it is usually associated with a single ulcerative lesion rather than multiple tender spots.

Question 29

A 15-year-old boy was brought to the emergency room by his parents complaining of sore throat, headache, and difficulty in opening mouth for the last three days. His both tonsils are covered by white follicles, and the left tonsil is enlarged medially anterior to the posterior pillar with deviation of the uvula to the opposite side. What is the most probable diagnosis?

A) Acute follicular tonsillitis
B) Infectious mononucleosis
C) Membranous tonsillitis
D) Peritonsillar abscess
E) Parapharyngeal abscess

- **Correct Option**: **D) Peritonsillar abscess**
  - **Explanation**: The symptoms of sore throat, difficulty in mouth opening (trismus), and deviation of the uvula to the opposite side are characteristic of a peritonsillar abscess, which commonly causes swelling around the tonsil and deviation of the uvula.
- **Why Other Options Are Incorrect**:
  - **A) Acute follicular tonsillitis**: This typically presents with white follicles on the tonsils but does not cause uvula deviation.
  - **B) Infectious mononucleosis**: This can present with sore throat and swollen tonsils but would not usually cause uvula deviation or trismus.
  - **C) Membranous tonsillitis**: This condition involves a membrane on the tonsils but does not cause uvula deviation.
  - **E) Parapharyngeal abscess**: Although this can cause trismus, it would more likely present with swelling along the jawline rather than just deviation of the uvula.

Question 30

A 9-year-old boy presented to the consultant clinic for pain in the throat, fever, and severe body aches for the last 4 days. On examination, the oropharynx is congested with whitish layers and red spots, neck is also swollen and tender. What is the investigation of choice in this patient?

A) ASO Titre
B) Complete Blood Picture
C) Culture and Sensitivity

D) Paul Bunnell Test
E) Rapid Antigen test

- **Correct Option**: **C) Culture and Sensitivity**
    - **Explanation**: A throat culture and sensitivity test is the best choice for diagnosing a bacterial infection, particularly streptococcal pharyngitis, which could cause the symptoms described (fever, throat pain, and swollen neck).
- **Why Other Options Are Incorrect**:
    - **A) ASO Titre**: ASO Titre is used to detect a past streptococcal infection, not an acute infection.
    - **B) Complete Blood Picture**: While it can show infection, it does not identify the causative organism.
    - **D) Paul Bunnell Test**: This test is used for diagnosing infectious mononucleosis, which has different clinical findings.
    - **E) Rapid Antigen test**: While useful for quick diagnosis, it may miss other pathogens and is typically used for suspected streptococcal infections specifically.

Question 31

A 16-year-old girl presented to the Consultant Clinic complaining of swelling in the floor of mouth for the last 06 months that is progressive. The swelling is bluish in color, soft, not tender on the left side of the frenulum and on ventral of the tongue. What is the most likely clinical diagnosis in this case?

A) Dermoid cyst
B) Granuloma
C) Papilloma
D) Ranula
E) Submandibular duct stone

- **Correct Option**: **D) Ranula**
    - **Explanation**: A ranula is a mucus-filled cyst that typically presents as a bluish, soft, painless swelling in the floor of the mouth. It often occurs due to blockage of the sublingual salivary gland.
- **Why Other Options Are Incorrect**:
    - **A) Dermoid cyst**: Dermoid cysts are generally located in the midline and have a more solid feel.
    - **B) Granuloma**: Granulomas are usually inflammatory lesions and do not typically appear as bluish swellings.
    - **C) Papilloma**: Papillomas are wart-like growths and do not present as a bluish cyst.
    - **E) Submandibular duct stone**: This would present with pain and swelling during meals rather than a persistent, painless bluish swelling.

Question 32

A 25-year-old boy presented to the emergency room complaining of burning sensation in the throat and difficulty in chewing food for the last 06 months associated with fever body aches and pains. The patient is addicted to Pan (Betel quid) and smoking. On examination of the oral cavity mobile mucosal surfaces of the tongue have white reddish spots, multiple and tender to touch. Which of the following is the most likely diagnosis in this case?

A) Aphthous ulcers
B) Erythroplakia
C) Leukoplakia
D) Lichen planus
E) Submucosal fibrosis

- **Correct Option**: **B) Erythroplakia**
    - **Explanation**: Erythroplakia is characterized by red patches in the oral cavity, often associated with tobacco and betel quid use, and can be a precancerous lesion. The description of white reddish spots that are tender aligns with erythroplakia.
- **Why Other Options Are Incorrect**:
    - **A) Aphthous ulcers**: These are small, round ulcers that do not present with widespread reddish spots.
    - **C) Leukoplakia**: Leukoplakia typically appears as white patches and is less likely to be tender.
    - **D) Lichen planus**: This condition presents with a lacy, white pattern in the mouth and is usually not painful.
    - **E) Submucosal fibrosis**: This condition leads to fibrosis and reduced mouth opening but does not present with red, tender spots.

Question 34

A 9-year-old boy was brought to the emergency room by his mother complaining of sore throat, headache, and severe body aches and pains. His both tonsils are covered by white follicles, and on examination, enlarged level-2 neck nodes on both sides are noted. Which of the following is the most likely organism which can cause valvular heart disease in future?

