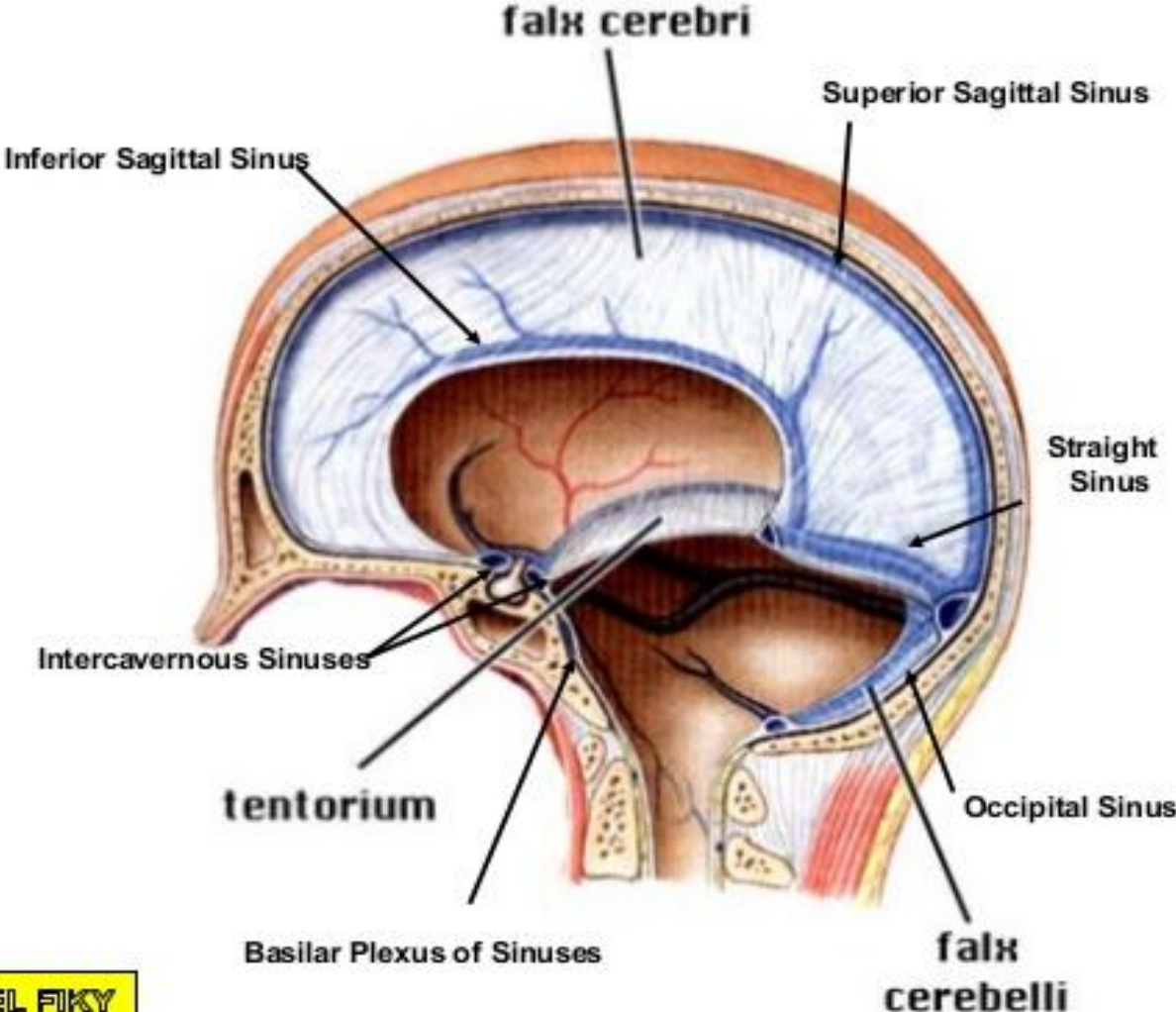
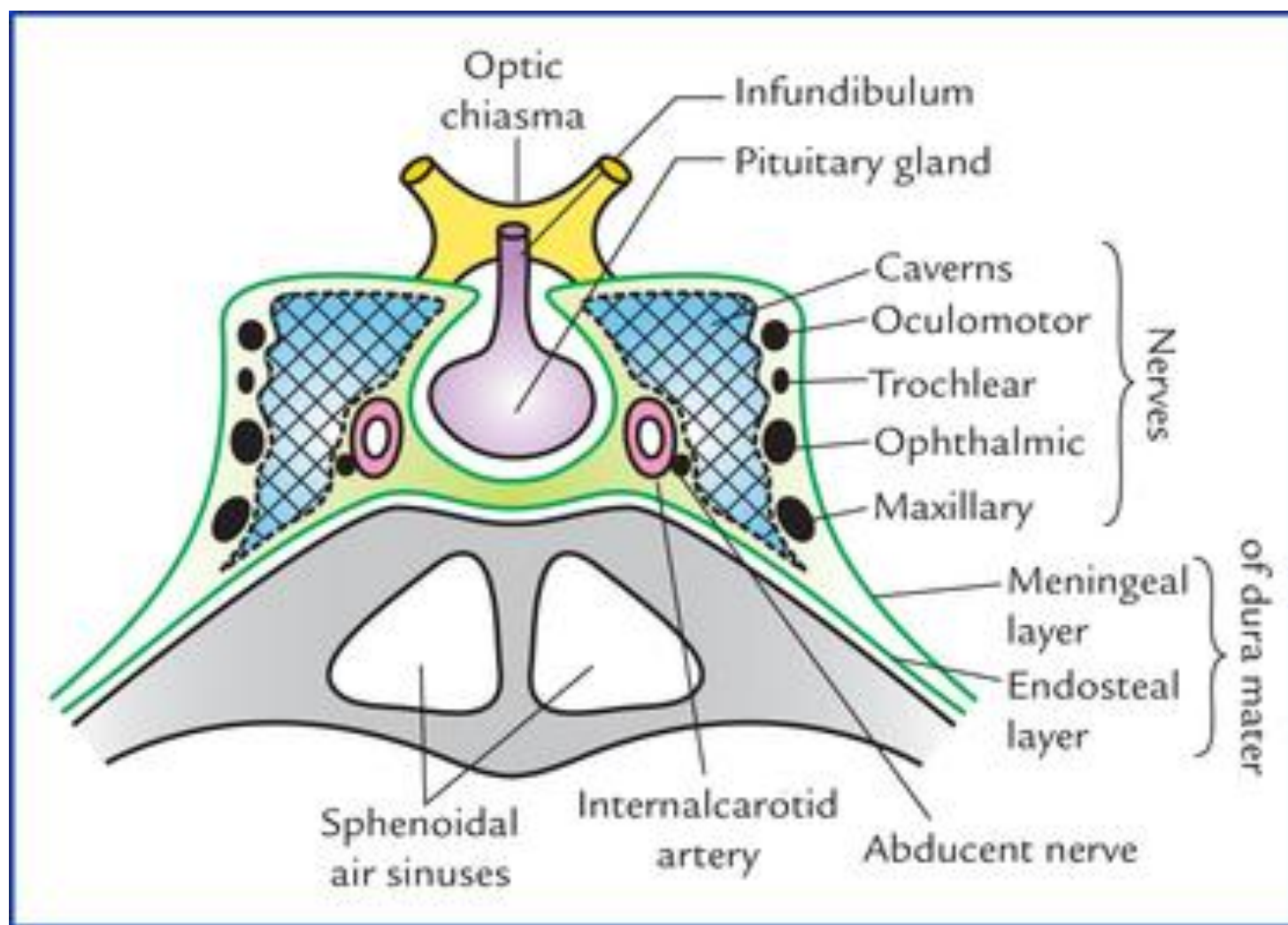


Single Dural Venous Sinuses





Dural venous sinuses

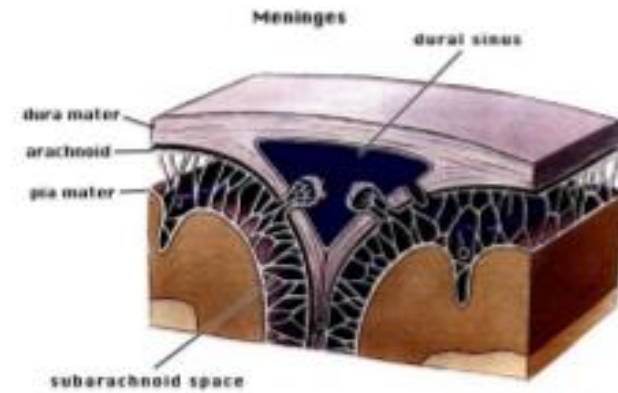
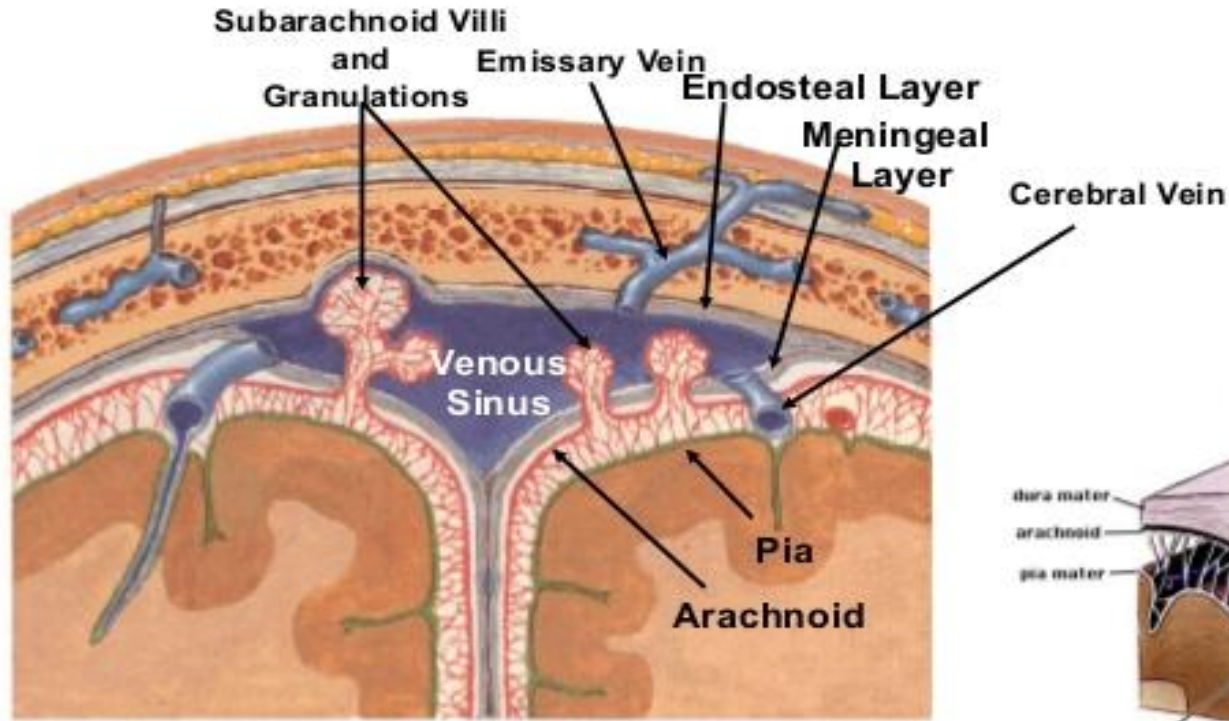
- The dural venous sinuses are formed in following two ways: (a) by separation of the two layers of cerebral dura, and (b) by reduplication of the meningeal layer of dura
- The dural venous sinuses are lined by endothelium which becomes continuous with the endothelial lining of the veins.

