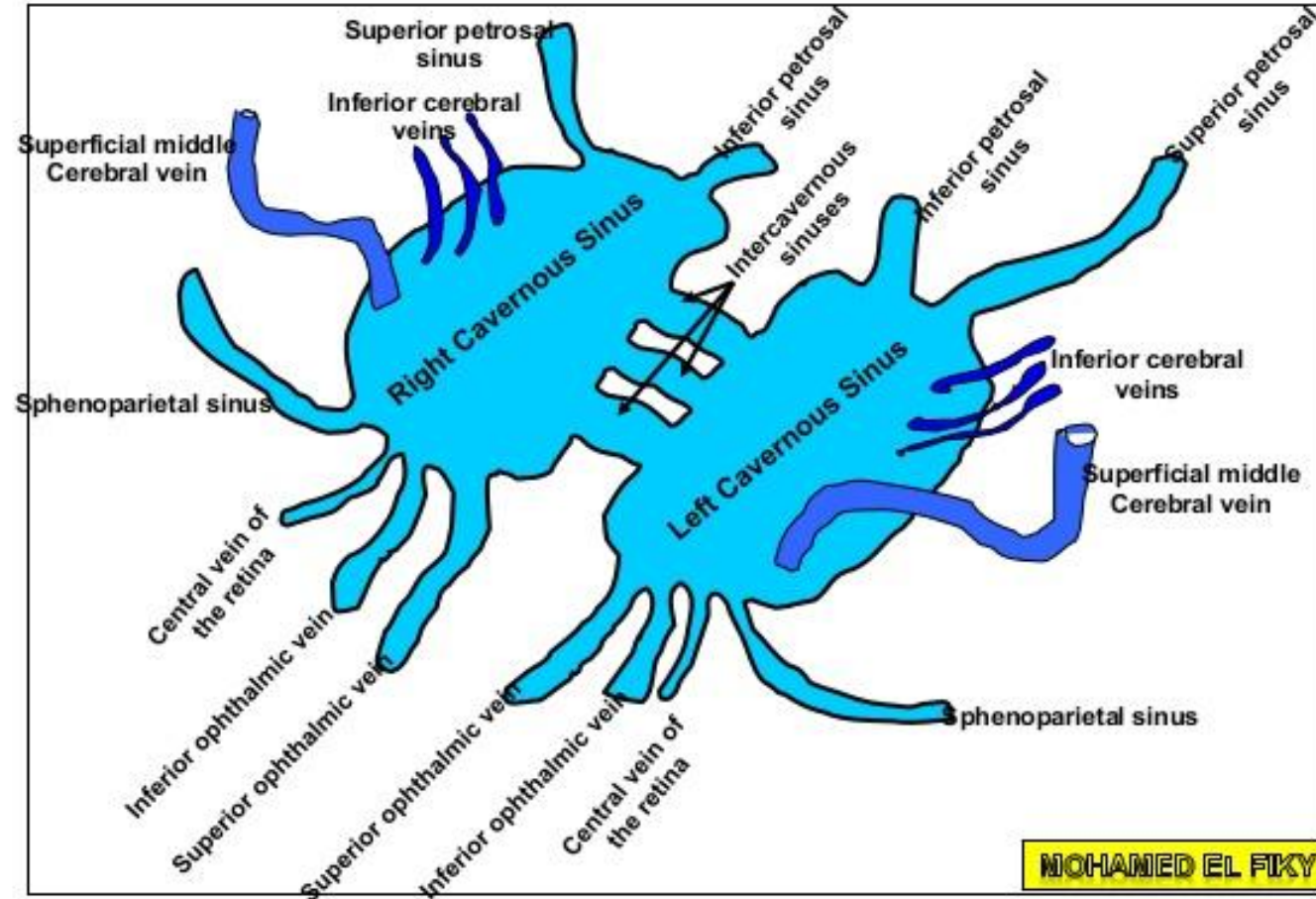


# Tributaries of Cavernous Sinus



## Tributaries of Cavernous Sinus

### ***(A) Anteriorly: receives :***

- (1) Superior ophthalmic vein: connecting it with the facial vein.
- (2) Branch or whole of inferior, ophthalmic vein.
- (3) Central vein of the retina: may 'drain either into the superior ophthalmic vein or into the cavernous sinus.

### ***(B) Posteriorly: receives:***

- (1) Superior petrosal sinus: connecting it with the transverse sinus.
- (2) Inferior petrosal sinus: connecting it with the internal jugular vein.

### ***(C) Superiorly: receives :***

- (1) Superficial middle cerebral vein.
- (2) Inferior cerebral veins from the temporal lobe.

**(D) Inferiorly:** Communicates with the venous plexus outside the skull by emissary veins, which pass through:

- (1) Foramen lacerum: to connect it with the pharyngeal plexus.
- (2) Foramen ovale or emissary sphenoidal foramen: to connect with the pterygoid plexus of veins.

**(E) Medially:** the two sinuses communicate with each other through the intercavernous sinuses.

## 4- Superior Petrosal Sinus

**Beginning:** Posterior end of the cavernous sinus.

**Site:** Lies along the upper border, of petrous temporal in the attached margin of the tentorium cerebelli.

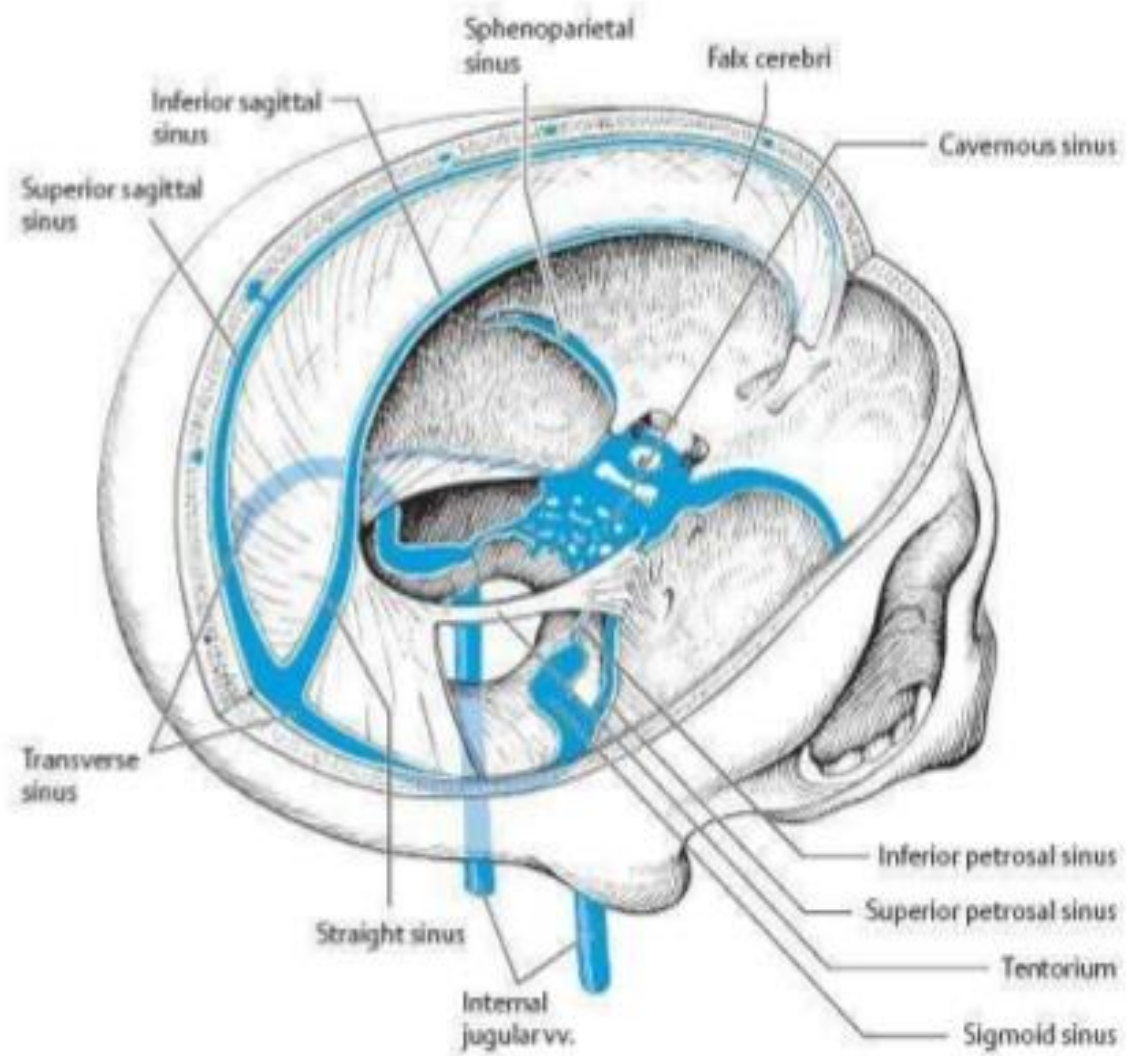
**Termination:** In the transverse sinus.

