

VENOUS ANATOMY OF BRAIN

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Venous drainage

Superficial veins of the cerebrum

Superficial cerebral veins

Inferior cerebral veins

Superficial middle cerebral vein

Deep veins of the cerebrum

Internal cerebral veins

Great cerebral vein (of Galen)

Basal veins

Veins of the cerebellum

Superior cerebellar veins

Inferior cerebellar veins

Dural venous sinuses

Superior sagittal sinus

Inferior sagittal sinus

Straight sinus

Transverse sinus

Sigmoid sinus

Cavernous sinus

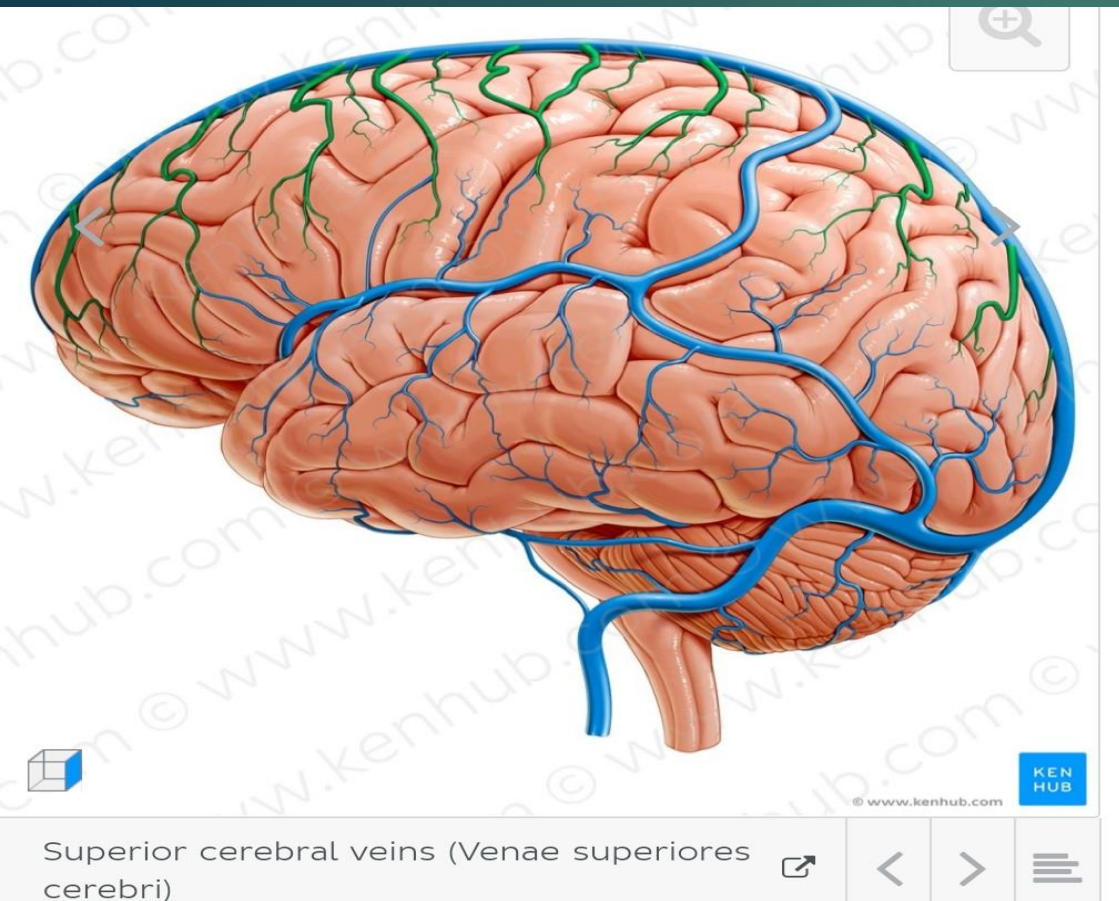
Sphenoparietal sinus

Petrosal sinus

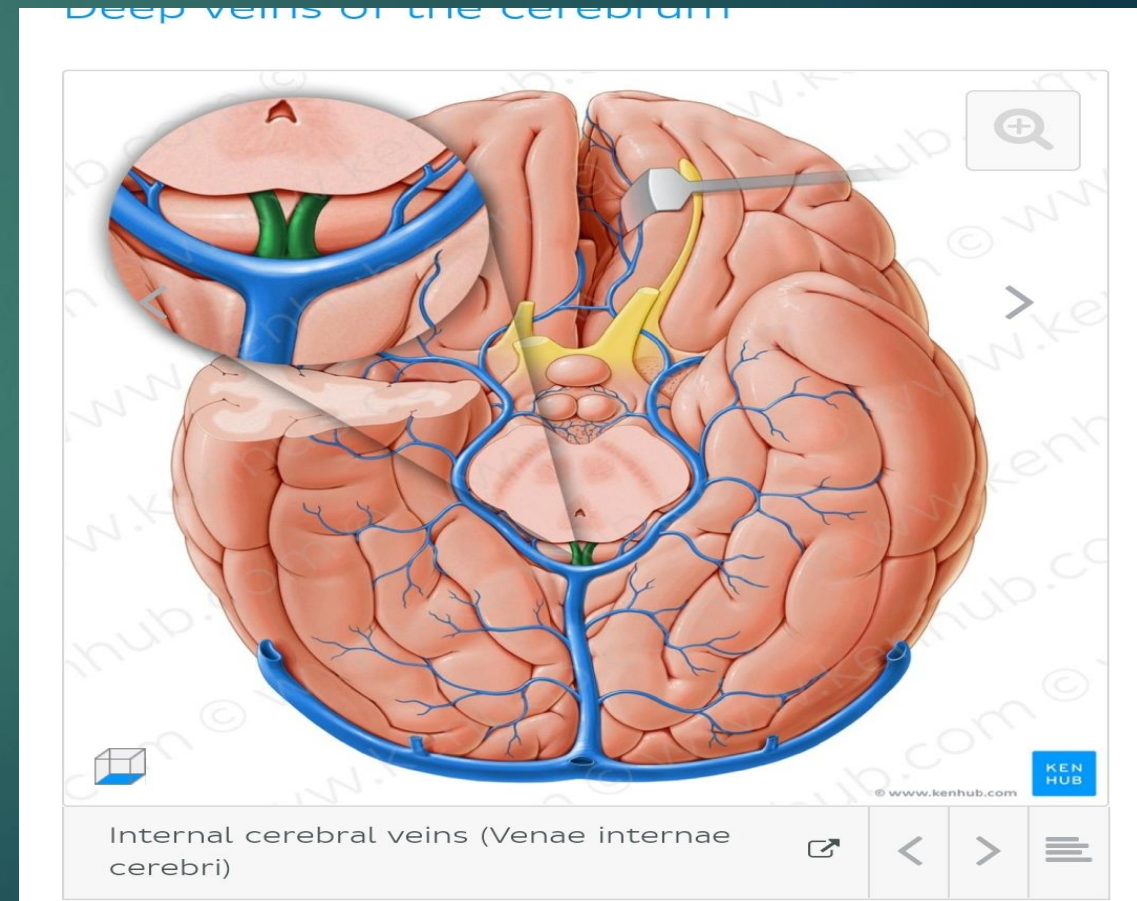
Occipital sinus.