Dural Venous Sinuses

Definition: Are venous spaces between the two layers of the dura. **Classification:** They are classified into paired and unpaired sinuses.

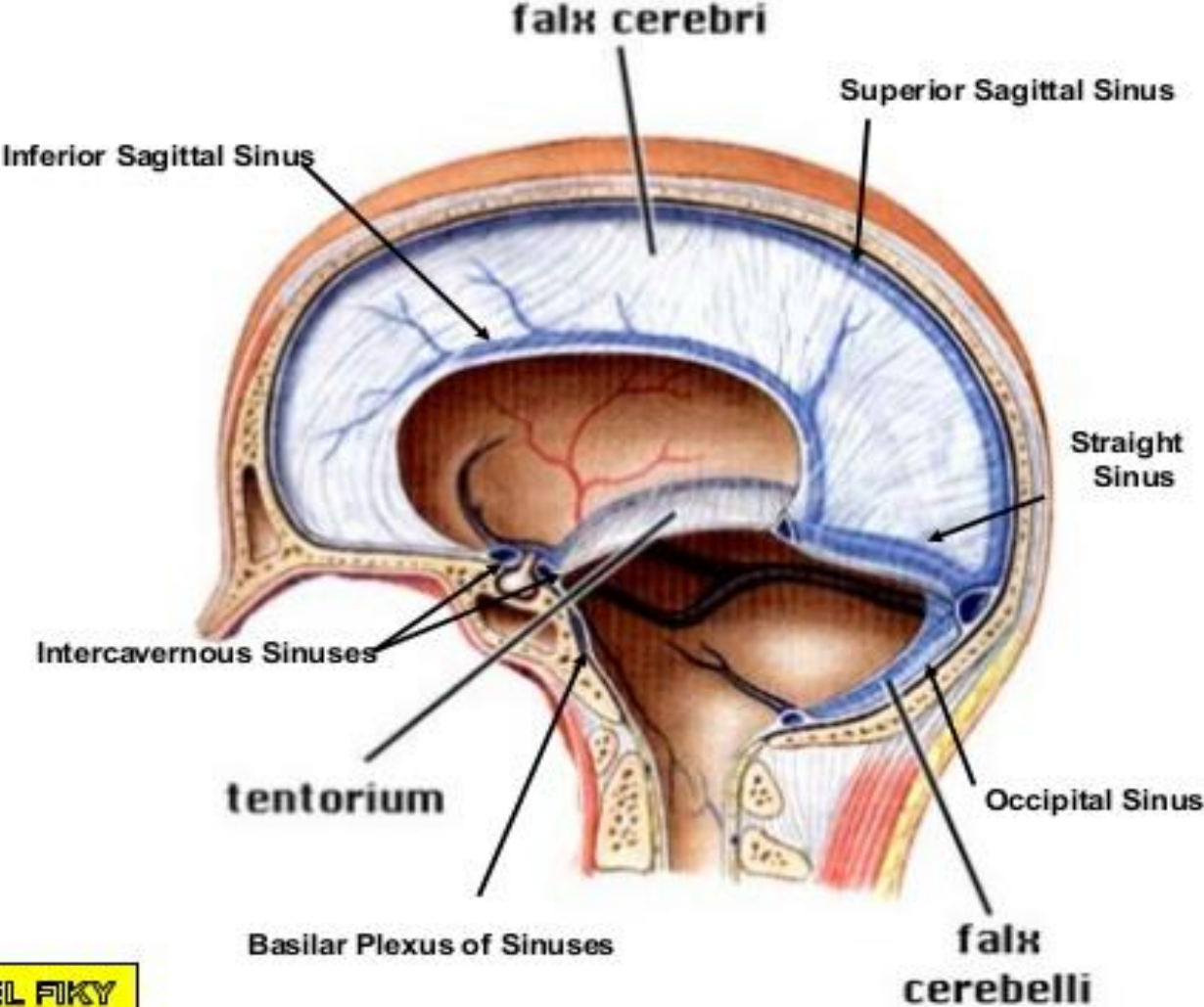
Unpaired sinuses	Paired sinuses
1) Superior sagittal 2) Inferior sagittal 3) Straight. 4) Occipital 5) Three intercavernous 6) Basilar plexus of sinuses	(1) Sphenoparietal (2) Cavernous (3) Superior petrosal (4) Inferior petrosal. (5) Transverse (6) Sigmoid

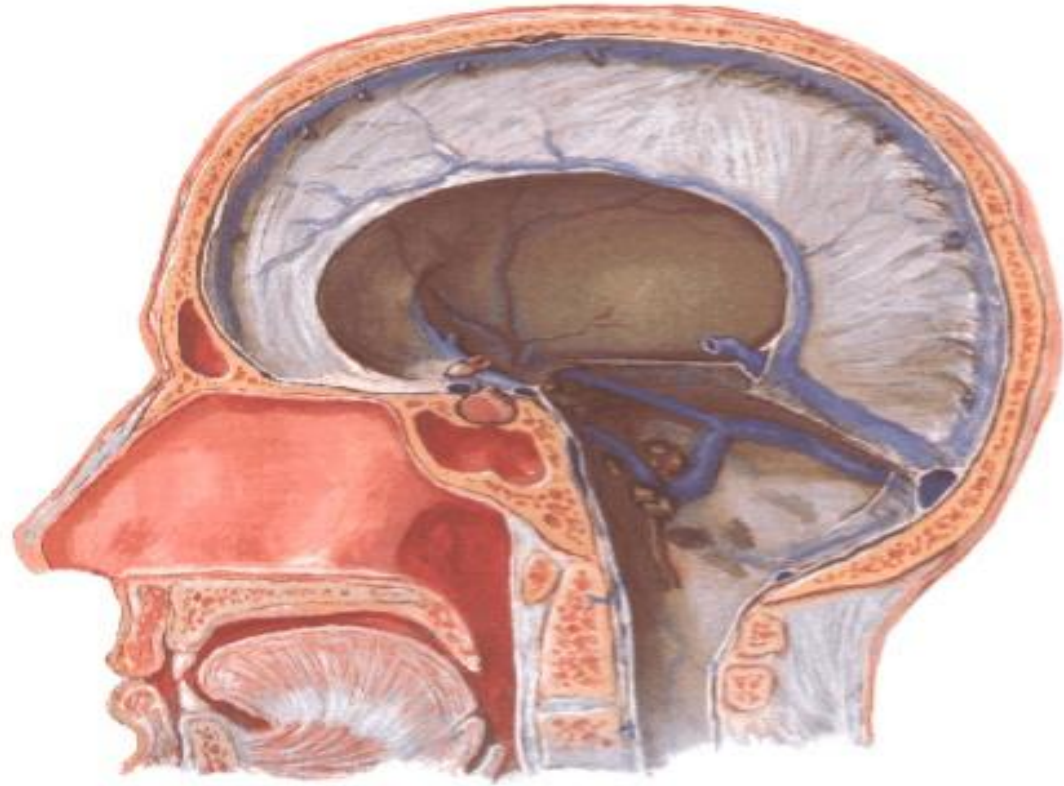
Coronal Section



Modified from Proctor and Hardesty, *Textbook of Anatomy*, 1987

Single Dural Venous Sinuses

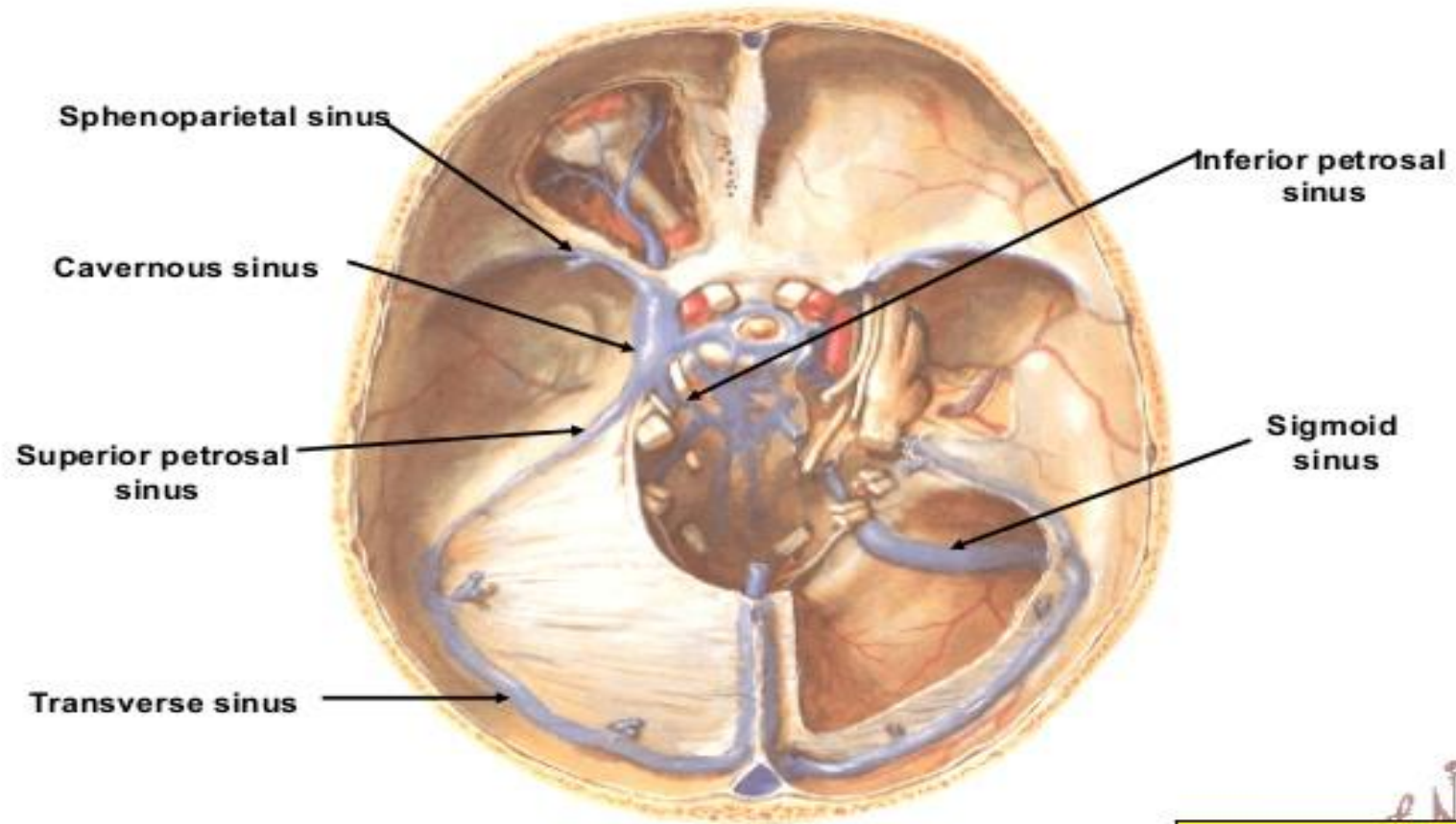




M. El-Fiky

MOHAMMED EL FIKY

Paired Dural Venous Sinuses



Mohamed El Fiky
MOHAMED EL FIKY

1- Superior Sagittal Sinus

Site: Occupies the upper convex margin of the falx cerebri.