A) Group B haemolytic streptococci
B) H. influenzae
C) Staphylococcus aureus
D) Streptococcus viridans
E) Streptococcus pyogenes

- **Correct Option**: **E) Streptococcus pyogenes**
    - **Explanation**: Streptococcus pyogenes, or Group A streptococcus, is the primary cause of acute rheumatic fever, which can lead to valvular heart disease if not treated adequately. This organism is associated with streptococcal pharyngitis and tonsillitis, particularly when accompanied by tender cervical lymphadenopathy.
- **Why Other Options Are Incorrect**:

- **A) Group B haemolytic streptococci**: Group B streptococcus primarily causes infections in neonates and is not associated with rheumatic fever.
- **B) H. influenzae**: This bacterium can cause respiratory infections but is not linked to rheumatic fever.
- **C) Staphylococcus aureus**: While it can cause pharyngitis, it is not associated with the development of rheumatic fever.
- **D) Streptococcus viridans**: This group of streptococci can cause endocarditis but does not cause acute rheumatic fever.

Question 35

A 16-year-old girl presented to a consultant outpatient clinic with complaints of fever, foreign body sensation in the throat, and change in voice for 12 hours. On examination, the patient is anxious with sweating. What is the most appropriate treatment in this case?

A) Cricothyroidotomy
B) IV Antibiotics
C) Mask oxygenation
D) Tracheostomy
E) Ventilator support

- **Correct Option**: **C) Mask oxygenation**
  - **Explanation**: The symptoms suggest possible airway compromise or an impending airway emergency, possibly due to acute epiglottitis or other upper airway obstruction. Mask oxygenation provides immediate airway support until further assessment or intervention.
- **Why Other Options Are Incorrect**:
  - **A) Cricothyroidotomy**: This is an invasive procedure reserved for when less invasive measures fail.
  - **B) IV Antibiotics**: While useful for treating infection, antibiotics do not address the immediate need for airway support.
  - **D) Tracheostomy**: This is another invasive procedure and not the first line for immediate airway management.
  - **E) Ventilator support**: This is more relevant for lower airway issues; initial mask oxygenation is appropriate in upper airway obstruction.

Question 36

A 49-year-old man presented to outpatient complaining of non-healing ulcer on right middle of the tongue for the last 7 months that is progressive. Neck examination shows one mobile neck node less than 3 cm in greater diameter. What is the most likely investigation in this case to establish the diagnosis?

A) CT-scan oral cavity
B) Incisional biopsy under general anesthesia
C) Incisional biopsy under surface anesthesia

D) MRI
E) Ultrasound b mode tongue

- **Correct Option**: **B) Incisional biopsy under general anesthesia**
    - **Explanation**: A non-healing ulcer on the tongue that is progressive and associated with a mobile neck node suggests a possible malignancy. An incisional biopsy under general anesthesia allows for a definitive diagnosis by obtaining a tissue sample.
- **Why Other Options Are Incorrect**:
    - **A) CT-scan oral cavity**: Imaging alone cannot confirm malignancy; a biopsy is needed.
    - **C) Incisional biopsy under surface anesthesia**: General anesthesia may provide better access for a thorough biopsy in this area.
    - **D) MRI**: MRI can assess tissue involvement but does not provide a histological diagnosis.
    - **E) Ultrasound b mode tongue**: This can assess soft tissue but is not diagnostic for malignancy without a biopsy.

Question 37

A 7-year-old boy was brought to the emergency room by his mother complaining of sore throat, headache, and difficulty in breathing. His both tonsils are covered by grey, white membrane; red spots on the soft palate and periorbital edema are noted. The neck has enlarged tender lymph nodes on both sides. His lymphocyte/WBC ratio is higher than 0.35. What is the most likely diagnosis?

A) Acute membranous tonsillitis
B) Acute follicular tonsillitis
C) Candidiasis
D) Diphtheria
E) Infectious mononucleosis

- **Correct Option**: **E) Infectious mononucleosis**
    - **Explanation**: The combination of sore throat, grey-white membrane on tonsils, lymphadenopathy, and elevated lymphocyte/WBC ratio is highly suggestive of infectious mononucleosis, often caused by the Epstein-Barr virus.
- **Why Other Options Are Incorrect**:
    - **A) Acute membranous tonsillitis**: This condition is not associated with a high lymphocyte/WBC ratio.
    - **B) Acute follicular tonsillitis**: This condition usually presents with follicular spots rather than a grey-white membrane.
    - **C) Candidiasis**: This would not present with tender lymphadenopathy and systemic symptoms like headache.
    - **D) Diphtheria**: Diphtheria could present with a grey-white membrane, but it typically causes a toxic appearance and is less likely to have a high lymphocyte/WBC ratio.

Question 38

A 43-year-old man presented to the outpatient department complaining of difficulty in breathing and swelling for the last 10 days that is progressive. Oral examination shows swelling in the oropharynx on the right side, and the mass seems to be well-oriented. X-ray neck lateral view in extension shows a prominent shadow at the retropharynx with erosion of the corresponding vertebrae. What is the most appropriate treatment in this case?

