

Unit 11:

Base of the brain and cranial nerves

GENERAL OBJECTIVES:

- Understand the organization of the brainstem.
- Understand how the 'inner structures' (nuclei, tracts, ventricles) affect the surface of the brainstem.
- Distinguish, basis of the brainstem, tegmentum and tectum.
- Understand the principle of the organization of cranial nerve nuclei.

SPECIFIC OBJECTIVES:

Medulla

- Describe principle features on ventral and dorsal views of medulla
- Describe features of the rhomboid fossa (anterior wall of the fourth ventricle)
- Describe how 'opening' of the ventricular system in fourth ventricle affect distribution of motor and sensory nuclei distributed in tegmentum of medulla and pons
- Which cranial nerves leave anterior/lateral aspect of medulla and in which order?

Pons

- Describe principle features on ventral and dorsal views of the pons
- Which cranial nerves leave the brainstem on the ventral border between pons and medulla and in which order?
- Describe how cerebellum connects to the brainstem segments.
- What is facial colliculus and where is it located?

Mesencephalon

- Describe principle features on ventral and dorsal aspects of mesencephalon
- What are cerebral crura and what is interpeduncular fossa?
- What are superior and inferior colliculi?
- Which cranial nerves leave ventral and dorsal aspects of mesencephalon?

Cranial nerves

Describe location of cranial nerve nuclei according to the segment of the brainstem (pons, medulla, mesencephalon) and their nature (in relation to sulcus limitans):

Motor: somatic, branchial and visceral

Sensory: visceral, special and general

For each and every cranial nerve name the nature of fibers they contain, how they leave the surface of the brainstem and how they leave cranial cavity.