Venous drainage

Superior cerebral veins



Deep cerebral veins



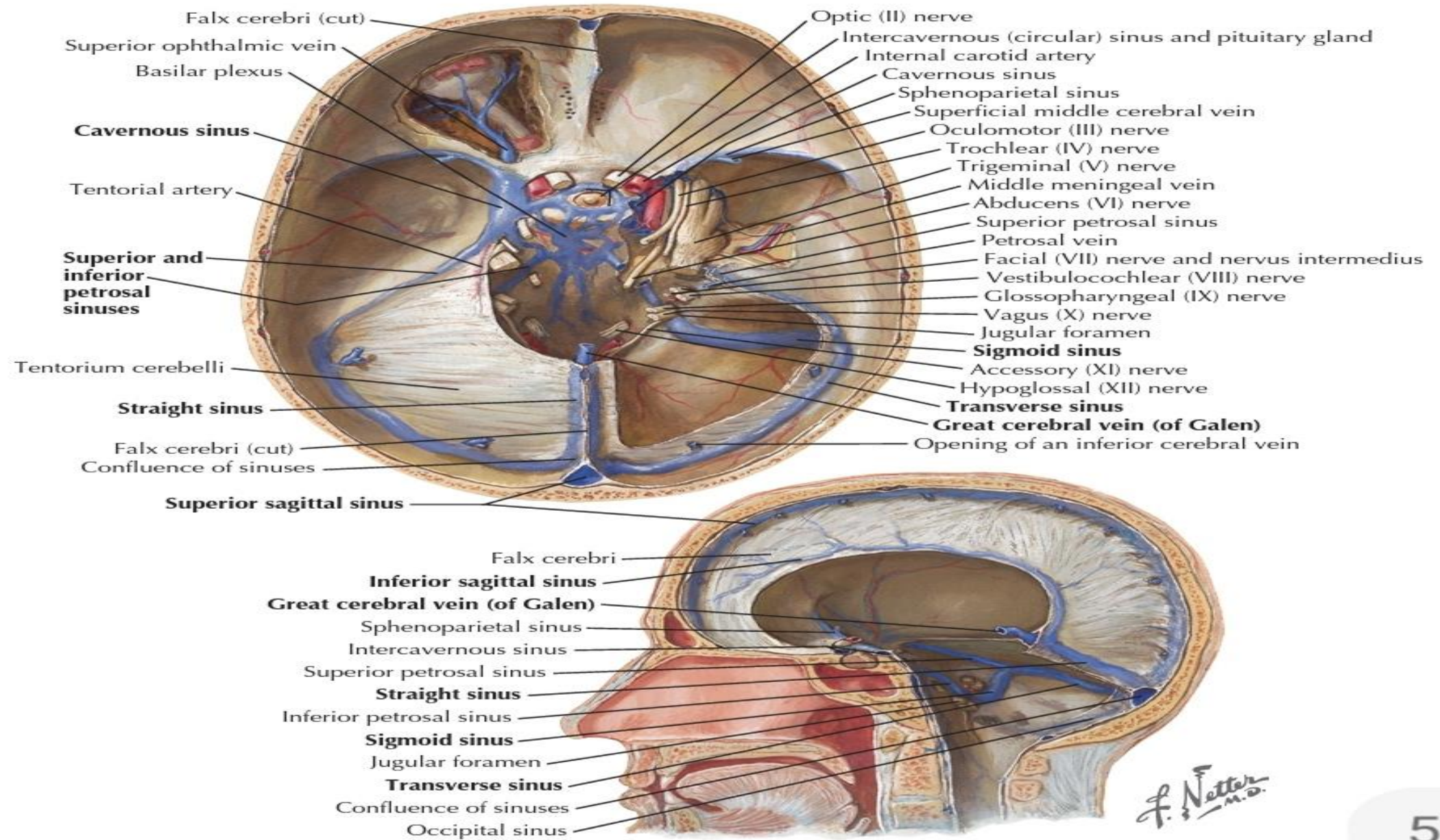