A) Anti-Tubercular Therapy
B) Incision and drainage through cervical incision
C) Antibiotics
D) Per oral incision and drainage
E) Tracheostomy

- **Correct Option**: **B) Incision and drainage through cervical incision**
    - **Explanation**: The description suggests a retropharyngeal abscess with vertebral involvement, which requires surgical drainage through a cervical approach due to the depth and potential airway compromise.
- **Why Other Options Are Incorrect**:
    - **A) Anti-Tubercular Therapy**: Tuberculosis may cause vertebral involvement, but surgical drainage is required for an abscess.
    - **C) Antibiotics**: While antibiotics may be used postoperatively, they are not sufficient alone for an abscess.
    - **D) Per oral incision and drainage**: This approach is inappropriate for deep abscesses in the retropharyngeal space.
    - **E) Tracheostomy**: This could be considered if airway obstruction is severe but does not address the abscess itself.

Question 39

A 17-year-old boy was listed for tonsillectomy for repeated sore throat. On examination, the tonsils are graded in size as grade-4. During surgical intervention, both tonsils were dissected while enlarged adenoids were left and not shaved. What is the most likely absolute contraindication for adenoid surgery in this case?

A) Aberrant pharyngeal artery
B) Bifid uvula
C) Nasopharyngeal insufficiency
D) Sinusitis
E) Suspected Angiofibroma

- **Correct Option**: **C) Nasopharyngeal insufficiency**
    - **Explanation**: Nasopharyngeal insufficiency is an absolute contraindication for adenoidectomy because removal of the adenoids in such patients can lead to velopharyngeal insufficiency, causing nasal regurgitation and speech issues.
- **Why Other Options Are Incorrect**:
    - **A) Aberrant pharyngeal artery**: This would complicate surgery but is not a strict contraindication.

- **B) Bifid uvula**: This could indicate a submucous cleft palate but does not in itself contraindicate adenoidectomy.
- **D) Sinusitis**: Sinusitis is not a contraindication for adenoidectomy.
- **E) Suspected Angiofibroma**: While this condition requires careful management, it is not relevant in this context.

Question 40

A 47-year-old man was brought to the emergency room complaining of hoarseness of voice for the last 12 months, persistent and progressive, and now difficulty in breathing for the last two days. He has a history of Carcinoma Larynx for which he received radiation. Flexible laryngoscopy shows fixed vocal cords with ulcerated growth, and CT Scan shows heterogeneously enhancing lesion involving vocal cords and thyroid cartilage, sparing pharyngeal mucosa. What is the most management option in this case?

A) Chemotherapy
B) Neo adjunct radiotherapy
C) Partial Laryngectomy
D) Palliative care
E) Total Laryngectomy

- **Correct Option**: **E) Total Laryngectomy**
  - **Explanation**: The patient has advanced laryngeal carcinoma with invasion of the thyroid cartilage. Total laryngectomy is often the best option for definitive management in cases where local structures are involved and previous radiotherapy has failed.
- **Why Other Options Are Incorrect**:
  - **A) Chemotherapy**: It is usually not curative in locally advanced laryngeal cancer without surgery.
  - **B) Neo adjunct radiotherapy**: The patient has already received radiation therapy.
  - **C) Partial Laryngectomy**: This is insufficient for extensive disease involving the thyroid cartilage.
  - **D) Palliative care**: Although palliative care may eventually be necessary, total laryngectomy can provide curative or prolonged disease-free intervals.

Question 41

You received a consultation call of a 2-year-old patient who is in severe respiratory distress for the last 2 days. He is not maintaining saturation. On examination, the patient is in inspiratory distress with intercostal recession and X-ray shows steeple sign. Saturation is decreasing, and the patient develops peripheral cyanosis. What is the most suitable management option in this case?

A) Bronchoscopy
B) Mask oxygenation with helium
C) Endotracheal intubation
D) Cricothyroidotomy
E) Tracheostomy

- **Correct Option**: **C) Endotracheal intubation**
    - **Explanation**: The steeple sign on X-ray suggests croup, which can lead to airway obstruction. In cases of severe respiratory distress with hypoxia, endotracheal intubation is the most appropriate intervention to secure the airway.
- **Why Other Options Are Incorrect**:
    - **A) Bronchoscopy**: This is diagnostic and not appropriate for immediate airway management.
    - **B) Mask oxygenation with helium**: Heliox can help in milder cases but is insufficient if there is significant airway obstruction.
    - **D) Cricothyroidotomy**: This is typically a last-resort procedure in very young children due to anatomical challenges.
    - **E) Tracheostomy**: This is also more invasive and is generally reserved for chronic or unresolved airway obstruction.

Question 42

A 15-year-old boy presented to the emergency room spitting repeated blood-stained saliva from the oral cavity. He has a history of tonsillectomy 9 days back. On examination, the right tonsil fossa has a clot with no white slough. The patient is hemodynamically stable but pale and tries to vomit; saturation is 96% and Hb 9g/dl with raised TLC count. What is the most appropriate next step in management?

