DEPARTMENT OF [illegible] & NECK SURGERY
KGMC/HMC, PESHAWAR
PRE-PROF EXAM AUG-2019

TOAC STATION No: 13

1. Name this condition/disease?
2. Name 3 points in favour of malignant change?
3. Name 3 investigations to confirm the diagnosis?

Conditions:- صرف 2 لکھنے ہیں جو بھی یاد ہے ان میں سے۔

Multinodular Goitre.

2 points in favour of malignancy:

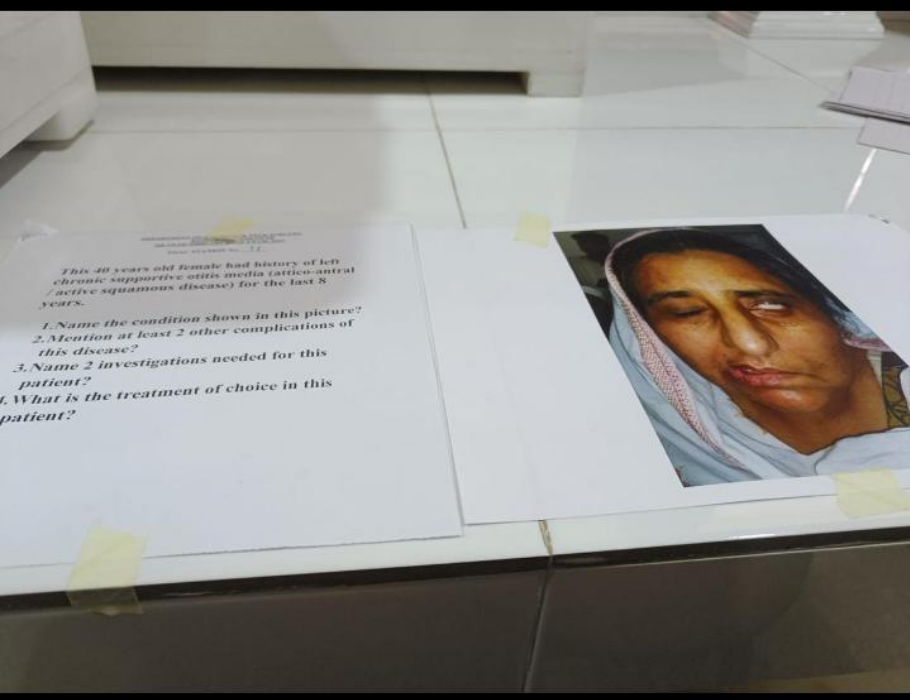
- Male gender
- Microcalcification
- Solitary & hard nodule. (solid hypoech
- Extra thyroid Extension
- Cervical lym
- Irregular margin

3 Basic investigations:-

→ Ultrasound thyroid Gland & Neck.
→ Thyroid Function Tests: TSH, T_3, T_4.
→ FNAC of the Thyroid swelling

2 complications of Surgery:-

- Hemorrhage
- Recurrent laryngeal Nerve injury.
- Hypoparathyroidism
- Thyroid storm.


This 40 years old female had history of left chronic supportive otitis media (attico-antral /active squamous disease) for the last 8 years.
1. Name the condition shown in this picture?
2. Mention at least 2 other complications of this disease?
3. Name 2 investigations needed for this patient?
4. What is the treatment of choice in this patient?

Condition Shown In picture:-

- Facial Nerve palsy (Bells palsy) (Facial paralysis)

2 other complications of CSOM (Name any 2)

- Labyrinthitis
- Meningitis
- brain abscess
- petrositis
- Postauricular abscess
- Lateral sinus Thrombosis

Investigations:- (2 Imp*)

- Examination under microscope.
- * Ear discharge swab for culture & sensitivity
- Pure tone audiometry
- X ray Mastoid
- * CT Scan Temporal bone

~~Points in favour of malignancy:-~~

Treatment:- Treatment of this condition is mainly Surgical

- 1st Mastoid Exploration is done & disease is de
- Facial Nerve decompression.

DEPARTMENT OF ENT HAYATABAD MEDICAL COMPLEX PESHAWAR

PURE TONE AUDIOGRAM

Masking Details

REMARKS

HEAD & NECK SURGERY

TOAC STATION No: 03

1. Name this graph?
2. Which type of curve it is?
3. What can be the possible diagnosis?
4. Enumerate clinical types of this condition?

Name this graph :-

Pure tone audiogram.

Type of Curve :-

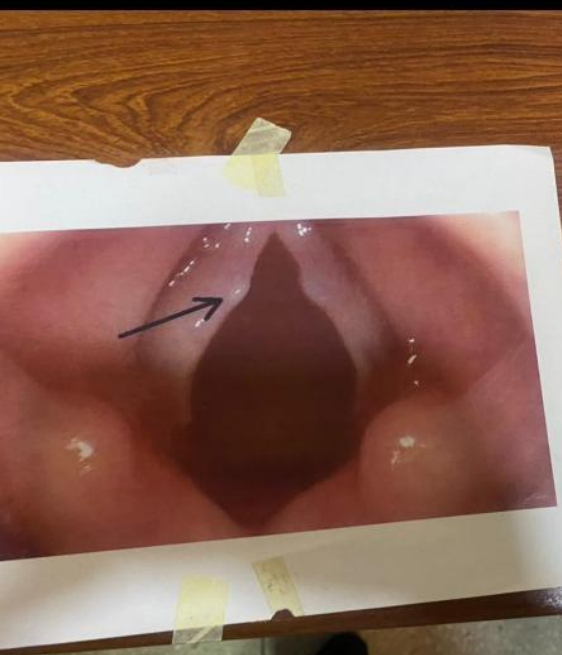
- Sensoneural Hearing loss more marked in higher frequencies ie sloping curve.

Diagnosis :-

Presbycusis (Senile deafness)

Clinical Types :-

- Sensory
- Neural
- Metabolic
- Cochlear conductive
- Mixed
- Indeterminate.



DEPARTMENT OF [illegible] NECK SURGERY
[illegible]
[illegible] YEAR MBBS PRE-[illegible] EXAM, 2022

TOAC STATION No: 14

A 50 years old female school teacher presented with persistent hoarseness of v
for 2 years. Direct Laryngoscopic pictur
shown.

1. What is your diagnosis?
2. What is the cause of this disease?
3. Write two treatment options?
(elaborate)

Diagnosis:-

Vocal nodules

Cause:-

- Vocal abuse or Misuse

(Trauma to the vocal cord in the form vocal abuse cause oedema & hemorrhage in submucosal space. This undergo hyalinization and fibrosis. The overlying epithelium also undergoes hyperplasia and forming a nodule)

Treatment options:-

Conservative:-

→ Avoid vocal abuse
→ Speech therapy.

Surgical:-

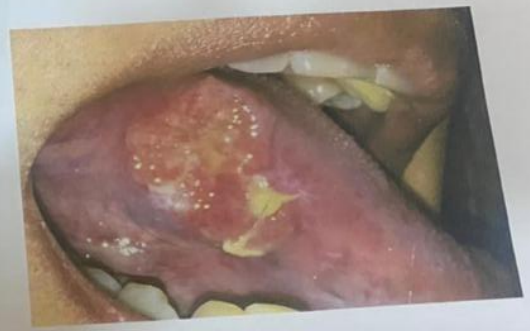
- Surgical excision through Microlaryngos
- Edoscopic laser Exision
- Exision by Microdebrider.

DEPARTMENT OF ENT/HEAD & NECK SURGERY
KMU/IOMC, PESHAWAR
4th YEAR MBBS PROF EXAM, 2023

TOAC STATION No: 12

See this picture and answer the following questions

1. What is your clinical diagnosis?
2. Name 02 characteristic signs of the lesion to justify your diagnosis?
3. Mention 02 differential diagnosis.
4. Name one investigation to confirm your diagnosis with justification.



Diagnosis:-

- Squamous cell carcinoma of tongue

2 Characteristic Signs:-

→ Exophytic growth
→ Non healing ulcer with rolled edges, greyish white shaggy Base and Induration.

2 DDs:-

→ Traumatic Ulcerative granuloma
→ Minor salivary Gland tumors
→ Rhabdomyosarcoma
→ lymphoma

Investigation to confirm Diagnosis:-

- Punch Biopsy and Histopathology

DEPARTMENT OF ENT/HEAD & NECK SURGERY
KGMC/DMC, PESHAWAR
4th YEAR MBBS PRE-PROF EXAM, 2023

TOAC STATION No: 01

1. What is your finding? 1
2. Write down 3 clinical features of this condition? 2
3. What investigations you will advise? 2

Diagnosis:-

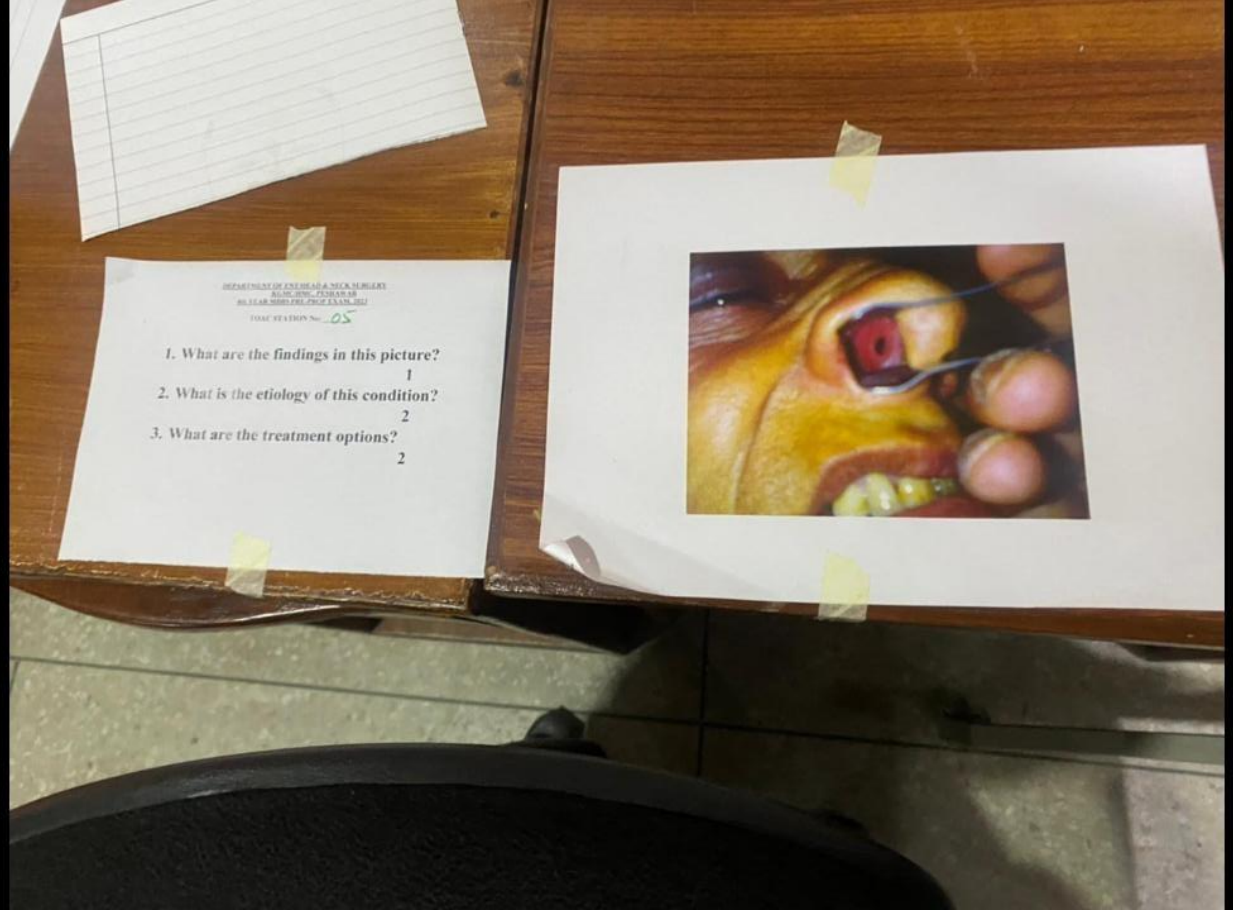
Pharyngeal Pouch (Zenker. Diverticulum)

3 clinical features:-

→ Dysphagia
→ Regurgitation of food (undigested)
→ Chronic cough
→ Aspiration. • Bad breath (halitosis)

Investigations:-

→ Barium swallow
→ Ultrasound Neck.


1. What are the findings in this picture?
1
2. What is the etiology of this condition?
2
3. What are the treatment options?
2

Findings in photograph

- This is the photograph of Anterior Rhinoscopy showing Nasal Cavity and Nasal septum.
- There is a perforation in the Nasal septum.

Etiology:-

- chronic granulomatous diseases of Nose
- prolonged use of Steroid Nasal spray
- Cocain addicts
- Idiopathic
- Trauma
- Septal Surgery
- Habitual Nose picking
- Septal haematoma and abscess
- Nasal myiasis
- Rhinolith or foreign body.

Diagnosis:-

Follicular tonsillitis

Symptoms

- → Sore throat
- → Difficulty in Swallowing
- → Fever
- → Earache
- ⇒ Constitutional Symptoms

Micro organism Involved:-

- Haemolytic Streptococcus is the most commonly infecting organism
- Other micro organism causing infection may be
  - Staphylococci
  - Pneumococci
  - H. influenza
  - Moraxella catarrhalis

DEPARTMENT OF EYE, EAR & NECK SURGERY
KGMC/MTI PESHAWAR
4th YEAR MBBS FINAL PROF EXAM 2023

TOAC STATION No: 08

A 13 years old boy presented with recurrent epistaxis & nasal obstruction. Examination of the left side of the nose and nasopharynx shows a red looking mass. The patient also complains of headache.

1. What is your clinical diagnosis?
2. Name 2 investigations to confirm your diagnosis?
3. Name 2 treatment modalities with one indication for each?

Diagnosis:-

Juvinile Nasopharyngeal angiofibroma.

2 investigations:-

→ CT scan with contrast
→ MRI
→ Carotid angiography.

2 treatment modalities & indication for each

Surgery → Surgical excision is the treatment of choice

Radiotherapy → • Recurrent Tumor
Intracranial Extension of tumor

Chemotherapy → • Aggressive Recurrent Tumors
• Residual lesions.

DEPARTMENT OF ENT HEAD & NECK SURGERY
BJ/MC/MMC, PU/DAH/AH
6th YEAR MBBS FBS- PROF EXAM, 2023

OSAC STATION No: 04

A 20 years old lady presented with nasal obstruction for the last 02 years. Examination revealed findings shown in the picture:

1. What is your diagnosis? 1
2. How will you differentiate this mass from terbinate (4 points)? 1
3. Name the investigation to confirm the diagnosis? 1
4. How will you treat this patient? 2

Diagnosis

Antrochoanal polyp.

Differentiation from turbinate:

It is differentiated from hypertrophied turbinate by its

- Colour → Pale greyish appearance
- Consistency → ~~Rubbery~~ smooth & soft
- Mobility → Mobile
- Decongestant Test → No change.

Investigations:

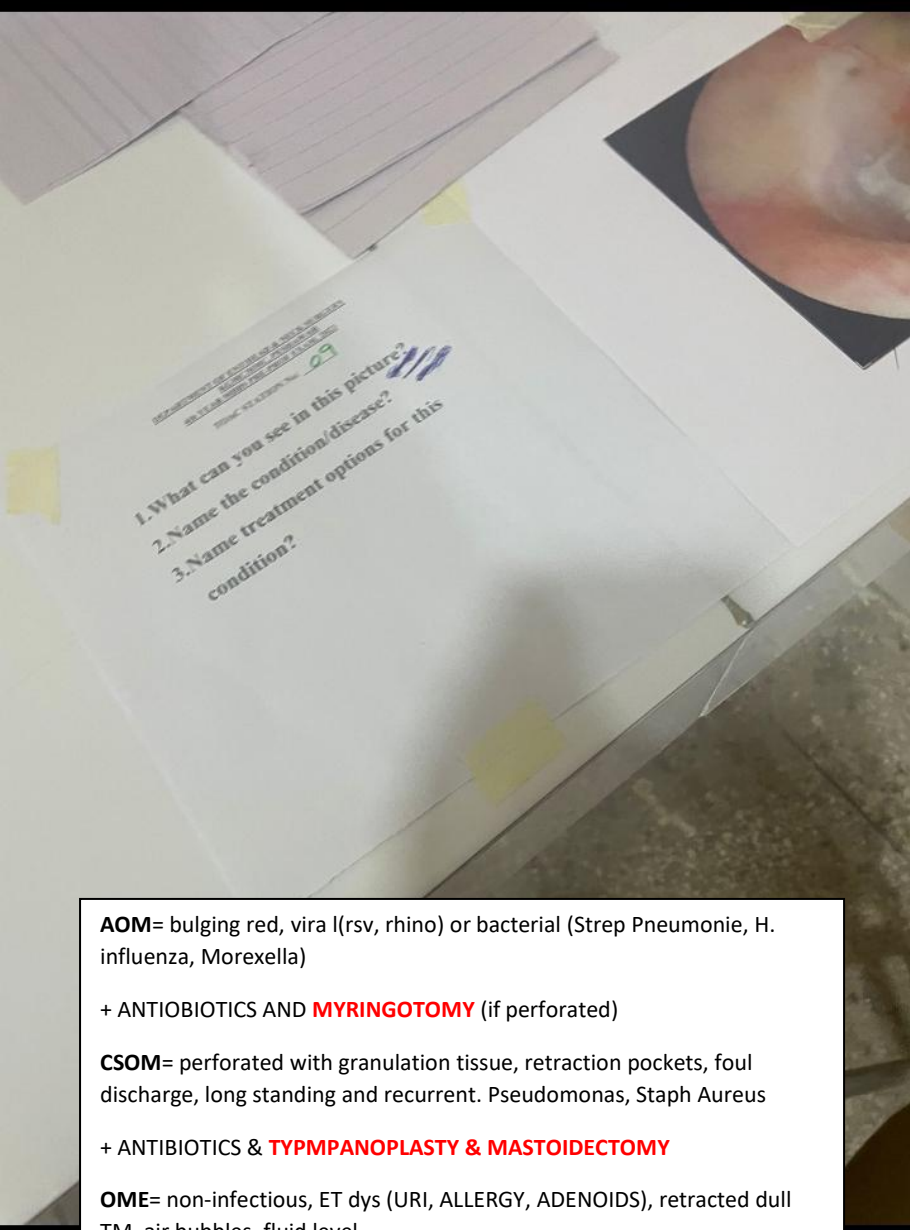
→ CT Scan.

→ Endoscopic Examination.

Treatment:

- Treatment of ACP is Surgical.
- Functional Endoscopic Sinus Surgery is preferred surgical technique.