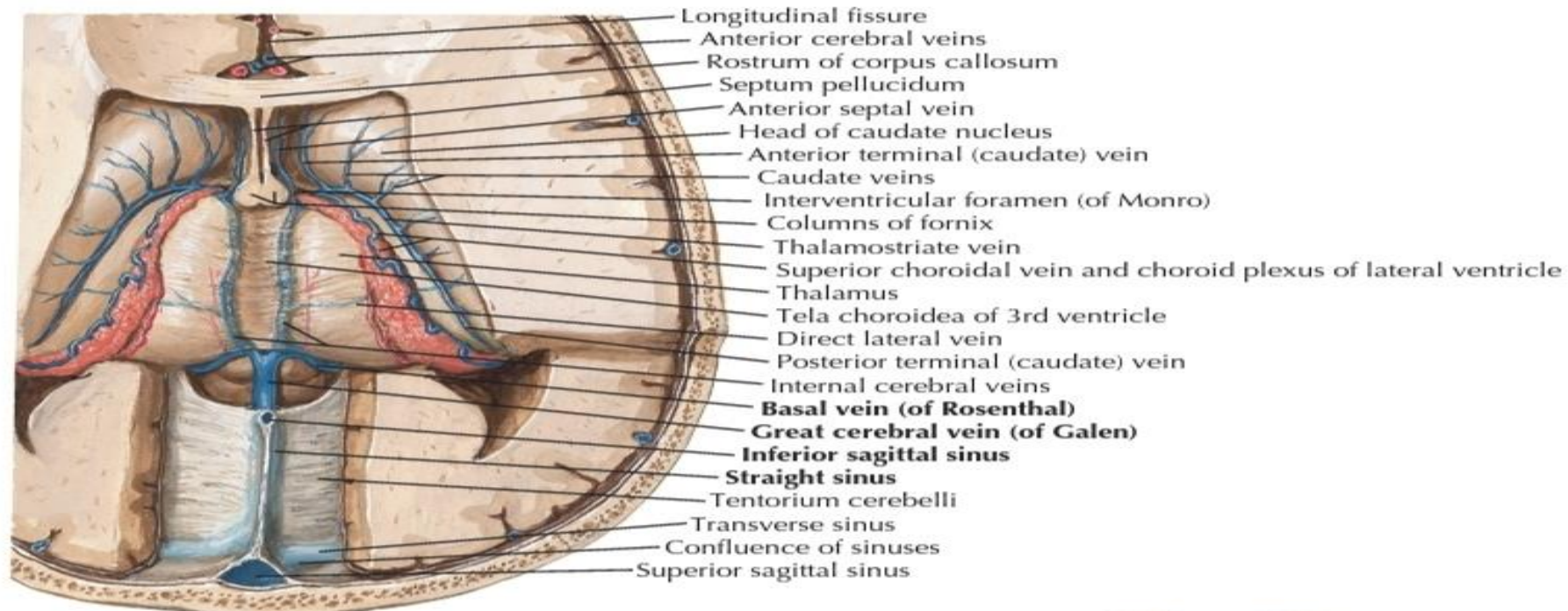
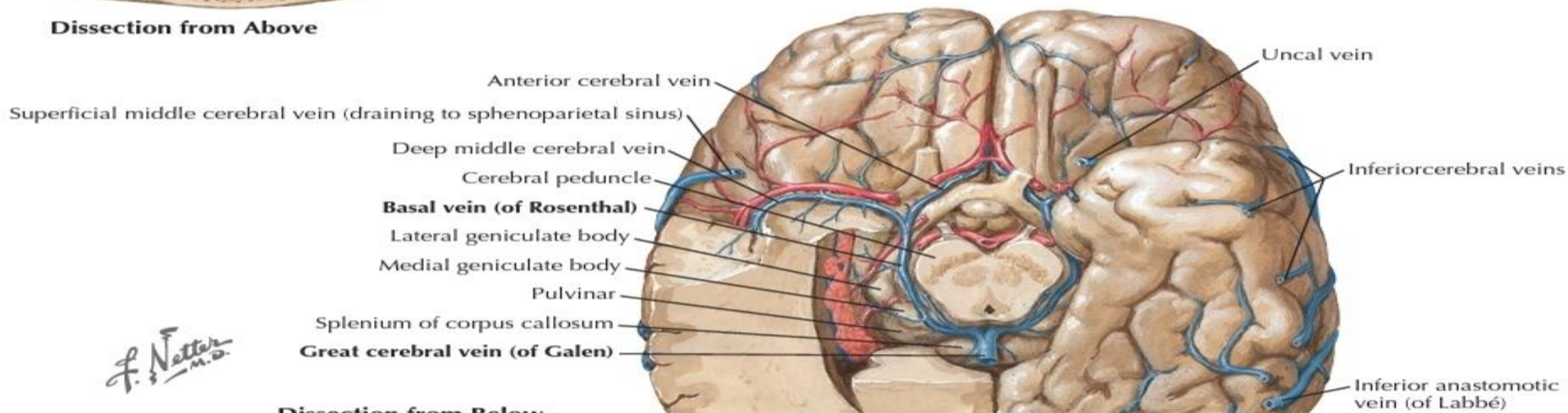


Figure 56-1 Dura Mater Venous Sinuses.

