THE EDINBURGH STEREOSCOPIC ATLAS OF ANATOMY

Section -II - No. 30

HEAD AND NECK. LARYNX—No. 2.

TWO SPECIMENS, A BEING THE LARYNX VIEWED FROM BEHIND, AND B THE SAME FROM THE SIDE AFTER REMOVAL OF THE ALA OF THE THYROID CARTILAGE.

The posterior crico-arytenoid muscles are two small muscles which arise from the posterior surface of the lamina of the cricoid cartilage on either side, and are inserted into the posterior surface and apex of the muscular processes of the arytenoid cartilages. When they contract, they cause the vocal processes of the arytenoid cartilages to move outwards and somewhat upwards, and thus stretch and separate from one another the true vocal cords.

The arytenoideus muscle consists of two portions, a superficial oblique and a deeper transverse. The former springs from the posterior aspect of the base of the muscular process of the arytenoid on each side and, passing upwards and inwards, crosses the middle line. Some of the fibres are inserted into the apex of the arytenoid cartilage, while other of the fibres pass onwards and gain insertion into the margin of the epiglottis, passing in the aryteno-epiglottic fold. The transverse fibres are attached on each side to the muscular process and inner margin of the arytenoid cartilage. The oblique fibres narrow the entrance of the larynx, while the horizontal ones help to regulate the width of the interval between the true vocal cords. The suspensory ligament of the thyroid gland is a tough bundle of fibrous tissue which attaches the back of the inner surface of the lateral lobe of the thyroid gland on each side to the lower margin of the epiglottis to the front of the arytenoid cartilage, and form the lateral boundary of the superior aperture of the larynx. External to each of these folds, and limited on the outer side by the ala of the thyroid cartilage, is the pyriform sinus. On the side of the larynx lie the lateral crico-arytenoid muscle and, above and in front of it, the thyro-arytenoideus externus muscle.

The former arises from the side of the arch of the cricoid cartilage, and is inserted into the anterior surface of the muscular process of the arytenoid cartilage. It assists in bringing the vocal cord to the mesial plane. The thyro-arytenoideus externus muscle arises from the back of the thyroid cartilage, and is inserted into the front of the arytenoid. Some of the fibres curve upwards to reach the side of the epiglottis, but those have been divided here in order to show the upper part of the saccule of the larynx, a pouch of mucous membrane which passes upwards from the ventricle of the larynx (see No. 62).

In A—
Epiglottis, upper margin.
Thyroid cartilage, ascending cornu.
Lamina of the cricoid cartilage.
Lamina of the cricoid cartilage.
Arytenoideus muscle.
Lateral lobe of the thyroid gland.
Suspensory ligament of the thyroid gland.
Suspensory ligament of the thyroid gland.
Aryteno-epiglottic fold.

8. Pyriform sinus.

5. Saccule of the larynx.
6. Thyro-arytenoideus externus muscle.
7. Crico-arytenoideus lateralis muscle.
8. Crico-arytenoideus posticus muscle, margin of.
9. Stylopharyngeus muscle, divided.
10. Hyoid bone.
11. Thyrohyoid membrane.

9. Crico-arytenoideus posticus muscle.

In B---

- 1. Epiglottis.
- 2. Thyroid cartilage divided.
- 3. Side of the cricoid cartilage.
- 4. Mucousmembrane lining the pyriform sinus.

