Extra notes

Anatomy slides #6

**-Scalp** :The outer covering of the skull

-Below the bone of the skull we have : **meninges**

 1-Outer :**Dura mater** sticks with the inner surface of the skull (lines it) and covers the whole brain,separates the hemispheres into right and lef by double layer of dura .

 The cerebrum is separated from the cerebellum by a double layer of peritoneum called “Tentorium cerbelli “

 Dura mater is 2 layers : periosteal and meningeal layer,between them a space is formed like :**cavernous** **sinus and supra sagittal sinus .**

 2- Then : **Arachnoid mater** .

 3- Inner: **Pia mater** covers the outer surface of the brain .

**-Layers of the scalp :**

 **The skin** : thick with numerous hair follicles , sweat glands and sebaceous glands (fat glands)

**Dense connective tissue** :Its not an easy job to dissect it because of the presence of blood vessels and nerves and also because of the presence of collagen fibers which are stronger than steel fibers , to form like a helmet around the skull .

\*\*Scalp proper cant be separated as 3 layers , its like one structure !

**Loose connective tissue** : collect fluids specially blood ,its called the “Danger area” because it may be infected .

\*\*Fluids CANT pass through scalp proper .

**Periosteum :** Got osteogenic cells , its around the skull so its” pericranium “

 Inside the skull we have indosteum that lines haversian and volkmann canals.

-**Arterial supply :**

By branches of external carotid artery and internal carotid artery .

**The anterior part (forehead )**is supplied by branches of internal carotid artery

**The posterior part** is supplied by branches of ECA .

**-Nerves:**

The scalp anterior to the auricle of the ear is innervated by branches of trigeminal nerve (v1+v2+v3)

The scalp behind the auricle of the ear is innervated by cervical plexus

Cervical plexus : From c1 c2 c3

On zygomatic bone we have 2 small foramens : Zygomaticofacial &Zygomaticotemporal

Auricotemporal nerve : innervates the skin inside the ear

Lesser occipital nerve : innervates the skin of the ear from the back !

C3 : innervates the center part of the skull from its base .

**-Cranial cavity :**

If you remove the superior part of the skull (**skullcap/calvaria)** you’ll find the brain , remove the brain and now you’re looking at the cranial cavity .

**Ant.cranial fossa** :You can find frontal lobe of brain for thinking

 (Frontal bone gives frontal crest and orbital part)

 (Sphenoid gives the lesser wing )

 (Ethmoid gives crista galli and cribriform plate)

**Mid.cranial fossa**: temporal lobe to talk and hear

 Sphenoid (Body and the greater wing )

 Temporal (squamous and petrous parts)

Pariatel

**Post.cranial fossa :** occipital lobe for vision

-Sella turcica: Body of sphenoid bone

-Orbital part: roof of the orbit

-Cribriform plate : for olfactory nerve “**Fila olfactoria synapse in olfactory bulb to give olfactory nerve** “

-Optic nerve is transmitted through optic canal with the ophthalmic artery

-Middle ear is inside the petrous part of temporal bone (for the balance and equilibrium )

-The space between the lesser and greater wing “they are not fused “ is called **supra orbital fissure to transmit V1**

-Spinosum :Aforamen which is anterior to the spin of sphenoid for the middle meningeal artery “**the main arterial supply for Dura mater “**

-Lacerum :Between part of occipital ,temporal and sphenoid bone,with a fibrous tissue as a floor to let **the carotid artery** pulse easily

**\*\*Recall :**

**-Cranial nerves :**

III=3rd =Oculomotor nerve

IV=4th=trochlear nerve

V1=V=5th=ophthalmic nerve

V1=6th=Abducens nerve.

Good luck ☺

You colleague :Qais Mismar