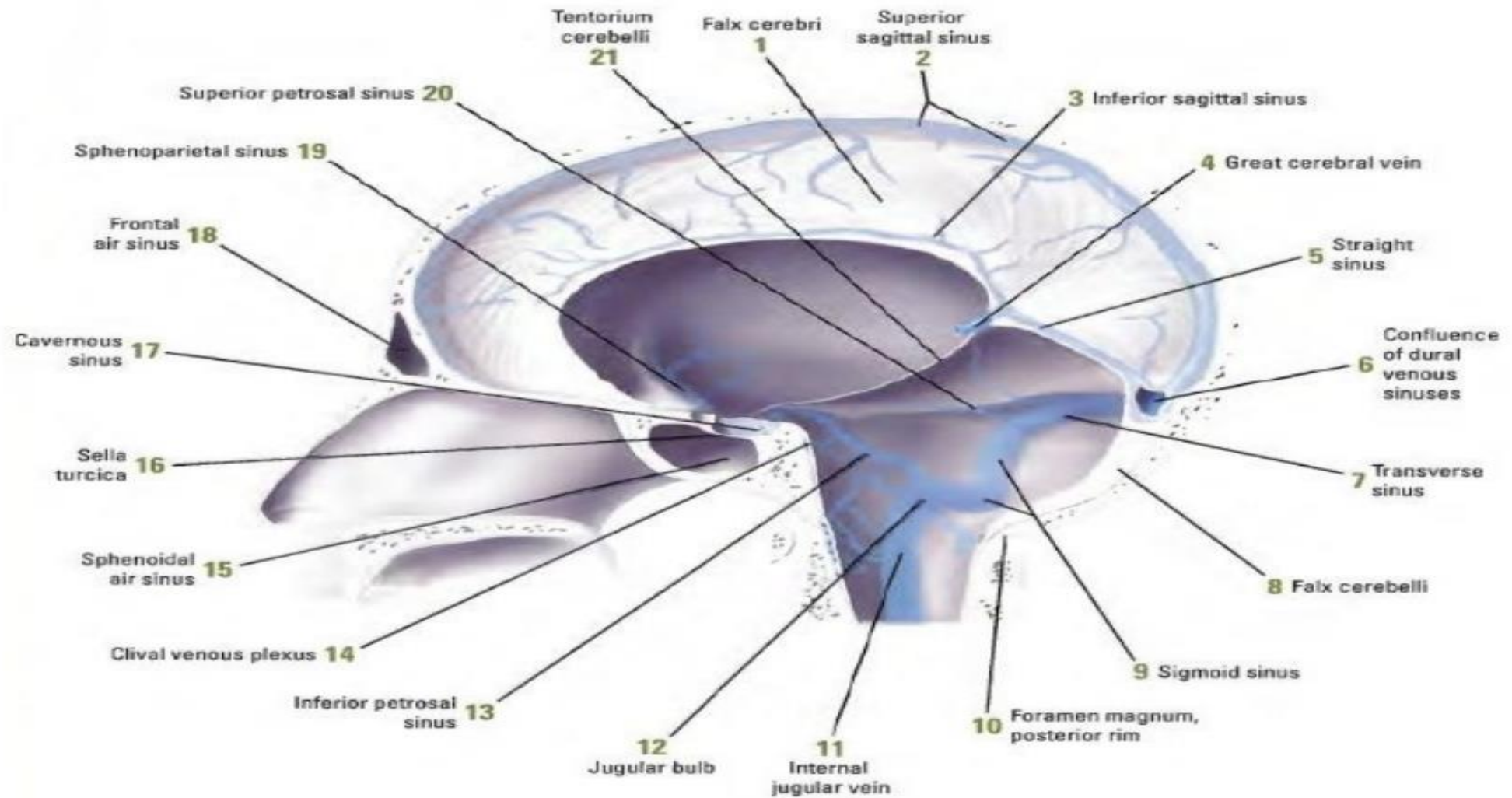


Dissection from Above



Dissection from Below

F. Netter M.D.



Cavernous sinus 17

Clival venous plexus 14

Confluence of dural venous sinuses (torcular of *Herophilus*) 6