A) Blood transfusions
B) Crystalloids infusions
C) IV Antibiotics
D) Ligation of blood vessel under general anesthesia
E) Packing of the tonsil bed with Adrenaline-soaked gauze

- **Correct Option**: **E) Packing of the tonsil bed with Adrenaline-soaked gauze**
    - **Explanation**: Post-tonsillectomy hemorrhage is managed initially by packing the tonsil bed with an adrenaline-soaked gauze to control bleeding. This conservative approach is preferred initially before considering surgical intervention if bleeding persists.
- **Why Other Options Are Incorrect**:
    - **A) Blood transfusions**: Although he is slightly anemic, transfusion is not the first-line management unless there is severe anemia or hemodynamic instability.
    - **B) Crystalloids infusions**: These may support hydration but do not address the source of bleeding.
    - **C) IV Antibiotics**: Antibiotics are not indicated in this situation as there is no sign of infection.
    - **D) Ligation of blood vessel under general anesthesia**: This is considered if bleeding does not stop with conservative measures.

Question 43

An 8-year-old male patient is brought by his mother with complaints of sore throat and fever for which he received treatment from a General Physician. However, his symptoms have worsened after receiving the prescribed medications. He is now unable to swallow for the last 2 days. On examination, his both tonsils are covered by white membrane and neck has palpable neck nodes at level 2. His Complete Blood Picture shows Lymphocytosis. What is the most likely drug responsible for exacerbation of his symptoms?

A) Amoxicillin
B) Brufen
C) Clarithromycin
D) Cefadroxil
E) Cefaclor

- **Correct Option**: **A) Amoxicillin**
    - **Explanation**: In cases of infectious mononucleosis, the administration of amoxicillin or ampicillin can lead to a characteristic rash and worsened symptoms, as they are contraindicated in Epstein-Barr virus infections.
- **Why Other Options Are Incorrect**:
    - **B) Brufen**: Ibuprofen is generally safe in infectious mononucleosis and would not cause worsening symptoms.
    - **C) Clarithromycin**: This is not associated with worsening in mononucleosis.
    - **D) Cefadroxil**: This cephalosporin is not typically associated with complications in mononucleosis.
    - **E) Cefaclor**: Another cephalosporin with no known adverse reaction in mononucleosis.

Question 44

You received a consultation call of a 02-day-old infant from the Nursery of child health department stating that the baby has difficulty in breathing while awake. According to the mother, the feeding and sleep of the baby is adequate. On examination, the baby is not cyanosed and is having mild chest recession. Flexible laryngoscopy shows aryepiglottic folds. What is the most likely clinical diagnosis in this case?

A) Choanal atresia
B) Epiglottitis
C) Laryngomalacia
D) Laryngotracheobronchitis
E) Vocal cord Web

- **Correct Option**: **C) Laryngomalacia**
    - **Explanation**: Laryngomalacia is the most common cause of stridor in infants and is characterized by soft, floppy aryepiglottic folds, leading to inspiratory stridor that worsens with crying or feeding and improves when the infant is calm or sleeping.
- **Why Other Options Are Incorrect**:
    - **A) Choanal atresia**: This would cause continuous difficulty breathing, especially during feeding, as the infant is obligate nasal breather.

- **B) Epiglottitis**: This is uncommon in newborns and presents with severe symptoms like high fever and drooling.
- **D) Laryngotracheobronchitis**: This typically presents with a barking cough, fever, and is not seen in infants this young.
- **E) Vocal cord Web**: This can cause airway obstruction but does not typically present with the inspiratory stridor pattern seen in laryngomalacia.

Question 45

A 4-year-old child was brought to outpatient of consultant clinic by his parents with complaints of nasal obstruction, decreased hearing level, and foul smell from right nostril for the last 7 days. On examination, there is mucopus in the right nostril, post nasal drip, and dull tympanic membrane. What is the most likely diagnosis in this case?

A) Adenoids
B) Foreign body nose
C) Septal abscesses
D) Otitis media with effusion

- **Correct Option**: **B) Foreign body nose**
  - **Explanation**: The presence of foul-smelling discharge from one nostril, along with nasal obstruction, strongly suggests a nasal foreign body. This is common in children and often leads to secondary infection, causing the foul odor.
- **Why Other Options Are Incorrect**:
  - **A) Adenoids**: Enlarged adenoids would cause bilateral nasal obstruction and discharge, not unilateral.
  - **C) Septal abscesses**: This condition typically results from trauma and would cause swelling and pain, not a foul smell.
  - **D) Otitis media with effusion**: This could explain hearing loss and dull tympanic membrane but does not account for the foul smell or unilateral nasal obstruction.

Question 46

A diagnosed case of chronic otitis media has presented to Emergency Room complaining of post aural swelling for the last 7 days. Otoscopic examination shows cholesteatoma in attic region of left ear. Pure Tone Audiometry shows bone gap of 10 db, and CT Scan shows opacity in the antrum. Most likely treatment in this case?

