

Unit 17:

Temporal regions and ear

GENERAL OBJECTIVES:

- general considerations of the organization of layers in parotid and temporal/infratemporal regions
- muscles of mastication and TMJ
- structure and function of the ear
- irrigation and innervations of parotid, temporal/infratemporal regions

SPECIFIC OBJECTIVES:

1. Parotid region

Boundaries (Parotid Bed):

Sup., Inf., Ant., Post., Med. (Styloid Process),
Lat. (Superficial Fascia with Great Auricular Nerve)

Contents: Parotid Fascia (continuous with Investing Fascia)

Parotid Gland: *Position, Parts, Parotid Duct*

Structures within the Gland:

Ext. Carotid Artery -> Terminal Branches
Retromandibular Vein -> Anterior & Posterior Branches
Parotid Lymph Nodes
Facial Nerve -> 5 Terminal Branches

2. Temporal and infratemporal regions

Boundaries and contents:

Sphenomandibular Ligament
Pterygoid Muscles (Lateral & Medial)
Maxillary Artery (1st., 2nd. & 3rd. Parts)
Branches: Middle Meningeal (Extracranial Course) Others
Pterygoid Venous Plexus & Communications
Mandibular Nerve (V3): Ant. & Post. Divisions
Branches: Muscular, Buccal & Auriculotemporal Nerves
Inferior Alveolar & Lingual Nerves
Chorda Tympani
Otic Ganglion (Parasympathetic)

3. Temporomandibular Joint

Articular Surfaces

Capsule & Ligaments, Sphenomandibular Ligament

Articular Disc (2 separate joint cavities & movements)

Movements of the T.M.J.: [(i) Rotation, (ii) Anterior Gliding]

-> *Opening/Closing*

Protraction/Retraction

4. Branchial (pharyngeal arch) muscle groups (Muscles of mastication)

Muscles of Mastication

Masseter, Temporalis, Lateral & Medial Pterygoids

5. Ear

a. External Ear

Auricle

External Acoustic Meatus, Tympanic Membrane

Vessels

Nerves (Sensory)

b. Middle Ear

Walls: Roof (Tegmental Wall), Floor (Jugular Wall)
Lat (Membranous Wall), Med. (Labyrinthine Wall) .
Post. (Mastoid Wall), Ant. (Carotid Wall)

Contents: Auditory Ossicles (Malleus, Incus, Stapes)
Tympanic Muscles (Tensor Tympani, Stapedius)
Chorda Tympani Nerve

Auditory Tube

Epitympanic Recess

Mastoid Antrum & Cells

c. Internal Ear

Bony labyrinth: cochlea, vestibule and semicircular canals

Membranous labyrinth: endolymphatic vs. perilymphatic spaces,
Vestibular vs. cochlear labyrinth and semicircular ducts