Falx cerebelli 8

Falx cerebri 1

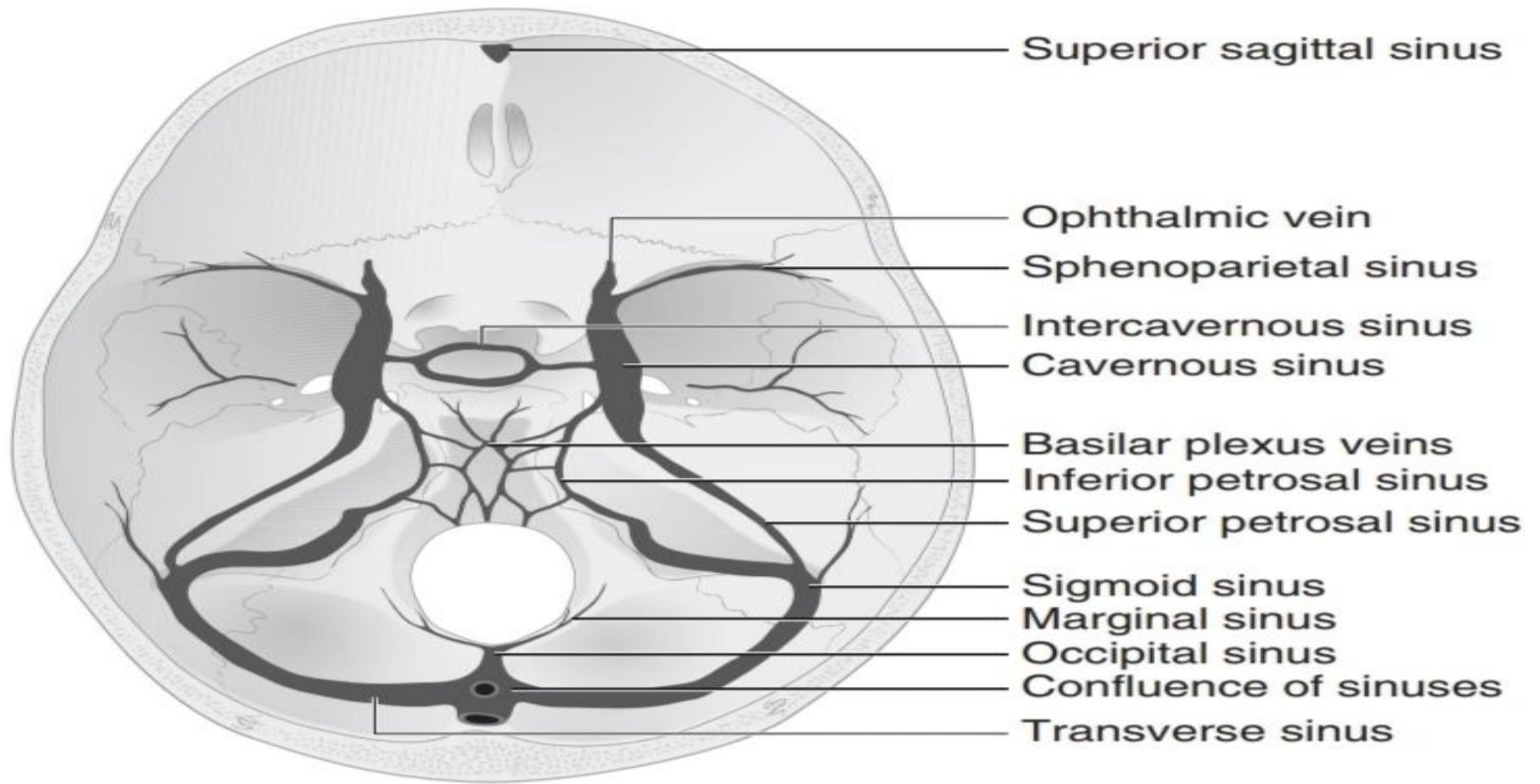


Figure 2.25 Drawing of the base of the skull with the brain removed showing the various dural sinuses.