## 5- Inferior Petrosal Sinus

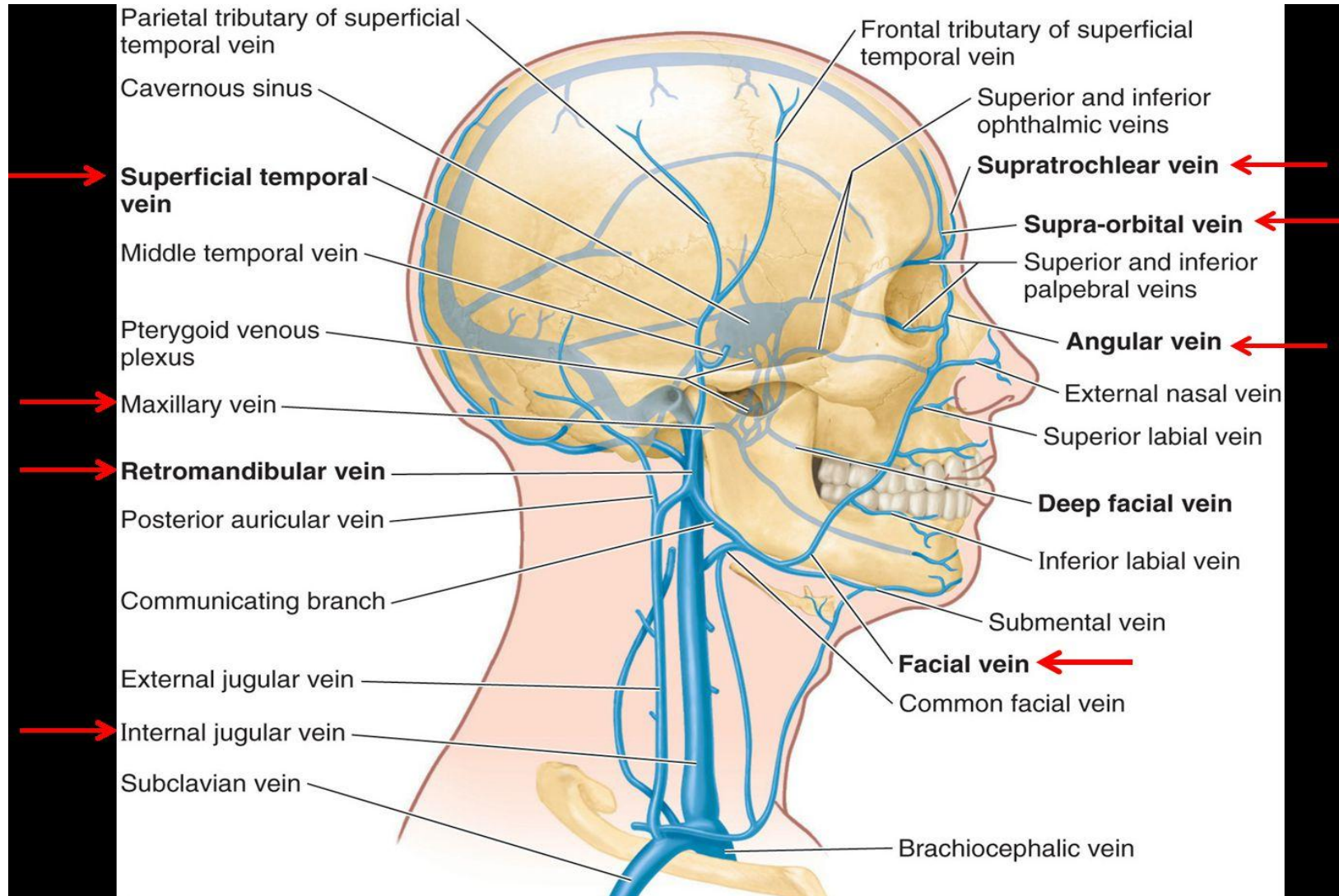
**Beginning:** Posterior end of the cavernous sinus.

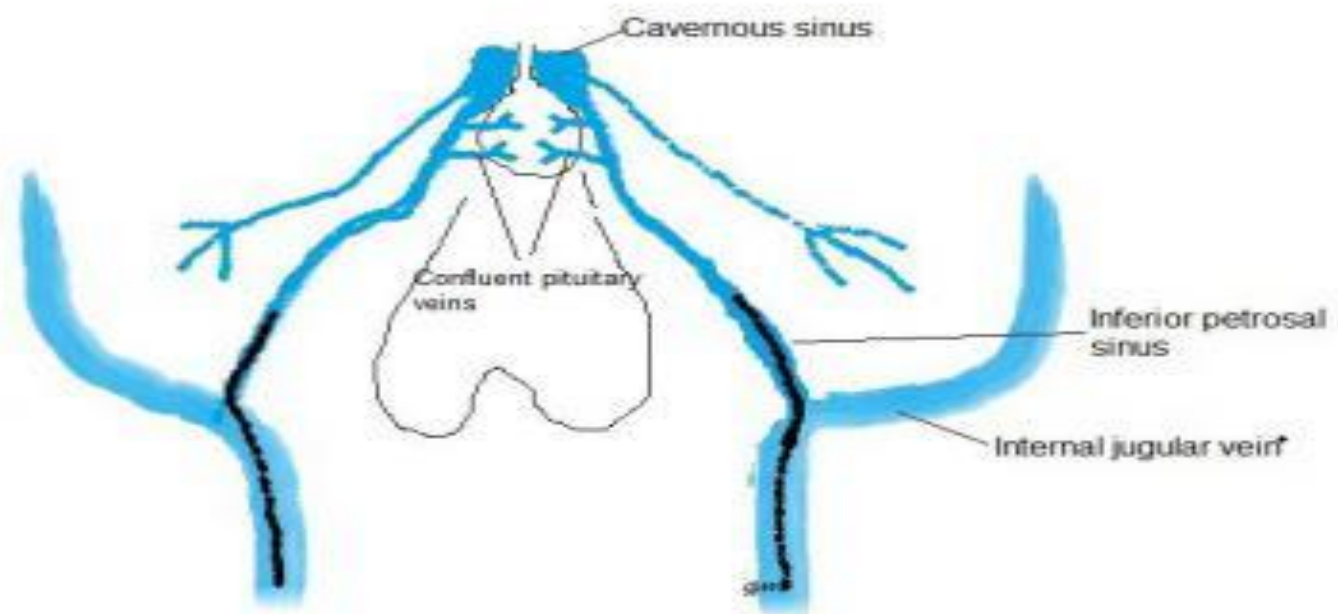
**Site:** Lies in the petro-occipital fissure, then passes through the anterior compartment of jugular foramen.