A) Cortical mastoidectomy
B) Conservative Management
C) Modified Radical Mastoidectomy
D) Mastoid exploration
E) Radical Mastoidectomy

- **Correct Option**: **C) Modified Radical Mastoidectomy**

- **Explanation**: A cholesteatoma with extension into the mastoid antrum requires surgical management. Modified radical mastoidectomy is typically indicated to remove disease while preserving as much structure as possible for functional hearing.

- **Why Other Options Are Incorrect**:
  - **A) Cortical mastoidectomy**: This is generally insufficient for cholesteatoma.
  - **B) Conservative Management**: Cholesteatoma needs surgical intervention to prevent complications.
  - **D) Mastoid exploration**: This is a diagnostic procedure and does not serve as definitive treatment.
  - **E) Radical Mastoidectomy**: This more extensive procedure is usually reserved for advanced cases where hearing preservation is not possible.

Question 47

A middle-aged man visited ENT Clinic for a routine oral cavity examination for the complaints of foreign body sensation in the throat. On examination, he has right-sided tonsillar enlargement. The attending surgeon counseled the patient for early surgical intervention. What is the most likely absolute indication for early tonsil surgery in this case?

A) Acute tonsillitis
B) Chronic tonsillitis
C) Malignancy
D) Peritonsillar abscess
E) Sleep apnea

- **Correct Option**: **C) Malignancy**
  - **Explanation**: Unilateral tonsillar enlargement in an adult is concerning for malignancy, which is an absolute indication for early tonsil surgery for diagnosis and treatment.

- **Why Other Options Are Incorrect**:
  - **A) Acute tonsillitis**: This is typically managed medically.
  - **B) Chronic tonsillitis**: Surgery may be indicated but is not considered urgent unless recurrent infections are severe.
  - **D) Peritonsillar abscess**: This requires drainage but does not necessitate tonsillectomy immediately.
  - **E) Sleep apnea**: Tonsil surgery can help but is not an absolute indication in the presence of malignancy concerns.

Question 48

A 5-year-old child was brought to the emergency room by her mother with complaints of difficulty in breathing and is unable to speak for the last 2 hours. The mother told that the kid was playing with toys, breathing, and is unable to speak. The child is in respiratory distress, is cyanosed and exhausted. Her X-ray chest is normal. What is the most likely diagnosis in this case?

A) Acute epiglottitis
B) Acute laryngotracheobronchitis
C) Foreign body tracheobronchial tree
D) Laryngitis

- **Correct Option**: **C) Foreign body tracheobronchial tree**
    - **Explanation**: A sudden onset of respiratory distress, cyanosis, and inability to speak in a child, especially after playing with toys, suggests the possibility of an inhaled foreign body obstructing the airway. A normal chest X-ray does not rule out a foreign body.
- **Why Other Options Are Incorrect**:
    - **A) Acute epiglottitis**: This condition presents with fever, drooling, and tripod positioning, which are not described here.
    - **B) Acute laryngotracheobronchitis**: Also known as croup, it usually presents with a barking cough and stridor, not a sudden onset of complete airway obstruction.
    - **D) Laryngitis**: Laryngitis typically presents with hoarseness or mild respiratory distress but not with sudden severe symptoms like inability to speak and cyanosis.

Question 49

A 15-year-old girl was scheduled for tonsillectomy for repeated sore throat. On examination, the tonsils are enlarged in size with bilateral neck nodes. During surgery, the left tonsil has a bleeding vessel that bleeds repeatedly, and a 2nd year resident is unable to control it. He has called for help of a senior consultant. What is the most likely vessel that needs ligation in this case?

A) Ascending Pharyngeal artery
B) Branch of facial artery
C) Descending Pharyngeal artery branch
D) Lingual artery branch
E) Paratonsillar vein

- **Correct Option**: **B) Branch of facial artery**
    - **Explanation**: The tonsils receive their blood supply mainly from branches of the facial artery (tonsillar branches), which can be a significant source of bleeding during tonsillectomy.
- **Why Other Options Are Incorrect**:
    - **A) Ascending Pharyngeal artery**: This artery supplies the pharyngeal walls but is less commonly a primary source of bleeding in tonsillectomy.
    - **C) Descending Pharyngeal artery branch**: This artery is not typically associated with significant tonsillar bleeding.
    - **D) Lingual artery branch**: Although the lingual artery supplies nearby structures, it is not a common source of tonsillar bleeding.
    - **E) Paratonsillar vein**: While veins can bleed during tonsillectomy, arterial bleeding is more common and severe, requiring ligation.

Question 50

A 50-year-old man was brought to the emergency room complaining of difficulty in breathing for the last three days. He is an uncontrolled diabetic, and also giving history of dental manipulation by dentist. On examination the tongue is protruded with sub-lingual swelling. What is the most appropriate clinical diagnosis?