Beginning: Begins anteriorly at the foramen caecum.

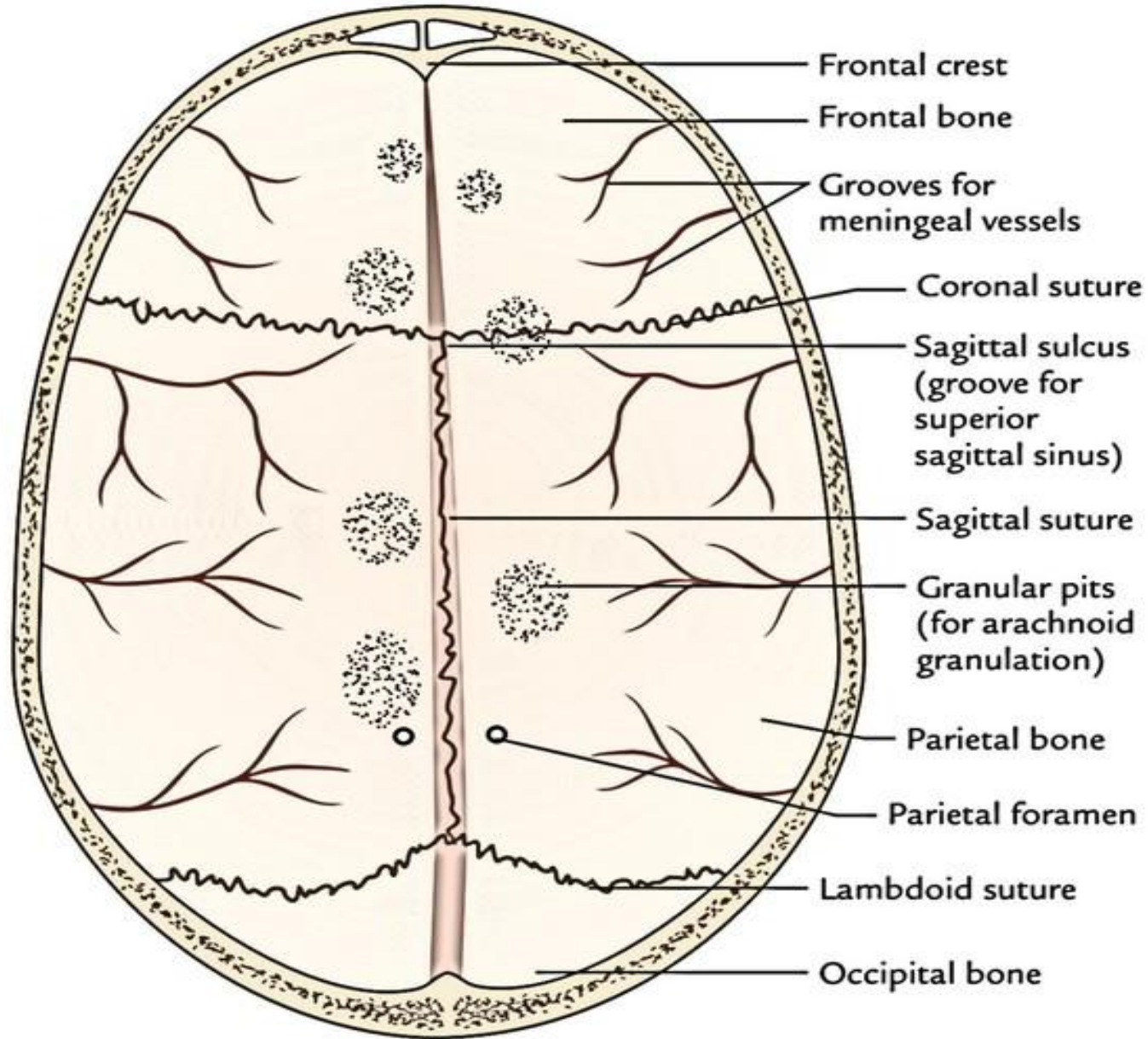
Course: Runs upwards and backwards, making a groove on the inferior surface of the vault of the skull.

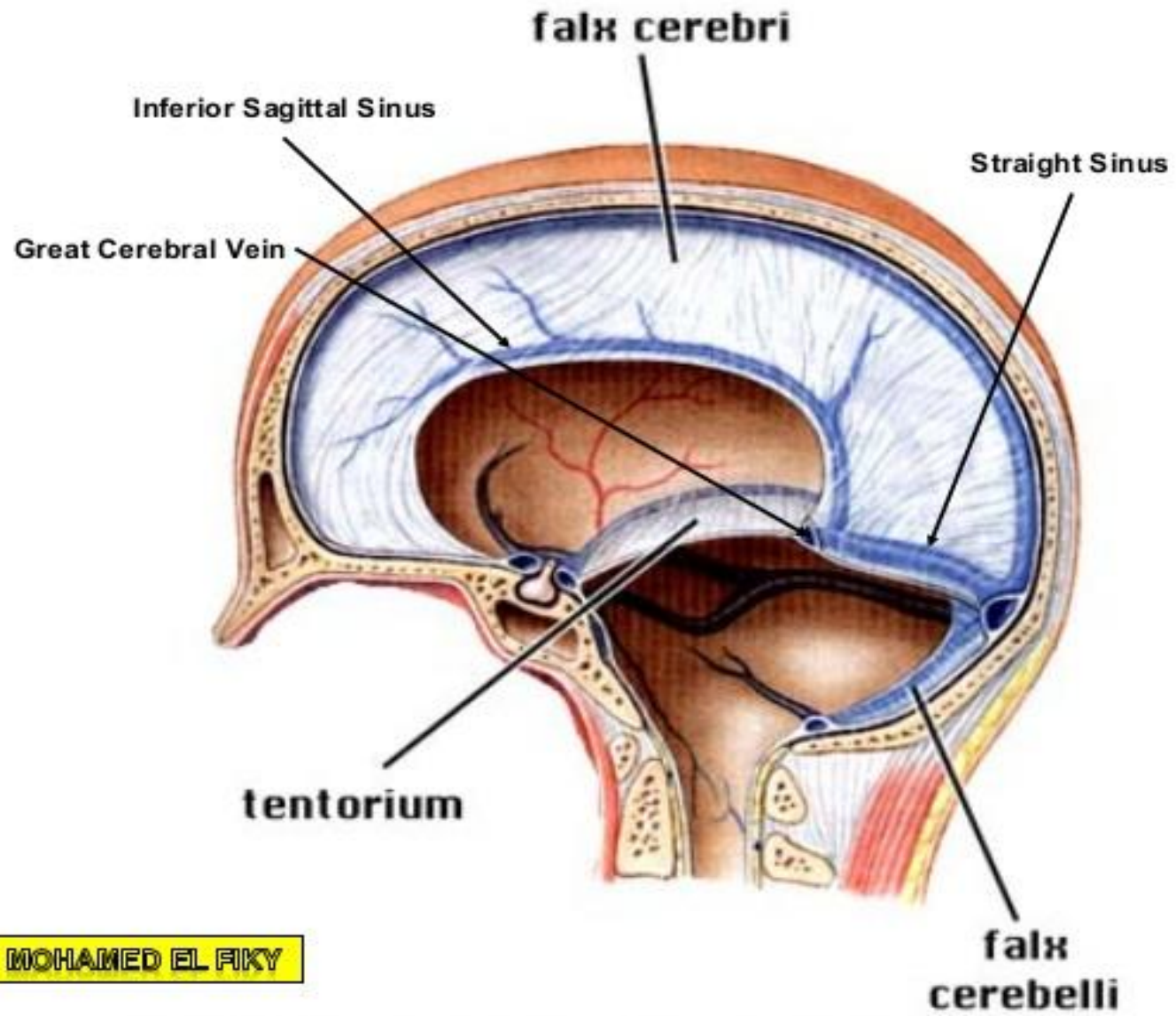
Termination: At the internal occipital protuberance by becoming one of the transverse sinuses usually the right.

Lumen: Becomes progressively larger from before backwards and is triangular in cross section. Direction of blood flow: From before backwards.

Tributaries:

- (1) Superior cerebral veins.
- (2) Parietal emissary veins: connecting it with the veins of the scalp,
- (3) Emissary vein: passing through the foramen caecum to connect it with the veins of the





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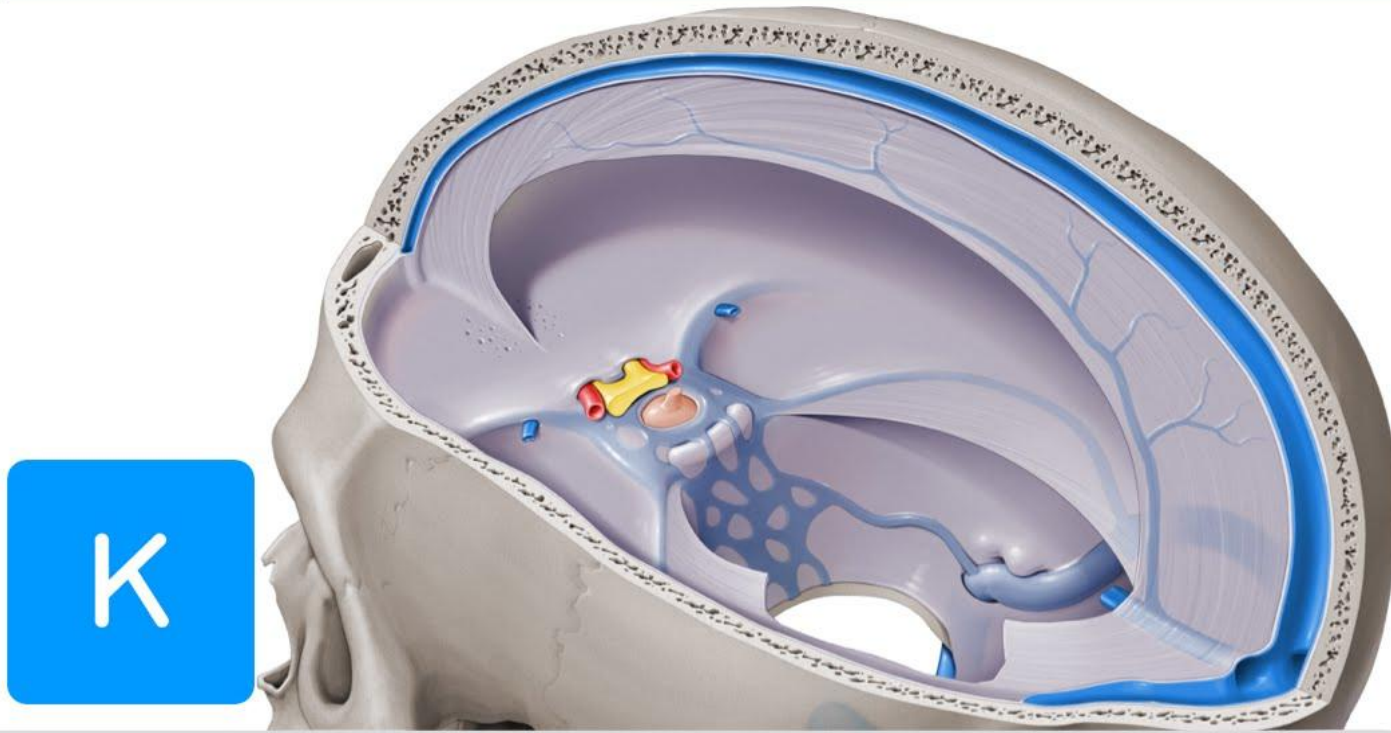