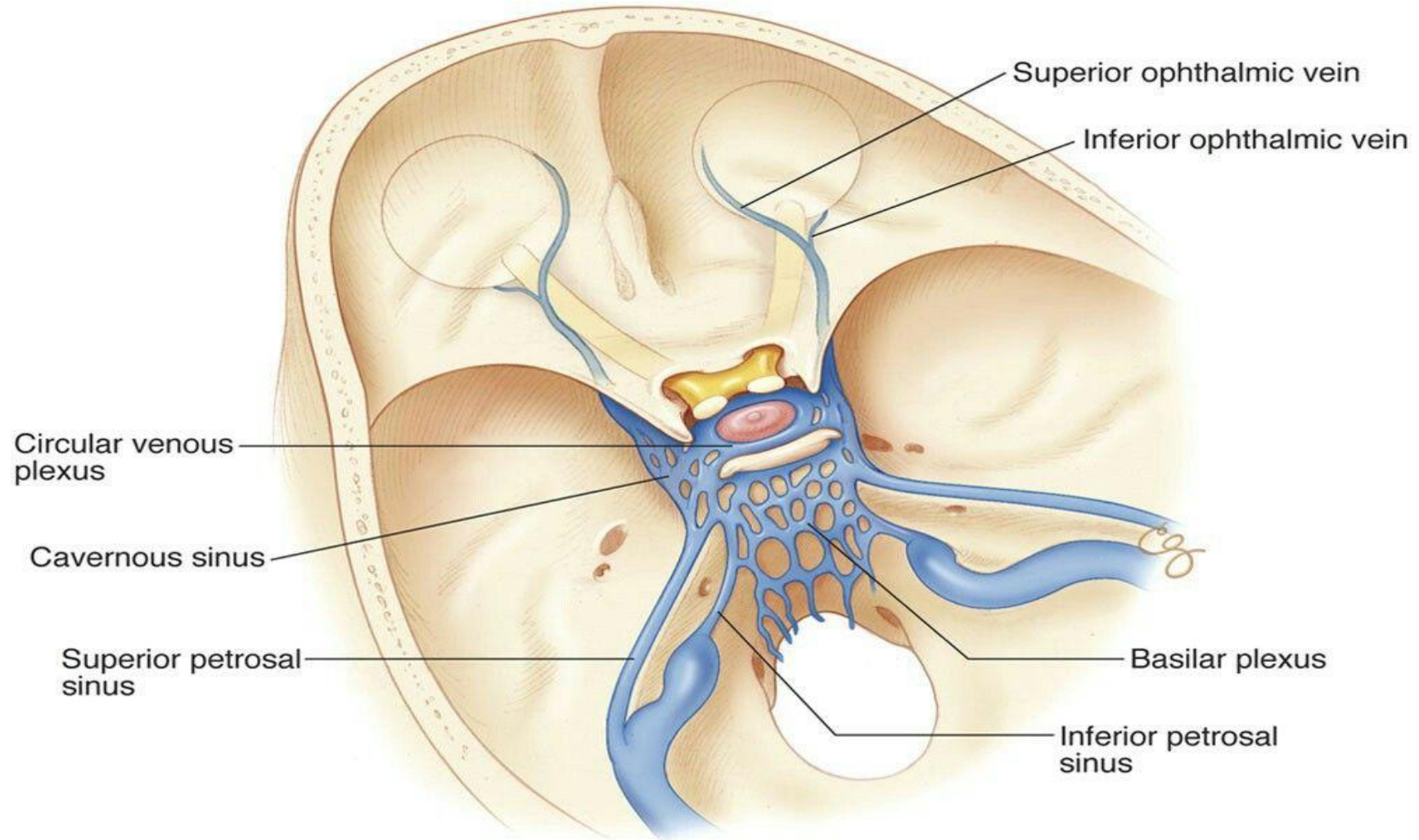
**Termination:** Into the internal jugular vein.



# revision







## 5- Transverse Sinus

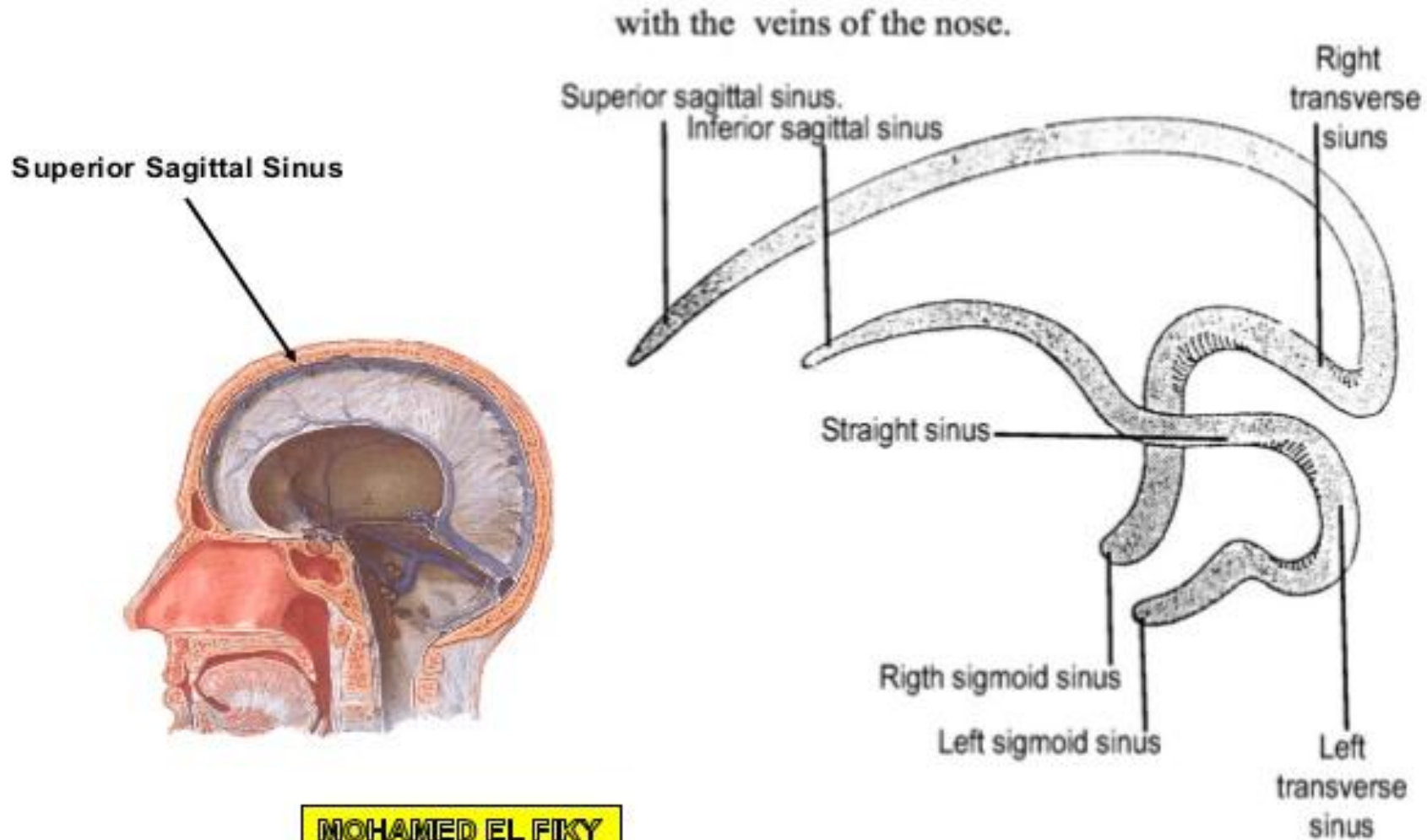
### Origin:

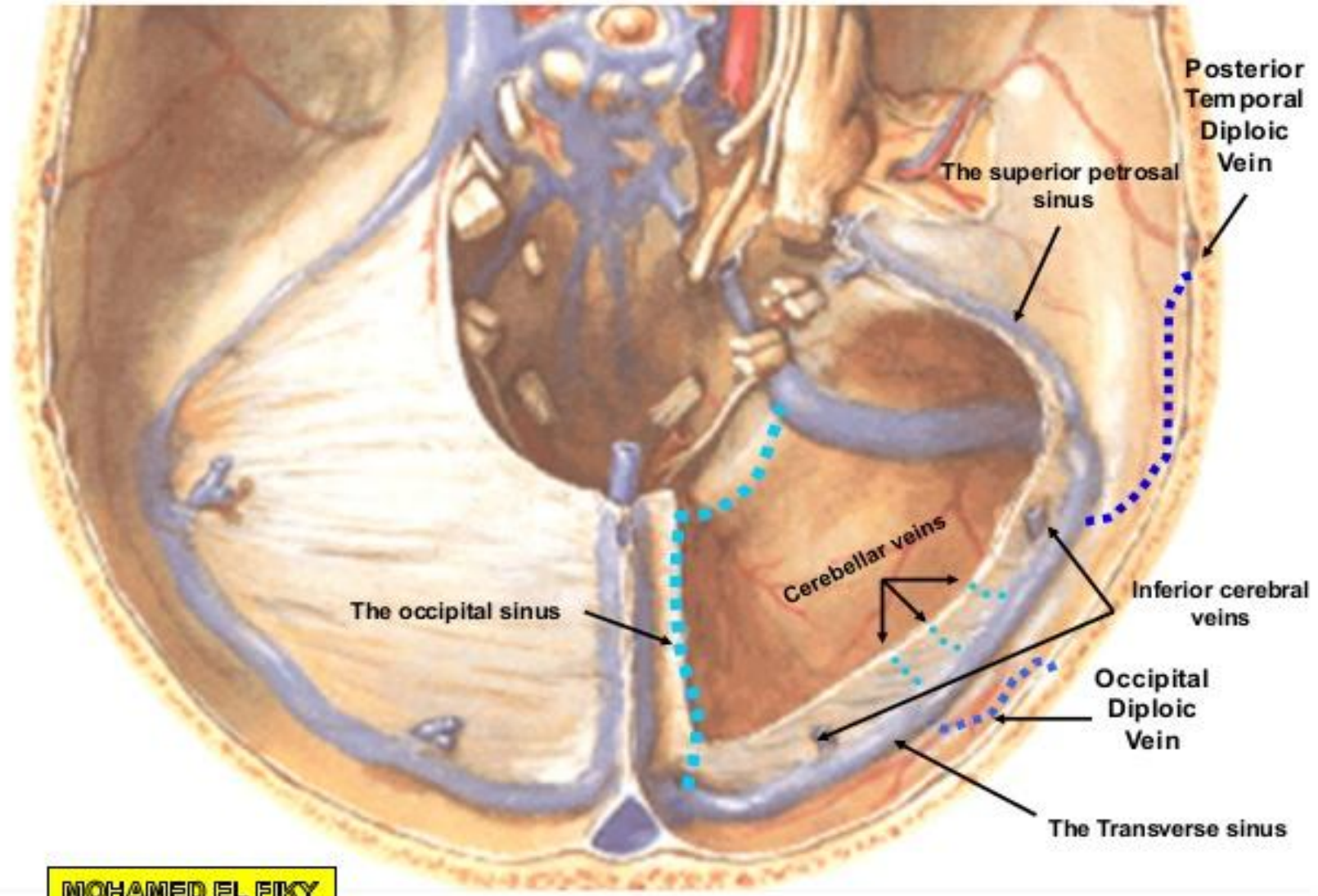
- (a) The right sinus is usually the continuation of the superior sagittal sinus, and the left one is a continuation of the straight sinus.
- (b) The reverse of the above arrangement may happen.
- (c) From the **confluence of sinuses** which, is formed by the meeting of superior sagittal, straight and the two transverse sinuses.