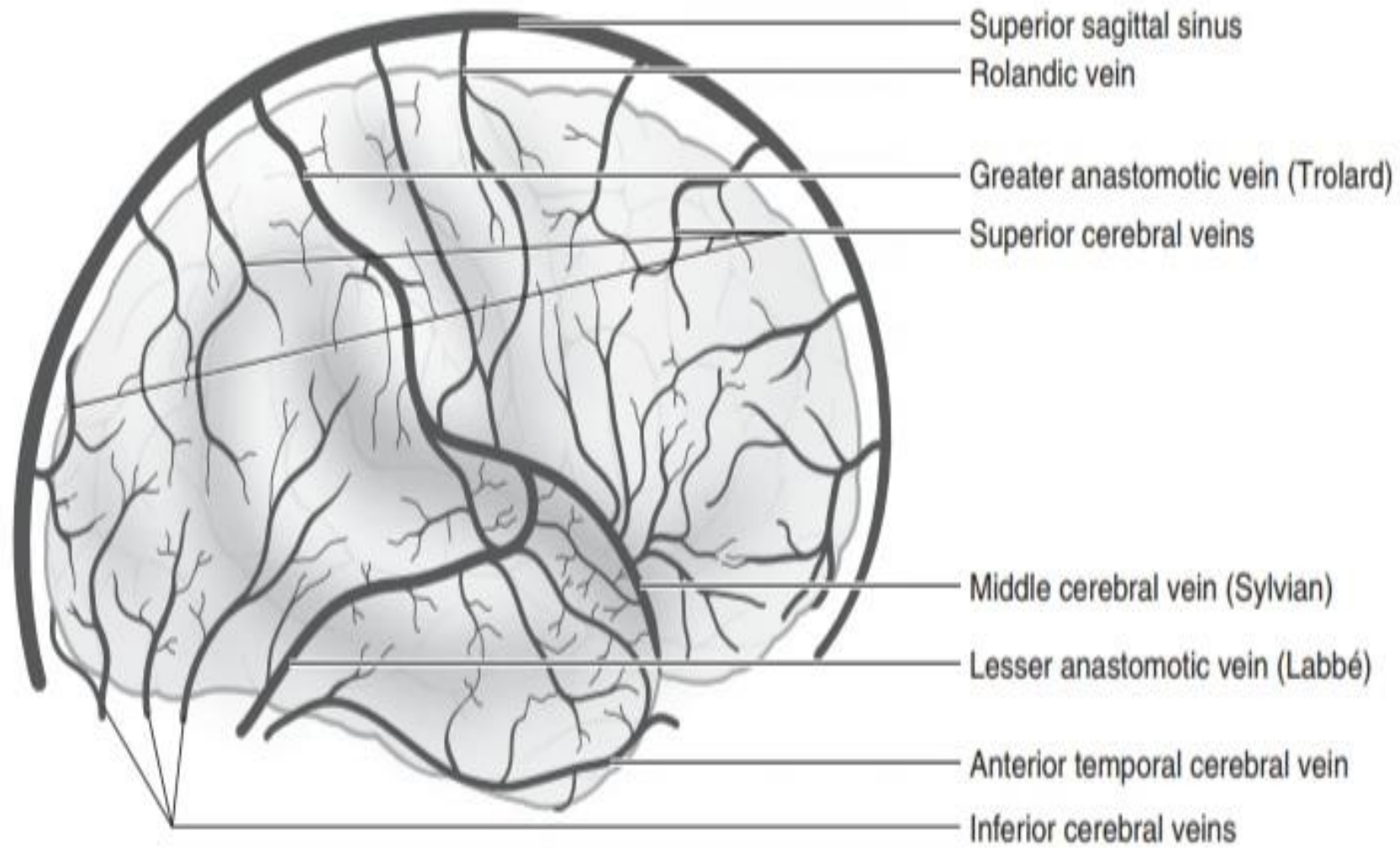


Figure 2.28 Drawing of major superficial veins seen on lateral surface of the left cerebral hemisphere.

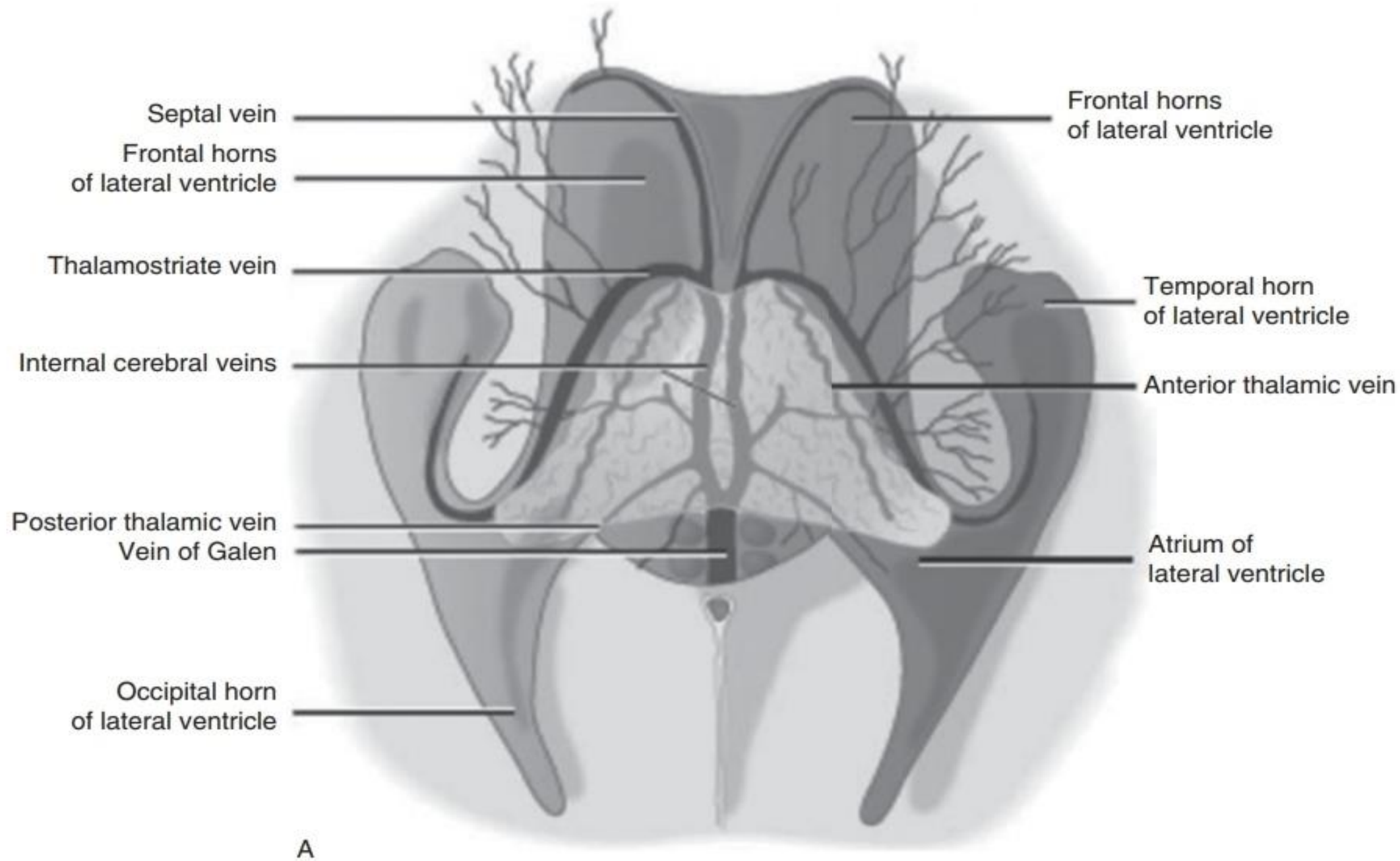


Figure 2.29 The deep venous system: (A) axial section showing the veins and their relations to the ventricles; (B) sagittal section.