Superior sagittal sinus

falx cerebri

Inferior sagittal sinus

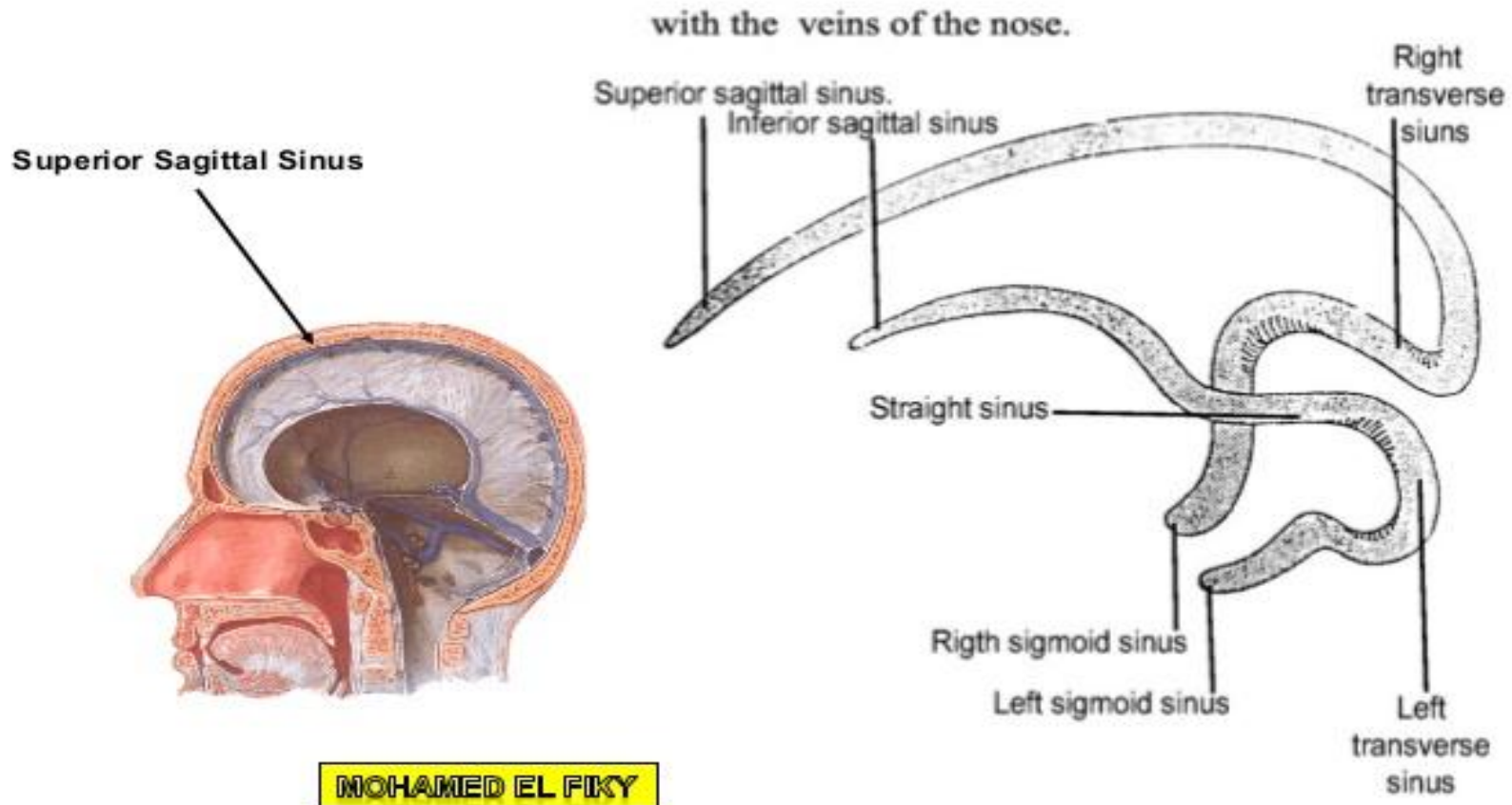
Superior Sagittal Sinus

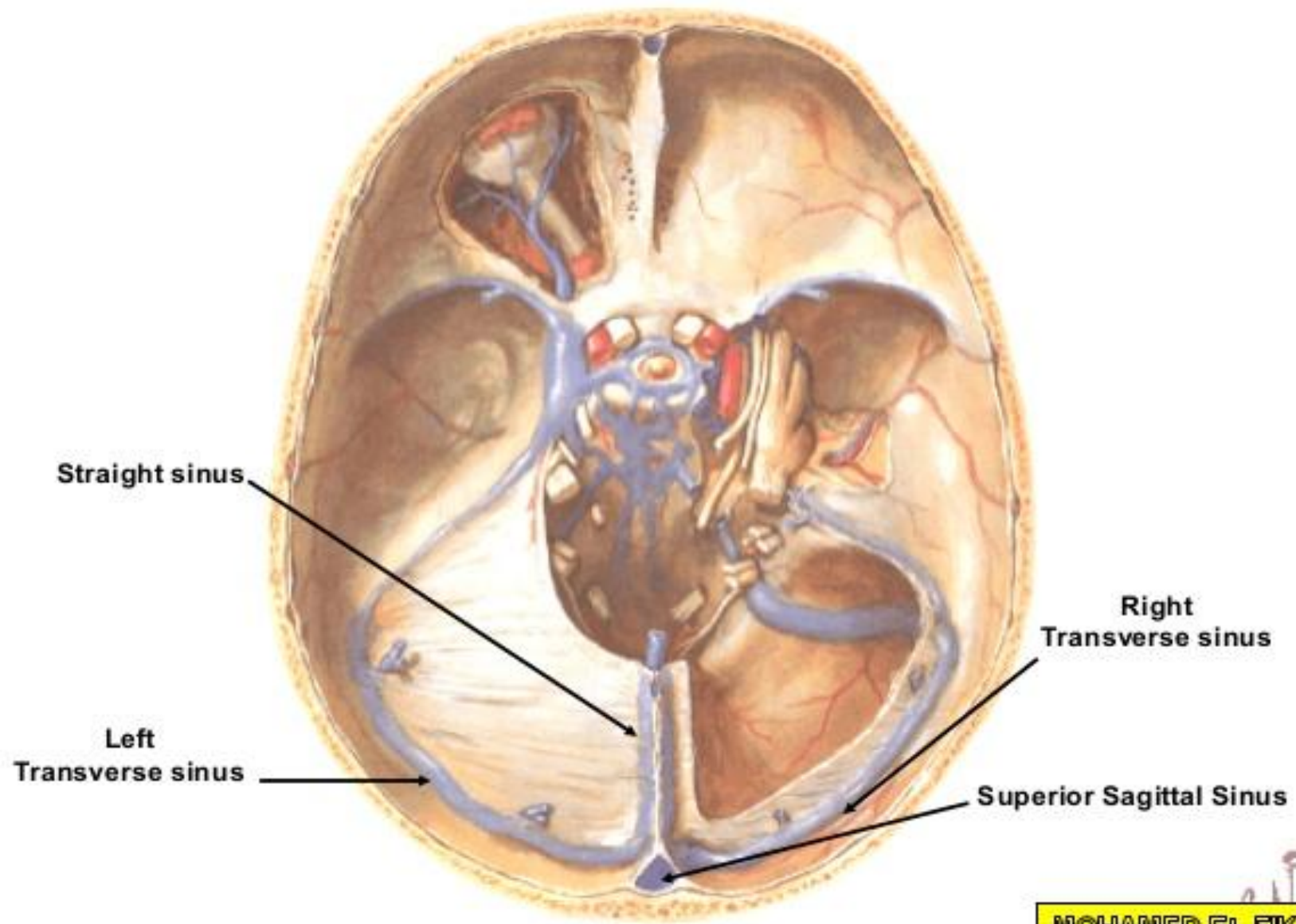


- **Clinical Correlation**

- The superior sagittal sinus communicates with the veins of scalp, diploic veins and sometimes with the veins of the nose. As a result the infection from these areas can spread to the sinus producing thrombosis of superior sagittal sinus

Termination of Superior Sagittal Sinus





Straight sinus

Left Transverse sinus

Right Transverse sinus

Superior Sagittal Sinus

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2- Inferior Sagittal Sinus

Site: Enclosed in the posterior 2/3 of the lower concave free margin of the falx cerebri.