Correction of these two points



AOM= bulging red, vira l(rsv, rhino) or bacterial (Strep Pneumonie, H. influenza, Morexella)

+ ANTIOBIOTICS AND **MYRINGOTOMY** (if perforated)

CSOM= perforated with granulation tissue, retraction pockets, foul discharge, long standing and recurrent. Pseudomonas, Staph Aureus

+ ANTIBIOTICS & **TYPMPANOPLASTY & MASTOIDECTOMY**

OME= non-infectious, ET dys (URI, ALLERGY, ADENOIDS), retracted dull TM, air bubbles, fluid level.

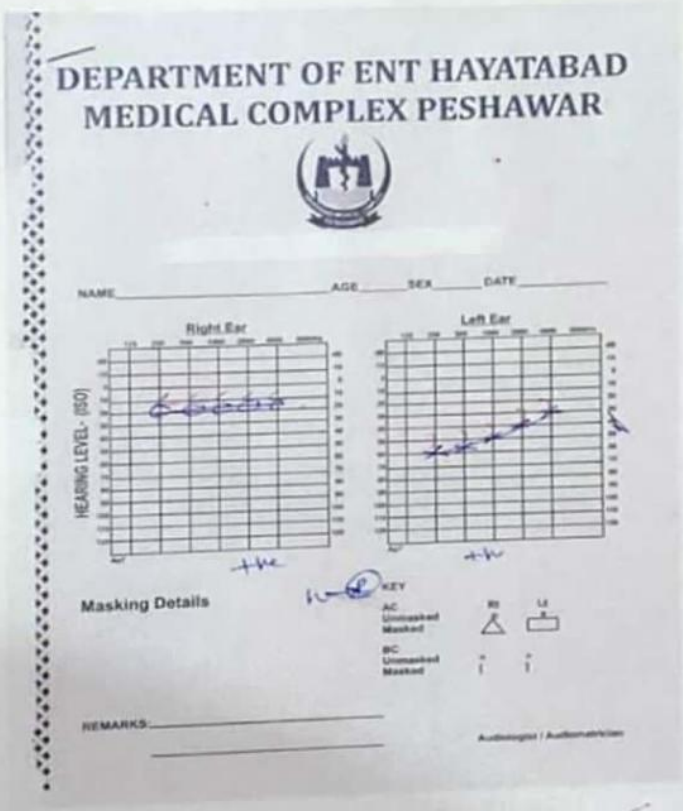
+ OBSERVE, **MYRINGOTOMY w/ GROMMET**

Station # 9

1. Tympanic Membrane perforation / ruptured eardrum.
2. Otitis Media, Chronic supparative otitis Media.
3. Treatment options: Antibiotics
   Myringoplasty

DEPARTMENT OF ENT/HEAD & NECK SURGERY
KGMC/HMC, PESHAWAR
4th YEAR MBBS PRE-PROF EXAM, 2023

TOAC STATION No: 06



A 45 years old male presented to ENT OPD with history of tinnitus, episodic vertigo and fluctuating hearing loss.

a. What are the findings of the graph? 1
b. What is the possible diagnosis? 2
c. What are the treatment options? 2

Finding in Graph:-

Right ear → Both the air conduction and bone conduction are showing normal hearing threshold
- There is no air bone gap

Left Ear → Air conduction and Bone conduction lines are below normal hearing threshold which is more marked in lower frequencies
- There is no significant AB gap
- There is Sensoneural hearing loss

Diagnosis:→

Meniere's Disease (left ear)

Treatment options:-

Medical → • Reassurance • Low salt diet • change in lifestyle
• Vestibular Sedatives • Vasodilators • Diuretics

Surgical: • Endolymphatic sac decompression • Sacculotomy.
• Endolymphatic Shunt operation • Section of vestibular Nerve.

• Labyrinthectomy
• Meniere's device therapy.

DEPARTMENT OF ENT/HEAD & NECK SURGERY
KGMC/MMC, PESHAWAR
4th YEAR MBBS PRE-PROF EXAM, 2021

TOAC STATION No: 03

1. What are the findings in this photograph? 1
2. What are the indications of this procedure? 2

3. What are the complications of this condition?2

Finding in photograph:-

- This is the otoscopic photograph of Tympanic M
- A grommet inserted in the tympanic membrane is visible

Indications:-

→ Otitis media with effusion
→ Recurrent otitis media
→ Aerotitis media
→ Atelectatic TM

Complications:-

→ Dislodgment of Grommet
→ infection
→ persistant perforation in TM
→ Tympanosclerosis
→ Thining of Tympanic Membrane

DEPARTMENT OF ENT/HEAD & NECK SURGERY
KGMC/HMC, PESHAWAR
4th YEAR MBBS PRE-PROF EXAM, 2023

TOAC STATION No: 02

1- Name the x-ray? (1)

2- What are the findings on x-rays? (1)

3- How are you going to confirm whether it's in the esophagus or airway? (1)

4- What will be the 2 symptoms of this patient? (2)

Name X-ray:-

Plain X-ray Chest & Neck AP view

Findings on X-ray:-

This X-ray is showing rounded, radiopaque foreign body (Most likely coin) impacted in the midline in the root of Neck.

Exact location:- X-ray Lateral view of Neck is needed to confirm whether its in the oesophagus or airway.

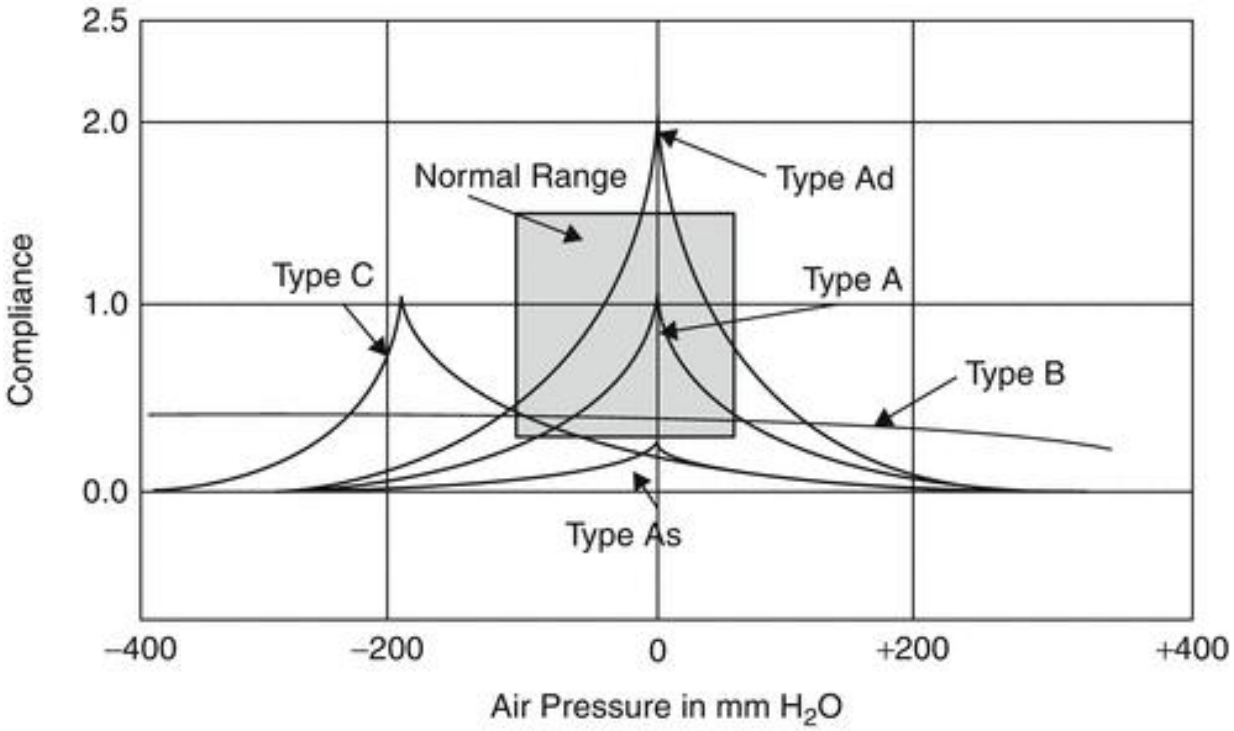
Symptoms of patient:-

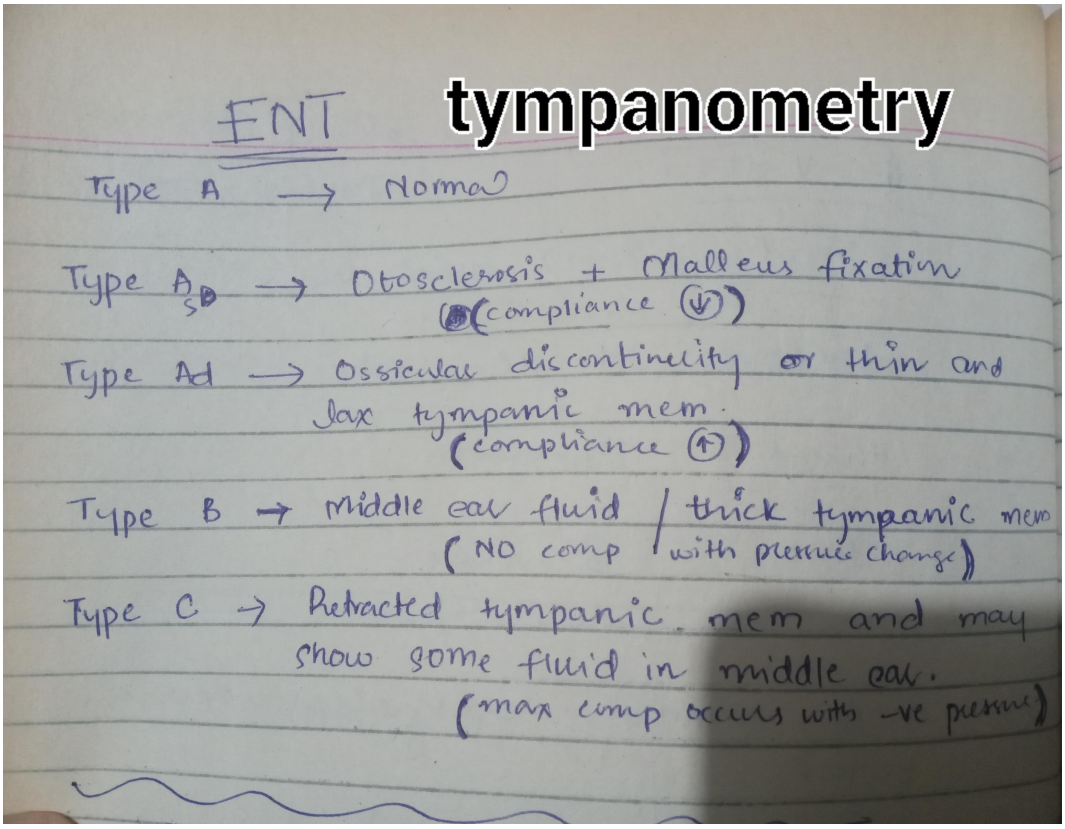
Air passage:-

- → Gagging & chocking.
- → Incomplete Airway obstruction.
- → Stridor & Cough.
- → Respiratory Distress.

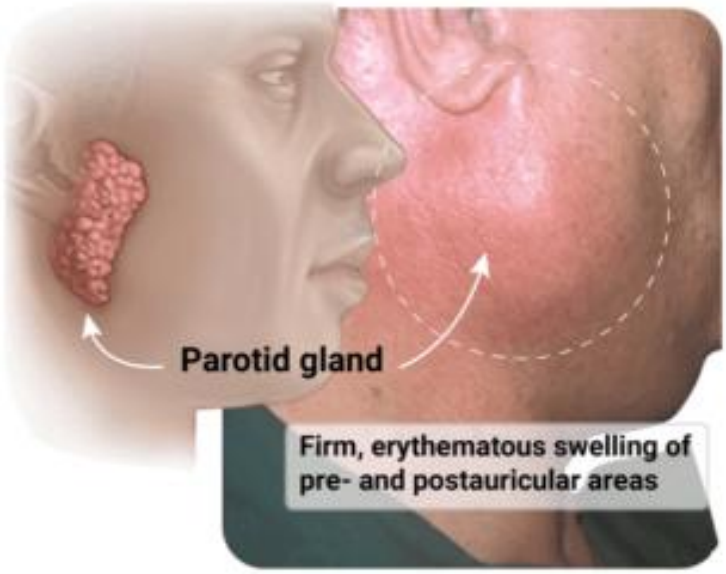
Food passage:-

- → Discomfort or pain
- → Dysphagia
- → Drooling of Saliva


2.5
2.0
1.0
0.0
Compliance
Normal Range
Type Ad
Type C
Type A
Type B
Type As
–400
–200
0
+200
+400
Air Pressure in mm H_2O


ENT
tympanometry
Type A → Normal
Type A_S → Otosclerosis + Malleus fixation (compliance ↓)
Type Ad → Ossicular discontinuity or thin and lax tympanic mem. (compliance ↑)
Type B → Middle ear fluid / thick tympanic mem (NO comp with pressure change)
Type C → Retracted tympanic mem and may show some fluid in middle ear. (max comp occurs with -ve pressure)

Suppurative Parotitis



Risk factors

- Older, postoperative patients
- Dehydration
- Poor oral hygiene

Microbiology

- *Staphylococcus aureus* (most frequently isolated)
- Polymicrobial

Treatment

- Broad-spectrum antibiotics

Outpatient

- Amoxicillin-clavulanate or
- Clindamycin or (cephalosporin+ metronidazole)

Inpatient

- Ampicillin-sulbactam or
- Cephalosporin + metronidazole
- Add vancomycin for at-risk patients

Organism staph and mumps
Treatment :penicillin , amoxicillin , drainage

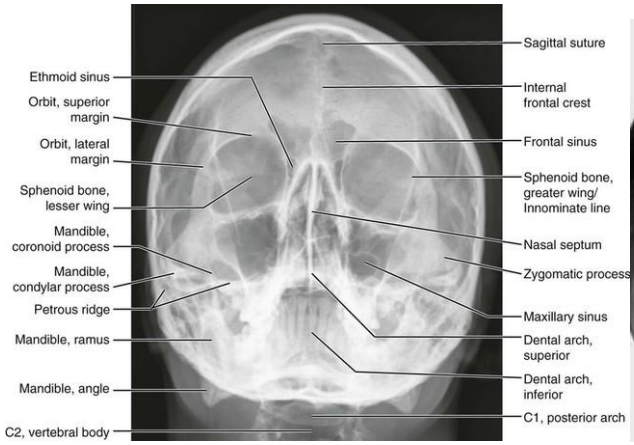
Nasal Region

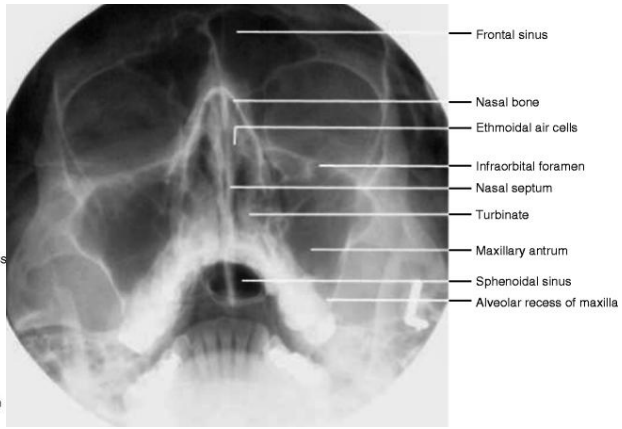
- **Nasal Bone Fracture**: Lateral view – fracture lines, displacement
- **Sinusitis**: Water's view (occipitomental view) – opacification or air-fluid levels in paranasal sinuses
- **Deviated Nasal Septum (DNS)**: Visible septal deviation

Paranasal Sinuses (PNS)

- **Water's View**: Best for maxillary and frontal sinuses
  - Air-fluid levels → **Acute sinusitis**
  - Opacification → **Chronic sinusitis**
- **Caldwell's View**: Best for frontal and ethmoid sinuses

WATER'S VIEW

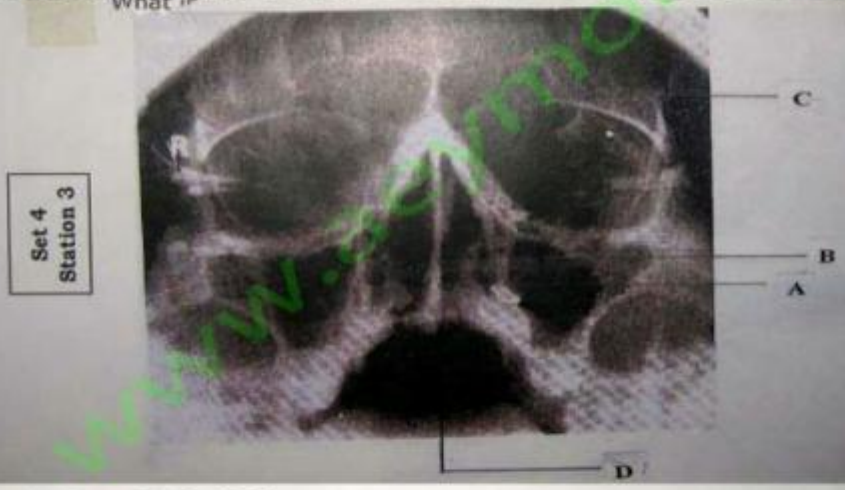

Sagittal suture
Ethmoid sinus
Internal frontal crest
Orbit, superior margin
Orbit, lateral margin
Frontal sinus
Sphenoid bone, greater wing/ Innominate line
Sphenoid bone, lesser wing
Mandible, coronoid process
Nasal septum
Zygomatic process
Mandible, condylar process
Petrous ridge
Maxillary sinus
Mandible, ramus
Dental arch, superior
Dental arch, inferior
Mandible, angle
C1, posterior arch
C2, vertebral body


Frontal sinus
Nasal bone
Ethmoidal air cells
Infraorbital foramen
Nasal septum
Turbinate
Maxillary antrum
Sphenoidal sinus
Alveolar recess of maxilla

questions:

1. What is this X-ray?	01
2. What is the view of this X-ray?	01
3. What is A?	0.5
4. What is B?	0.5
5. What is C?	0.5
6. What is D?	0.5