**Site:** Along the transverse sulcus in the attached margin of the tentorium cerebelli,

**Termination:** Ends by becoming the sigmoid sinus.

# Termination of Superior Sagittal Sinus





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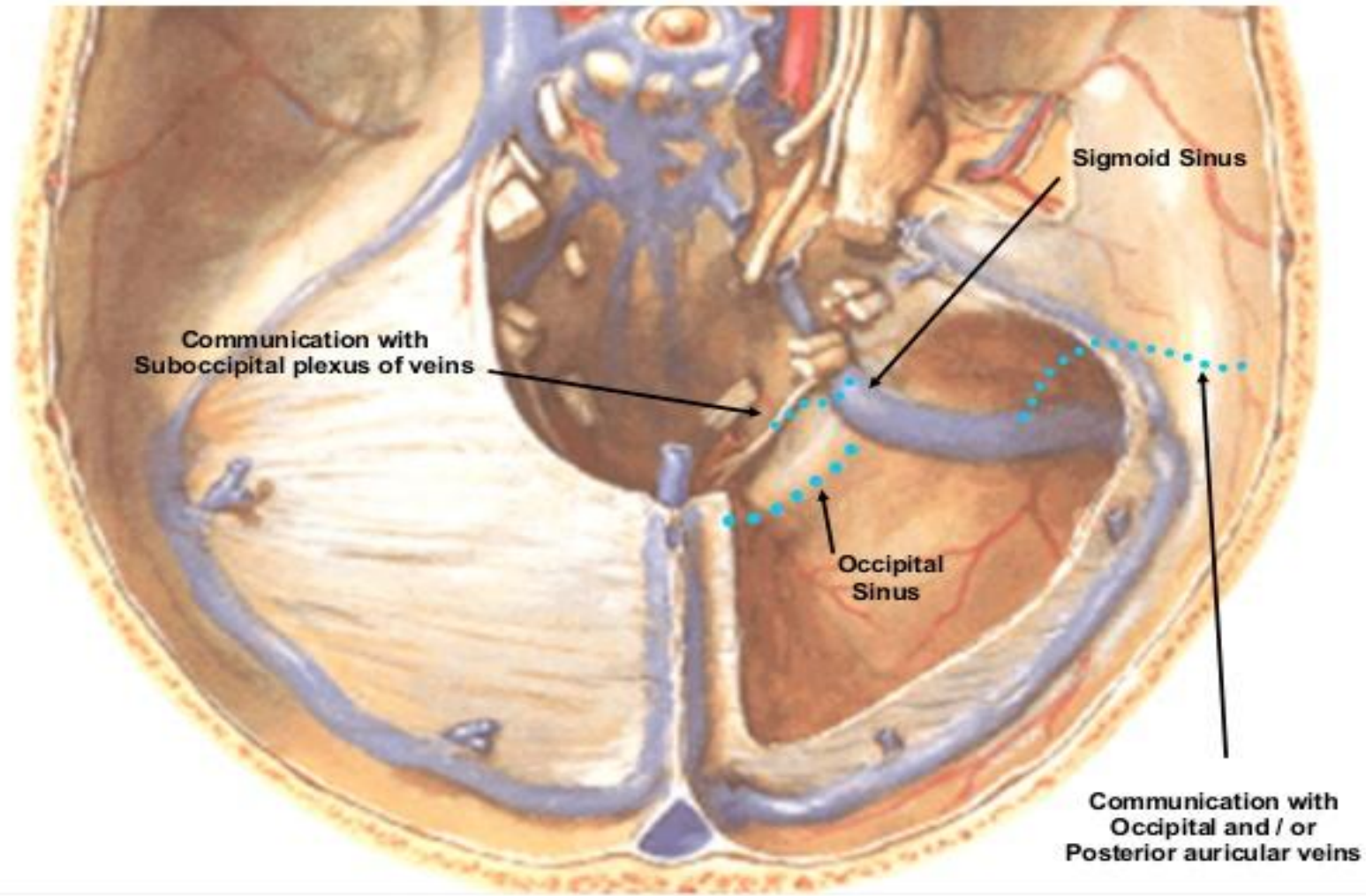
## 6- Sigmoid Sinus

**Origin:** Is the direct continuation of the transverse sinus at the postero inferior angle of the parietal bone.

**Shape:** S-shaped.

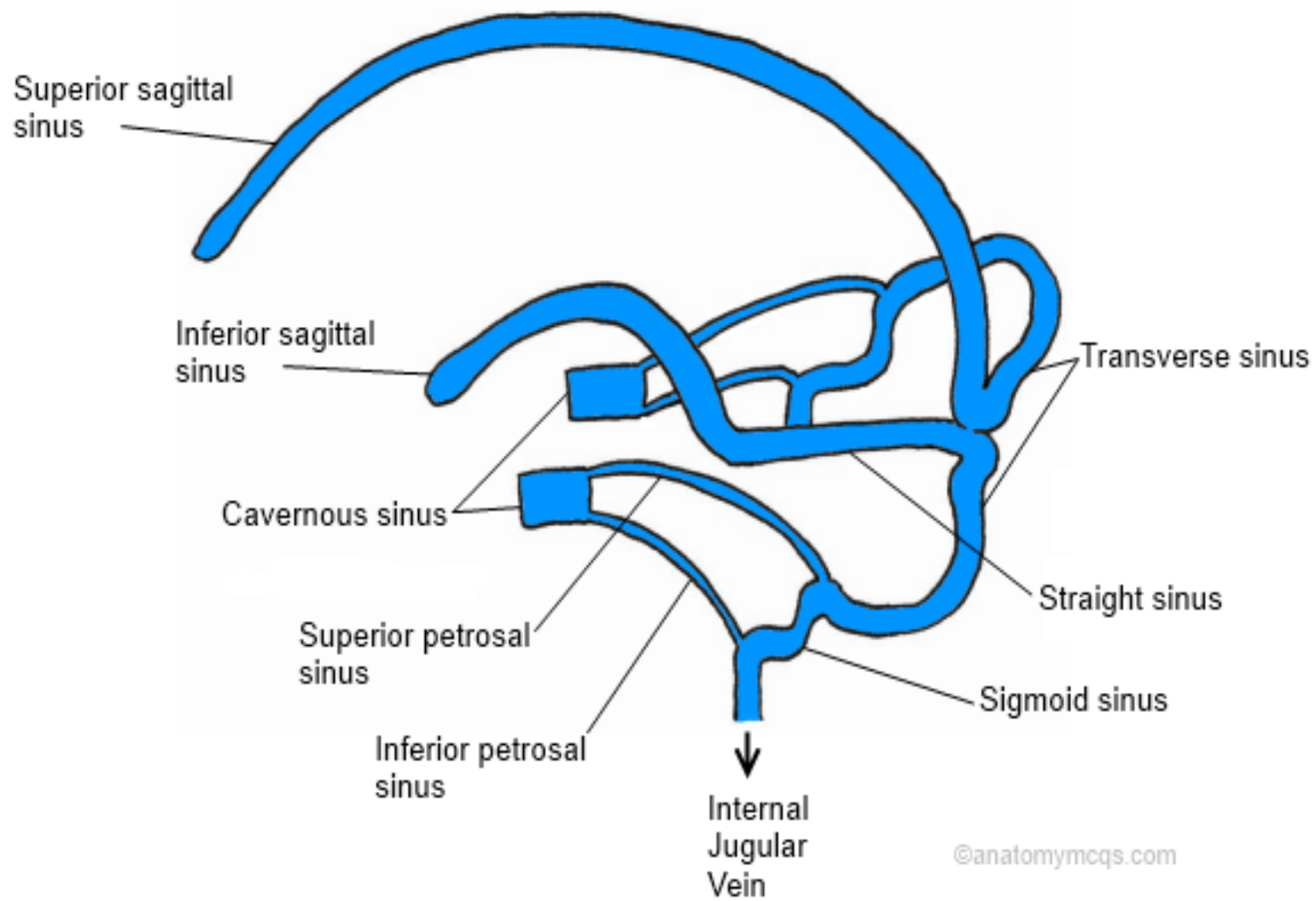
**Course:** Runs downwards and medially in the sigmoid sulcus.

**Termination:** ends by passing through the posterior compartment of the jugular foramen to become the internal jugular vein.