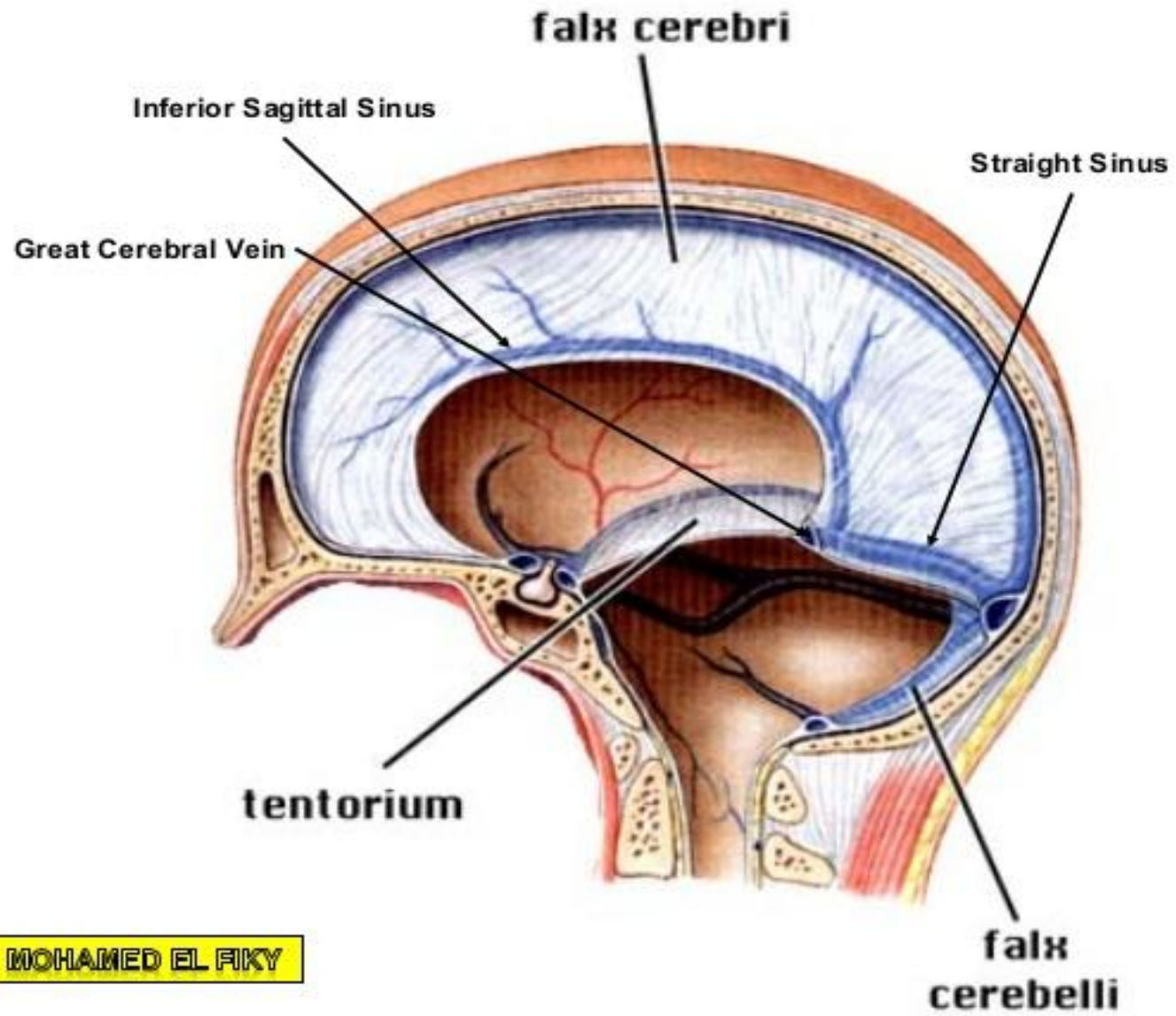
Termination: Ends at the middle of the anterior free margin of tentorium cerebelli by joining the great cerebral vein to form the straight sinus.

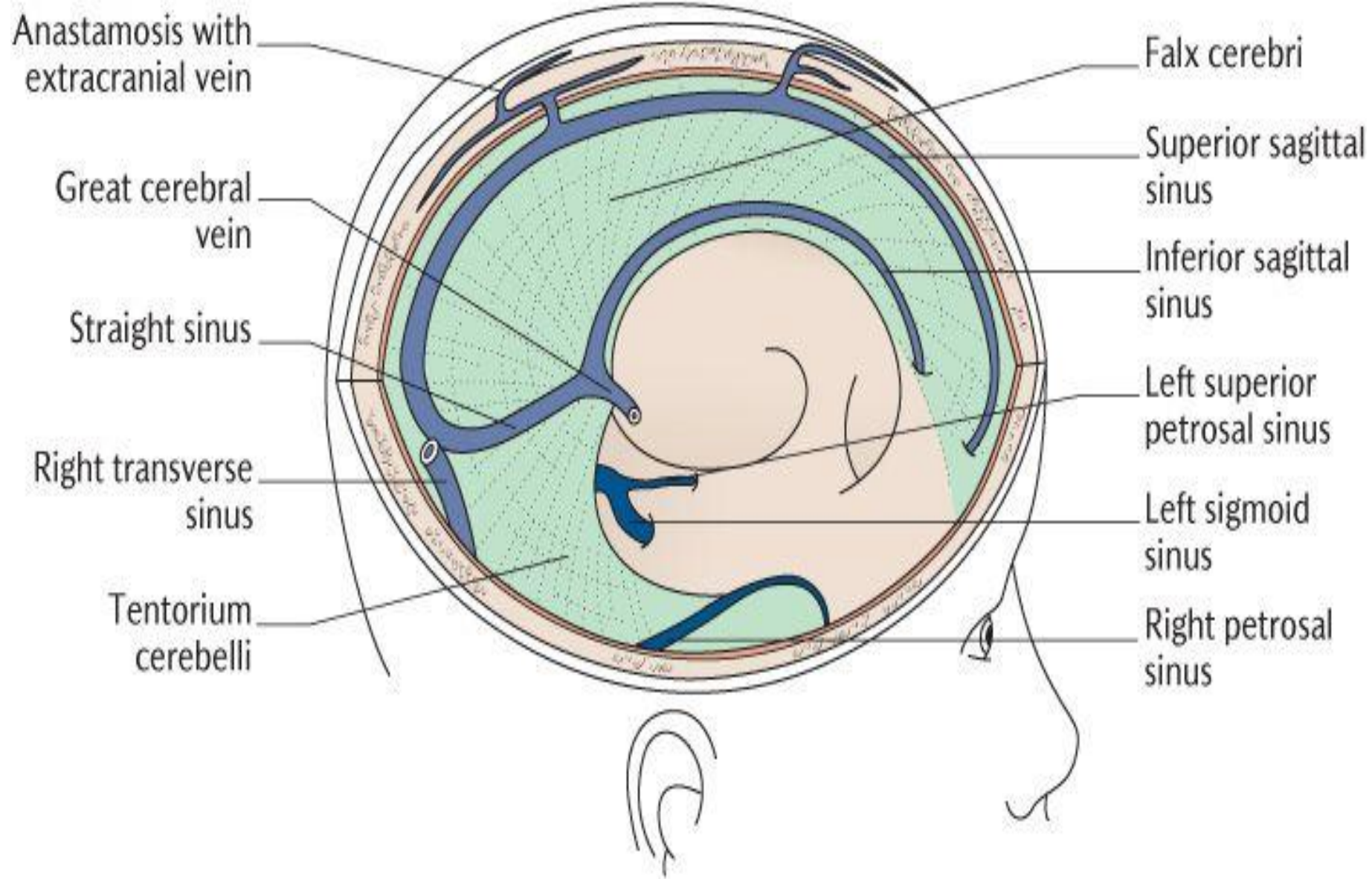
3- The Straight Sinus

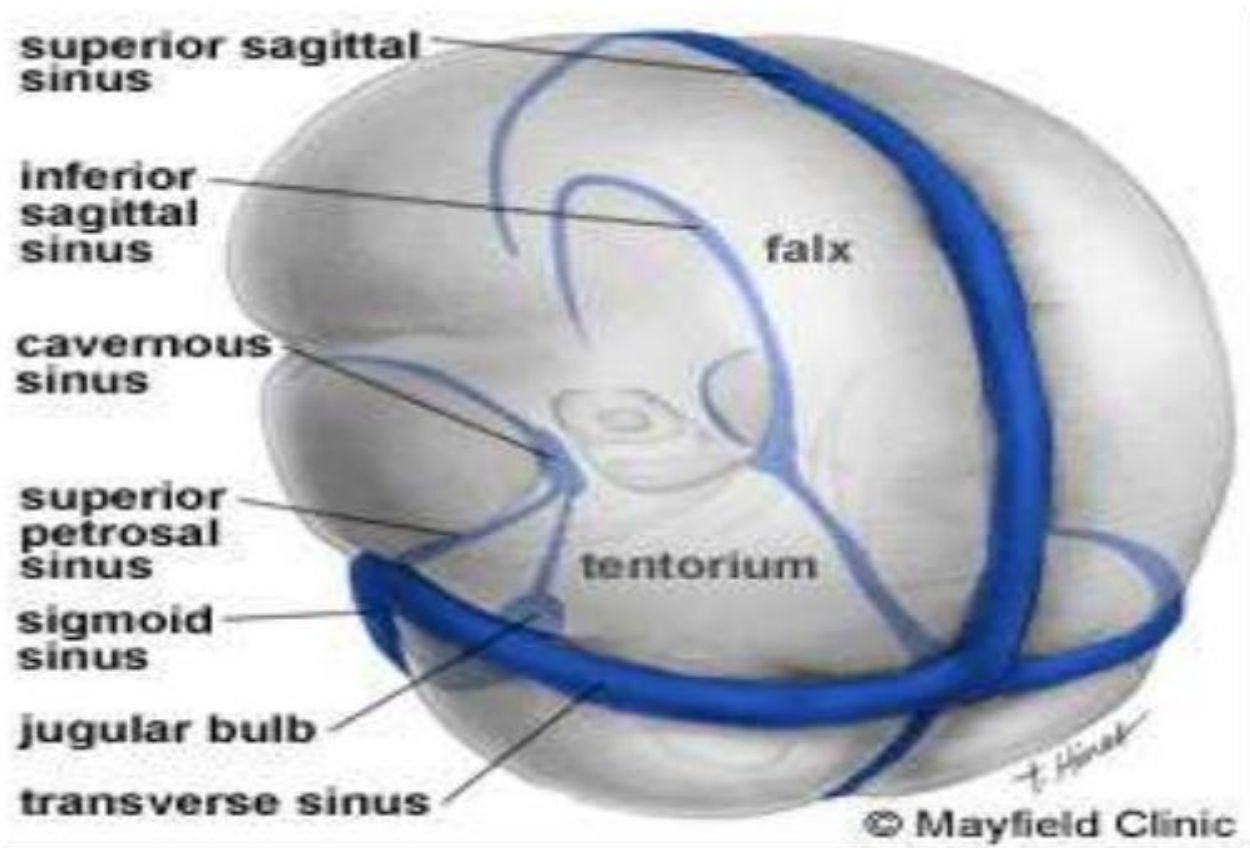
Site: In the median plane within the junction of the falx cerebri and tentorium cerebelli.

Formation: By the union of the inferior sagittal sinus with the great cerebral vein.

Termination: Ends at the internal occipital protuberance by becoming one of the transverse sinuses, usually the left







4- The Occipital Sinus

Site : Lies in the attached margin of falx cerebelli.

Beginning: Near the foramen magnum.

Termination: In the confluence of sinuses.

(5) Intercavernous sinuses

Number three.

