

Tongue and soft palate

lecture 7

Tongue is a muscular organ covered by mucous membrane. It has root or base, body, lateral margin and tip. Tongue can be divided into anterior $2/3^{\text{rd}}$ and posterior $1/3^{\text{rd}}$. It contains intrinsic and extrinsic muscles. The intrinsic muscles found within the mass of the tongue; whereas the extrinsic muscles originate from other structures and inserted either within the mucous membrane or side of the tongue. The intrinsic muscles are: superior and inferior longitudinal muscles, vertical and transverse muscles. The extrinsic muscles are: genioglossus, hyoglossus, styloglossus and palatoglossus. The genioglossus originates from mental spine (genial tubercle) of the mandible and the hyoglossus from greater cornu of the hyoid bone. Styloglossus originates from styloid process and the palatoglossus from palatine aponeurosis of the soft palate. All muscles of the tongue are innervated by hypoglossal nerve except palatoglossus which is innervated by vagus nerve. The blood supply of the tongue is derived from lingual artery. The venous drainage of the tongue to the lingual veins: dorsal, deep and sublingual veins.

What is the origin and insertion of extrinsic muscles of the tongue?

What is the function of each intrinsic muscles?

What is the function of each extrinsic muscles?

The palate: it consists of hard (bony) and soft palate. The hard palate forms the anterior part of the palate. It is formed by the palatine process of the maxilla and horizontal plate of palatine bone. This part of the palate is covered by tightly bound oral mucosa and forms the roof of the oral cavity. The incisive fossa situated in the anterior part of the hard palate; whereas greater and lesser palatine foramina more posteriorly. The soft palate is the posterior part of the palate and separates the oral cavity from the nasopharynx. It contains muscles:

- 1- Tensor veli palatini.
- 2- Levator veli palatini.
- 3- Palatoglossus.
- 4- Palatopharyngeus.

5- Musculus uvula.

Palatine aponeurosis is formed by the fibers of palatini muscles. All these muscles are innervated by pharyngeal plexus of vagus nerve except tensor veli palatini which is supplied by mandibular branch of 5th cranial nerve. The blood supply is derived from lingual and facial arteries and the venous drainage to the pterygoid venous plexus.

What is the origin and insertion of each muscle of soft palate?

What is the function of soft palate?

What are the muscles of soft palate forming the anterior and posterior arches that contains palatine lymph nodes?

The orbit:

It is a bony cavity contains the eye ball. It has a pyramidal shape. The base situated anteriorly whereas the apex more posteriorly. It has floor, roof, lateral wall and medial wall. The roof is formed by frontal bone and lesser wing of sphenoid. The medial wall consists of body of sphenoid, ethmoid, lacrimal and frontal process of maxilla. The floor of the orbit is formed by maxilla, zygoma and palatine bones. Greater wing of sphenoid and frontal process of zygomatic bone forming the lateral wall of the orbit. It contains two fissures: superior and inferior orbital fissures and optic canal. The infra-orbital canal runs within the floor of the orbit to open in the infra-orbital foramen. The roof of the orbit in close relation with anterior cranial fossa whereas the floor of the orbit is associated with maxillary sinus.

The eye ball is moved by the action of four recti muscles: medial, lateral, superior and inferior recti and two oblique muscles: superior and inferior oblique muscles. All these muscles supplied by 3rd cranial nerve except lateral rectus which is innervated by 6th C.N and superior oblique supplied by 4th cranial nerve.