A) Ludwig's Angina
B) Parapharyngeal abscess
C) Retropharyngeal abscess
D) Submandibular duct stone
E) Submandibular abscess

- **Correct Option**: **A) Ludwig's Angina**
    - **Explanation**: Ludwig's Angina is a rapidly progressing cellulitis of the submandibular space, often associated with dental infections, presenting with sublingual swelling, protrusion of the tongue, and difficulty breathing. It is an emergency due to the risk of airway obstruction.
- **Why Other Options Are Incorrect**:
    - **B) Parapharyngeal abscess**: This can cause swelling and pain but does not typically present with tongue protrusion.
    - **C) Retropharyngeal abscess**: This would cause difficulty swallowing and neck stiffness but not tongue protrusion or sublingual swelling.
    - **D) Submandibular duct stone**: This would cause swelling during meals rather than constant sublingual swelling and airway symptoms.
    - **E) Submandibular abscess**: While it may cause swelling, it typically doesn't involve the entire submandibular space or lead to tongue protrusion.

Question 51

An 18-year-old boy presents to Emergency department with history of severe headache which he claims to be the worst of his life. Headache is associated with vomiting and neck pain. Patient is giving history of nasal obstruction and post-nasal drip on examination. There is mucopus in both nostrils. What specific investigation would you like to order immediately?

A) CSF analysis
B) CT Brain with contrast
C) CT Brain without contrast
D) MRI Brain
E) PET scan

- **Correct Option**: **C) CT Brain without contrast**
    - **Explanation**: A severe, sudden headache, especially described as the "worst headache of life," raises suspicion of subarachnoid hemorrhage or other intracranial pathology. A non-contrast CT scan is the initial imaging choice to rule out hemorrhage or other acute abnormalities.

- **Why Other Options Are Incorrect**:
    - **A) CSF analysis**: This can help diagnose infections but is contraindicated initially if there is a suspicion of intracranial bleeding.
    - **B) CT Brain with contrast**: Contrast is not necessary for detecting acute hemorrhage and can obscure findings in some cases.
    - **D) MRI Brain**: Although MRI can provide detailed images, it is not the first-line imaging in an emergency for suspected hemorrhage.
    - **E) PET scan**: This is not indicated for acute headache evaluation.

Question 52

A 39-year-old lady presented to the emergency room with profuse epistaxis for 4 hours. She has had similar episodes in the past. Anterior nasal packing was done in the emergency room, but bleeding was uncontrolled. All baseline investigations were normal. The consultant decided to control the bleeding under general anesthesia. What is the most likely vessel that needs to be clipped with functional endoscopic sinus surgery in this case?

A) Anterior Ethmoidal artery
B) Greater palatine artery
C) Posterior Ethmoidal artery
D) Sphenopalatine artery
E) Septal artery

- **Correct Option**: **D) Sphenopalatine artery**
    - **Explanation**: The sphenopalatine artery is often the primary source of posterior epistaxis, which is more challenging to control with anterior packing. Endoscopic clipping or cauterization of this artery is an effective intervention for persistent posterior nosebleeds.
- **Why Other Options Are Incorrect**:
    - **A) Anterior Ethmoidal artery**: This artery supplies the anterior nasal septum, not commonly associated with severe posterior epistaxis.
    - **B) Greater palatine artery**: This artery supplies the palate, not primarily responsible for nasal bleeding.
    - **C) Posterior Ethmoidal artery**: This artery can cause posterior nosebleeds but is less frequently targeted than the sphenopalatine artery.
    - **E) Septal artery**: This is not a main vessel for severe posterior epistaxis.

Question 53

A middle-aged lady presented to outpatients with complaints of nasal obstruction, headache, and post-nasal discharge for the last 9 months. Clinical examination shows unilateral polyp, mucopurulent discharge, and CT scan shows double-density opacity in the nose, maxillary and ethmoid region pushing the orbit on the same side. What is the most appropriate treatment option in this case?

A) Endoscopic sinus surgery
B) Endoscopic sinus surgery plus topical nasal steroids
C) Endoscopic sinus surgery plus topical and oral steroids
D) IV Amphotericin B
E) Topical nasal steroids

- **Correct Option**: **C) Endoscopic sinus surgery plus topical and oral steroids**
    - **Explanation**: The double-density sign and unilateral nasal polyp with orbital displacement raise suspicion for allergic fungal sinusitis, which requires surgical debridement (endoscopic sinus surgery) along with steroids to reduce inflammation and recurrence.
- **Why Other Options Are Incorrect**:
    - **A) Endoscopic sinus surgery**: Surgery alone may not control inflammation in fungal sinusitis.
    - **B) Endoscopic sinus surgery plus topical nasal steroids**: Oral steroids provide additional anti-inflammatory effects necessary for managing severe cases.
    - **D) IV Amphotericin B**: This is used for invasive fungal infections, not typically required in allergic fungal sinusitis.
    - **E) Topical nasal steroids**: Insufficient for the extent of disease noted.

Question 54

A 20-year-old patient presented to ENT outpatient with the complaint of ear discharge for the last 6 years. The discharge is relieved by topical and systemic antibiotics and aggravated by water entry. On clinical examination, he is diagnosed with Cholesteatoma right ear. What is the most likely preoperative investigation to help in management plan?