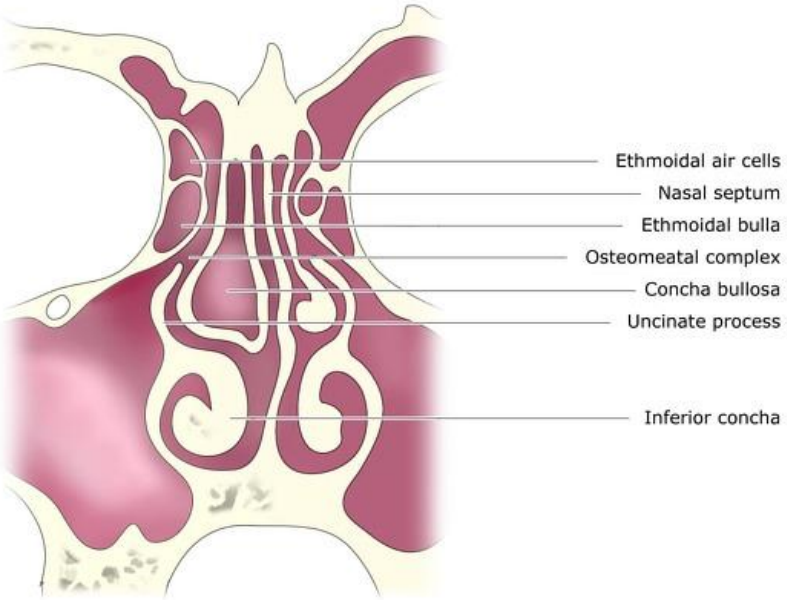
What ir



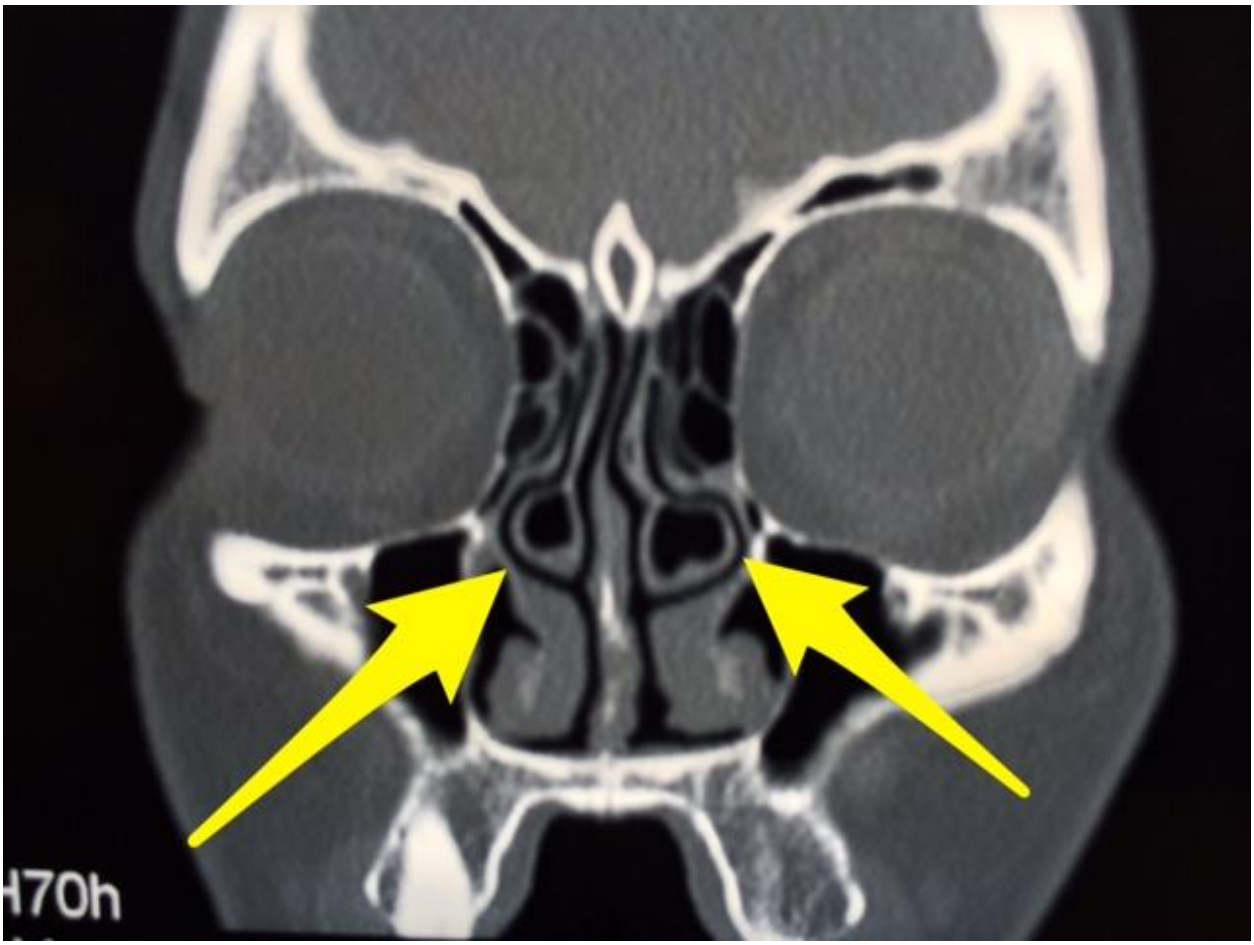
1. X-Ray PNS 45°	01
2. Water's view/ occipitomental view of the sinuses.	01
3. Septum	0.5
4. Maxillary sinus.	0.5
5. Frontal sinus.	0.5
6. Sphenoid sinus.	0.5

CONCHA BULLOSA

is a pneumatized (air-filled) cavity within a nasal concha, also known as a turbinate



F Gaillard
2010

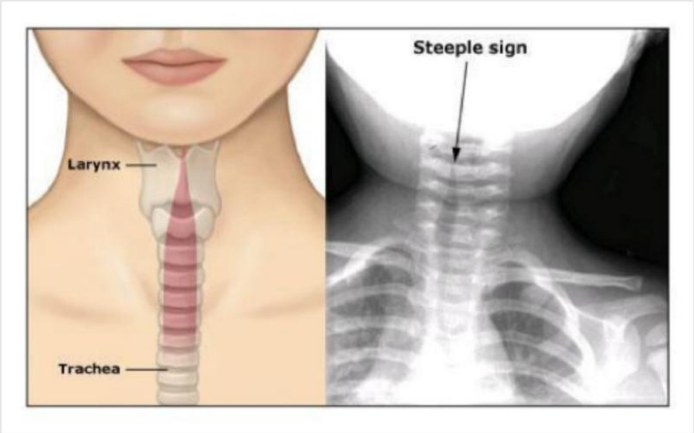


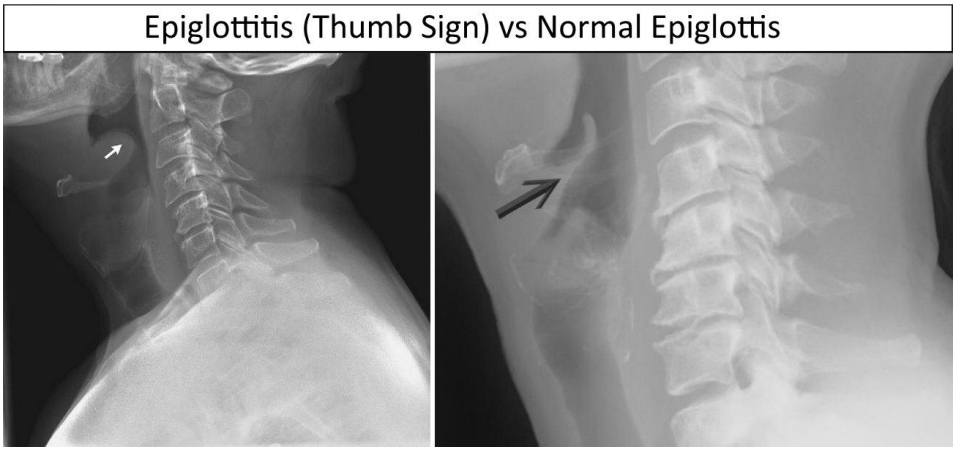
Temporal Bone and Ear

- **Mastoiditis**: Lateral view of mastoid – loss of air cell architecture
- **Cholesteatoma**: CT scan preferred (not visible on plain X-ray)
- **Fracture of Temporal Bone**: Longitudinal vs. transverse fractures

Neck and Airway

- **Foreign Body (FB)**: Lateral neck X-ray – radiopaque foreign body in the airway or esophagus
- **Croup (Steeple Sign)**: AP neck X-ray – narrowing of subglottic region
- **Epiglottitis (Thumb Sign)**: Lateral neck X-ray – swollen epiglottis



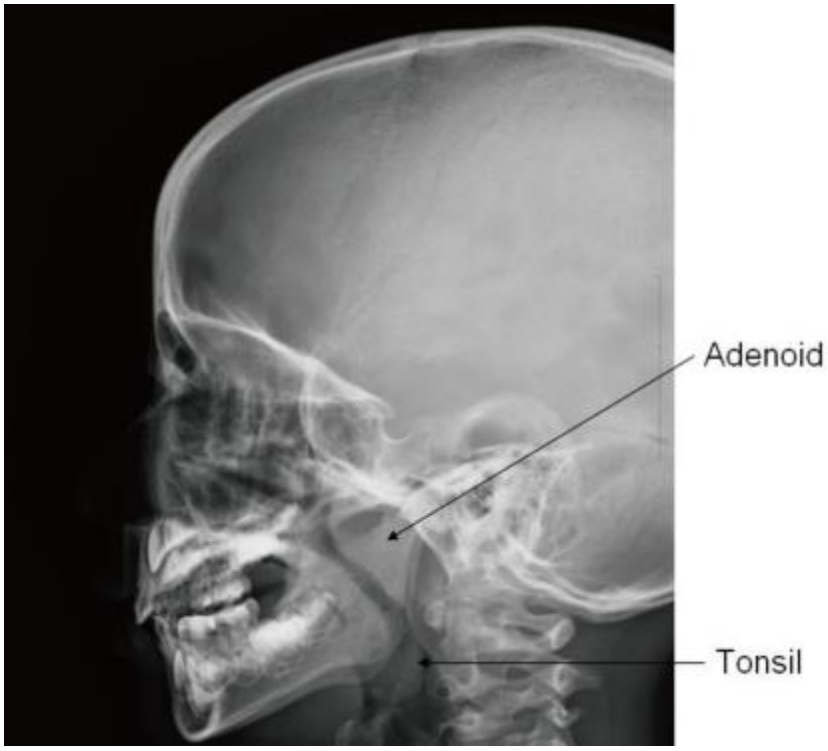


Larynx and Trachea

- **Tracheal Deviation**: Chest X-ray – indicates mass effect, pneumothorax, etc.
- **Subglottic Stenosis**: Narrowing of the tracheal lumen

6. Oropharynx

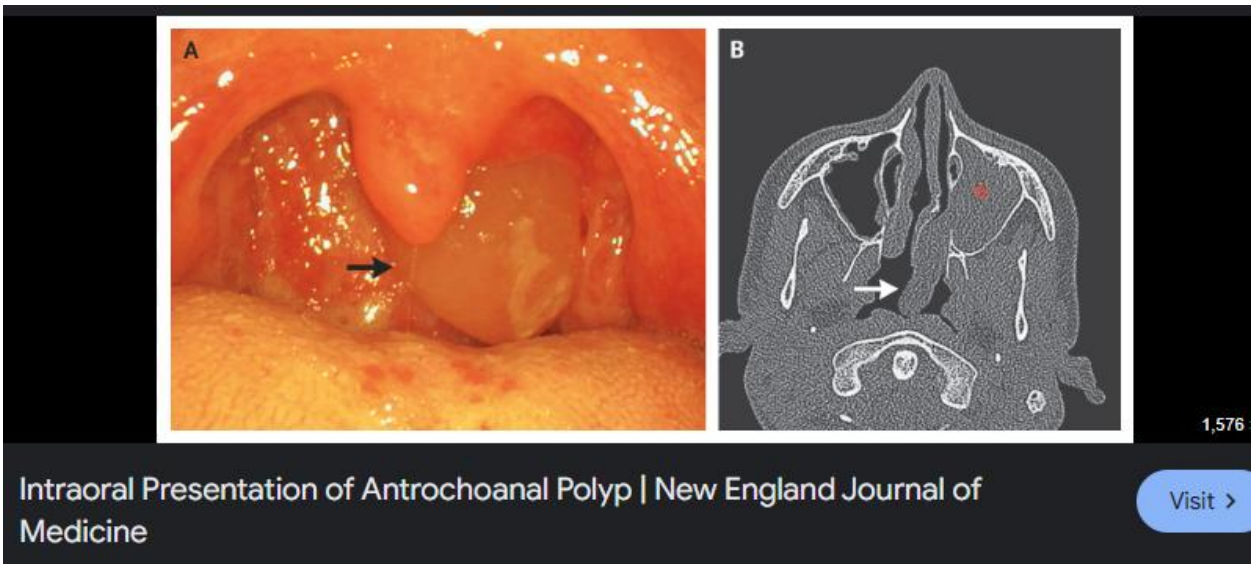
- **Adenoid Hypertrophy**: Lateral neck X-ray – enlarged adenoids causing airway obstruction



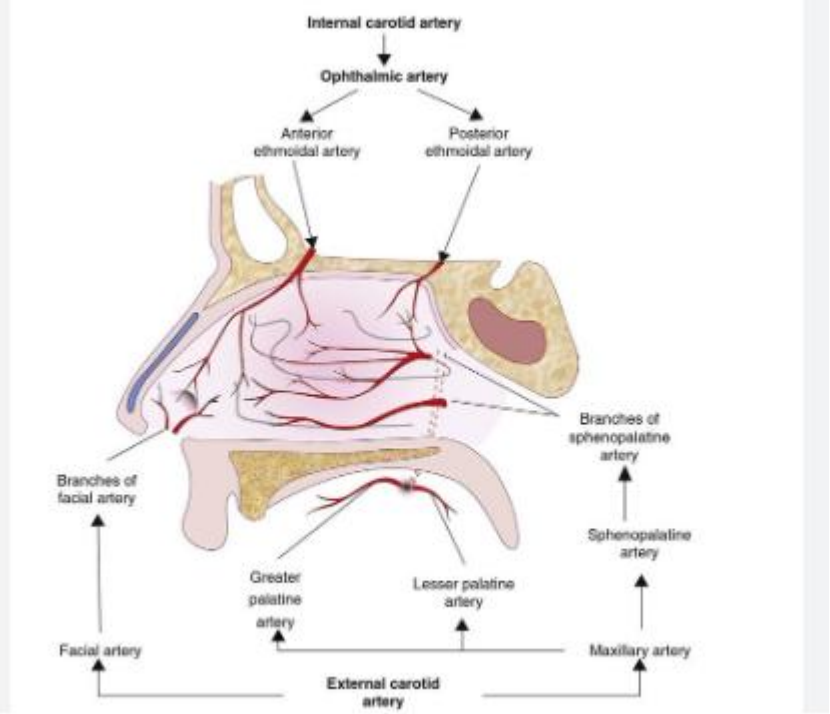
The **characteristic X-ray finding** for **Juvenile Nasopharyngeal Angiofibroma (JNA)** is the presence of a **widened sphenopalatine foramen** on a **lateral skull X-ray**.

Other Radiological Signs:

- **Anterior bowing of the posterior wall of the maxillary sinus** on CT scan (Holman-Miller sign) — highly specific for JNA.
- **Opacity in the nasopharynx** with bone erosion.



NASAL POLYPS



Blood Supply of Nose – High-Yield

External Nose

- **Facial artery → Lateral nasal artery**
- **Ophthalmic artery → Dorsal nasal artery**

Nasal Cavity

1. **Internal Carotid System** (via Ophthalmic artery):
    - **Anterior and posterior ethmoidal arteries**
2. **External Carotid System** (via Maxillary artery):
    - **Sphenopalatine artery** (main artery of the nose)
    - **Greater palatine artery**
    - **Superior labial artery** (branch of facial artery)
    - **Lateral nasal branches**

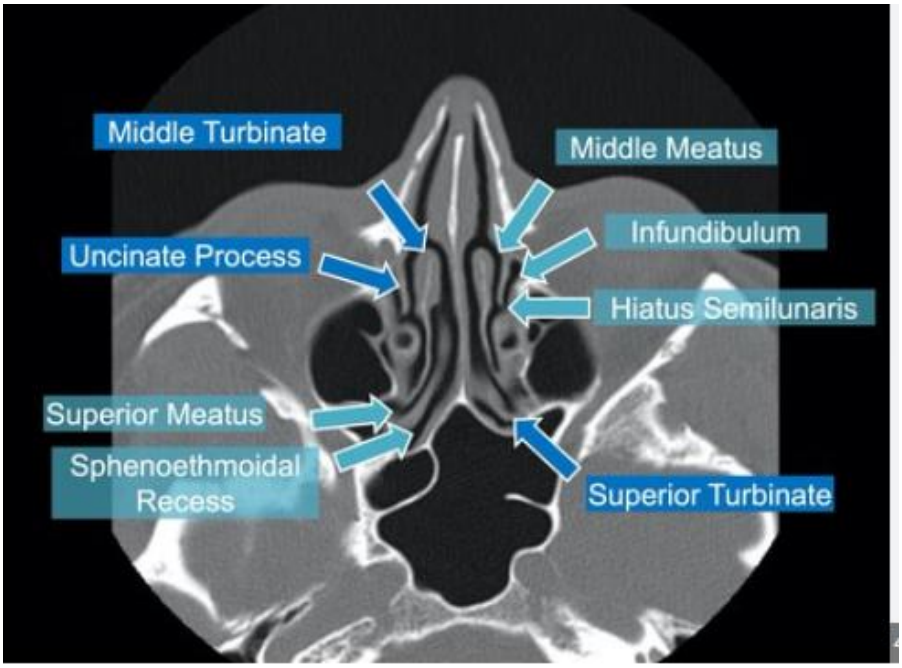
Kiesselbach's Plexus (Little's Area)

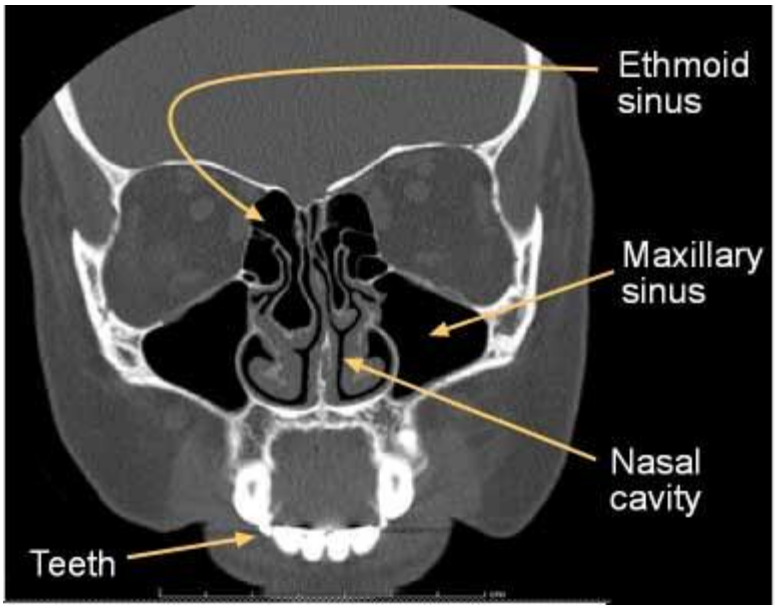
- Highly vascular area on the **anteroinferior part of the nasal septum**
- Formed by anastomosis of:
    - **Sphenopalatine artery**
    - **Greater palatine artery**
    - **Superior labial artery**
    - **Anterior ethmoidal artery**

Clinical Relevance

- **Epistaxis (Nosebleed)**: Most common site is **Kiesselbach's plexus** (anterior epistaxis).