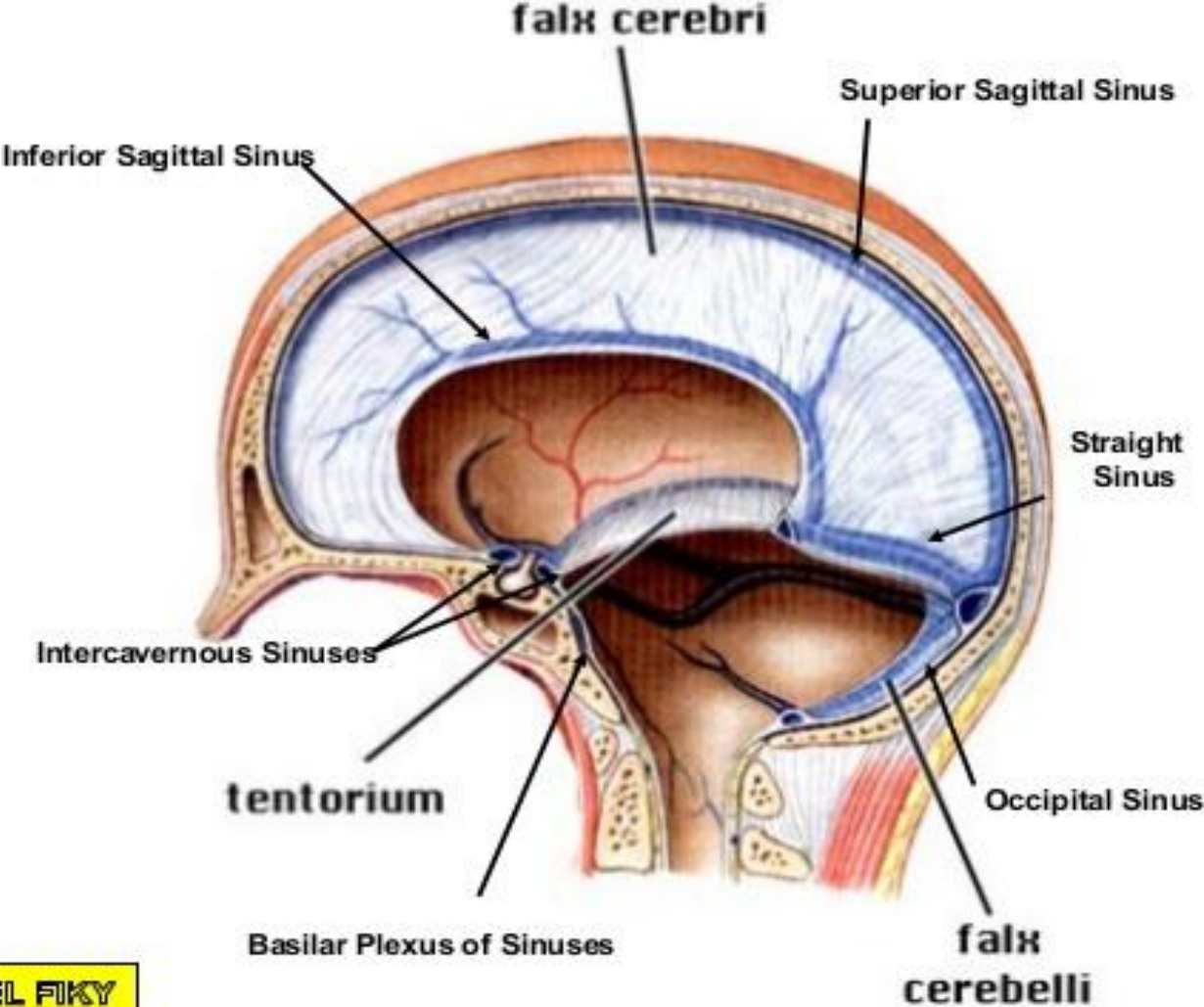
Site: (1) The anterior: in the anterior margin of the diaphragma sellae.

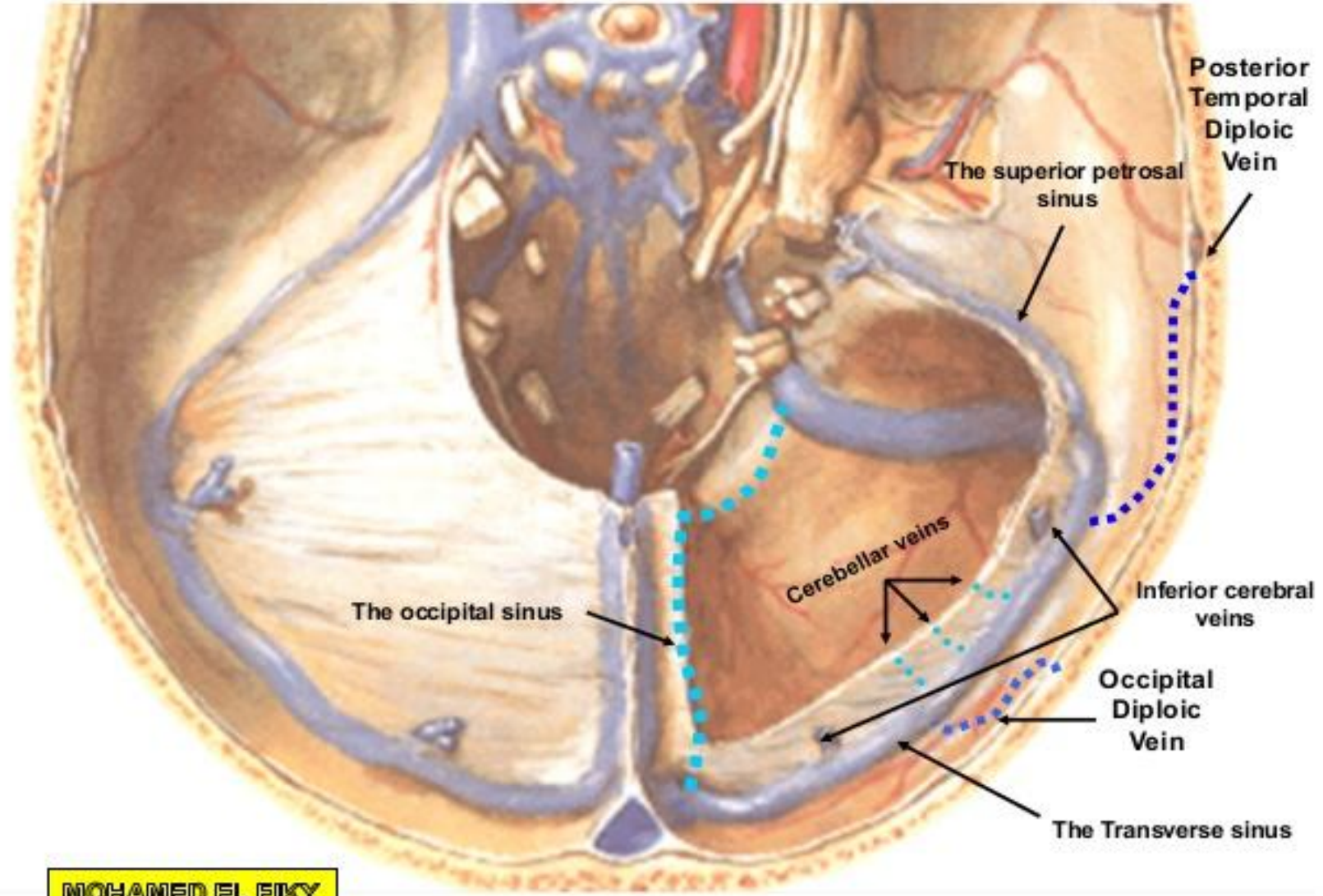
(2) The posterior: in the posterior margin of the diaphragma sellae.

(3) The middle: below the hypophysis. .

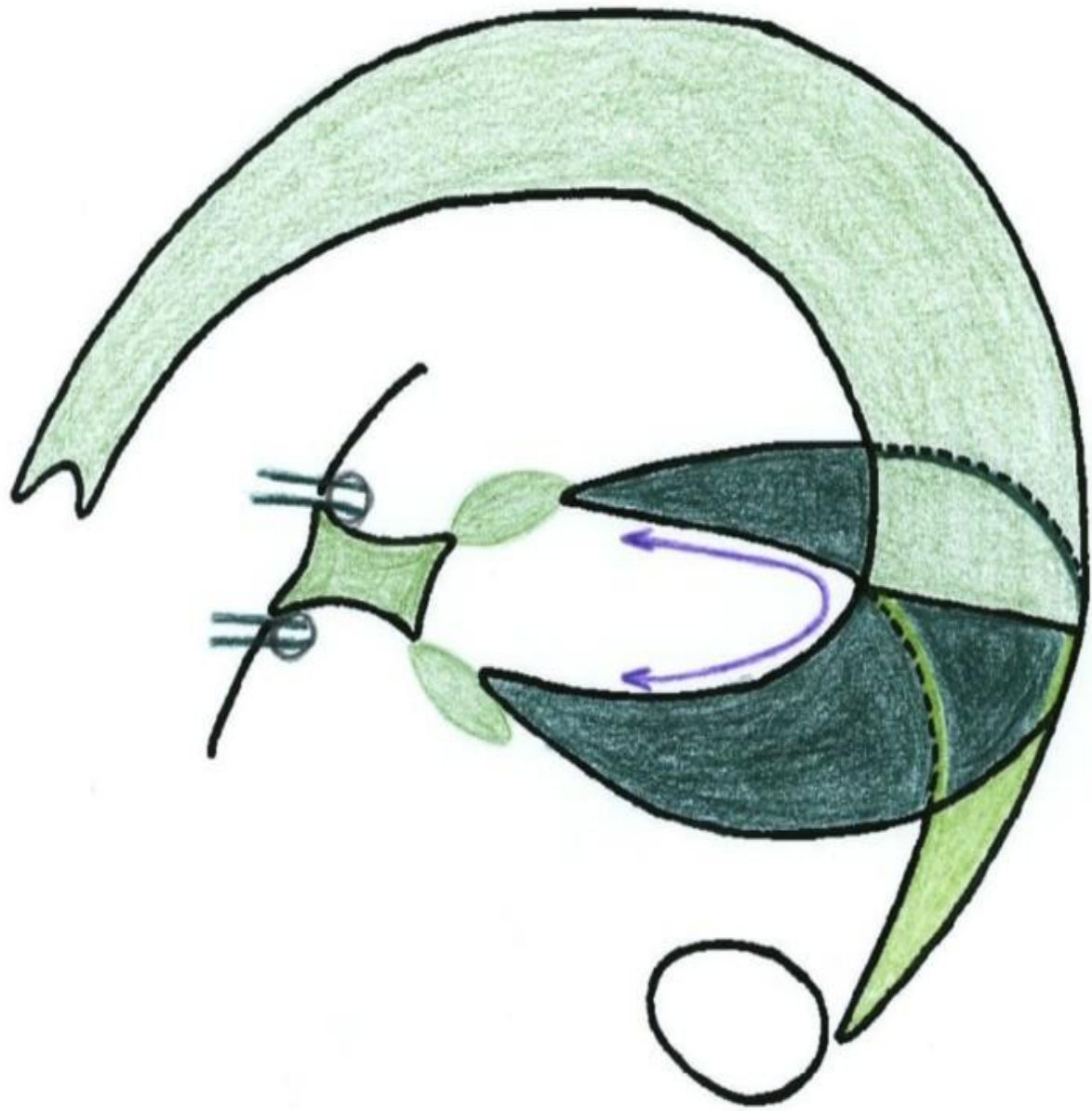
Communications: connects the cavernous sinuses of the two sides.