A) CT Scan with IV contrast
B) CT Scan axial and coronal cuts
C) CT Scan sagittal view
D) MRI with IV contrast
E) PET Scan

- **Correct Option**: **B) CT Scan axial and coronal cuts**
    - **Explanation**: For preoperative assessment of cholesteatoma, CT scan in axial and coronal views provides detailed imaging of the extent of disease, bony erosion, and mastoid involvement, which are crucial for surgical planning.
- **Why Other Options Are Incorrect**:
    - **A) CT Scan with IV contrast**: Contrast is not needed for bony details and middle ear structures.
    - **C) CT Scan sagittal view**: Sagittal views are not as useful in evaluating temporal bone structures.
    - **D) MRI with IV contrast**: MRI is used to assess soft tissue but is not the primary choice for cholesteatoma.

- **E) PET Scan**: PET is not indicated for cholesteatoma, as it is used primarily for malignancies and metabolic activity assessment.

Question 55

A middle-aged lady presented to outpatient department with complaints of nasal obstruction, headache, and post-nasal discharge for the last 9 months. Clinical examination shows unilateral polyp, mucopus, and CT scan shows double-density opacity in the nose, maxillary and ethmoid region pushing the orbit on the same side. What is the most likely diagnosis in this case?

A) Antrochoanal polyp
B) Allergic fungal sinusitis
C) Ethmoidal polypi
D) Inverted papilloma
E) Maxillary sinusitis

- **Correct Option**: **B) Allergic fungal sinusitis**
  - **Explanation**: Allergic fungal sinusitis often presents with double-density or heterogeneous opacity on CT, indicating fungal material mixed with mucus, and may cause unilateral polyps and orbital displacement.
- **Why Other Options Are Incorrect**:
  - **A) Antrochoanal polyp**: This is usually a single polyp extending into the nasopharynx, not causing double-density opacities.
  - **C) Ethmoidal polypi**: These are usually bilateral and do not cause double-density opacities.
  - **D) Inverted papilloma**: This presents as a unilateral mass but does not have the typical double-density appearance of fungal sinusitis.
  - **E) Maxillary sinusitis**: This would cause opacity in the maxillary sinus but not the double-density characteristic of fungal sinusitis.

Question 56

Question Scenario: A 27-year-old patient presents with complaints of nasal obstruction lasting for 7 months. The symptoms are persistent and progressively worsening, accompanied by headaches. The patient has no history of nasal surgery. On examination, mucopurulent discharge is noted in both nostrils, along with postnasal drip and multiple large, white-gray, non-sensate swellings in the nasal cavity. A non-contrast CT scan of the sinuses shows heterogeneous opacities in the nasal and sinus regions. What is the most appropriate treatment?

Answer Choices:

1. **A. Antibiotics first line**
2. **B. FESS (Functional Endoscopic Sinus Surgery)**
3. **C. Intranasal polypectomy**
4. **D. Topical and oral steroids**

5. **E. Topical Xylometazoline**

Correct Answer: B. FESS

Explanation:

- **Correct Answer (B. FESS)**: Functional Endoscopic Sinus Surgery (FESS) is the treatment of choice for chronic rhinosinusitis with nasal polyposis, especially in cases where symptoms are severe, persistent, or do not respond to medical therapy. FESS allows for the removal of obstructions and inflamed tissues, improving sinus ventilation and drainage.

Incorrect Answers:

- **A. Antibiotics first line**: Antibiotics are not indicated as the primary treatment for chronic nasal obstruction with polyps unless there is an acute bacterial infection. In this case, the presentation suggests chronic inflammatory changes rather than an acute infection, making antibiotics inappropriate.
- **C. Intranasal polypectomy**: While polypectomy could be useful in removing individual polyps, it does not address the widespread involvement and obstruction observed on the CT scan. FESS is a more comprehensive approach for such cases.
- **D. Topical and oral steroids**: Steroids (both topical and systemic) can reduce inflammation and the size of polyps, and they are often used as part of conservative management. However, in this case, the chronicity and extent of the disease suggest that surgical intervention (FESS) is required after conservative treatments.
- **E. Topical Xylometazoline**: Xylometazoline is a nasal decongestant that provides temporary relief from nasal obstruction. However, it is not suitable for long-term use and does not address the underlying pathology, which is chronic rhinosinusitis with polyps in this case.

Question 57

Question Scenario: A 4-year-old child presents to the clinic with complaints of mouth breathing, snoring during sleep, and decreased hearing in both ears for the past 15 days. An X-ray of the nasopharynx reveals an enlarged adenoid. What is the next most likely investigation to help in the diagnosis?

Answer Choices:

1. **A. BERA (Brainstem Evoked Response Audiometry)**
2. **B. Otoacoustic emissions**
3. **C. Pure Tone Audiometry**
4. **D. Pure Tone Audiometry and Tympanometry**
5. **E. Tympanometry**

Correct Answer: D. Pure Tone Audiometry and Tympanometry

Explanation:

- **Correct Answer (D. Pure Tone Audiometry and Tympanometry)**: This combination is the best approach to evaluate hearing and middle ear function in children with enlarged adenoids. Tympanometry assesses middle ear pressure, which can help detect fluid buildup (a sign of Eustachian tube dysfunction). Pure tone audiometry

measures hearing levels and can help identify conductive hearing loss due to middle ear effusion, which is common with adenoid hypertrophy.

