Lesson Plan

❖ Oropharynx:
  • Introduction
  • Oropharyngeal Isthmus
  • Features

❖ Laryngopharynx:
  • Introduction
  • Features

❖ Pharyngeal Wall
Oropharynx
Introduction

Extent-
• From lower surface of soft palate to upper border of epiglottis.

Communications-

Anteriorly- with Oral cavity.

Above- with Nasopharynx.

Inferiorly- with Laryngopharynx.
Oropharyngeal Isthmus

- It is a communicating channel between oropharynx and oral cavity.

**Boundaries**

**Above**- Soft Palate

**Below**- Dorsal surface of posterior 1/3 of tongue.

**Laterally**- Palatoglossal arch.

- Oropharyngeal Isthmus is closed during deglutition.
Features

- Palatine tonsils.
- Anterior faucial pillar (Palatoglossal arch).
- Posterior faucial pillar (Palatopharyngeal arch).
- Lingual tonsils.
- Upper free end of Epiglottis.
- Median and lateral glossoepiglottic folds.
- Epiglottic valleculae.
Features in Lateral Wall

Palatine Tonsil -

Location:
- In the tonsillar fossa.
- Tonsillar fossa is located in the lateral wall of oropharynx.
- Tonsillar fossa is bounded anteriorly by the anterior faucial pillar (palatoglossal arch).
- Tonsillar fossa is bounded posteriorly by the posterior faucial pillar (palatopharyngeal arch).
Features in Lateral Wall contd…

Anterior faucial pillar (Palatoglossal arch)-
- Runs downwards and forwards from soft palate to lateral margin of tongue (at the junction of anterior 2/3\textsuperscript{rd} and posterior 1/3\textsuperscript{rd}).
- It contains Palatoglossus muscle.

Posterior faucial pillar (Palatopharyngeal arch)-
- Runs downwards and backwards to the pharyngeal wall.
- It contains Palatopharyngeus muscle.
Features in Anterior Wall

- **Lingual tonsils**
  - These are the collections of lymphoid tissue underneath the mucosa of pharyngeal part of tongue.
- **Upper free end of Epiglottis.**
- **Median glossoepiglottic fold**
  - A mucosal fold connecting anterior surface of epiglottis to the dorsal surface of posterior 1/3rd of tongue.
- **Lateral glossoepiglottic folds**
  - Mucosal folds connecting edges of epiglottis to the dorsal surface of posterior 1/3rd of tongue.
- **Epiglottic valleculae**
  - Shallow fossae between median and lateral glossoepiglottic folds.
Applied Aspects

• As oropharynx is a common channel for both food and air, sometimes food may enter into respiratory tract and cause choking.
Laryngopharynx
[Hypopharynx]
Introduction

Vertical Extent-

Anteriorly-
• From upper border of epiglottis to lower border of lamina of cricoid cartilage.

Posteriorly-
• From C3 vertebra to the lower border of C6 vertebra.

Communications-
Anteriorly- with Laryngeal cavity.
Superiorly- with Oropharynx.
Inferiorly- with Esophagus.

- Laryngopharynx communicates with laryngeal inlet through Laryngeal Inlet.
Features

- Laryngeal Inlet.
- Piriform fossa/recess.

Laryngeal Inlet closes during deglutition.

**Piriform fossa [Smuggler’s Fossa]**

**Location**

- Anterior part of lateral wall, on each side of laryngeal inlet.
Pharyngeal Wall

- Consists of 4 layers (from within outwards):
  - Mucous membrane.
  - Pharyngobasilar fascia (Pharyngeal aponeurosis).
  - Muscle layer.
  - Buccopharyngeal fascia.
**Mucous Membrane**

**Epithelium-** Stratified squamous except nasopharynx.
- Nasopharynx is lined by ciliated columnar epithelium.
- Epithelium tends to invaginate in sub epithelial collections of lymphoid tissue in the form of clefts (crypts).

**Waldeyer’s Ring-**
- Aggregations of lymphoid tissue underneath the epithelium of pharyngeal wall in the form of an interrupted ring.
- Surround the commencement of air and food passages.
- Lymphoid collections in the Waldeyer’s ring are:
  - Nasopharyngeal (Pharyngeal) Tonsil [Adenoids]- Posteriorly
  - Tubal Tonsils- Postero-laterally
  - Palatine Tonsils- Antero-laterally
  - Lingual Tonsils- Anteriorly.

These lymphoid collections prevent the invasion of microorganisms in the air and food passages.
Waldeyer’s Ring

- Pharyngeal tonsil = adenoid
- Tubal tonsil
- Palatine tonsil
- Lingual tonsil
Pharyngobasilar Fascia

- Fibrous thickening of submucosa.
- It is thick near the base of skull but thin and indistinct inferiorly.
- It is **thickest:**
  - where it fills the gap between upper border of superior constrictor and base of skull.
  - where it forms the **pharyngeal raphe** (posteriorly).
Muscle Layer

- 2 layers of striated muscles.
- Outer layer of 3 pairs of circular muscles (constrictor muscles):
  - Superior constrictor.
  - Middle constrictor.
  - Inferior constrictor.
- Inner layer of 3 pairs of longitudinal muscles.
  - Stylopharyngeus.
  - Salpingopharyngeus.
  - Palatopharyngeus.
Buccopharyngeal Fascia

- It is a layer of loose areolar tissue.
- It covers the outer surface of constrictor muscles.
- In the upper part, it is prolonged forwards to cover the Buccinator muscles.
- It blends with the pharyngobasilar fascia, above the upper border of superior constrictor muscles.
Thank you!