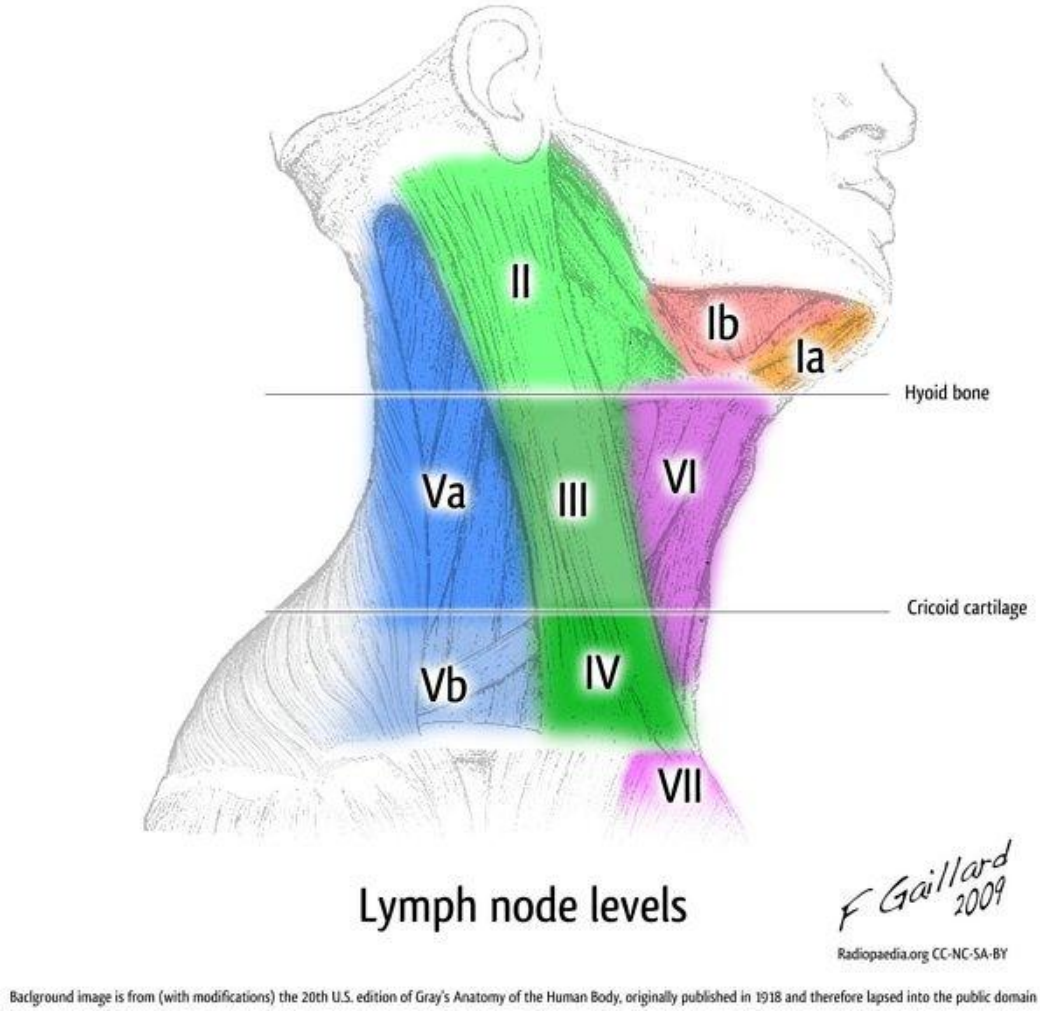
CT PARANASAL SINUSUES





LEVELS OF NECK

LEVELS of neck:7
level 1 Submantle and submandibular 1A and 1B
Level 2 base of skull to hyoid bone
Level 3 hyoid to cricoid
Level 4 cricoid to clavicle
Level 5 post. triangle of neck
Level 6 hyoid bone to suprasternal notch
Level 7 superior mediastinum



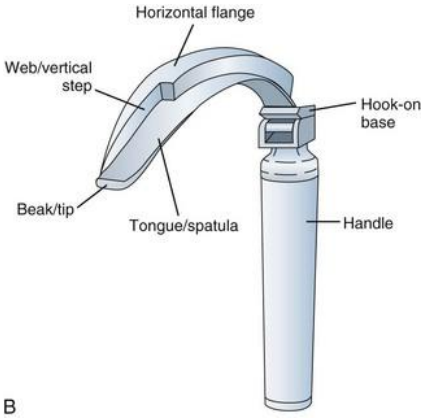
DIRECT LARYNGOSCOPY

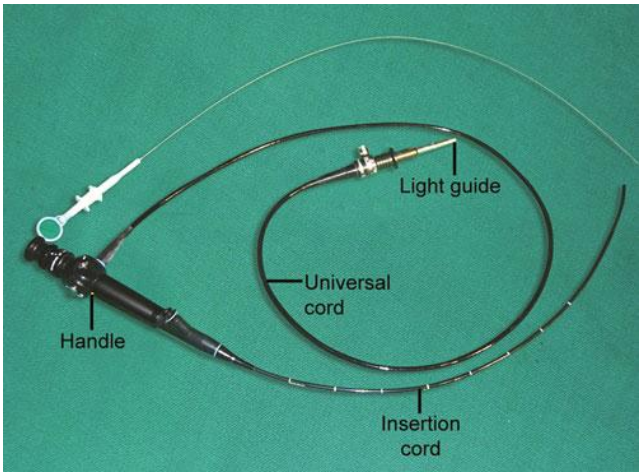
2 TYPES;

1. Rigid
   - GA
   - 2 TYPES
     a. ANTERIOR COMMISSURE TYPE (examines larynx and hypopharynx)
     b. SLIDING PANEL TYPE (in children—to pass bronchoscope)
   - Indications
   i. Non-cooperative pts (children)

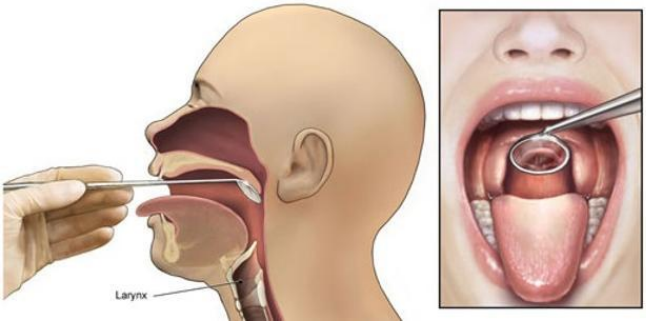
ii. Excess gag reflex
iii. Explores Hidden areas
iv. Removal of FORIGN BODIES
v. Removal of benign lesions

2. Flexible fiber optic
   - LA
   - Dynamic assessment of vocal cords during phonation



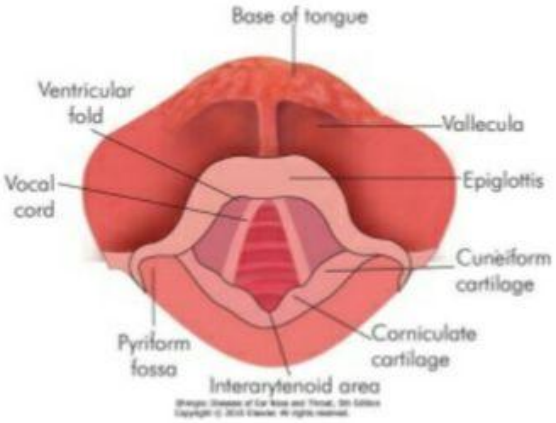


INDIRECT LARYNGOSCOPY



Structures seen on indirect laryngoscopy (in order):

- oropharynx
  - Base of the tongue (posterior one-third of the tongue)
  - Vallecula
  - Median and lateral glossoepiglottic folds
- Laryngopharynx
  - Pyriform fossae
  - Post cricoid region
  - Posterior wall
- Larynx
  - Epiglottis
  - Pharyngoepiglottic folds
  - Aryepiglottic folds
  - Arytenoids
  - False vocal cords
  - True vocal cords
  - Tracheal rings



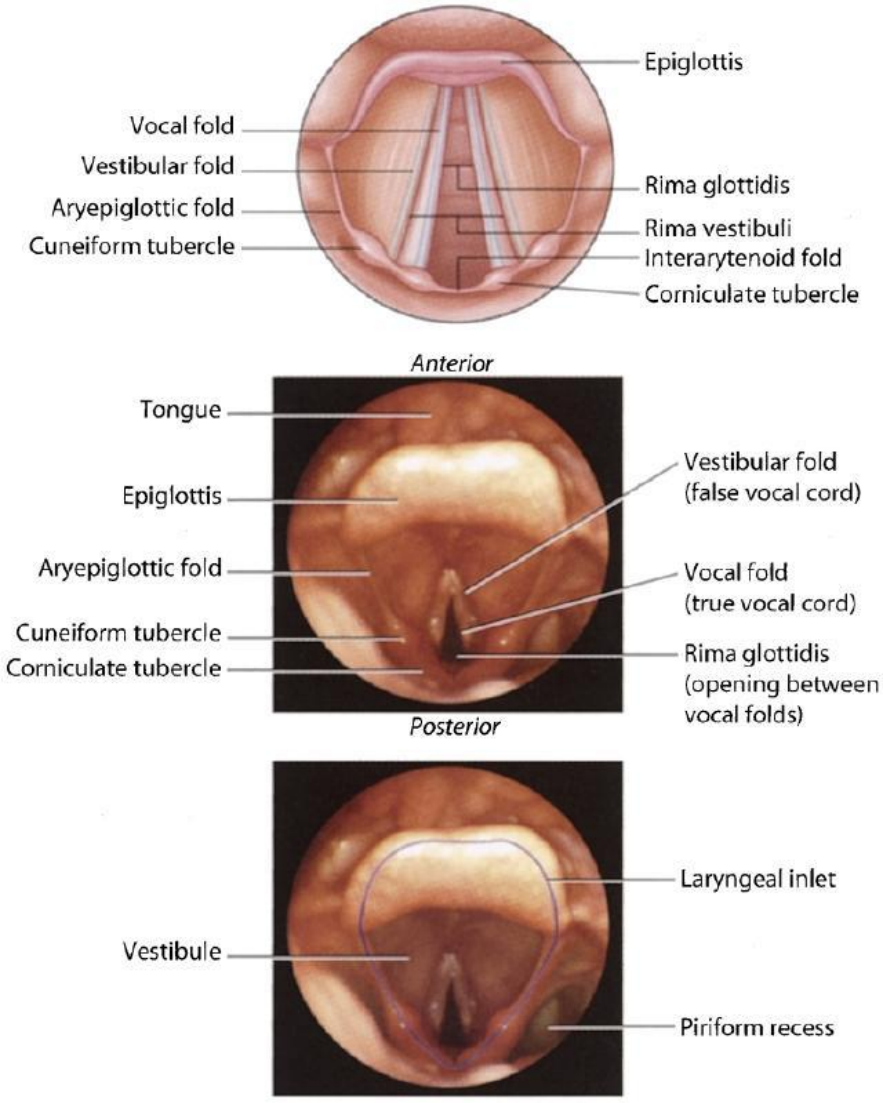
TONY

STRUCTURES NOT SEEN ON INDIRECT LARYNGOSCOPY

VESPA

- VESTIBULE
- Laryngeal part of Epiglottis only

- SUBGLOTTIC AREA
- POSTERIOR CRICOID AREA
- APEX OF PIRIFORM FOSSA



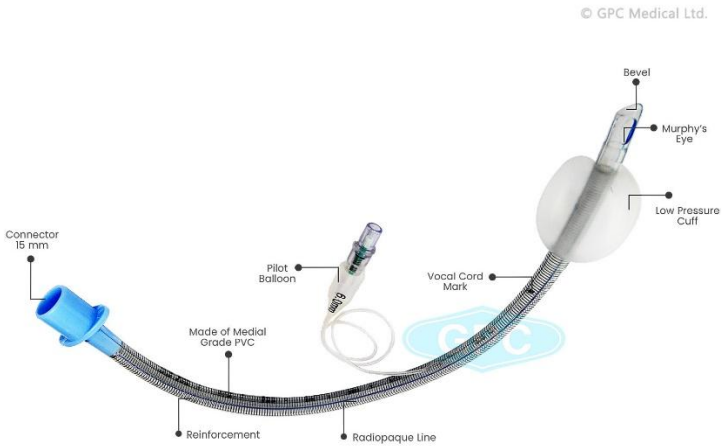
Superior view through the laryngeal inlet

LARYNGEAL MASK AIRWAY (LMA)

- -subglottic airway device
- Anesthesia
- ER ventilation

ENDOTRACHEAL INTUBATION:
-most rapid and secure method for maintaining airway

Anesthsia and ER



TRACHEOSTOMY

INDICATIONS=

1. To relieve airway obstruction
2. To perform bronchial toilet
3. To decrease dead space
4. To assist artificial ventilation

TYPES=

1. Elective
2. Emergency
3. Temporary
4. Permanent

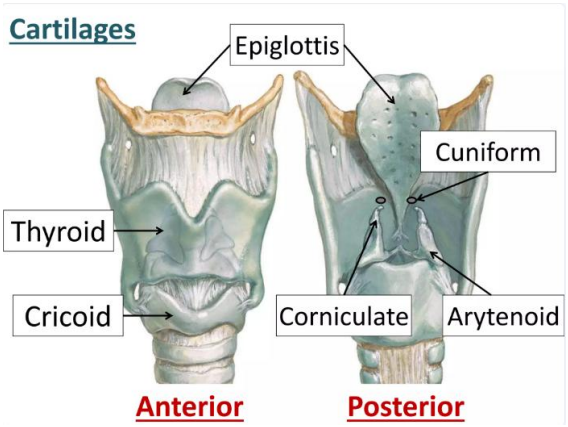
FULLERS AND PORTEX

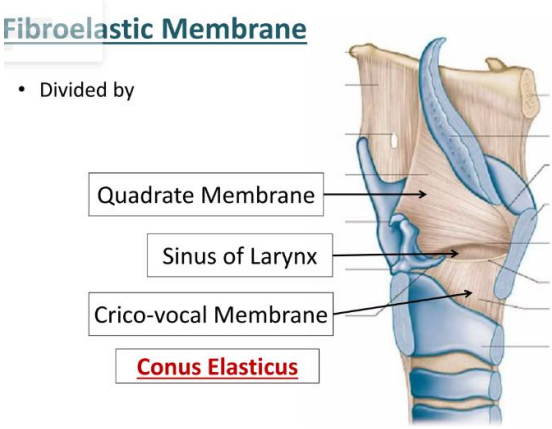
Unpaired Cartilages

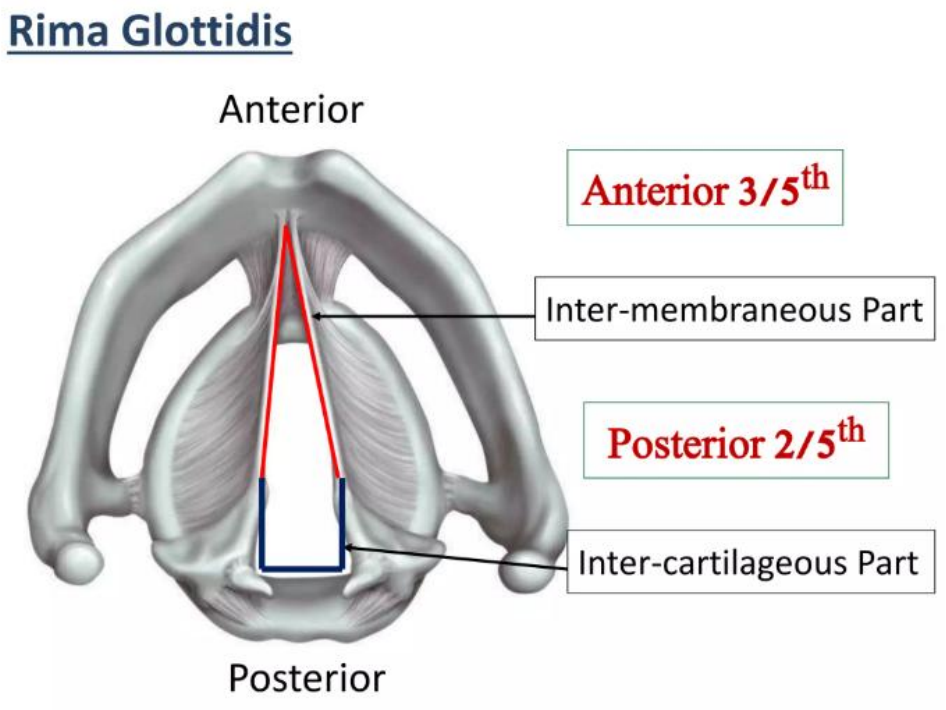
1. Thyroid
2. Cricoid
3. Epiglottis

Paired Cartilages

1. Arytenoid
2. Corniculate
3. Cuneiform







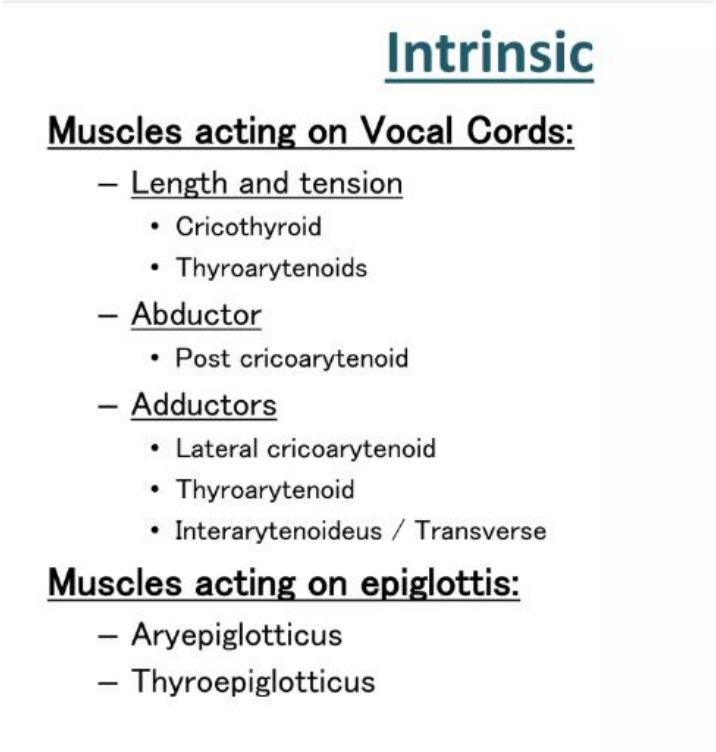
Intrinsic Muscles of Larynx

1. **Cricothyroid**
2. **Posterior cricoarytenoid**

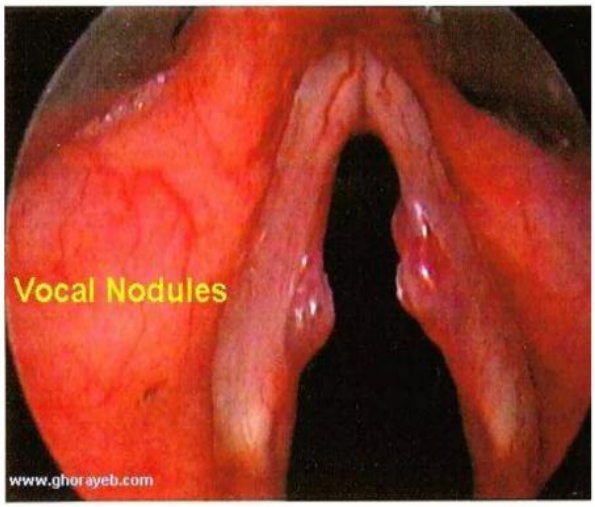
3. **Lateral cricoarytenoid**
4. **Transverse arytenoid**
5. **Oblique arytenoid**
6. **Thyroarytenoid**
7. **Vocalis**