Incorrect Answers:

- **A. BERA (Brainstem Evoked Response Audiometry)**: BERA is primarily used to assess hearing in infants and young children who cannot cooperate with standard audiometry or in cases where there is a suspicion of neurological hearing impairment. It is not the first-line investigation for suspected conductive hearing loss due to adenoid hypertrophy in a 4-year-old.
- **B. Otoacoustic emissions**: Otoacoustic emissions testing is mainly used for newborn hearing screening to evaluate cochlear (inner ear) function. It does not assess middle ear function, which is critical in this scenario, where Eustachian tube dysfunction is suspected due to adenoid hypertrophy.
- **C. Pure Tone Audiometry**: Pure tone audiometry alone measures hearing thresholds but does not provide information about middle ear function. Tympanometry is necessary in this case to evaluate possible fluid buildup due to Eustachian tube dysfunction.
- **E. Tympanometry**: Tympanometry alone is useful for assessing middle ear status but does not provide complete information about the child's hearing thresholds. Combining it with pure tone audiometry gives a more comprehensive assessment, especially when conductive hearing loss is suspected.

Question 58

A 37-year-old lady presented to outpatient department with complaints of nasal obstruction, headache, and post-nasal drip that is mucoid in nature for the last 7 years. CT scan shows hyperdense opacity in the ethmoid region close to the orbit. She has a history of NSAIDs, antibiotics, and nasal sprays. What is the most likely diagnosis in this case?

A) Allergic fungal sinusitis
B) Allergic rhinitis
C) Invasive fungal sinusitis
D) Maxillary sinusitis
E) Osteoma-Ethmoid Sinus

- **Correct Option**: **A) Allergic fungal sinusitis**
    - **Explanation**: Allergic fungal sinusitis often presents with a hyperdense opacity on CT, particularly in the ethmoid region. It is characterized by chronic nasal symptoms, and hyperdense opacities on imaging, typically near the orbit, suggest the presence of inspissated fungal debris.
- **Why Other Options Are Incorrect**:
    - **B) Allergic rhinitis**: This condition does not usually show hyperdense opacities on CT.
    - **C) Invasive fungal sinusitis**: This typically occurs in immunocompromised patients and progresses rapidly, often causing bony destruction.
    - **D) Maxillary sinusitis**: This condition would not typically present with hyperdense opacity in the ethmoid region.

- **E) Osteoma-Ethmoid Sinus**: Osteoma appears as a well-defined dense mass and not as an irregular hyperdense opacity associated with sinusitis.

Question 59

A 45-year-old man presented to outpatient department with complaints of nasal obstruction, headache, and post-nasal drip mucoid green in color for the last 3 days. On examination, there is mucopus in the left nostril and X PNS shows a hazy sinus on ipsilateral side. What is the most appropriate investigation?

A) Complete blood picture
B) CT nose and PNS
C) Culture and sensitivity
D) Functional Endoscopic Sinus
E) Histopathology of sinus mucosa

- **Correct Option**: **B) CT nose and PNS**
  - **Explanation**: CT scan of the nose and paranasal sinuses (PNS) is appropriate to assess the extent of sinus involvement, particularly in cases of chronic or recurrent sinusitis. This imaging helps visualize mucosal thickening, polyps, and obstruction.
- **Why Other Options Are Incorrect**:
  - **A) Complete blood picture**: This may show signs of infection but will not determine the cause or extent of sinus disease.
  - **C) Culture and sensitivity**: While useful for identifying pathogens, it does not provide information on the anatomical extent of disease.
  - **D) Functional Endoscopic Sinus**: This is a treatment procedure rather than a diagnostic test.
  - **E) Histopathology of sinus mucosa**: Histopathology is not indicated without suspicion of neoplasia or invasive fungal disease.

Question 60

A 55-year-old male patient is scheduled for nasal surgery for Ethmoidal polypi. Endoscopic examination shows no landmarks which suggest previous surgery. Further examination shows mucopus and fungal debris. CT Scan also shows heterogeneous opacities in all sinuses. What is the first surgical step in this case?

A) Antrostomy
B) Inferior Turbinectomy
C) Middle Turbinectomy
D) Polypectomy
E) Uncinectomy

- **Correct Option**: **E) Uncinectomy**
  - **Explanation**: Uncinectomy is usually the first step in functional endoscopic sinus surgery (FESS) as it provides access to the ethmoid infundibulum and allows for proper drainage and visualization for further sinus surgery, especially in the presence of ethmoidal polyps and fungal debris.

- **Why Other Options Are Incorrect**:
    - **A) Antrostomy**: This is performed after uncinectomy to allow drainage of the maxillary sinus.
    - **B) Inferior Turbinectomy**: This is not typically part of FESS for ethmoidal polyps.
    - **C) Middle Turbinectomy**: This may be performed for access but is not the initial step.
    - **D) Polypectomy**: This is part of the procedure but typically comes after initial steps like uncinectomy for optimal access.