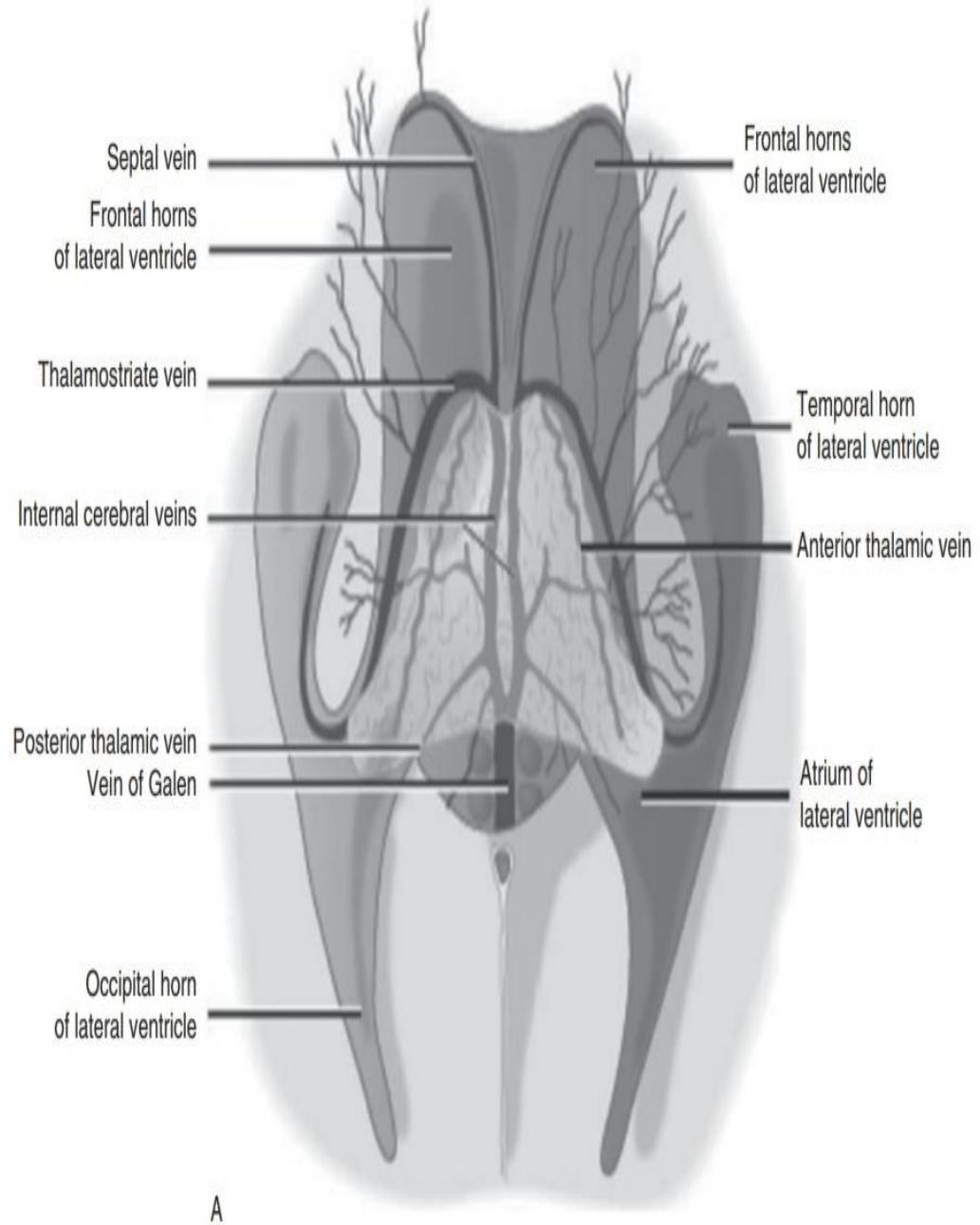
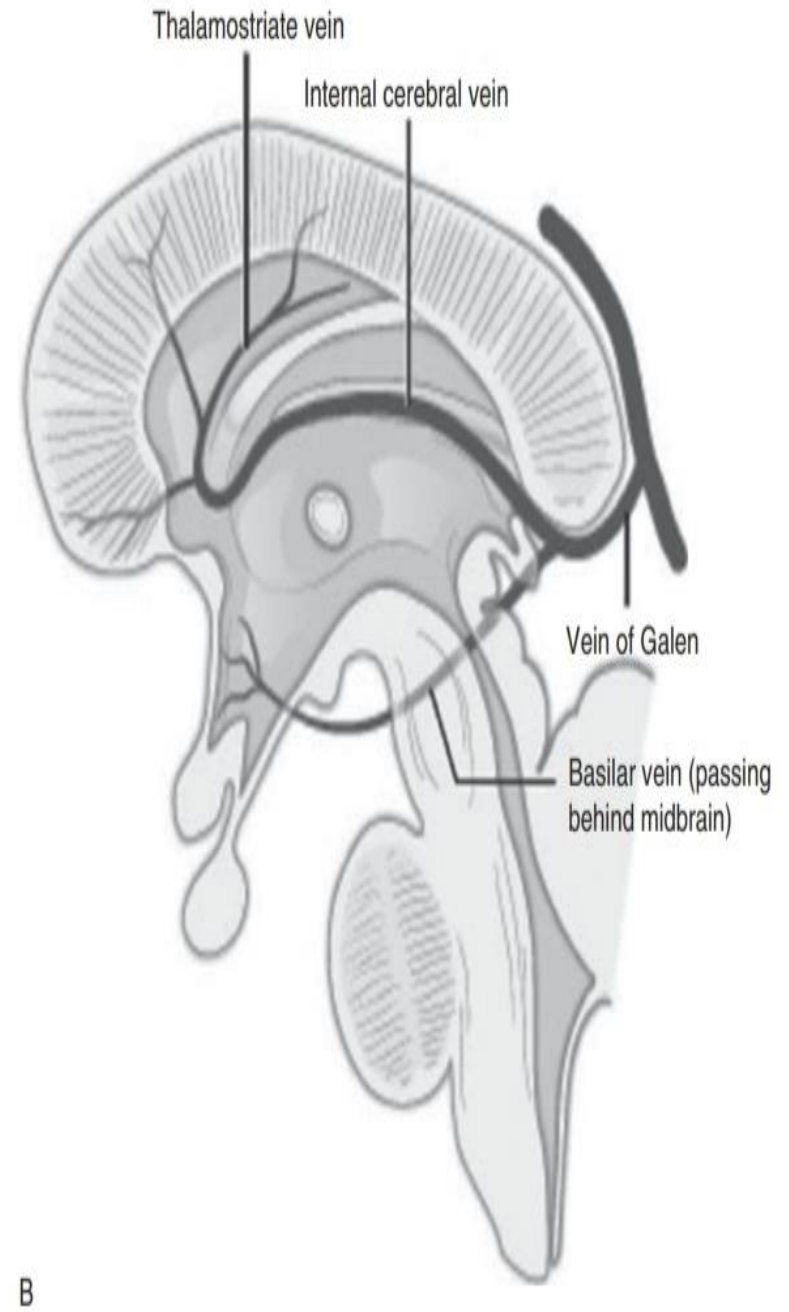