Extrinsic Muscles of Larynx

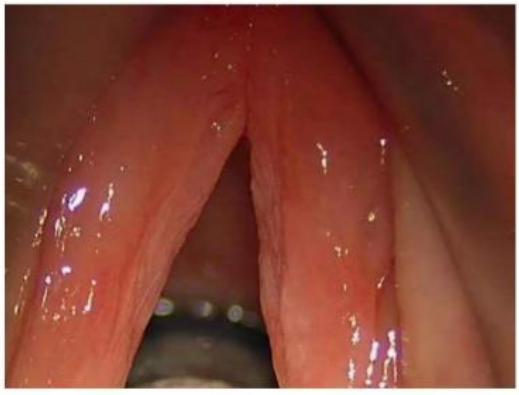
1. **Suprahyoid muscles** (Elevators)
    - Mylohyoid
    - Digastric
    - Stylohyoid
    - Geniohyoid
2. **Infrahyoid muscles** (Depressors)
    - Sternohyoid
    - Omohyoid
    - Sternothyroid
    - Thyrohyoid

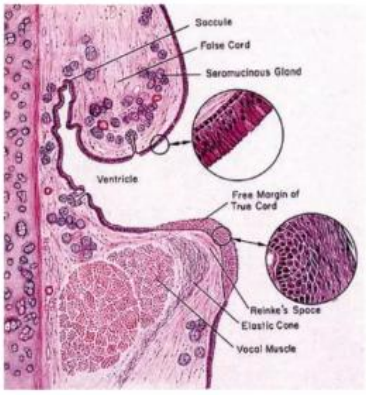


Singers / Screamers/ Clergymens Nodules / Teacher's Nodule



Reinke's Edema





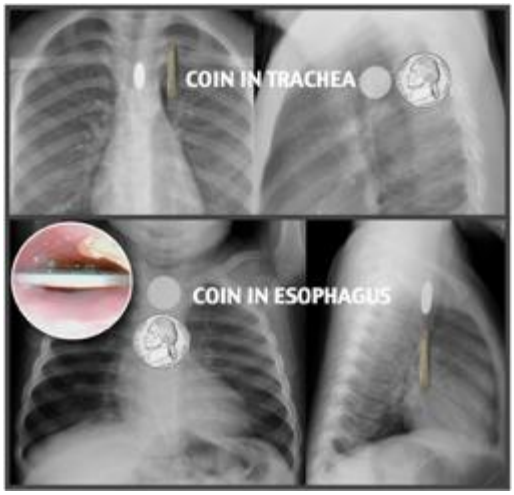
Reinke's Edema (Polypoid Corditis) – High-Yield Points

- **Definition**: Swelling of the vocal cords due to fluid accumulation in **Reinke's space** (superficial layer of lamina propria).
- **Causes**:
  - Chronic **smoking** (most common)
  - Vocal abuse (overuse of voice)
  - **Hypothyroidism**
  - GERD (gastroesophageal reflux disease)
- **Symptoms**:

    - Deep, hoarse voice (classic "smoker's voice")
    - Vocal fatigue
    - Breathy or rough voice
- **Diagnosis**:
    - **Laryngoscopy**: Swollen, translucent vocal cords with gelatinous appearance
- **Treatment**:
    - **Smoking cessation**
    - Voice therapy
    - Surgery (microlaryngoscopy with removal of fluid) if severe

LARYNX FOREIGN BODY

- MC SITE=AT OR ABOVE CRICOPHARYNGEUS SPHINCTER
- Dysphagia, pain discomfirt, pooling of saliva in pyriform sinus,, loss of laryngeal crepitus
- INVESTIGATION= plain –rays LATERAL, AP, OBLIQUE views.
- TREATMENT= ENDOSCOPY (ESOPHAGOSCOPY) 2 types: 1. Rigid, 2. Flexible fiber-optic



    - **Esophageal FB**: Object in coronal plane
    - **Tracheal FB**: Object in sagittal plane

- **Confirmatory Tests**

- **Rigid Bronchoscopy** for suspected laryngeal/tracheal foreign body
- **Esophagoscopy** for esophageal foreign body

EAR EXAMINATION

1- Greetings: Intro, Informed Consent, Exposure

2- Inspection:
- Light torch and see anterior side of ear
- Retract Ear with finger (کھینچنا) and light torch on back of ear so examiner knows you checked back mastoid area

3- Palpation:
- palpate کریں (5)- Tragus, Helix, Antihelix, Lobule, Mastoid area by retracting (کھینچنا)
- Check external auditory meatus (ear canal) by lifting ear upward, backward and lateral in Adults, downward & backward in kids

4- Examination: Ear speculum
- Put speculum (cone-shaped) inside 1/3rd of ear while rotating
- Check canal, if any wax/discharge, take probe stick, cotton and suck out

5- Otoscopy: Examination
- Turn head light off, take otoscope, check its light on hand, then hold it like pen with left hand for left ear and right hand for right ear and see inside ear (we see tympanic membrane's cone of light, pars tensa, flaccida, lateral process of malleus)

- we see tympanic membrane's view cone of light, pars tensa, pars flaccida, lateral process of malleus

- while doing otoscopy, ask patient to blow air in mouth, close mouth & nose and try to blow out of ear slowly, so tympanic membrane stretches & we can see if any perforation is present -

6- Hearing Tests: whisper test
- Block tragus of other ear, rub pinna and whisper on this side of ear

3 F's

7- Fork Tests
- Tuning Fork Tests
  - Fork 512 Hz, For renee's put close to ear then to mastoid bone (sound should be more in ear)
  - For weber, 512 Hz fork put on head mid - equal sound to both ear
- Renee's Test
  - Renee's (+) = Normal = AC > BC
  - Renee's (-) = Defect = BC > AC (conductive hearing loss, external or middle ear)
- Weber's Test
  - Renee's false (-) = BC > AC (severe sensorineural loss, affected ear, by sound traveling via bone to better ear)
- Absolute bone conduction Test

8- Fistula Test
- check Nystagmus of Eye (Touch tragus 3 times, and see eyes from side)

9- Facial Test
- Frowning
- Close eyes and we try to open, ask patient to resist and try to keep closed while press cheeks
- Blow air in cheeks

10- Vestibular Tests
- Gait test (walk)
- Finger-Nose Touch Test
- Romberg's Test (Stand with eye closed)
- Clapping hand test

11- Lymph Nodes

NOSE EXAMINATION

GREETINGS, INTRO, INFORMED CONSENT, SITTING, EXPOSURE
- Wear light brace during these to save time

Inspection:
- Torch on face (to check ulceration, any deformity, mass, colour change etc)
- GS and IV for lesions (site, size, shape, surface, scar, visibility)

Palpation:
- Ask about any pain before touching
- Palpate Nose (bridge, Ala) and Nasal crepitus (crunchy) (Not in Normal)
- Make Pig Nose to see polyps etc
- Palpate Paranasal sinuses by thumbs (better to palpate each side separately one by one)
  - Maxillary sinuses
  - Ethymoid sinuses
  - Frontal sinuses
- Do quickly

See vestibule, vibrissae (hair), Any deformity (bulging), Any vasculitis, Polyp. In rhinitis, Ala pinched

Nasal Patency:
- Take spatula steel, ask or close one side of nose & ask to breathe by Nose, check condensation on steel spatula. Repeat on other side (steel spatula is tongue depressor)

Sense of Smell: (olfaction)
- Close Eyes, close one side of Nose, smell test, repeat on other side

Anterior rhinoscopy:
- Take thudiculum Nasal speculum (hold its legs to patient, finger to urself) close it put inside nose and open to see inside. Then Seni-Close Again before taking out. Do one by one on each side of nose

Posterior rhinoscopy:
- Take stepped mirror (straight mirror is for indirect laryngoscopy) and Warm it.
- Take steel spatula (tongue depressor), depress tongue by it, torch inside light, move mirror on tongue depressor vertically then rotate near uvula or side to see beyond uvula. Ask patient to breathe by Nose quietly. See Strictures.
- Use tongue depressor on ant. 2/3 part only. Post 1/3 is supplied by glossopharyngeal causes Gag reflex

e see nasopharynx
ictures
terior opening of
sal cavity, choana
ening of eustachian
ube
ck at adenoids

- ★ For Nasal obstruction, Retract cheeks to see if breathing becomes better. This is Cottle's Maneuver (CM)

Lymph nodes palpation:
- Submantle
- Submandibular
- 3 Ant. cervical in Internal jugular
- 3 Post cervical behind sternocleidomastoid
- clavicular
- Ant/Post Auricular
- Sub-occipital

THROAT EXAMINATION

Greetings: Consent: Intro:

Inspection: Torch on neck, Ask Name, Sans, Swallow (Niglo), Ask Pain (OARD) ↓ To check stridor
Ask to look up (to check scar, swelling, mass, pulsation) open mouth (to check pain in JS before palpating)

External Palpation: outside
- Ask about any pain in JS before palpating
- Laryngeal crepitus (crunchy sound yes in normal) - by holding Addam's apple
- 3 fingers se tracheal palpation of sternum

Instrumental examination: Take 2 tongue depressors, check inside mouth
- Buccal mucosa, inner side of lips, lower inner side of upper lips,
- Teeth repercussion by swiping depressors on teeth (crack sounds) to check tenderness
- Oral cavity - Ask to tongue up, Tongue left ←, right → tongue up ↑ (check floor of mouth, hard palate ↑), tongue down ↓ by tongue depressors (make sound Aaaa, see uvula, tonsils, wall of pharynx, oropharynx)

Palpation Inside: Internal: with gloves, palpate any mass, nodule, ulcer, bleeds or not, how much is spread etc

Indirect laryngoscopy:
- Take Guaze, straight mirror and rub to warm -
- Hold tongue with thumb & middle finger and ~~pull~~ and lift lip.
- Insert IDL mirror & gently elevate uvula - Give 2 commands MUST

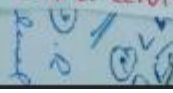
We can see larynx, epiglottis, pyriform fossa, false chords true chords, valicula

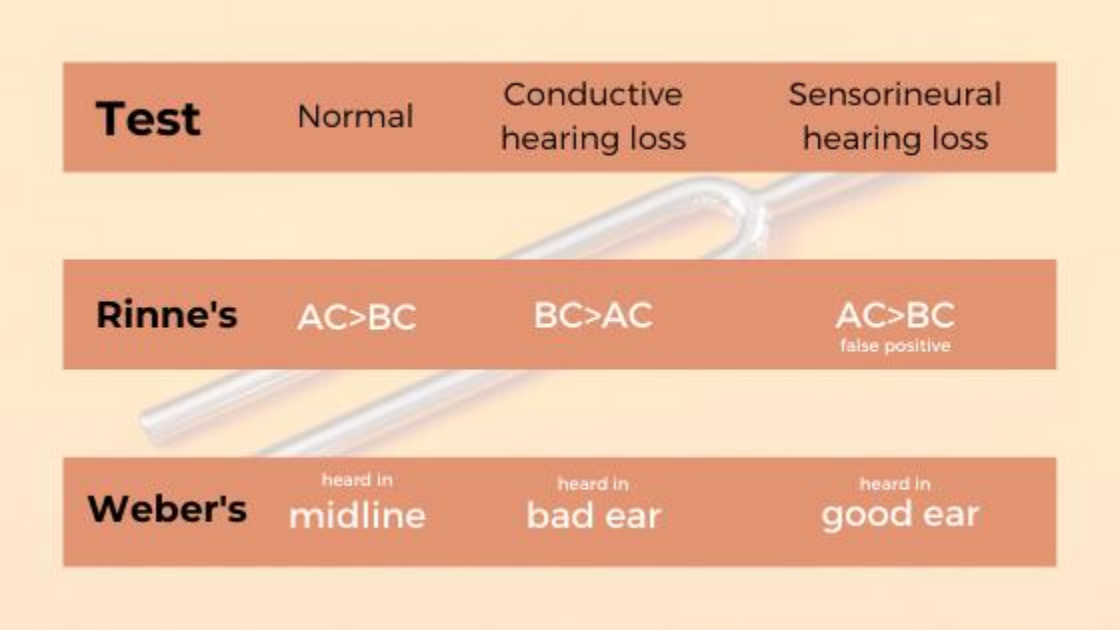
- We can't see by IDL (hidden Areas of larynx)
  - Anterior corrissure
  - Ventricle of larynx
  - Subglottis
  - Infrahyoid part of epiglottis

* Long Breathe (Lift up deep) - causes Abduction of vocal cords (moving out away from midline of body)

* Make Sound 'Eeee' - causes Adduction of vocal cords (moving inside towards midline of body)

Neck Lymph Nodes:
- Submantle
- Submandibular
- 3 Ant. cervical in Internal Jugular
- 3 Post. cervical behind sternocleidomastoid muscle ↑
- Clavicular
- Ant / Post Auricular
- Sub-occipital





4 CUSIS:

1. Hyperacusis – Bell's palsy

2. Paracusis willisi – Otosclerosis

3. Diplacusis – Meniere's disease

4. Presbyacusis – Age related SNHL

TRIADS:

1. Gradinego syndrome :

Ear discharge
Retroorbital pain
Diplopia

2. Trotter's triad (NPC):

U/L CHL (glue ear)
Temporoparietal pain
Palatal palsy

3. Sampter's triad

Allergy to Aspirin
Asthma
Nasal poly

SIGNS:

1. Heinnebert sign : Congenital Syphillus

2. Hitzelberger sign : Acoustic Neuroma

3. Rising sun/ brown sign/ Phelp sign : Glomus Juglare

4. Target/Halo sign : Traumatic CSF leak

5. Cart wheel sign : ASOM

6. Schwartz sign : Otosclerosis

7. Griessenger sign / Delta sign : Sigmoid Sinus Thrombosis

8. Reservoir Sign : Mastoiditis

9. Light House : ASOM

10. Tripod sign/ Thumb sign : Epiglotittis

11. Steeple sign : ALTB / CROUP

12. Antral sign / Hollman miller sign : Angiofibroma CT

13. Omega shaped epiglottis : Laryngomalacia

14. Turban/ Mouse nibbled vocal cord : TB larynx

15. Potato nose : Rhinophyma

16. Woody nose : Rhinoscleroma

17. Mulberry like nasal mass : Rhinosporidiosis

18. Mulberry like nasal mucus : Inferior turbinate hypertrophy

19. Frog face deformity : Angiofibroma

THYROPLASTY:

1. Type 1 : Medialization – Adductor palsy

2. Type 2 : lateralization – Abductor palsy

3. Type 3 : Shortning- Loosening – Puberphonia

4. Type 4 : Lengthing- tightening – Androphonia

DRAINAGE points:

1. Nasolacrimal duct : Inferior meatus

2. Maxillary / frontal / anterior / ethmoidal : Middle meatus

3. Posterior ethmoid : Superior meatus

4. Sphenoid : Sphenoethmoidal recess

Difference between middle ear and middle ear cleft.

- **Middle Ear**: Space between eardrum and inner ear, contains ossicles.
- **Middle Ear Cleft**: Continuous air system (middle ear + Eustachian tube + mastoid air cells).

Middle ear is part of the **middle ear cleft**. ☺

Acute Ent diseases by
Strep pneumonia
H influenza (gram negative)
Moraxella cararrhalis(gram negative)

Acute ENT Diseases by Common Pathogens

1. **Streptococcus pneumoniae**
    - Acute Otitis Media
    - Acute Sinusitis
    - Mastoiditis
    - Bacterial Meningitis
2. **Haemophilus influenzae (Gram-negative)**
    - Acute Otitis Media
    - Acute Epiglottitis
    - Acute Sinusitis
3. **Moraxella catarrhalis (Gram-negative)**
    - Acute Otitis Media
    - Acute Sinusitis
    - Laryngitis

Bimanual Examination of Submandibular Gland

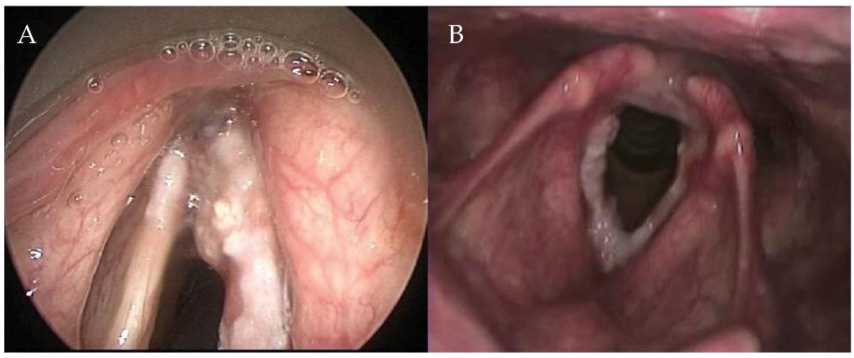
1. **External palpation**: Fingers under jawline.
2. **Intraoral palpation**: Finger in the floor of mouth.
3. **Bimanual technique**: Compress gland between internal and external fingers.

Findings:

- **Normal**: Soft, non-tender.
- **Stone**: Firm mass or palpable stone.
- **Infection**: Swollen, tender.

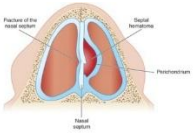
Plummer-Vinson Syndrome OSPE Station

1. **Diagnosis**:
    - Triad of **iron deficiency anemia**, **dysphagia**, and **esophageal webs**.
    - Patient may present with fatigue, glossitis, angular cheilitis, and difficulty swallowing solids.
2. **Confirm Diagnosis**:
    - **CBC** → Microcytic hypochromic anemia.
    - **Iron studies** → Low serum iron, low ferritin, high TIBC.
    - **Barium swallow** → Shows esophageal web.
    - **Endoscopy** → Confirms the presence of esophageal web.
3. **Treatment**:
    - **Iron supplementation** (oral or IV).
    - **Esophageal dilation** if dysphagia persists.
    - Monitor for **esophageal carcinoma** (increased risk).



