PHARYNX-I

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5-5-2020
Lesson Plan

❖ Introduction

❖ Boundaries

❖ Subdivisions

❖ Nasopharynx:
  • Location.
  • Communications.
  • Pharyngeal Isthmus.
  • Features.
  • Applied Aspects.
Introduction

• Pharynx is a fibromuscular tube.
• It is a common channel for both food and air.

Location - Behind the cavities of nose, mouth and the larynx.

Shape - funnel shaped.

Extent - From the base of the skull to the esophagus.
Introduction contd...

Dimensions-

- **Length**: 12-14 cm

- **Width**-
  - **At base**: 3.5 cm
  - **At pharyngo-esophageal junction**: 1.5 cm
Boundaries

Superior-
- Base of skull [posterior part of body of Sphenoid & Basilar part of Occipital bone in front of pharyngeal tubercle.]

Inferior-
- Continuous with esophagus at the level of lower border of cricoid cartilage anteriorly and lower border of C6 vertebra posteriorly.
Boundaries contd...

Posterior-
- Prevertebral fascia.

Anterior-
- Opens into cavities of nose, mouth and larynx.

Lateral-
- Neurovascular bundle of neck.
- Styloid process with its attached muscles and ligaments.
Subdivisions

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From above downwards:

• Nasopharynx.

• Oropharynx.

• Laryngopharynx.
Nasopharynx

Location-

• Behind choanae (posterior nasal apertures) and above soft palate.

Communications-

Anteriorly- with nasal cavities.

Inferiorly- with oropharynx.
Pharyngeal Isthmus \textbf{[Nasopharyngeal Isthmus]}

- An opening bounded anteriorly by the soft palate and posteriorly by the posterior wall of pharynx (Passavant’s ridge).
Nasopharynx contd...

Features:
- Nasopharyngeal (Pharyngeal) Tonsil.
- Orifice of Pharyngo-tympanic tube (Auditory tube or Eustachian tube).
- Tubal elevation.
- Tubal tonsil.
- Salpingopharyngeal fold.
- Salpingopalatine fold.
- Pharyngeal recess (Fossa of Rosenmüller).

Nasopharyngeal (Pharyngeal) Tonsil [Adenoids]-
- A collection of lymphoid tissue.
**Location**- At the junction of roof and posterior wall of nasopharynx.
- Contains nasopharyngeal bursa.

Nasopharyngeal (Pharyngeal) bursa [Pouch of Luschka]-
- A mucous diverticulum which extends upwards into the substance of pharyngeal tonsil from its apex.
- It is developed due to adhesion of notochord to the dorsal wall of pharyngeal part of foregut.
Nasopharynx contd...

Orifice of Pharyngo-tympanic tube (Auditory tube or Eustachian tube)-
Location-
• On lateral wall of nasopharynx, approximately 1.25 cm behind inferior nasal concha.

Tubal elevation-
• Upper and posterior margins of orifice of eustachian tube are elevated due to collection of lymphoid tissue.
• These elevated margins are known as tubal elevation.

Tubal tonsil-
• Collection of lymphoid tissue in tubal elevation is known as tubal tonsil.
Nasopharynx contd...

**Salpingopharyngeal fold**
- A mucous fold which extends vertically downwards on the side wall of pharynx from tubal elevation.
- It contains **Salpingopharyngeus** muscle.

**Salpingopalatine fold**
- A mucous fold which extends downwards and forwards to the soft palate from tubal elevation.
- It contains **Levator Palati** muscle.

**Pharyngeal recess (Fossa of Rosenmüller).**
- It is a deep depression behind the tubal elevation.
**Adenoids**
- Enlarged nasopharyngeal tonsils due to infection.
- Block the posterior nares.

**Clinical Features**
- Nasal obstruction.
- Nasal discharge.
- Mouth breathing.
- Snoring.
- Protrusion of tongue.
- Toneless voice
- Small nose.
- Epistaxis (Nose Bleeding).

- Nasopharyngeal tonsils are prominent in children up to the age of 6 years.
- They gradually undergo atrophy at puberty.
- They completely disappear by the age of 20 years.
Adenoid Facies [Long Face Syndrome]

- Long, open-mouthed face of children with adenoid hypertrophy.

- These children are ‘Obligatory Mouth Breathers’.

- Persistent mouth breathing may be associated with development of craniofacial anomalies.

- The characteristic facial appearance consists of:
  - Underdeveloped thin nostrils
  - Short upper lip
  - Prominent upper teeth
  - Crowded teeth
  - Narrow upper alveolus.
  - High-arched palate
  - Hypoplastic maxilla
Nasopharyngeal Swab