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MBBS

1. Write an essay on cavernous sinuses

It is situated in the middle cranial fossa on each side of the sella turcica consisting of venous plexus each sinus extends from superior orbital fissure to the apex of the temporal bone posteriorly. The cavernous sinus is made up of very thin walled Weinstein that make up a venous plexus receiving venous blood from ;

\* Superior middle cerebral vein

\* Superior and inferior opthalmic veins

\* Emissary veins

The following structures pass through each sinus;

- Internal carotid artery

- Abducent nerve

While these structures are found in the lateral wall;

- occulomotor nerve

- Trochlear nerve

- Opthalmic nerve

- Maxillary nerve

The right and left cavernous sinuses are connected by intercavernous sinuses on the anterior and posterior side of the pituitary stalk

2. Discuss the walls of the nose

The nasal cavity has a roof, floor,medial wall, lateral wall. There are 12 bones that contribute to the nasal cavity structure, they include paired nasal, maxilla, pals time and lacrimal bones as well as unpaired ethmoid, sphenoid, frontal & vomer bones . The ethmoid bone is the most important because it makes the greatest posterior of the nasal skeletal framework and it also contained the ethmoidal sinus.

1. The roof: it is curved and narrow and divided into 3 parts; frontonasal, ethmoidal, sphenoidal which are named from the bones forming each part

2. The floor: it is wider than the roof, formed by the palantine process of maxilla & horizontal plates of the palatine bone

3. The medial wall is formed by the nasal septum which consists of both bony and cartilaginous components , the bony component are;

•perpendicular plates of the ethmoid superoinferiorly

•The vomer posteroinferiorly

•the crest of the maxillary bone anteroinferiorly

•the crest of the palatine bone inferior to the vomer

They articulate with the following bones to form the septum

Superiorly: nasal bone, frontal bone & sphenoid bone

Inferiorly: maxilla and the palantine bone

**Vasculature**

\* septal branches from superior labial artery, greater palantine artery, anterior & posterior ethmoidal artery, sphenopalantine artery from an anastomoses and supplies the medial wall

\* A venous plexus located at the posterior wall of nasal septum

\* Nerve supply is from the anterior ethmoidal branch & anterior superior alveolar nerve on the anterior aspect while nasopalantine nerve supplies the posterior aspect

\* It drains anteriorly to the submandibular lymph nodes and posteriorly to the retropharyngeal and anterior deep cervical lymph nodes

4. The lateral walls :it is made up of medial part of maxilla, ethmoid bone, nasal bone , ascending part of maxilla, inferior nasal conchae, medial pterygoid plate and perpendicular plate of palatine bone . They are irregular owing to 3 bony plates, the nasal conchae which include;

\* superior nasal concha

\* Middle nasal concha

\* Inferior nasal concha

The concha of many mammals are highly convoluted and offer a vast surface area for heat exchange , underneath each concha is a recess or meatus (passage into the nasal cavity) named below;

\* the inferior meatus : the nasolacrimal duct opens into its anterior part

\* The middle meatus : the frontal, maxillary and anterior ethmoidal sinus opens into this

\* The superior meatus : posterior ethmoidal sinus opens into it

\* Sphenoethmoidal recess : a triangular fossa which the sphenoidal sinus opens into