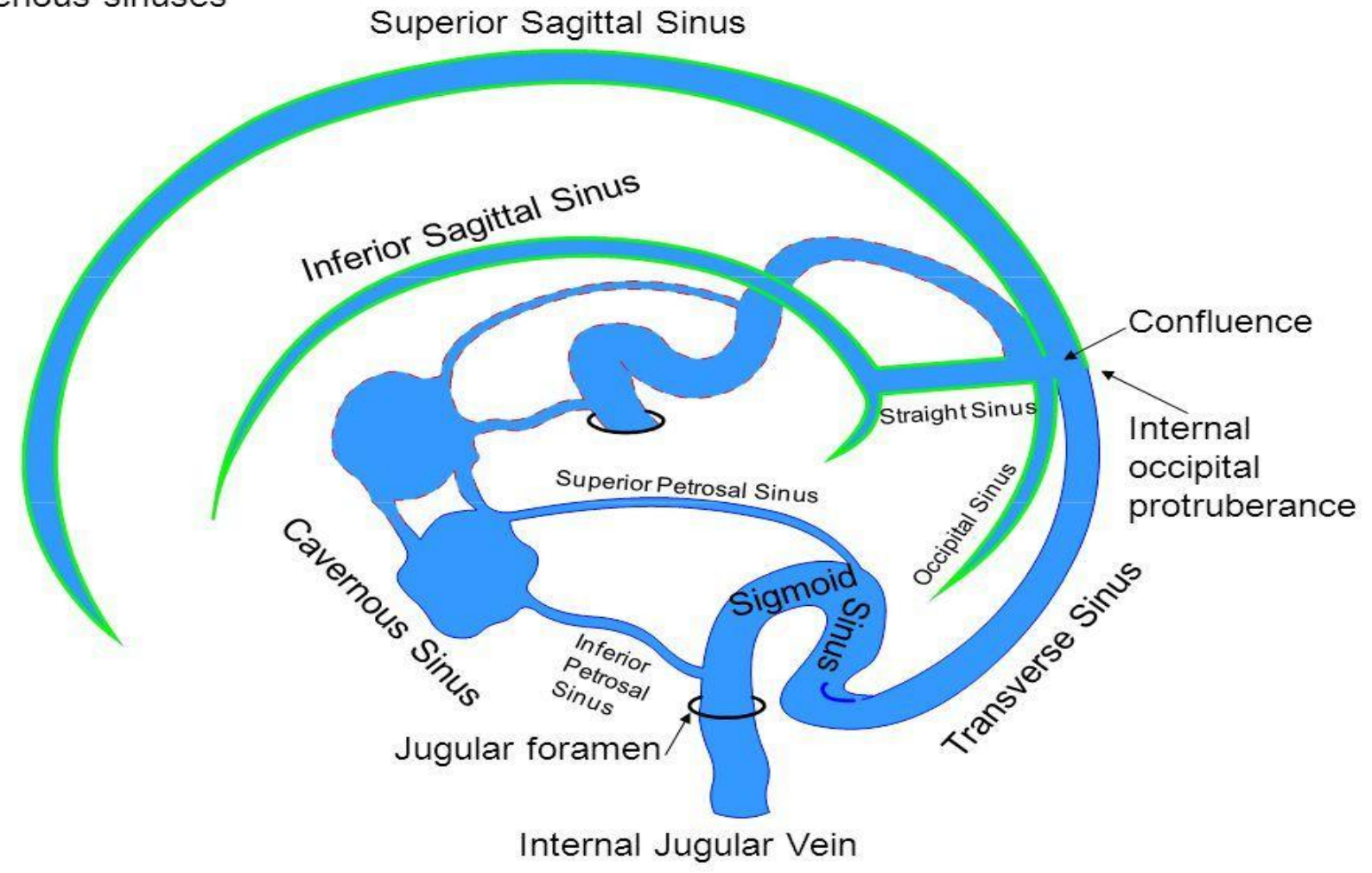


MOHAMED EL FIXY

## VENOUS SINUSES



Venous sinuses

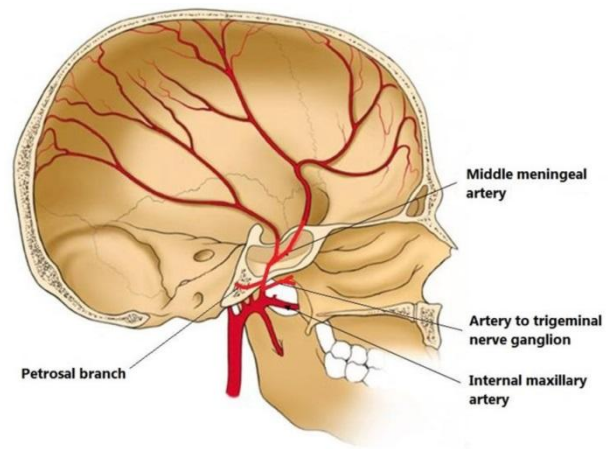


<b>Fold</b>	<b>Shape</b>	<b>Venous sinuses enclosed</b>
<b>Falx cerebri</b>	<b>Sickle-shaped</b> <small>Shapes of dural folds and enclosed venous sinuses</small>	<b>Superior sagittal, inferior sagittal and straight sinuses</b>
<b>Tentorium cerebelli</b>	<b>Tent-shaped (semilunar)</b>	<b>Transverse and superior petrosal sinuses</b>
<b>Falx cerebelli</b>	<b>Sickle-shaped</b>	<b>Occipital sinus</b>
<b>Diaphragma sellae</b>	<b>Horizontal fold</b>	<b>Anterior and posterior intercavernous sinuses</b>

A dense, repeating pattern of blue roses fills the background. The roses are rendered in various shades of blue, from light to dark, creating a textured, three-dimensional effect. The petals are tightly packed and spiral inward, characteristic of a classic rose variety.

**Thank You**

# Middle meningeal artery



## *middle meningeal artery*

- 

- The *middle meningeal artery*, a branch of

**maxillary artery**

enters the **cranial cavity** through the **foramen**

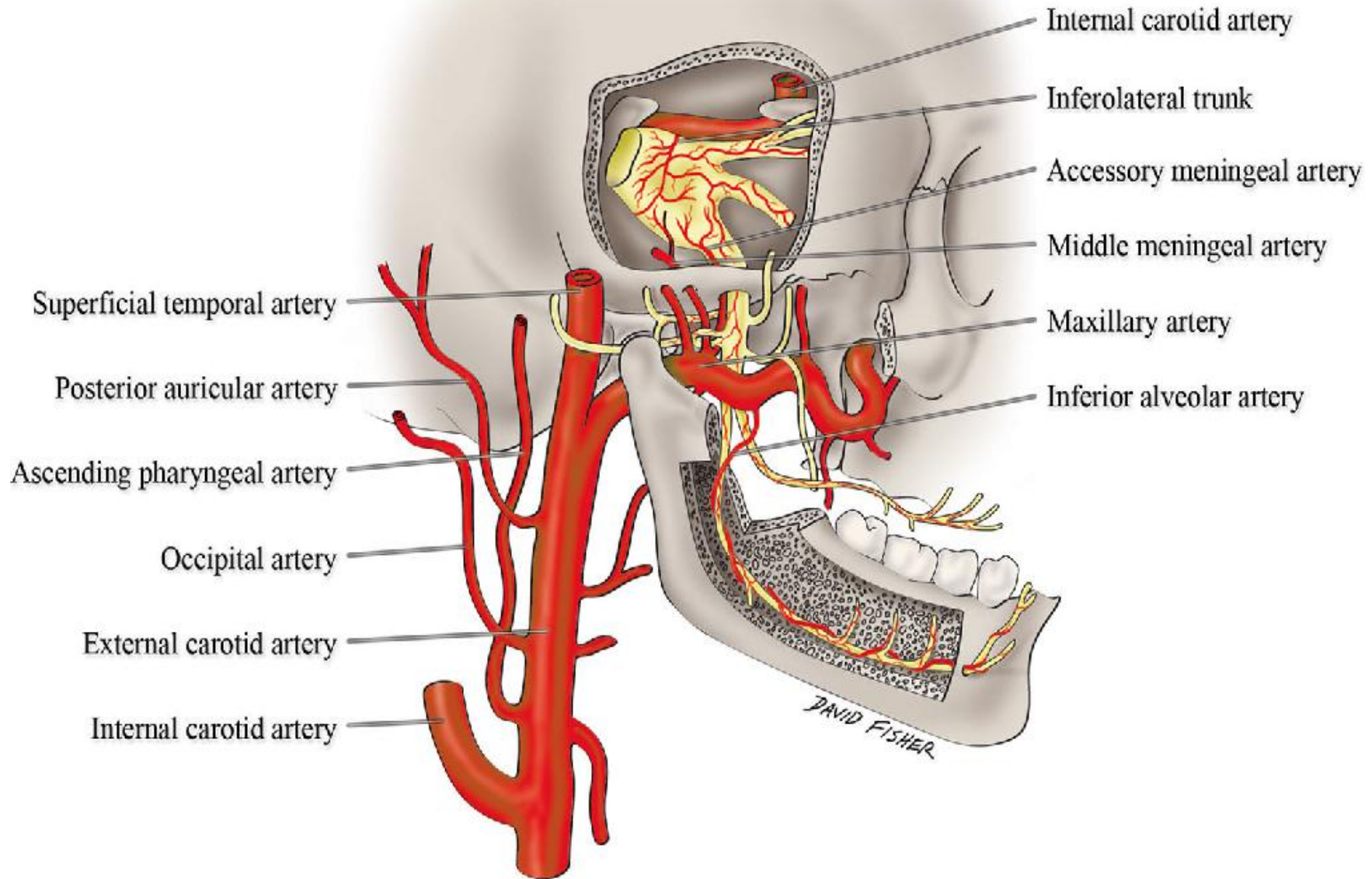
**spinosum** to lie between the endosteal and

