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Bs radiology 2nd Semester

Answer No: 01

Intracrnial fossae (superior view)

* Cranial cavity is divided into
* Anterior cranial fossa
* Middle cranial fossa
* Posterior cranial fossa

⇒ Anterior cranial fossa :-

Boundaries

Anterolaterally :-

* Frontal sinus
* Posteriorly :-

Lesser wing and body of Spheroid

* Medially :-

Cribriform plate (horizontal and vertical)

* Floor :-

Frontal bone (orbital plates) Ethmoid
Lesser wing and body of sphenoid

⇒Tere are several bony lanmark. pressent in the anterior crainal fossa.

⇒The frontal bone is marked in the midline by a body ridge, known as the frontal crest.

⇒It projects upwards, and acts as a site of attchment for the falx cerebral (a sheet of dura mater that divides the two cerebral hemispheres)

⇒In the midline of the ethmoid bo the crist galli (latin for coc's comb) is situated.

⇒on either side of the crista galli is the cribriform plate which suppo the olfactory bulb and has numerous foramina that transmit vessels and nerves.

⇒The anterior aspect of the sphenoid bone lies within the anterior cranial fossa.

⇒The rounded ends of the lesser wings are known as the anteior clinoid processes.

⇒ They serve as a Place of attchment for the tentorium cerebelli.

⇒ The lesser wings of the Sphenoid bone also sparate the anterior and middle cranial fossae.

⇒ The Cribriform Plate is a Sheet of bone seen either side of the crista galli whic contains numerous Small foramina - these transmit olfactory nerve fibres (CN I) into the nasal cavity.

⇒ also contains two larger foramen

Anterior ethmoidal foraman:—

⇒ transmit the anterior ethmoidal ~~foramen~~ artery, nerve and vein.

Posterior ethmoidal foramen

⇒ Transmit the anterior ethmoidal artery, nerve and vein,

Answer No: 02

Cranial nerves :-

Olfactory nerve :-

* Sense of Smell
* Damage causes impaired sense of smell

Optic nerve :-

* Provides vision
* Damage causes blindness in visual field

Oculomotor nerve :-

* Somatic and Autonomic motor function
* Eye movement (superior, inferior, medial rectus muscles and inferior oblique muscles;)
* Damage causes drooping eyelid, dilated pupil, double vision, difficulty focusing and inability to move eye in certain directions.

Trochlear nerve :—

* Eye movement (superior oblique muscle)
* Damage causes double vision and inability to rotate eye inferolaterally

Trigeminal nerve :—

* ophthalmic branch - Sensations from nasal cavity, skin of forehead, upper eyelid, eyebrow, nose.

* Damag produces loss of sensation and impaired chewing.

Abducens nerve :—

* Provides eye movement (lateral rectus)
* Damage results in inability to rotate eye laterally and at rest eye rotates medially

Facial nerve :—

* Somatic motor - facial expressions
* Damage produces sagging facial muscles and disturbed sense of taste

Branches of facial nerve :—

* Clinical Test :- Test anterior 2/3's of tongue with substances such as sugher, salt, etc.

Vestibulocochlear nerve :-

* Special Sensory
* Provides hearing and sense of balance.

Glossopharyngeal nerve :-

* Somatic motor - Swallowing and voice Production via Pharyngeal muscles.

Vagus nerve :-

* Sensations from Skin at back of ear, external acoustic meatus,

Accessory nerve :-

* Swallowing, head, neck, and shoulder movement via trapezius.
* Damage causes impaired head, neck, shoulder movement.

Hypoglossal nerve :-

* Tongue movements for speech, food manipulation and swallowing

Answer No: 03

Norma Frontalis:-

Examin a skull from the anterior aspect. As you work through the list of features on the skull, try to identify the structures on your own head or that of a partner. label extr features on the diagram of the norma frontalis

Frontal bone:- (form the forehead and the roofs of the orbits)

Supraorbital foramen or notch (which do you have?)

Glabella (prominence of bone just above the bridge of the nose)

Superciliary ridges:- (prominences underlying the eyebrows).

Nasal bones:- Feel the difference between the bony and cartilagenous part of your own nose.

Zygomatic bone:- The form your cheek bones

Temporal process:: (form the anterior part of the zygomatic arch)

orbital margin:: (around the edge of the orbit the zygomatic bone joins the frontal bone laterally, and the maxilla along the lower margin of the orbit.

Maxilla:: form the lower medical part of the orbital margin and articulates with the frontal bone medially forms most of the margin of the nares-

Anterior nasal spine
Infraorbital foramen
Alveolar process:: form the upper jaw and holds all the upper teeth

Maxillary sinus:: (large air space situated in the bone above the upper teeth)

Palatine process:: (forms most of the roof of the mouth)

Mandible

Mental protuberance

Mental foramen

Body of mandible

Genial tubercles

Mylohyoid line, Submandibular fossa

Angle of mandible

The region of the head seen in the frontal view include

1- scalp
2- Face
3- Nose
4- orbits
5- mouth
6- Temporal region.

NORMA OCCIPPITALIS:- Examine a skull from the posterior aspect. As you work through the list of features on the skull, try to identify structures on your own head or that of a partner. Draw the posterior aspect of the skull and label of the following features.

Parietal bones
Occipital bone
Lambdoid suture and lambda
Nuchal lines (what muscles attach here?)
External occipital protuberance (the inion)
occipital condyles (for articulation with the vertebral column

Answer No: 04

The hip joint is a ball and socket synovial joint where the femoral head acts as a ball and the sockets is the acetabulum. This is considered as biggest ball and socket joint in the body.

* Iliopsoas,
* rectus femoris
* Sartorius
* pectineus
* glutens maximus
* Semimembranosus
* Semitendinosus
* biceps femoris.

These are often divided into four groups according to their orientation around the hip joint.

Gluteal group: The gluteal group include the gluteus maximus, gluteus medius, gluteus minimus, and tensor fasciae latae. They cover the lateral surface of ilium.

Adductor group: A adductor brevis adductor longus, adductor magnus, pectineus and gracilis make up the adductor group. The adductor all original on the pubis and insert on the medial, posterior surface of the femur.

Iliopsoas group: The iliacus and psoas major comprise the Iliopsoas group. The psoas major is a large muscle that runs from the bodies and disc of the L1 to L5 vertebrae, joins with the iliacus via its tendon and connects to the lesser trochanter of the femur.

Lateral rotator group: This group consist of the externus and internus obturators, the piriformis, the superior and inferior gemelli and the quadratus femoris. These six originate at or below the acetabulum.

Knee muscles :-

The muscles of the knee include the quadriceps, hamstrings, and the muscle to the calf.

=> These muscles work in groups to flex, extend and stabalize the knee joint.

=> These motions of the knee allow the body to perform such important movement as walking running, kicking and jumping.

Answer No: 05

Femoral triangle:-

* Triangular shaped depressed area
* Situated in the upper part of the medial aspect of the thigh just below the inguinal ligament.

Boundaries:-

Superiorly:-

* inguinal ligament

Laterally:-

* Sartorius

Medially:-

* Adductor longus

Floor:-

* Gutter shaped formed lateral to medial by iliopsoas, pectineus and adductor longus

Roof:-

* Skin and fascia of thigh

Contents of the femoral triangle

* Terminal Part of the femoral nerve and its branches.
* Femoral Sheath.
* Femoral artery and its branches
* Femoral vein and its tributaries
* Deep inguinal lymp nodes.