Anatomy lecture 8

Parotid gland: it is the largest salivary gland situated between sternocleidomastoid muscle and ramus of the mandible and projects to masseter muscle. It secretes serous secretion. It has a wedge-shaped with an apex below and base above. This gland has three surfaces: anteromedial, posteromedial and superficial surface. In addition, it has three borders: anterior, posterior and medial border.

Structures in relations to parotid gland:

Superiorly: superficial temporal artery and vein, auriculotemporal nerve and temporal branch of facial nerve.

Anteriorly: zygomatic branch of facial nerve, transverse facial artery, upper buccal branch of facial nerve, parotid duct, lower buccal branch of facial nerve, marginal mandibular branch of facial nerve.

Inferiorly: cervical branch of facial nerve, anterior limb of retromandibular vein and external carotid artery.

Posteriorly: posterior auricular nerve, posterior auricular artery an vein and occipital vein.

Parotid duct or Stenson's duct: emerges from anterior border of parotid gland and runs on masseter muscle between upper buccal branch and transverse facial artery. It pierces buccal pad fat , buccopharangeal fascia, buccinators muscle to open in the oral cavity against upper 2nd molar.

Structures passing through parotid gland:

1- Facial nerve with its five branches.
2- Retromandibular vein.
3- Branches of external carotid artery e.g maxillary artery.

Blood supply and venous drainage:

Via branches of external carotid artery (maxillary, superficial temporal and transverse facial arteries). It drains into retromandibular vein then into external jugular vein.

Nerve supply:

Preganglionic parasympathetic (seceretomotor) fibers originates from glossopharyngeal nerve to synapse in otic ganglia and post ganglionic fibers pass to parotid gland through auriculotemporal nerve.

Sympathetic (vasoconstrictor) fibers to parotid gland originate from superior cervical ganglia.

Larynx: it is a musculo-cartiligenous structure representing the organ of voice. Larynx situated in the midline of the neck from the root of the tongue to the trachea opposite to C3-C6 vertebrae. It is essentially looks like a cylinder with its cartilaginous walls connected by ligaments or muscles or both.

Unpaired cartilages are:

1- Thyroid cartilage is the largest cartilage and appears as a shield shaped. It forms the most of the anterior and lateral wall of larynx.
2- Cricoid cartilage like a ring and strongest than thyroid cartilage. It forms most of the posterior wall of larynx.
3- Epiglottis cartilage leaf- like elastic, fibrocartilage.

Paired cartilages:

1- Cuneiform.
2- Corniculate.
3- Arytenoid.

These cartilages connected together by joints such as cricothyroid joint and ligaments such as crico-tracheal ligament and thyrohyoid membranes. The laryngeal cavity contains vestibular and vocal folds and glottis. The vestibular fold represents the false focal cords whereas the focal folds is the true focal cords.

Muscles elevating the larynx:

1- Palatopharangeoua.
2- Stylopharangeous.
3- Supra hyoid muscles.

Muscles depressing the larynx:

1- Sternohyoid.

2- Sternothyroid.
3- Thyrohyoid.

Intrinsic muscles: these eight muscles acting on focal cords:

1- Cricothyroid.
2-Thyroarytenoid.
3-Lateral crico-arytenoid.
4- Posterior crico-arytenoid.
5- Transverse and oblique arytenoid.
6- Aryepiglottic.
7- Thyro-epigloticus.

Nerve supply: all muscles of the larynx are innervated by recurrent laryngeal nerve except cricothyroid muscle by external laryngeal nerve. The sensory innervation above the VC is by internal laryngeal nerve; whereas below the vocal cord by external laryngeal nerve.

Blood supply: superior laryngeal, superior thyroid, inferior laryngeal and inferior thyroid arteries.

The lymphatic drainage of the larynx above the vocal cord is via upper deep cervical lymph nodes and below the VC is by lower deep cervical lymph nodes.