meningeal layers of dura mater.

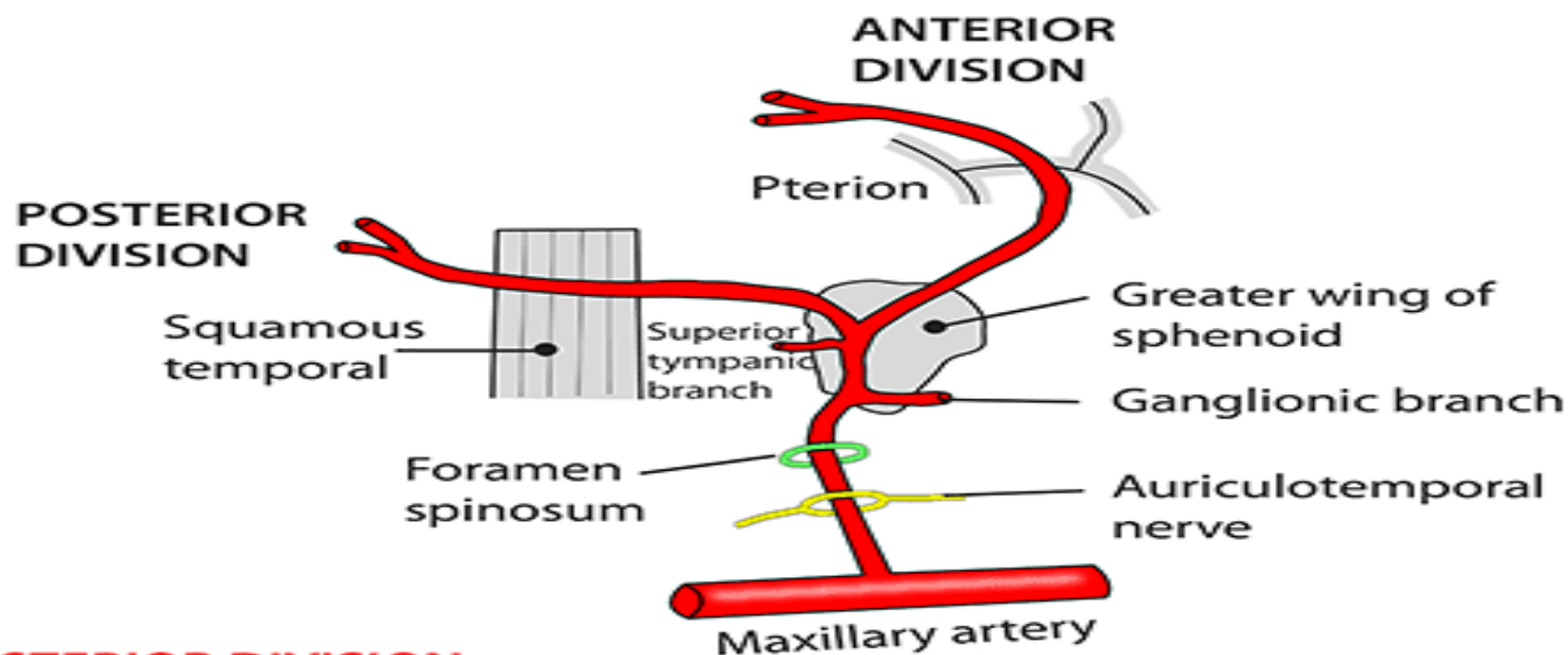
-

- Its anterior and posterior branches, along with accompanying meningeal veins (between the arteries and bone) stand out prominently as if in relief on the external surface of the dura mater to groove and supply bones of the cranial vault.

- The anterior (frontal) branch crosses the pterion, on its inner aspect
- and the posterior (parietal) branch ascends backwards towards the lambda.
- A fracture of thin squamous temporal bone may cause a middle meningeal haemorrhage from the artery or vein, producing an extradural haematoma.



## RIGHT MIDDLE MENINGEAL ARTERY



### POSTERIOR DIVISION

Where a vertical line from the mastoid process meets a horizontal line from the upper margin of the orbit. Fractured skull leads to extradural haemorrhage