Single Dural Venous Sinuses

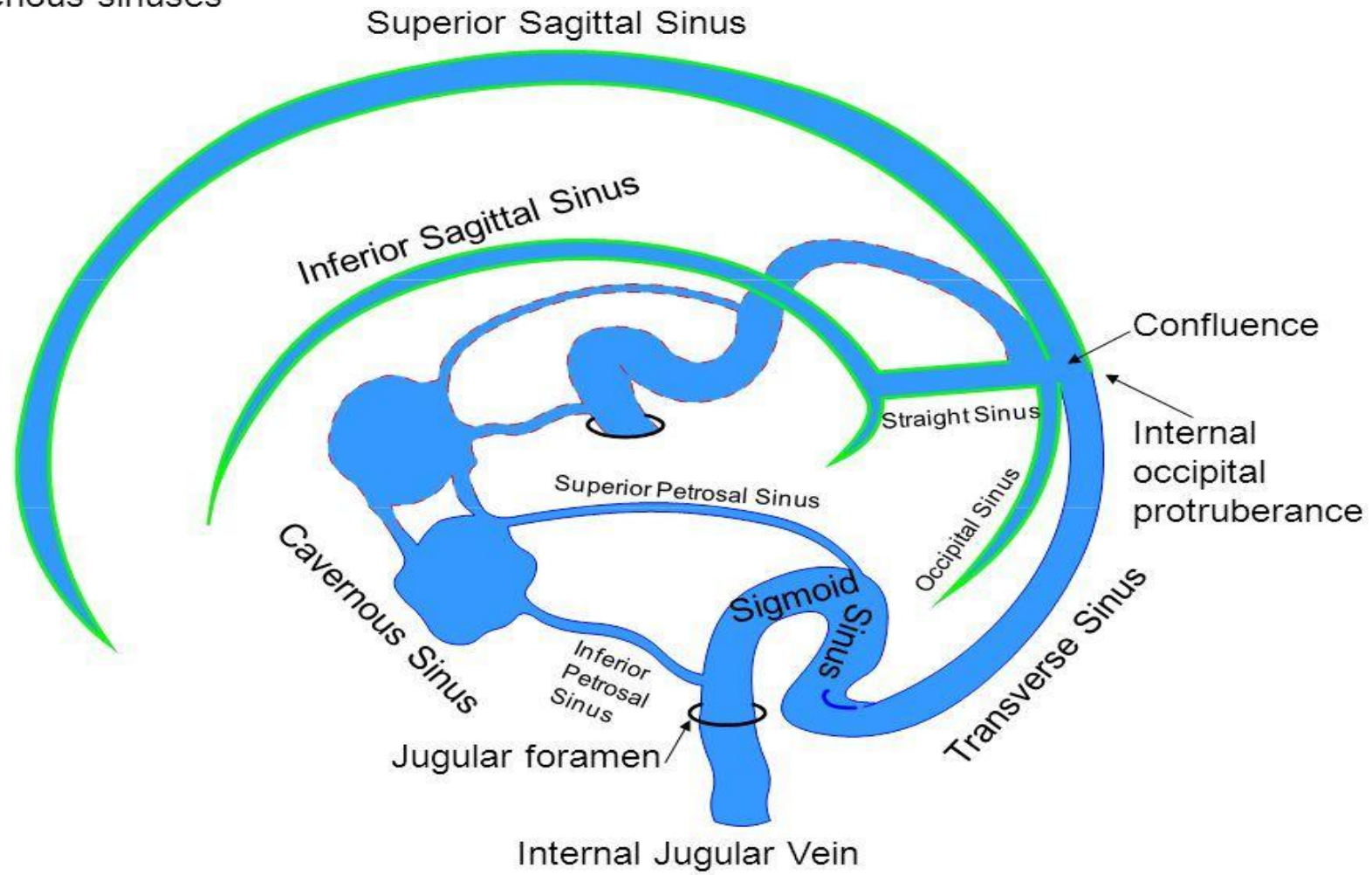




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Venous sinuses

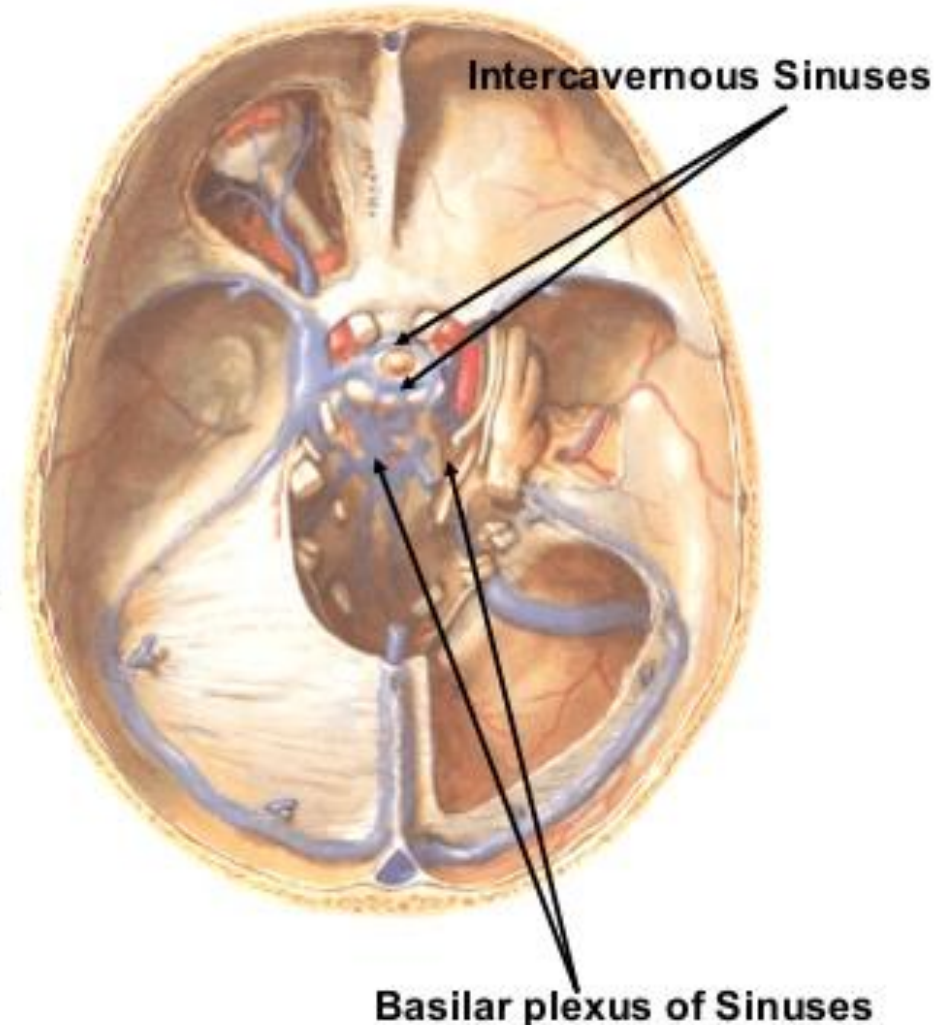


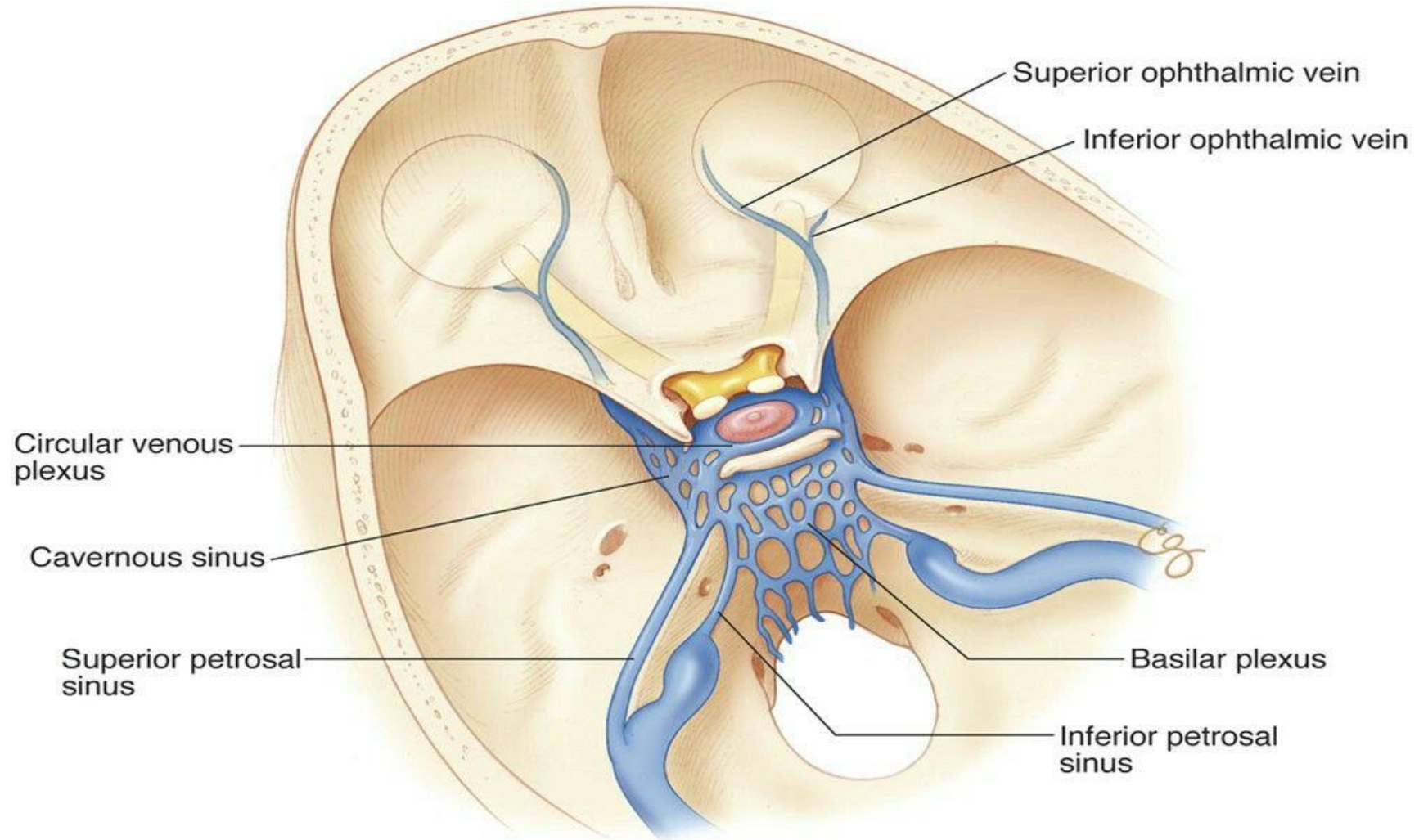
6- Basilar Plexus of Sinuses

Site: over the basilar part of the occipital bone.