Glottic Carcinoma

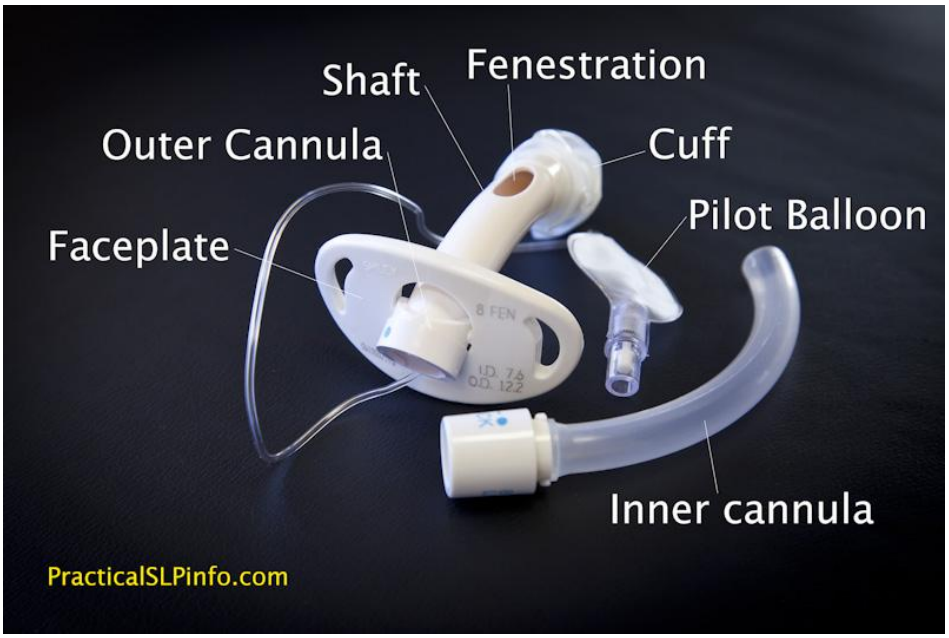
1. **Investigation**
   - **Laryngoscopy** → Visualize tumor.
   - **Biopsy** → Confirm diagnosis.
   - **CT/MRI** → Assess tumor extent and cartilage invasion.
   - **Chest X-ray** → Rule out metastasis.
2. **Treatment**
   - **Early stage (T1, T2)**: Radiation or laser excision.
   - **Advanced stage (T3, T4)**: Total laryngectomy + radiotherapy ± chemotherapy.
   - **Voice rehabilitation** post-surgery.



Station 4: Septal Hematoma

1. **Diagnosis**:
   - Recent nasal trauma with nasal obstruction, swelling, and tenderness over the nasal septum.
   - **Clinical sign**: Bilateral soft, fluctuant swelling of the nasal septum on anterior rhinoscopy.
2. **Treatment**:

- **Immediate incision and drainage** to prevent cartilage necrosis.
- **Antibiotics** to prevent infection (cover for Staphylococcus aureus).
- Nasal packing for hemostasis.
- Regular follow-up to monitor for septal perforation or deformity.



Station 5: Tracheostomy Tube Part

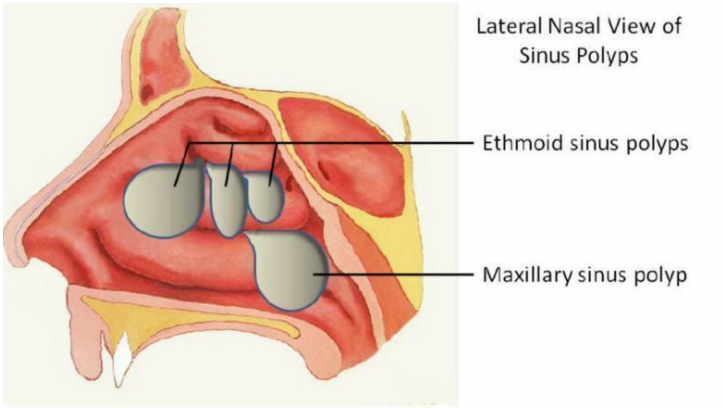
1. **Outer cannula** – Main tube that stays in the trachea.
2. **Inner cannula** – Removable for cleaning and prevents obstruction.
3. **Obturator** – Used during insertion to guide the tube.
4. **Flange/Neck plate** – Holds the tube in place.
5. **Cuff (if present)** – Inflatable balloon to prevent aspiration and ensure ventilation.

8. Tilley's Forceps

Surgical Procedure: Used in **nasal surgeries**, especially for removing nasal packs and foreign bodies.
Identification: Long, curved forceps with serrated tips.

Uses:

1. Removal of nasal packs.
2. Handling nasal polyps or foreign bodies.
3. Packing the nasal cavity.



Bilateral Ethmoidal Polyps

Treatment:

- **Medical**: Steroids (oral, nasal sprays), antihistamines.
- **Surgical**: Functional Endoscopic Sinus Surgery (FESS) or polypectomy.

Complications of Polypectomy:

1. Bleeding
2. Infection
3. Recurrence
4. CSF leak
5. Orbital injury

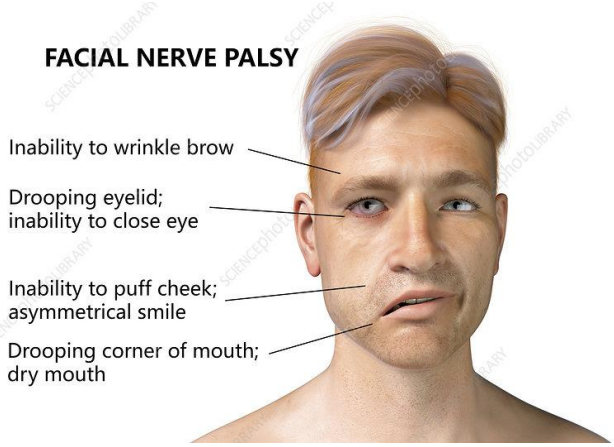
9. Mastoid Retractor

Complications:

- Soft tissue injury, nerve damage, bleeding.

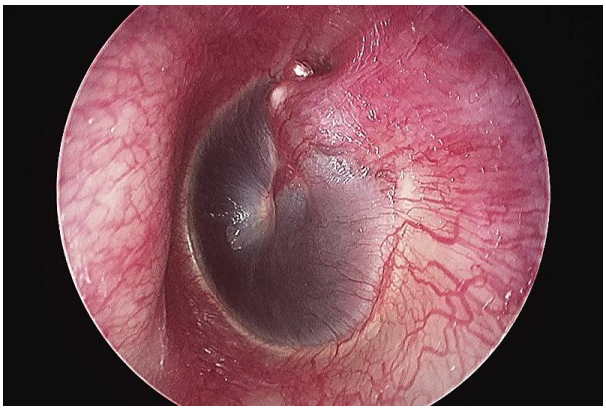
Uses:

1. Mastoidectomy
2. Exposure of middle ear structures
3. Retraction of soft tissues



10. Facial Palsy Treatment

1. **Medical**: Steroids, antivirals (if viral cause), eye care (lubricants).
2. **Surgical**: Nerve decompression (severe cases), facial nerve grafts.
3. **Physiotherapy**: Facial exercises.



11. Blue Tympanic Membrane

Cause: **Hemotympanum** (blood in the middle ear) due to trauma, barotrauma, or skull base fracture.

12. Weber Test Lateralized

- **Lateralizes to affected ear** → Conductive hearing loss.
- **Lateralizes to unaffected ear** → Sensorineural hearing loss in the affected ear.

---

13. Rinne Test Both Negative

- Indicates **conductive hearing loss** in both ears.
- **Hearing loss**: Typically > 20–30 dB.

---

14. Grommet Complications

1. Tympanosclerosis
2. Persistent perforation
3. Infection (otorrhea)
4. Dislodgment or blockage of the tube

---

15. Nasopharyngeal Carcinoma Treatment

1. **Radiotherapy** (main treatment)
2. Chemotherapy (for advanced cases)
3. Surgery (rare, only for residual disease)

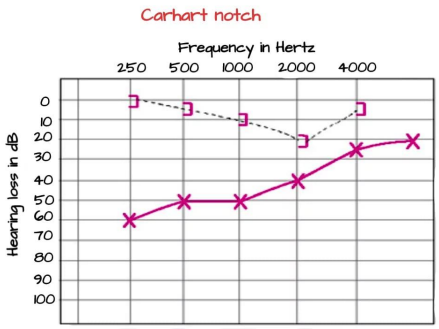
---

16. Neck Swelling – Common Causes

1. **Infective**: Abscess, lymphadenitis
2. **Neoplastic**: Lymphoma, metastasis
3. **Congenital**: Thyroglossal cyst, branchial cyst
4. **Thyroid-related**: Goiter, thyroid cancer

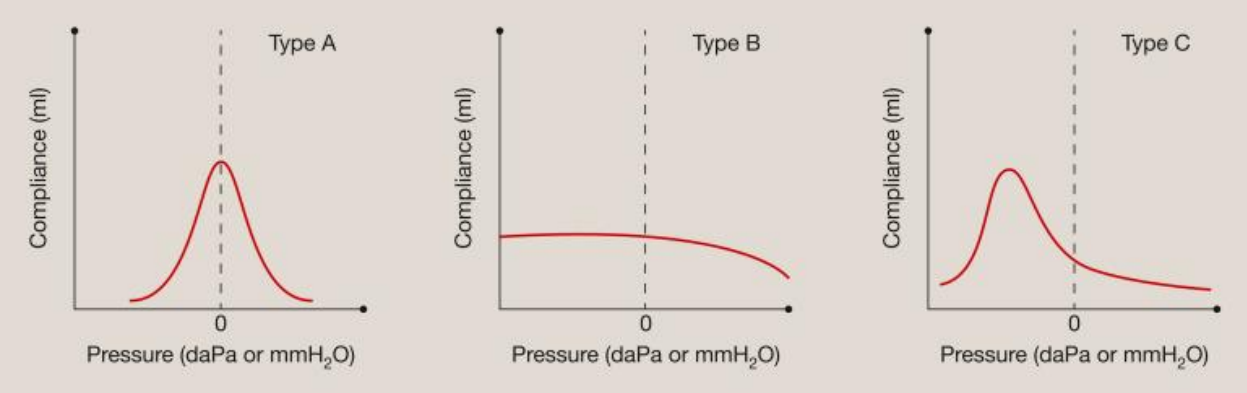
17. Acute Mastoiditis

- **Signs**: Postauricular swelling, redness, tenderness, fever, ear discharge, protruding ear.
- **Treatment**:
    1. IV antibiotics (covering S. pneumoniae, H. influenzae).
    2. Drainage: Cortical mastoidectomy if abscess forms or no response to antibiotics.



18. Otosclerosis Audiogram

- **Features**:
    - **Conductive hearing loss** (dip at 2000 Hz – Carhart's notch).
    - **Air-bone gap** present.



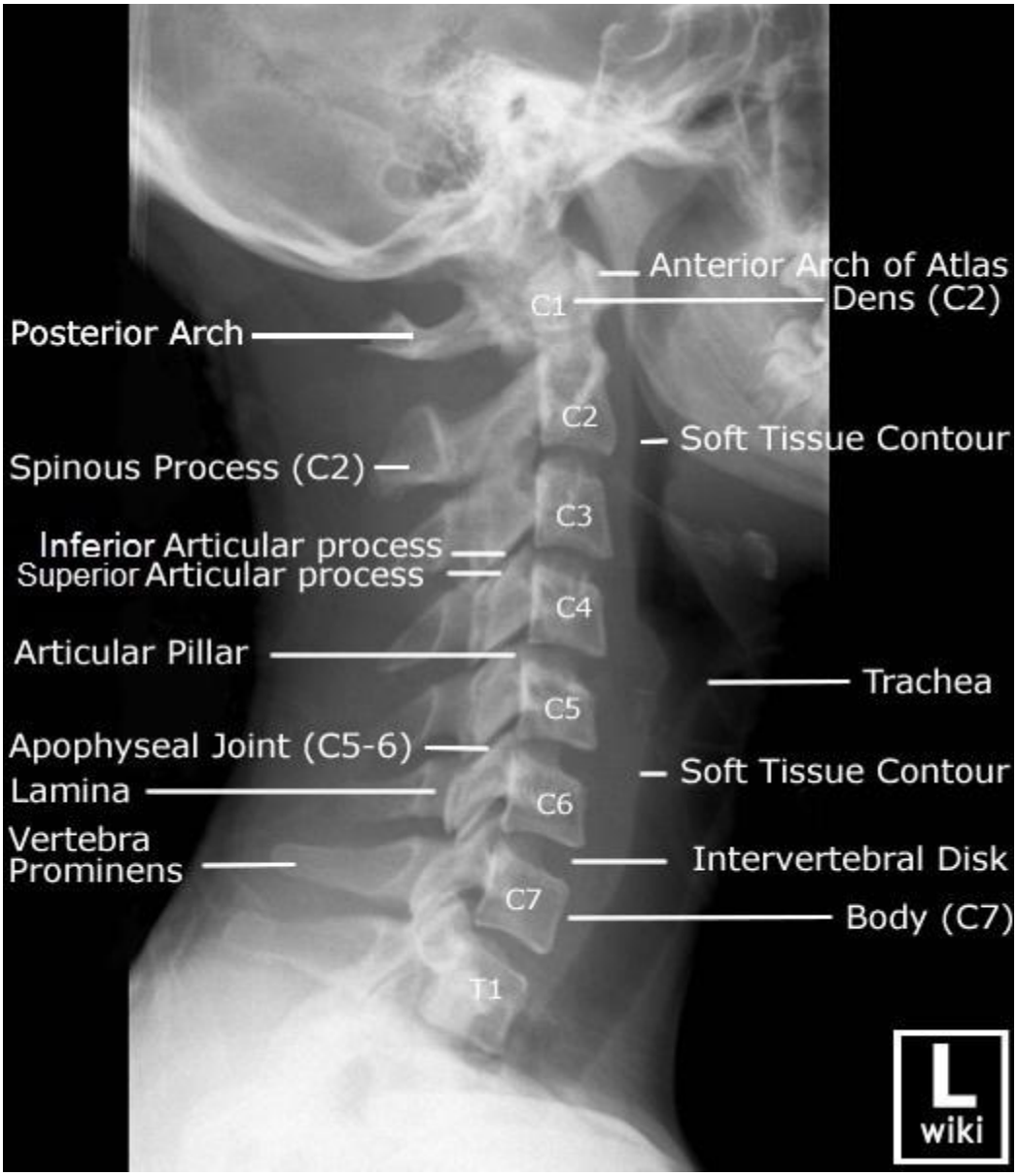
19. Tympanogram – Type B Curve

- **Indicates**: Middle ear fluid (Otitis media with effusion) or tympanic membrane perforation.
- **Curve**: Flat, no peak, reduced compliance.

Key Point:
A **Type C tympanogram** signifies **negative middle ear pressure** (usually -100 to -400 daPa), often due to **Eustachian tube dysfunction**. This condition can lead to temporary hearing issues, commonly caused by colds, allergies, or sinus infections, but doesn't necessarily indicate permanent hearing loss.

20. Boyel-Davis Mouth Gag

- **Identification**: Self-retaining gag used in tonsillectomy and oropharyngeal surgeries.
- **Parts**: Frame, tongue blade, and ratchet mechanism.



21. X-Ray Neck Lateral View

- **Name**: X-ray Neck (Lateral View)
- **Positive Findings**: Soft tissue swelling, air column displacement.
- **Foreign Body Location**:
  - **Esophagus** → Behind trachea (posteriorly).
  - **Trachea** → Anterior to esophagus.
- **Treatment**: Endoscopic removal, supportive care, antibiotics if needed.

---

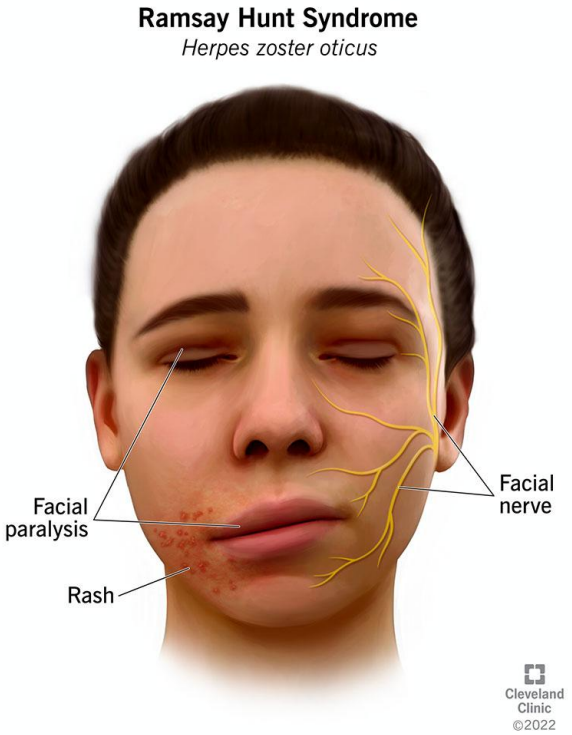
22. X-Ray Chest with Foreign Body in Esophagus

- **Findings**: Radiopaque foreign body visible in the midline (esophagus).
- **Note**: In the trachea, foreign bodies are off-center.

---

23. Squamous Cell Carcinoma of Parotid Gland with Facial Palsy

- **Sign**: Hard, fixed parotid mass with facial nerve paralysis.
- **Diagnosis**: Biopsy and imaging (CT/MRI).
- **Treatment**: Surgery + Radiotherapy.



24. Ramsay Hunt Syndrome (Herpes Zoster Oticus)

- **Signs**: Vesicles on external ear, facial palsy, hearing loss, vertigo.