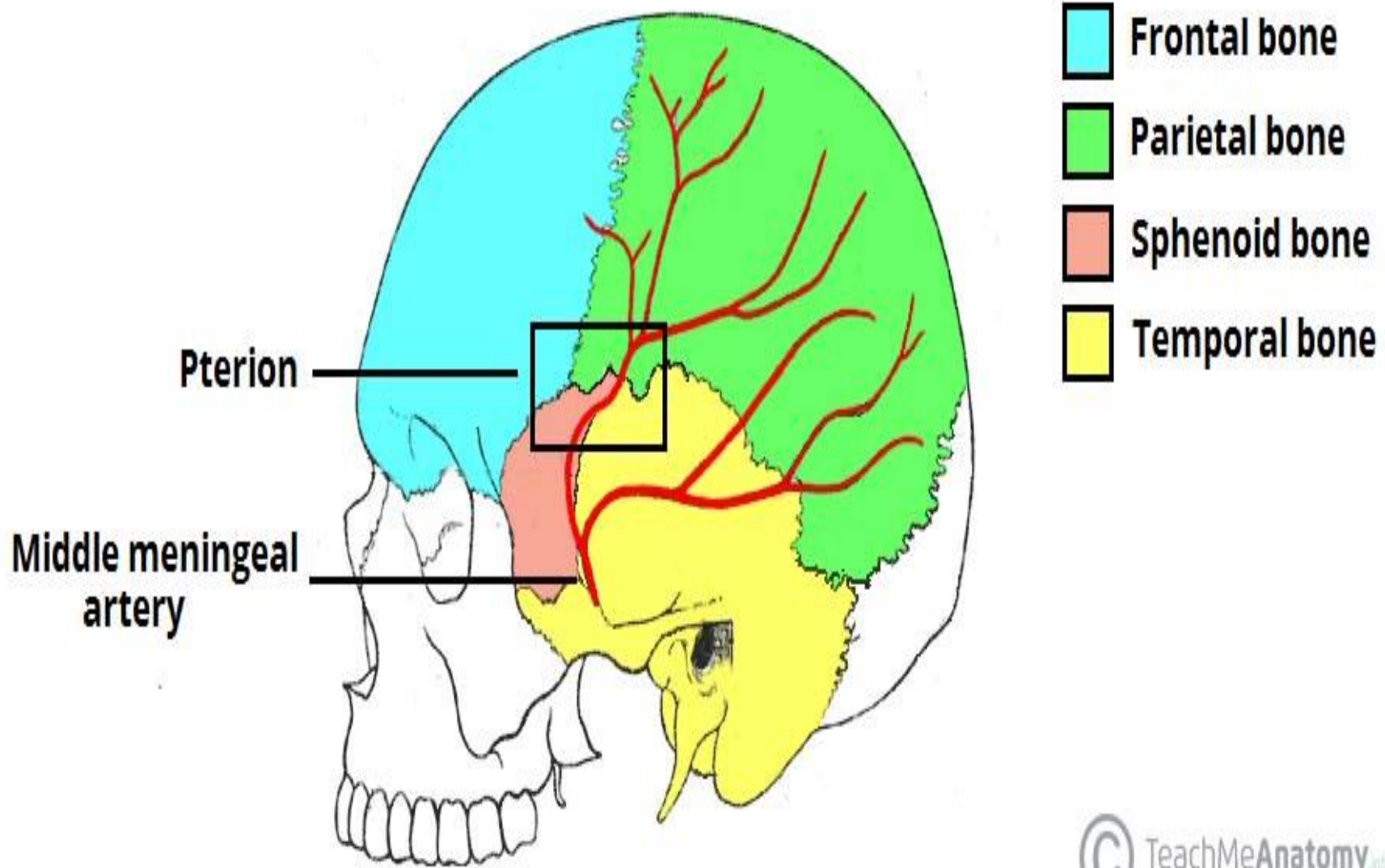
### ANTERIOR DIVISION

3cm above the midpoint of the zygomatic arch. Fractured skull leads to extradural haemorrhage with pressure on the motor area

### Venous drainage of skull

Diploic veins to sinuses within skull or to veins outside skull.  
Meningeal veins to sphenoparietal sinus within skull or pterygoid plexus in infratemporal fossa

Note: the grooves on the inside of the skull are said to be due to veins and not the arteries. **Middle meningeal artery does NOT supply the brain**



- Pterion is a point of clinical significance – the skull is very thin at this point. In addition to being structurally weak due to being the point of union between several bones,
- it also lies over the **anterior division of the middle meningeal artery**.
- Fracture of the skull at this point can therefore disrupt the middle meningeal artery, leading to an **extradural (epidural) haematoma**

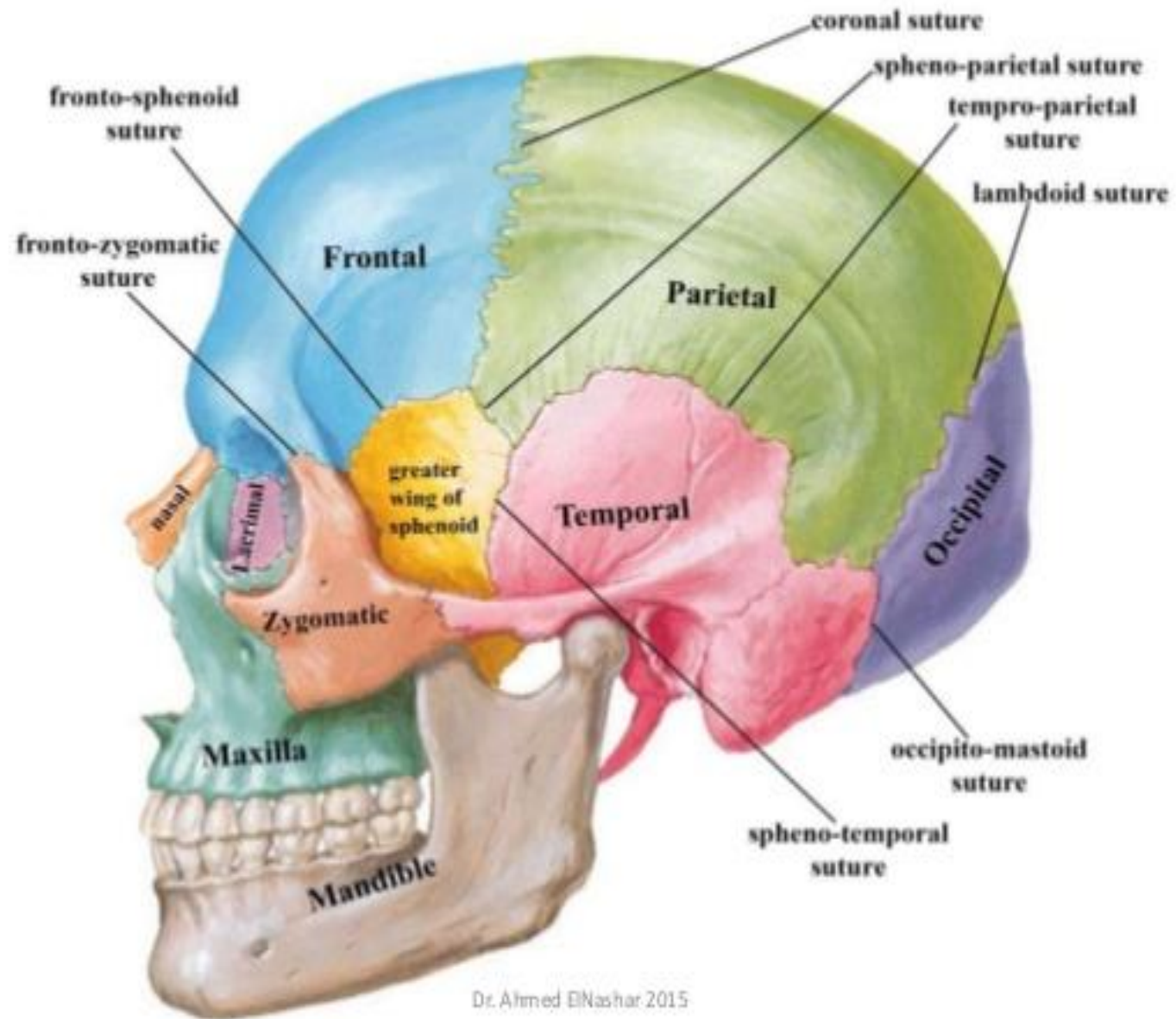
- The structure indicated is known as **pterion**.
- Pterion is the name given to the region on the lateral aspect of the skull where **four bones** are joined:
- Parietal bone
- Squamous part of temporal bone
- Front bone
- Greater wing of sphenoid bone
- .

- Pterion involves **three cranial sutures**:

Sphenoparietal suture

Coronal suture

- Squamous suture



Internal carotid artery

- □ □ انا الحلم اللي جوايا ده عمره ما مات عشان ما بسبيش نفسي للاحباط □ □  
متفائل وعندي أمل قوي ف بكره □ □ ومهما حصل بقول عادي واياه يعني □ □  
هتتعديل مسيرها ف يوم هتضحكي □ □ وهتشبه على شكلي تقوللي تعالى دورك  
وزي ما قلت صبرت ونلت □ □ جه لـ