Formation: formed of several interconnecting venous channels between the two layers of the dura.

Communications: connects the inferior petrosal sinuses of the two sides.





II- Paired Sinuses

1- Sphenoparietal Sinus

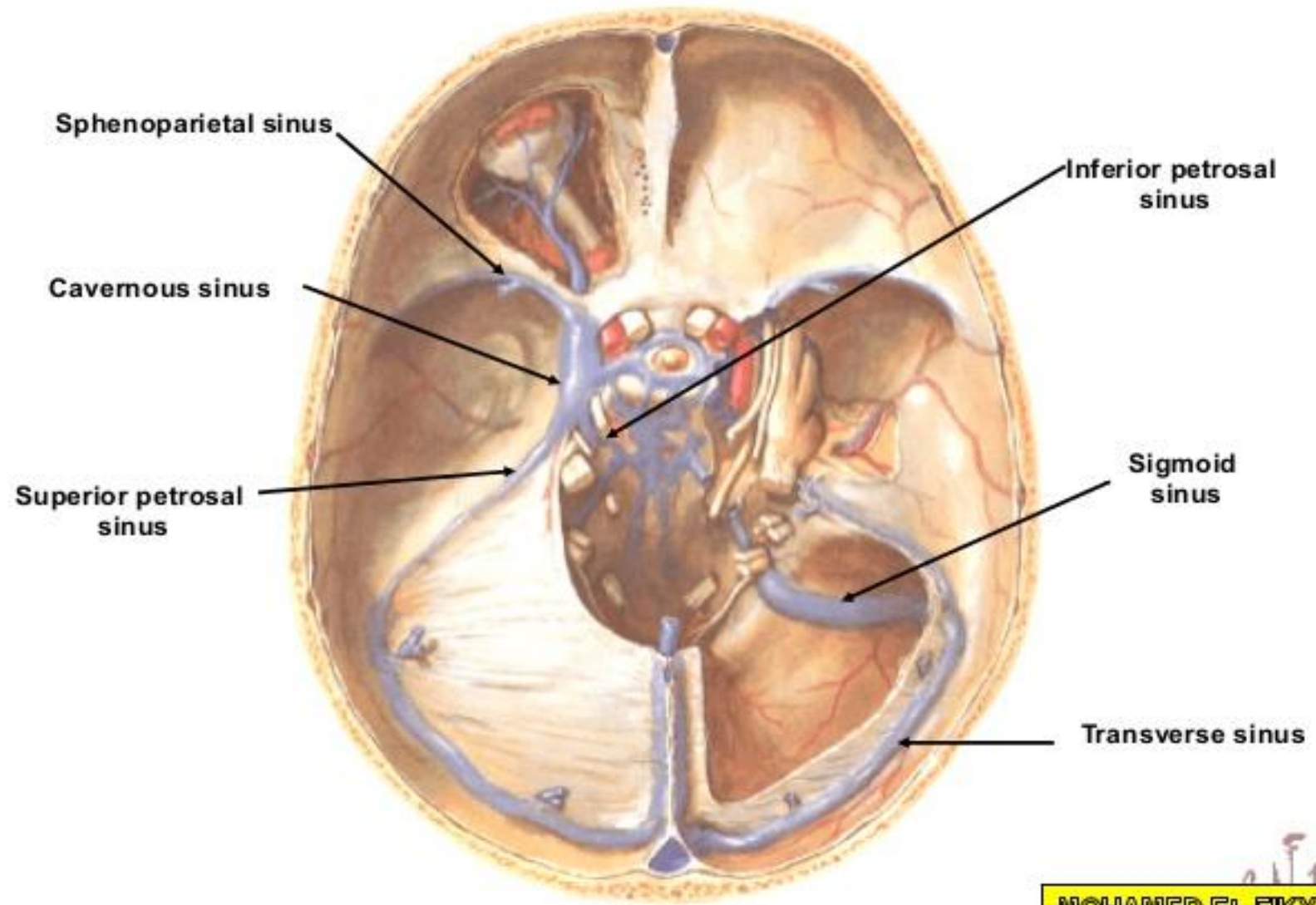
Site: Lies along the posterior free margin of the lesser wing of the sphenoid.

Termination: In the cavernous sinus.

2- Cavernous Sinus

Introduction: It is a large venous space between the two layers of the dura. It is called cavernous because of its spongy structure.

Site: In the middle cranial fossa, on either sides of the body of the sphenoid.



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Extent: From the medial end of the superior orbital fissure anteriorly to the apex of the petrous temporal posteriorly.

Size: It is about 2 cm long, and 1 cm wide.

Relations:

(a) *Superiorly:* optic chiasma

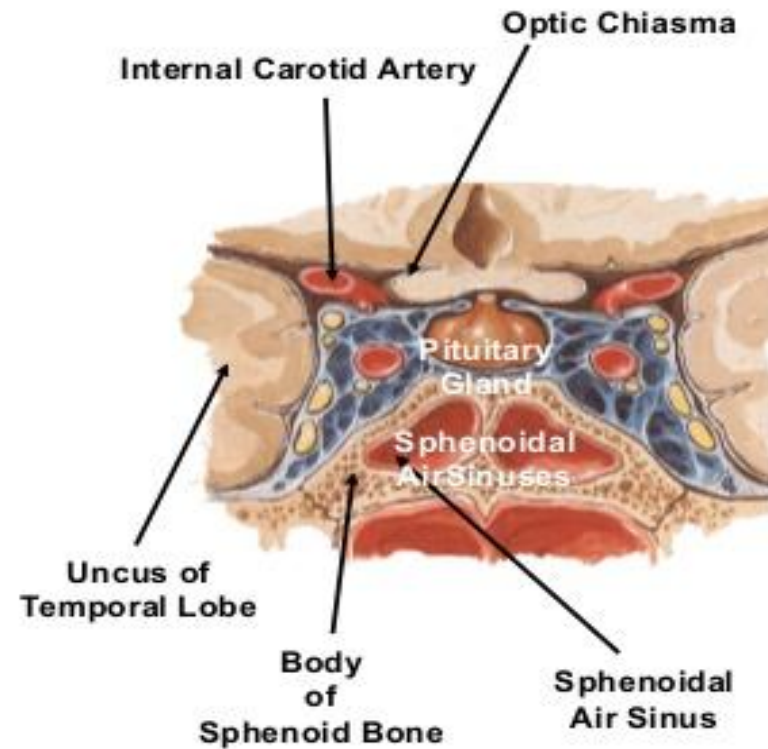
(b) *Inferiorly* sphenoidal air sinus.

(c) *Medially:* hypophysis cerebri.

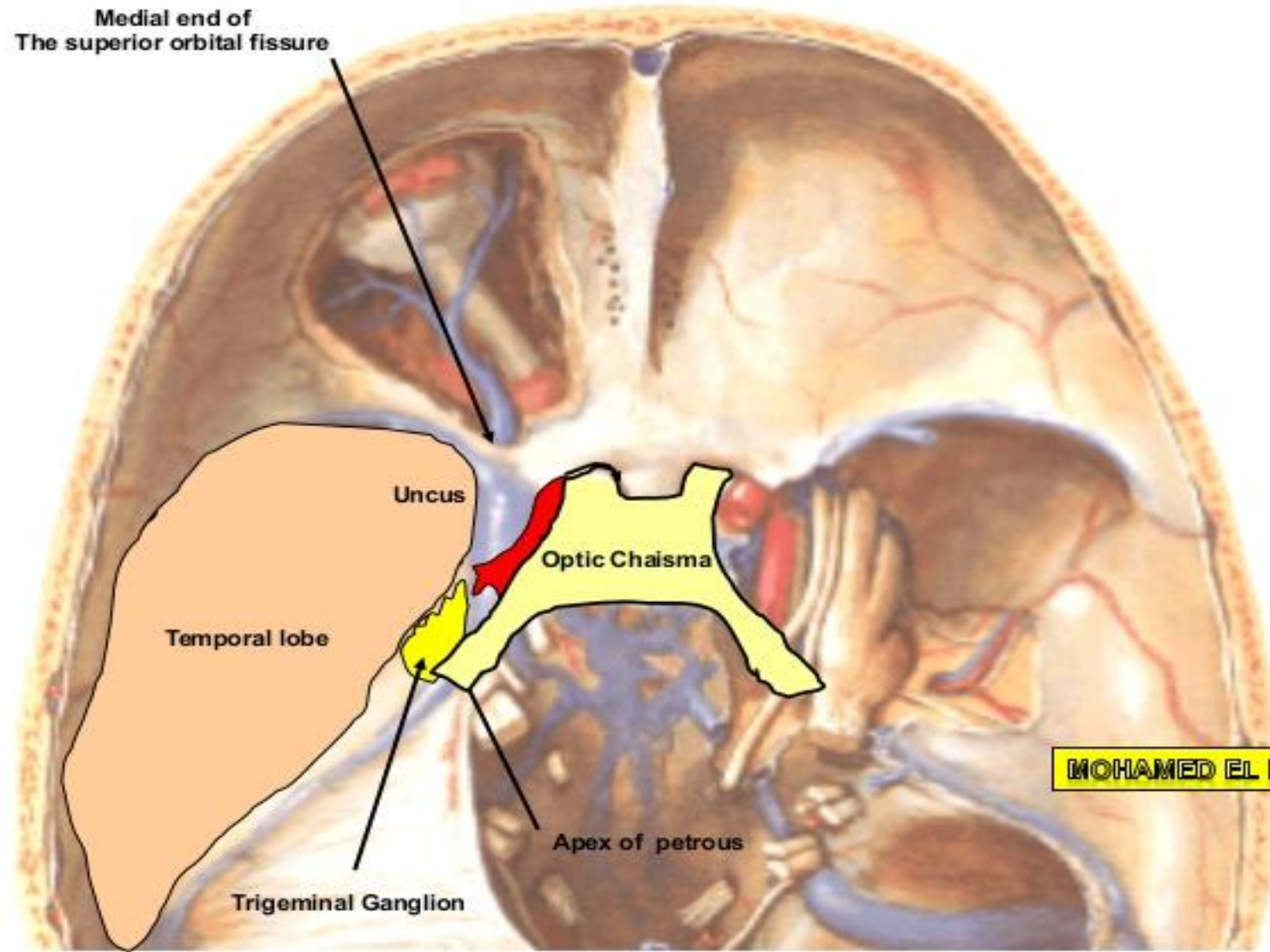
(d) *Laterally:* temporal lobe.

(e) *Anteriorly:* superior orbital fissure.

(f) *Posteriorly:* apex of petrous temporal.



Medial end of
The superior orbital fissure



Uncus

Optic Chaisma

Temporal lobe

Apex of petrous

Trigeminal Ganglion

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Contents of Cavernous Sinus

Cavernous Sinuses

1- Oculomotor Nerve

2- Trochlear Nerve

3- Ophthalmic Nerve

4- Maxillary Nerve

4- Abducent Nerve

5- Internal carotid Artery with
Sympathetic Plexus