---

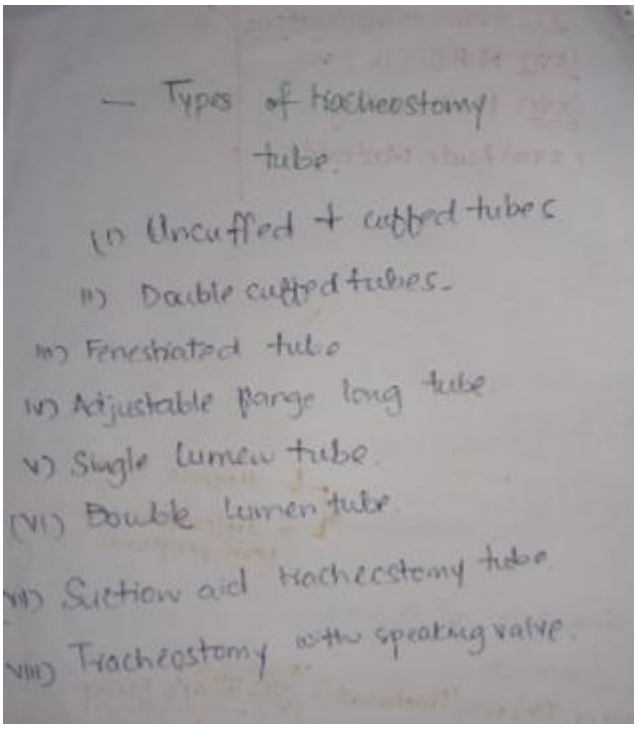
25. Weber Test (Pic)

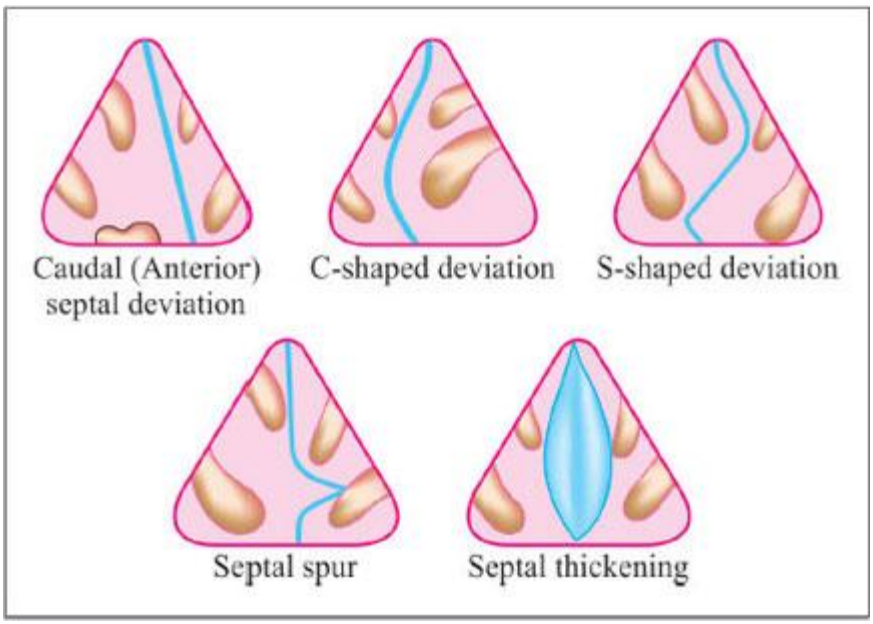
- **Lateralization**:
  - Conductive loss → Lateralizes to affected ear.
  - Sensorineural loss → Lateralizes to unaffected ear.

---

26. Tracheostomy Tube

- **Parts**:
    1. Outer cannula
    2. Inner cannula
    3. Obturator
    4. Flange/neck plate
    5. Cuff (if present)
- **Uses**: Long-term ventilation, airway obstruction.
- **Indications**: Airway obstruction, respiratory failure.
- **Complications**: Bleeding, infection, tracheal stenosis, tube displacement.





27. Septal Deviation

- **Signs**: Nasal obstruction, recurrent sinusitis, snoring.

---

28. Anterior Neck Lump (Goiter)

- **Signs**: Midline swelling, moves with swallowing.
- **Causes**: Simple goiter, thyroid carcinoma, thyroiditis.

---

29. Deviated Nasal Septum – Treatment

- **Medical**: Decongestants, antihistamines (temporary relief).
- **Surgical**: Septoplasty.

---

30. Preauricular Pit (Sinus) Treatment

- **Cause**: It's a developmental anomaly that occurs during the formation of the outer ear in the fetus.
- **Location**: Typically found near the **tragus**, just in front of the ear.
- **Appearance**: A small pit or dimple, sometimes with a visible opening.

- **Symptoms**: Most individuals with a preauricular sinus have no symptoms. However, it can sometimes become infected, leading to swelling, redness, and discharge.

- **Treatment**: If infected, antibiotics may be prescribed, and surgical removal may be needed if recurrent infections occur or if the sinus causes complications

- **Treatment**: Surgical excision.
- **Indications for Surgery**:
    1. Recurrent infection.
    2. Abscess formation or cosmetic concerns.

31. Myringotomy with Grommet Insertion

- **Complications During Surgery**:
    1. Bleeding
    2. Damage to ossicles
    3. Persistent otorrhea (ear discharge)
    4. Tympanic membrane perforation
    5. Cholesteatoma formation

---

32. X-ray Anatomy

- **Esophagus**: Posterior to trachea
- **Trachea**: Midline, anterior to esophagus
- **Hard Palate**: Visible as a horizontal dense line in the upper part of the oral cavity
- **Soft Palate**: Appears as a soft tissue shadow, posterior to the hard palate

---

33. Vocal Nodules

- **Diagnosis**:
    - Hoarseness, voice fatigue
    - Laryngoscopy showing bilateral symmetrical lesions on vocal cords (junction of anterior and middle third).
- **Treatment**: Voice rest, speech therapy, surgical excision if persistent.
- **Prevention**:

1. Avoid vocal strain.
2. Stay hydrated.
3. Use proper voice techniques (speech therapy).

---

34. Prolonged Endotracheal Intubation Complications

- **Pathological Process**: Pressure necrosis, ulceration, and subsequent formation of granulation tissue or subglottic stenosis.
- **Prevention**:
    1. Use low-pressure, high-volume cuffs.
    2. Minimize intubation duration.
    3. Regular cuff pressure monitoring.
- **Treatment**:
    - Mild cases: Conservative management, corticosteroids, voice therapy.
    - Severe cases: Surgical intervention (laryngoplasty or tracheostomy).

35. Ludwig's Angina (Scenario)

- **Diagnosis**:
    - Bilateral submandibular, sublingual, and submental swelling.
    - Pain, dysphagia, trismus, drooling, airway compromise.
    - Confirm with clinical exam, CT neck with contrast.
- **Treatment**:

1. Airway management (intubation or tracheostomy if needed).
2. Broad-spectrum IV antibiotics (ampicillin-sulbactam or clindamycin).
3. Surgical drainage if abscess formation.

---

36. Thyroidectomy with Recurrent Laryngeal Nerve Exposed

- **Surgical Landmarks of Right Recurrent Laryngeal Nerve**:
    1. Ascends in the tracheoesophageal groove.
    2. Passes posterior to the inferior thyroid artery.
    3. Enters larynx below the inferior constrictor muscle.
- **Treatment for Right Recurrent Laryngeal Nerve Paralysis**:
    - Unilateral paralysis: Voice therapy, temporary vocal cord injection.
    - Bilateral paralysis: Tracheostomy if airway compromised.

---

37. Weber Test

- **How to Perform**:
    1. Strike the tuning fork.
    2. Place it on the center of the forehead.
    3. Ask the patient where they hear the sound (right, left, or center).

- **Interpretation**:
    - Conductive hearing loss → Lateralizes to the affected ear.
    - Sensorineural hearing loss → Lateralizes to the unaffected ear.

Throat Examination

- Inspect tonsils, uvula, pharynx, posterior pharyngeal wall for redness, swelling, exudate.

Pathology of Otosclerosis

- Abnormal bone remodeling in the otic capsule and stapes footplate → Stapes fixation → Conductive hearing loss.

Embryological Origin of Stapes

- Derived from the **2nd pharyngeal arch (Reichert's cartilage)** and partially from the **1st arch**.

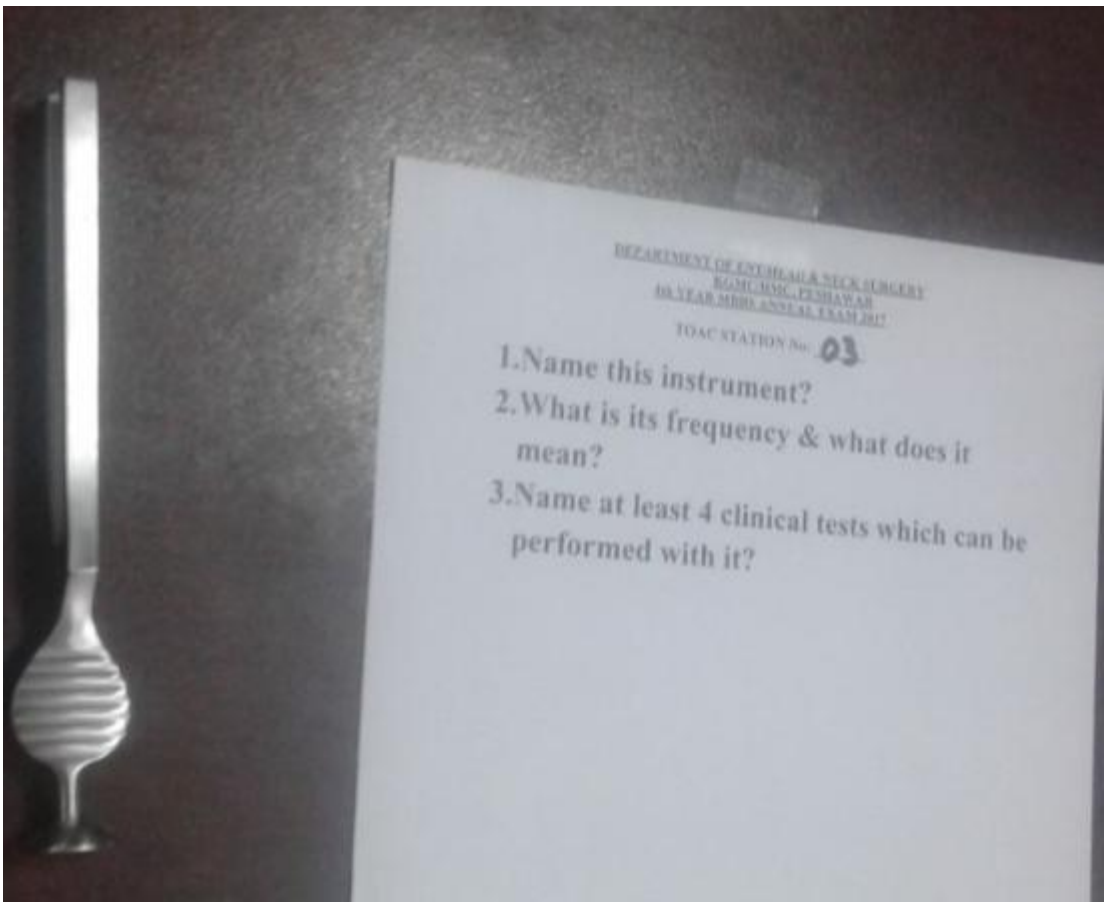
38. Facial Nerve Paralysis as a Complication of CSOM

- **Signs**: Asymmetrical facial movement, drooping of affected side.
- **Treatment**:
    1. Urgent mastoidectomy and drainage of abscess.
    2. High-dose antibiotics.
    3. Corticosteroids to reduce nerve inflammation.
    4. Facial nerve decompression if no improvement.

39. Cholesteatoma (Picture)

- **Identify**: Whitish mass in the attic or posterior superior quadrant of the tympanic membrane.
    - Foul-smelling ear discharge.
    - Hearing loss.
    - Possible history of chronic otitis media.
- **Treatment**:

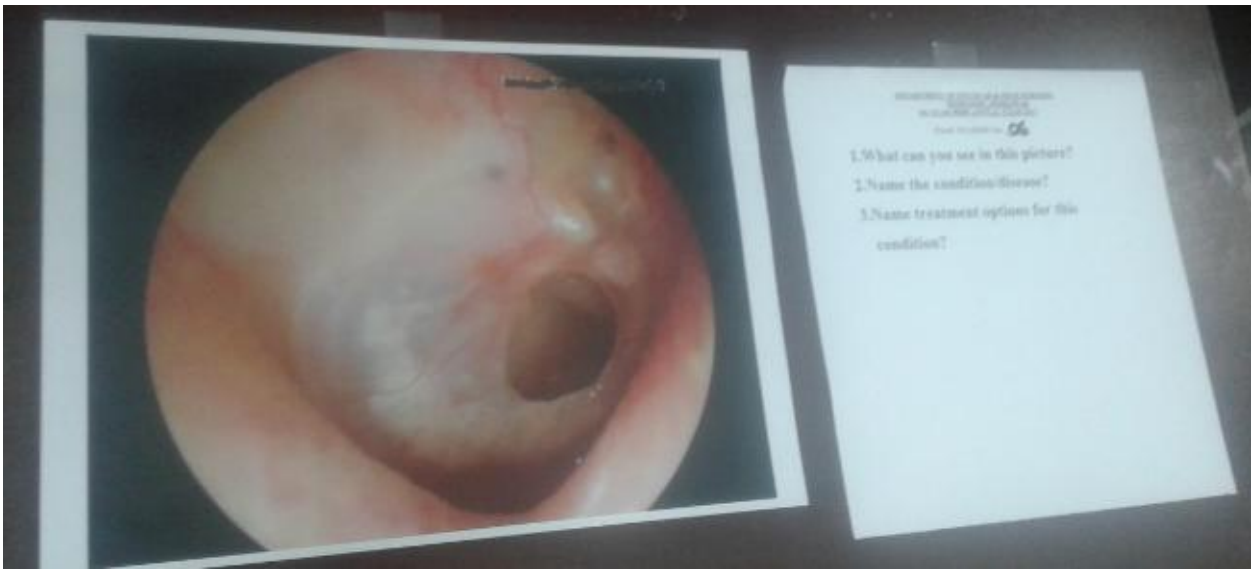
1. **Surgical Management**: Modified radical mastoidectomy or canal wall-down mastoidectomy.
2. **Postoperative Care**: Regular ear cleaning and hearing rehabilitation if necessary.



1 TUNING FOR

2 512Hz. **Meaning**: The frequency refers to the pitch of the sound produced by the tuning fork. 512 Hz is commonly used because it falls in the range of speech frequencies. It is used to assess hearing by comparing **air conduction** (sound heard through the air) to **bone conduction** (sound heard through the bones).

3. RINNES, WEBERS, SCHWABES, ABC TEST



1. What can you see in this picture?

- The image shows a **perforated tympanic membrane** (eardrum), with **cholesteatoma** or debris in the middle ear. There is a visible hole with a possible growth behind it.

2. Name the condition/disease?

- **Chronic Otitis Media (with perforation)**
- **Cholesteatoma** (if confirmed with further examination).

3. Name treatment options for this condition?

1. **Medical treatment**:
    - Oral antibiotics (for infection).
    - Topical ear drops (antibiotics or steroids).
2. **Surgical treatment**:
    - **Myringoplasty** or **Tympanoplasty** for membrane repair.
    - **Cholesteatoma removal** (if present) with **mastoidectomy**.

It seems like you're referring to **Hallpike Maneuver** (also known as the **Dix-Hallpike Test**). Here's a breakdown of it:

Hallpike Maneuver (Dix-Hallpike Test)

- **Purpose**: To diagnose **Benign Paroxysmal Positional Vertigo (BPPV)**, which is caused by displacement of calcium carbonate crystals (otoconia) in the semicircular canals of the inner ear.

How to Perform:

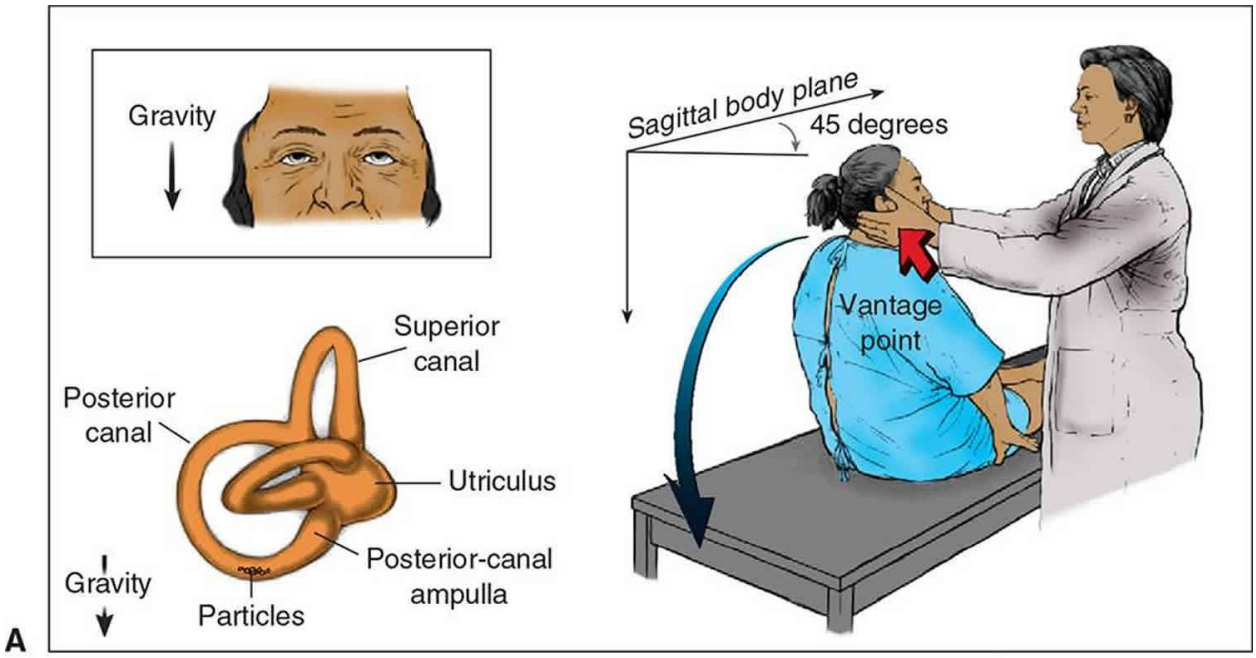
1. **Start Position**: Have the patient seated on the examination table.
2. **Neck Position**: Turn the patient's head 45° toward one side.
3. **Movement**: Quickly lay the patient back into a supine position with their head extended slightly below the level of the table (about 20–30°).
4. **Observe**: Watch for signs of vertigo or nystagmus (a jerking eye movement) that may occur within 10–30 seconds.

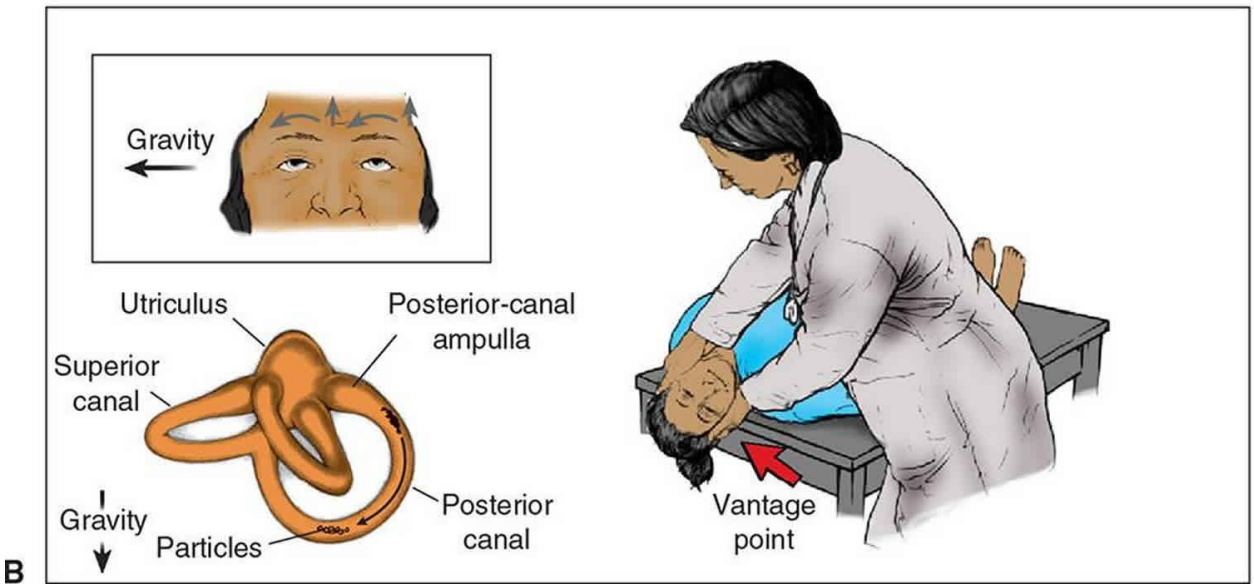
Positive Test:

- If the patient experiences **vertigo** and **nystagmus** (usually **torsional nystagmus**), it indicates **BPPV** of the ear that is dependent (head turned toward).

