Larynx- I
Lesson Plan

❖ Introduction.

❖ Location and Extent.

❖ Skeleton of Larynx.

❖ Cartilages of larynx:
  • Thyroid cartilage.
  • Cricoid cartilage.
  • Epiglottis.
  • Arytenoid cartilages.
  • Corniculate cartilages.
  • Cuneiform cartilages.
Introduction

**Synonyms** - Voice box, Organ of phonation.

- Larynx is the lowermost part of upper respiratory tract.
- It is modified for production of voice.
- It prevents the entry of any material other than air in the trachea.
- It helps in swallowing by its upward and downward movement.

**Functions:**
- Phonation.
- Respiration.
- Protection of lower respiratory tract.
- Deglutition.
Location & Extent

Location-
• Anterior midline of upper part of neck in front of laryngopharynx.

Extent-
• From root of tongue to upper border of trachea.

Vertebral Extent-
• C3–C6.
Skeleton

- Consists of:
  - Cartilages.

- Cartilages are connected to one another by ligaments, fibrous membranes and muscles.
Cartilages

- 9 in number: 3 unpaired and 3 paired.

Unpaired cartilages-
- Thyroid.
- Cricoid.
- Epiglottis.

Paired cartilages- small
- Arytenoid.
- Corniculate.
- Cuneiform.
Thyroid Cartilage

- **Hyaline cartilage.**

- 2 quadrilateral laminae.

**Thyroid angle**

- Laminae meet in front at an angle called thyroid angle.

**In Males** - 90°

**In Females** - 120°

- In males, thyroid angle produces a prominence called ‘Adam’s Apple’. 
Thyroid Cartilage contd...

Attachments on posterior surface of laminae (from above downwards):

- Thyroepiglottic ligament.
- A pair of vestibular ligaments.
- A pair of vocal ligaments.
Thyroid Cartilage contd...

Attachments on posterior border of lamina-

- Palatopharyngeus.
- Salpingopharyngeus.
- Stylopharyngeus.
Thyroid Cartilage contd...

Attachments on outer surface of lamina (from medial to lateral side)-
- Thyrohyoid.
- Sternohyoid.
- Thyropharyngeus part of Inferior constrictor of pharynx.

Oblique Line
Cricoid Cartilage

- Hyaline cartilage.

Shape - Signet shaped.

Parts -
- Arch - narrow and anteriorly located
- Lamina - broad and posteriorly located

Vertebral level - C6.
Epiglottis

- Elastic cartilage.

**Shape** - Leaf like.

**Ends**

**Lower end (stalk)**-
- Narrow and attached.
- It is connected to the posterior surface of thyroid angle by thyroepiglottic ligament.

**Upper end**-
- Broad and free.
- Forms the upper boundary of laryngeal inlet.

**Anterior surface**-
- Connected with the base of tongue by median and lateral
Arytenoid Cartilages

- 2 in number.
- **Shape**: Pyramidal.

**Presenting parts**-
- Apex.
- Base.
- 3 surfaces.
- 2 processes.

**Surfaces**-
- Medial.
- Anterolateral.
- Posterior.

**Processes**-
- Muscular.
- Vocal.
Arytenoid Cartilage contd...

Apex-
• Curved posteromedially.
• Articulates with corniculate cartilage.

Base-
• Concave.
• Articulates with lateral part of upper border of lamina of cricoid cartilage.

Muscular process-
• Base is prolonged laterally to form muscular process.
• Projects laterally and backwards.

Vocal process-
• Base is prolonged anteriorly to form vocal process.
• Directed forwards.
Corniculate Cartilages (of Santorini)

- 2 in number.

**Shape** - Conical.

- Each cartilage articulates with apex of Arytenoid cartilage.
- Each cartilage lies in posterior part of ary-epiglottic fold.
Cuneiform Cartilages (of Wrisberg)

- 2 in number.

**Shape** - Rod-shaped.

- Each cartilage lies in posterior part of aryepiglottic fold just above the corniculate cartilage.
Thank you