Index

| SI.No. | CHAPTER | Pg.No. |
|--------|--|--|
| Ι | [ar | |
| | Anatomy & Physiology of Ear and Hearing Hearing Loss & Assessment of hearing loss Vestibular System Diseases of External Ear Diseases of Middle Ear Otosclerosis Facial Nerve and its Lesions Vertigo and Meniere's Disease Tumors of the Ear Republicative Methods | 09 18 27 33 39 53 56 59 63 47 |
| II | Nose and Paranasal sinuses | |
| | Anatomy and Physiology of Nose Diseases of External Nose and Nasal Septum Granulomatous Disorders and Foreign Body in Nose Inflammatory Disorders of Nasal Cavity Epistaxis Anatomy and physiology of PNS Diseases of Paranasal Sinus Tumors of Nose and Paranasal Sinus | 69 74 79 82 87 92 94 94 99 |
| III | Oral cavity, Marynx & larynx | |
| | Diseases of Oral Cavity & Salivary Glands Anatomy of Pharynx and Larynx Inflammatory Diseases of Pharynx, Nasopharynx, Tonsils Congenital lesions and Inflammation of Larynx Tumors of Oropharynx , Hypopharynx, Larynx Thyroid gland and its disorders | 103 108 112 117 120 123 |
| IV | Instruments | 126 |

Aratony & Mysiology of Ear and Hearing



THE EXTERNAL EAR

AURICLE OR PINNA



Reference: Diseases of Ear, Nose and Throat, Dhingra (Pg 3, 15) Textbook of Ear, Nose and Throat, BS Tuli (Pg 3, 19)

EXTERNAL ACOUSTIC (AUDITORY) CANAL

Extends from the bottom of the concha to the tympanic membrane

Measures about 24 mm Cartilaginous Part Meatoplasty is the surgery done to widen the cartilaginous part of EAC.

- Outer one-third (8 mm) of the canal
- "Fissures of Santorini" deficiencies in the cartilage and through them the parotid or superficial mastoid infections can appear in the canal or vice versa.

Bony Part

- Inner two-thirds (16 mm)
- 6 mm lateral to tympanic membrane, the bony meatus has a narrowing called isthmus. Foreign bodies get impacted here, and are difficult to remove.

TYMPANIC MEMBRANE



Pars Tensa

- Forms most of tympanic membrane.
- Periphery is thickened to form a fibrocartilaginous ring called annulus tympanicus.
- Central part of pars tensa is tented inwards at the level of tip of malleus umbo.
- A bright cone of light radiating from the tip of malleus to the periphery in the anteroinferior quadrant- cone of light

Pars Flaccida (Shrapnell's Membrane)

• Situated above the lateral process of malleus between the notch of Rivinus and the anterior and posterior malleal folds

Nerve supply

- 1. Anterior half of lateral surface: auriculotemporal (V3).
- 2. Posterior half of lateral surface: auricular branch of vagus (CN X).
- 3. Medial surface: tympanic branch of CN IX (Jacobson's nerve).

THE MIDDLE EAR

DIVISIONS OF MIDDLE EAR



BOUNDARIES OF MIDDLE EAR



- The roof is formed by a thin plate of bone called tegmen tympani.
- The floor is a thin plate of bone, which separates tympanic cavity from the jugular bulb.
- The anterior wall has a thin plate of bone, which separates the cavity from internal carotid artery.
- The posterior wall lies close to the mastoid air cells.
- The medial wall is formed by the labyrinth.
- The lateral wall is formed largely by the tympanic membrane and to a lesser extent by the bony outer attic wall called scutum

MASTOID AND ITS AIR CELL SYSTEM

- Mastoid develops from the squamous and petrous bones.
- The petrosquamosal suture may persist as a bony plate— the Korner's septum, separating superficial squamosal cells from the deep petrosal cells.
- Mastoid antrum cannot be reached unless the Korner's septum has been removed.

MASTOID ANTRUM

- large, air-containing space in the upper part of mastoid and communicates with the attic through the aditus.
- Its roof is formed by tegmen antri, which is a continuation of the tegmen tympani and separates it from the middle cranial fossa.
- The lateral wall of antrum is formed by a plate of bone which is on an average 1.5 cm thick in the adult.
- It is marked externally on the surface of mastoid by suprameatal (MacEwen's) triangle



MACEWEN'S (SUPRAMEATAL) TRIANGLE.

- It is bounded by
 - 1) Temporal line
 - b) Posterosuperior segment of bony external auditory canal
 - c) The line drawn as a tangent to the external canal.
- It is an important landmark to locate the mastoid antrum in mastoid surgery.



Instruments



MYRINGOTOME

Used for myringotomy. A sickle knife used in myringoplasty can also be used to perform myringotomy.

Q. Identify

ENEETIS7

the instrument ?

MOLLISON'S MASTOID RETRACTOR.



[AIIMS20]

Q. Identify the instrument ?

Used in mastoidectomy to retract soft tissues after incision and elevation of flaps.

It is self-retaining and haemostatic.

JANSEN'S SELF-RETAINING MASTOID RETRACTOR



Used in mastoidectomy similar to Mollison's retractor.

LEMPERT'S ENDAURAL RETRACTOR.



Used for endaural approach to ear surgery.

It has two lateral blades which retract the flaps and a third central blade with holes.

The central blade retracts the temporalis muscle. The central blade can be fixed to the body of the retractor by its hole.

LEMPERT'S ENDAURAL SPECULUM.



It is like Vienna model nasal speculum but curved. It is used to spread open the meatus when giving local injection or making an endaural incision.

MASTOID GOUGE.



Used to remove bone in mastoid surgery. Various sizes are available. However, it is not used now. A drill is preferred to gauges.

LEMPERT'S CURETTE (SCOOP).



Used for removal of bony septa and granulations in mastoid surgery.

MACEWEN'S CURETTE AND CELL SEEKER.

Used in mastoid surgery to explore the air cells with one end, and to curette the intervening septa and granulations with the other.

FARABEUF'S PERIOSTEAL ELEVATOR.

Used for elevation of periosteum from the mastoid cortex in mastoidectomy.