Treatment:

- **Epley Maneuver** (Canalith repositioning) is performed to move the displaced otoconia back into the utricle.





Uses of Crocodile Forceps

- **Identification**: A long, slender instrument with a locking mechanism and jaws that resemble a crocodile's mouth.

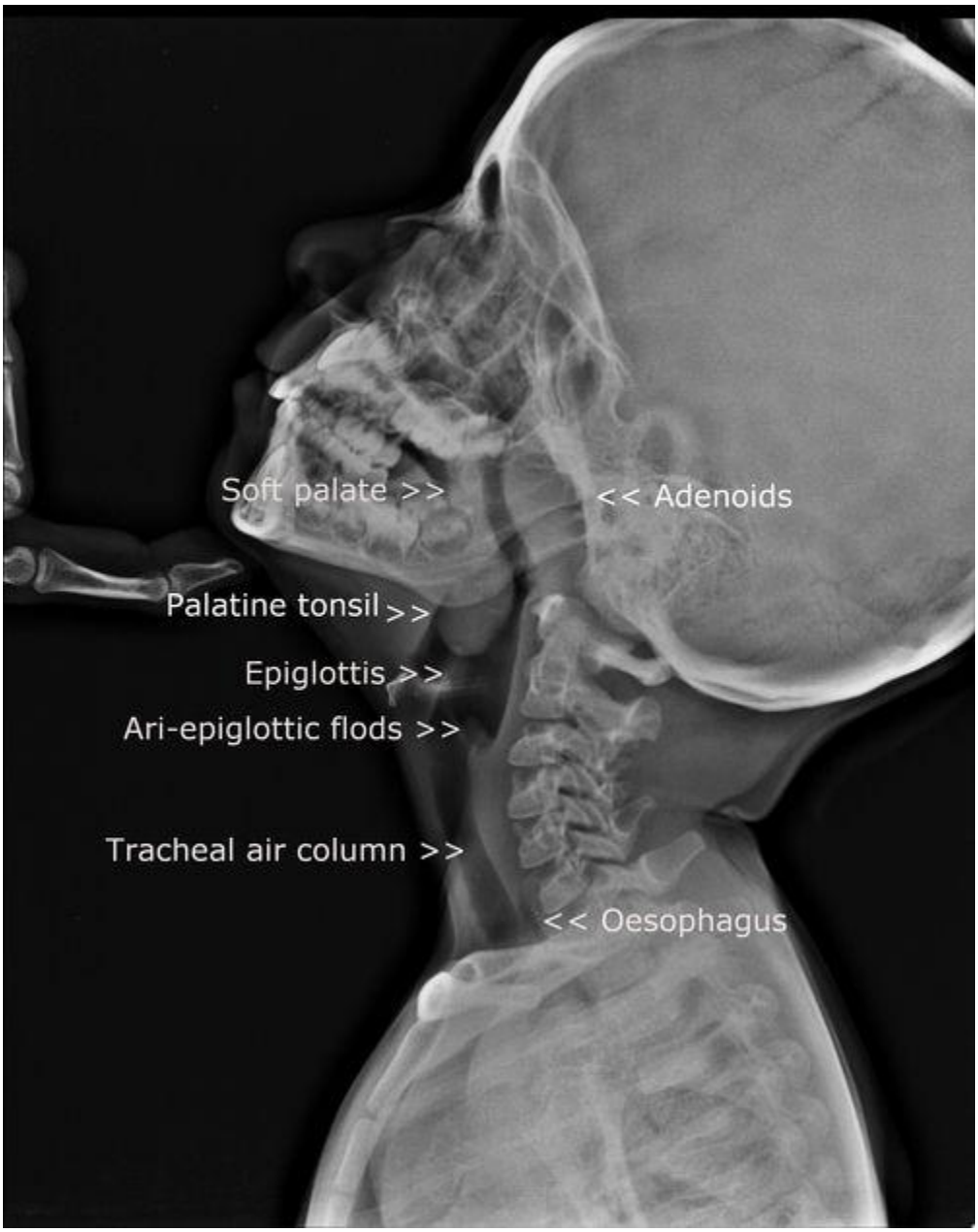
Common Uses:

1. **Foreign Body Removal**:
    - Used to grasp and remove foreign bodies from the ear, nose, throat, or airway.
2. **Surgical Procedures**:

- In ENT surgeries, especially for delicate tissue handling or to remove nasal polyps and other growths.

3. **Grasping and Manipulating Tissue**:
   - Used for fine tissue dissection in ENT surgeries such as nasal or pharyngeal surgeries.
4. **Grasping and Removing Debris**:
   - Used in procedures like **Myringotomy** or cleaning the ear canal.

ADENOIDS X RAY



Adenoid Facies – Key Points

Definition:

- A distinctive facial appearance seen in children with **adenoid hypertrophy** (enlarged adenoids), typically due to chronic nasal obstruction.

Characteristics:

1. **Mouth Breathing**:

    - Due to nasal obstruction, patients tend to breathe through their mouths, leading to a characteristic open-mouth posture.
2. **High Arched Palate**:
    - A result of the constant mouth breathing and reduced tongue pressure on the palate.
3. **Long Face**:
    - The face appears elongated due to constant mouth breathing and altered muscle tone.
4. **Narrowing of the Nose**:
    - A narrow nasal bridge and an underdeveloped upper jaw.
5. **Speech Changes**:
    - **Hyponasal speech** due to airflow restriction from nasal blockage.
6. **Dental Issues**:
    - **Malocclusion** (misalignment of teeth), often with a **class II bite**.

Cause:

- **Adenoid hypertrophy** (enlarged adenoids) often due to chronic infections or inflammation, leading to blockage of the nasopharynx.

Treatment:

- **Conservative management**: Nasal steroids, decongestants, or antihistamines.

- **Surgical management**: **Adenoidectomy** (removal of adenoids) if symptoms persist or cause significant problems such as recurrent infections or sleep apnea.

Fig. 1: Adenoid Facies

DNS TREATMENT

1. SUBMUCOSAL RESECTION (OBSOLETE)
2. SEPTOPLASTY

S.M.R.	Septoplasty
Radical surgery	Conservative
Not done below 17 yr	Done after 4 yr
Killian's incision	Freer's incision
Cannot correct anterior DNS	Can correct
B/L mucoperichondrium elevated	One side only
Radical removal of cartilage	Only inferior strip
Rhinoplasty incision can't combine	Can
Revision surgery difficult	Relatively easy
Cartilage graft can be harvested	No
Complications common	Rare

Recurrent Laryngeal Nerve (RLN) Palsy – Treatment Options

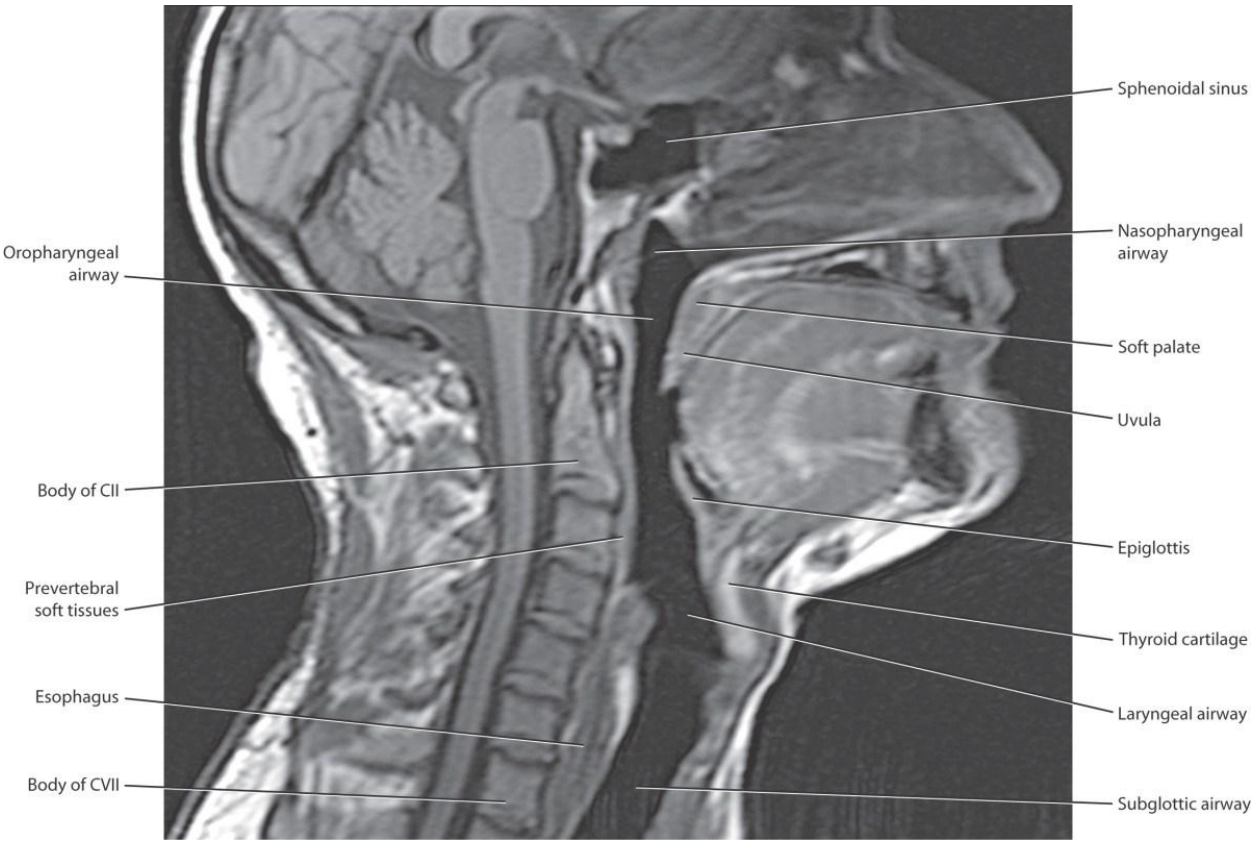
Unilateral RLN Palsy

1. **Conservative Management**:
   - **Voice therapy**: Speech therapy to improve vocal cord function and compensatory techniques.
   - **Medications**: Steroids or anti-inflammatory drugs if the palsy is recent.
   - **Observation**: In some cases, especially if symptoms improve over time.
2. **Surgical Treatment** (if no improvement):
   - **Vocal cord injection**: To improve vocal cord closure (using substances like hyaluronic acid)--TEFLON.
   - **Medialization laryngoplasty**: A procedure where a device is inserted to push the affected vocal cord towards the midline, improving voice quality.
   - **Arytenoid repositioning**: Adjusts the position of the vocal cord for better closure.

Bilateral RLN Palsy

1. **Immediate Management**:
   - **Tracheostomy**: If there is significant airway obstruction or breathing difficulties.
2. **Surgical Treatment** (Long-term options):
   - **Tracheostomy** can be temporary, and in cases where it's needed long-term, other procedures may follow.
   - **Laryngoplasty**: To reposition the vocal cords for better airway protection.
   - **Vocal cord augmentation**: To improve airway passage and speech.

IDENTIFY HARD PALATE, SOFT PALATE, ESOPHADUS, TRACHEA



IMPORTANT SINGS IN ENT

1. Heinnebert sign : Congenital Syphillus
2. Hitzelberger sign : Acoustic Neuroma
3. Rising sun/ brown sign/ Phelp sign : Glomus Juglare
4. Target/Halo sign : Traumatic CSF leak
5. Cart wheel sign : ASOM
6. Schwartz sign : Otosclerosis
7. Griessenger sign / Delta sign : Sigmoid Sinus Thrombosis
8. Reservoir Sign : Mastoiditis
9. Light House : ASOM
10. Tripod sign/ Thumb sign : Epiglotittis

Sure! Here's a detailed breakdown of each point you've noted, elaborating on the procedures and their relevance in an OSPE (Objective Structured Practical Examination) scenario:

1. History (Hx)

- **Purpose**: History-taking is one of the most essential steps in any clinical examination. In ENT, history should focus on the presenting symptoms, their onset, duration, and severity.
- **Key Components**:
  - **Chief Complaint**: What brings the patient to the clinic (e.g., sore throat, hearing loss, nasal obstruction).
  - **Present Illness**: Detailed account of the symptoms such as when they started, whether they've worsened, and associated features like fever, dysphagia, etc.
  - **Past Medical History**: Any prior ENT issues, surgeries (e.g., tonsillectomy), or comorbidities (e.g., asthma, hypertension).
  - **Medications**: Current medications, including antibiotics, antihistamines, etc.
  - **Family History**: Genetic predispositions like hearing loss or thyroid disorders.
  - **Social History**: Occupation, lifestyle, smoking, alcohol use, etc.

2. Throat, Ear, Nose Examination

- **Throat (Oropharyngeal exam)**:
  - Look for signs of infection (e.g., tonsillitis), ulcers, or lesions.
  - Inspect tonsils, uvula, and posterior pharyngeal wall.
  - Use a tongue depressor and flashlight for better visualization.
- **Ear Exam**:
  - Examine the external ear for deformities or discharge.
  - Perform **otoscopy** to inspect the ear canal and tympanic membrane for signs of infection or perforation.
- **Nose Exam**:
  - Check for nasal obstruction, discharge, and septal deviation.
  - Palpate the sinuses (frontal and maxillary) for tenderness.
  - Use a nasal speculum to inspect the internal nasal passages.

3. Mirror Examination (Laryngopharynx, Larynx)

- **Purpose**: Mirror examination involves indirect laryngoscopy and is used to visualize the larynx and hypopharynx, especially in cases of voice changes, dysphagia, or suspected tumors.
- **Procedure**:
  - The patient is asked to open their mouth, and a hand-held mirror is angled at the back of the throat to view the vocal cords.
  - This technique can also evaluate the posterior pharyngeal wall and larynx.

4. Mouth Gag (Use)

- **Purpose**: A mouth gag is used to hold the mouth open for better access to the oral cavity, especially during procedures like tonsillectomy or when examining the back of the throat.
- **Procedure**: Insert the gag gently, ensuring that it is stable but not causing discomfort.

5. Neck Examination

- **Purpose**: A thorough neck exam helps in identifying swelling, masses, lymphadenopathy, or thyroid enlargement.
- **Procedure**:
  - **Inspection**: Look for visible lumps or asymmetry in the neck.
  - **Palpation**: Palpate for enlarged lymph nodes, thyroid nodules, or masses.
  - **Percussion**: Check for signs of fluid accumulation (e.g., in suspected abscesses).
  - **Thyroid Exam**: Assess for goiter or other thyroid disorders by palpating the thyroid gland.

6. Rigid Endoscopy (Esophagoscopy, Laryngoscopy)

- **Purpose**: These are diagnostic procedures used to directly visualize the upper airway (larynx) and esophagus.
- **Procedure**:
  - **Rigid Laryngoscopy**: Involves inserting a rigid scope through the mouth to visualize the larynx and vocal cords.
  - **Esophagoscopy**: Used to examine the esophagus for foreign bodies or lesions.

7. Laryngoscopy (Indirect & Video)

- **Indirect Laryngoscopy**:
  - A procedure in which a small mirror is placed at the back of the throat to visualize the larynx and vocal cords.
- **Video Laryngoscopy**:
  - Uses a camera to visualize the larynx in real-time, offering better detail and allowing for documentation.

8. Voice Rest Counseling

- **Purpose**: For patients with vocal cord issues or voice strain, voice rest helps promote recovery.
- **Advice**:
  - Resting the vocal cords by avoiding talking, whispering, and throat clearing.
  - Hydration is crucial, along with avoidance of irritants like smoke or dry air.

9. Bilateral Abductor Palsy

- **Purpose**: Bilateral vocal cord paralysis can result in airway compromise and voice changes.
- **Management**:

    - **Airway protection** (e.g., tracheostomy in severe cases).
    - Surgery may be required (e.g., arytenoid adduction or vocal cord medialization).
    - Long-term monitoring and speech therapy.

10. Tracheostomy

- **Purpose**: Tracheostomy is a surgical procedure to create an opening in the trachea for long-term airway management.
- **Indications**: Severe upper airway obstruction, respiratory failure, or long-term ventilation.
- **Procedure**: Involves inserting a tube into the trachea through an incision in the neck.

11. Tuning Fork Tests (Weber, Rinne)

- **Purpose**: These tests assess hearing and differentiate between conductive and sensorineural hearing loss.
- **Weber Test**: Place the tuning fork in the middle of the forehead. A normal test results in the sound being heard equally in both ears. Lateralization (sound heard louder in one ear) suggests conductive or sensorineural hearing loss.
- **Rinne Test**: Place the tuning fork on the mastoid bone and then in front of the ear. Air conduction (AC) should be better than bone conduction (BC) in normal hearing.

12. Audiogram, Impedance Testing

- **Purpose**: These tests evaluate hearing function and middle ear conditions.
- **Audiogram**: Measures the threshold of hearing at different frequencies and is used to diagnose conductive and sensorineural hearing loss.
- **Impedance Testing**: Assesses the function of the tympanic membrane and middle ear, used to detect eustachian tube dysfunction, otitis media, and other conditions.

13. Balance Tests, Nasendoscopy

- **Balance Tests**:
    - Used to diagnose vertigo and other vestibular disorders. This may include tests like the Dix-Hallpike maneuver or caloric testing.
- **Nasendoscopy**: A flexible endoscope inserted through the nose to visualize the nasal cavity, nasopharynx, and oropharynx.

14. X-rays (PNS, Nasopharynx)

- **Purpose**: X-rays are used to evaluate the paranasal sinuses and nasopharynx for conditions like sinusitis, tumors, or other obstructions.
- **Procedure**: Standard X-ray views include the Caldwell, Waters, and lateral views for the paranasal sinuses.

15. CT Scan of Nasopharynx and Angiofibroma

- **Purpose**: CT scans are used to visualize the nasopharynx and identify any masses, such as nasopharyngeal angiofibroma, which is common in adolescent males.
- **Indication**: These scans help in preoperative planning and staging of tumors.

16. Bowling Sign

- **Purpose**: The Bowling Sign refers to a characteristic clinical sign of a nasopharyngeal angiofibroma, seen in children. The mass causes the soft palate to bow down, leading to a characteristic appearance.

17. Adenoid Face

- **Purpose**: A facial appearance caused by chronic adenoid enlargement, often resulting in mouth breathing.
- **Clinical Features**: Features include an open-mouth posture, long face, and dental malocclusion.

Would you like more focused explanations or step-by-step guidance on any particular examination or procedure listed?