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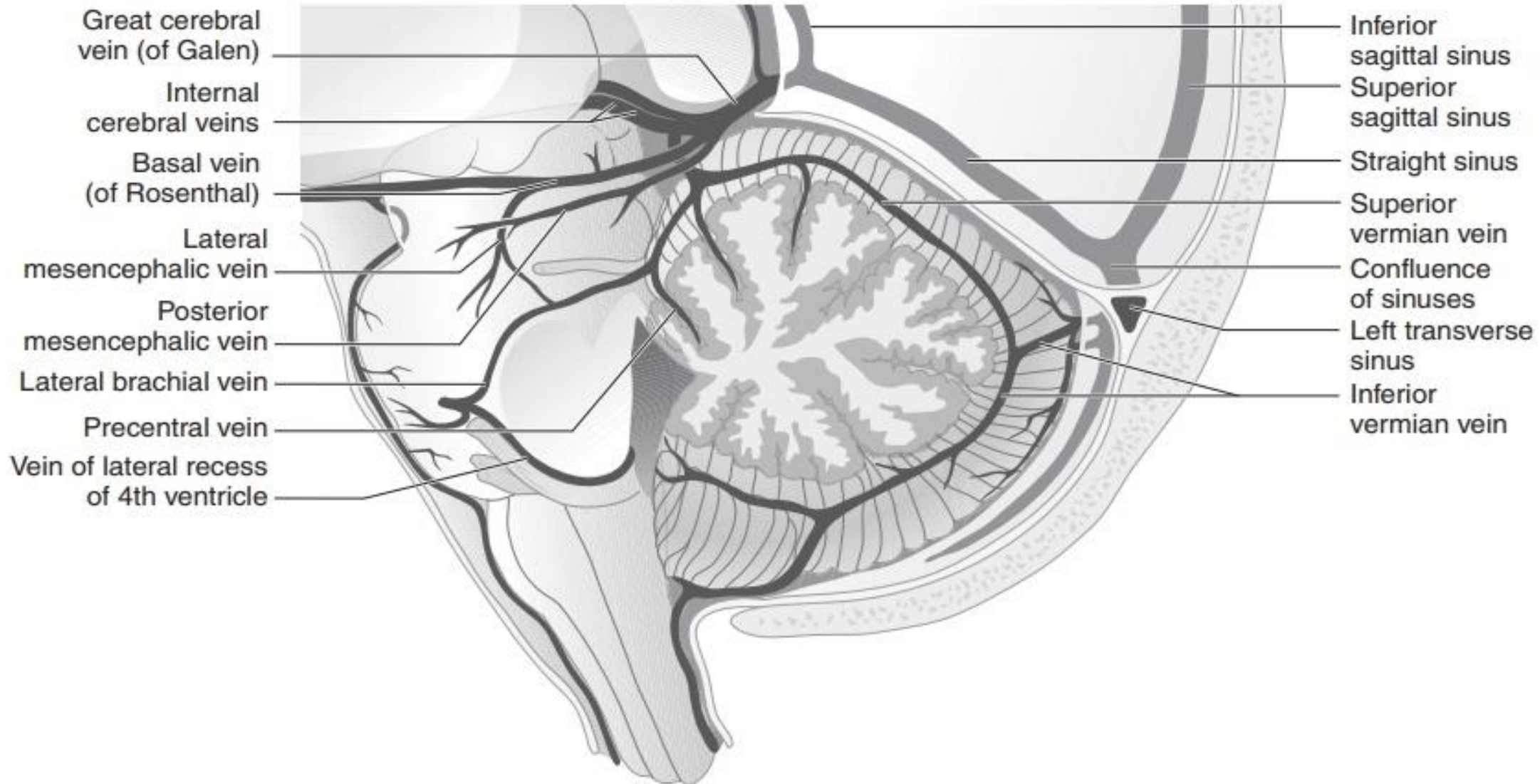
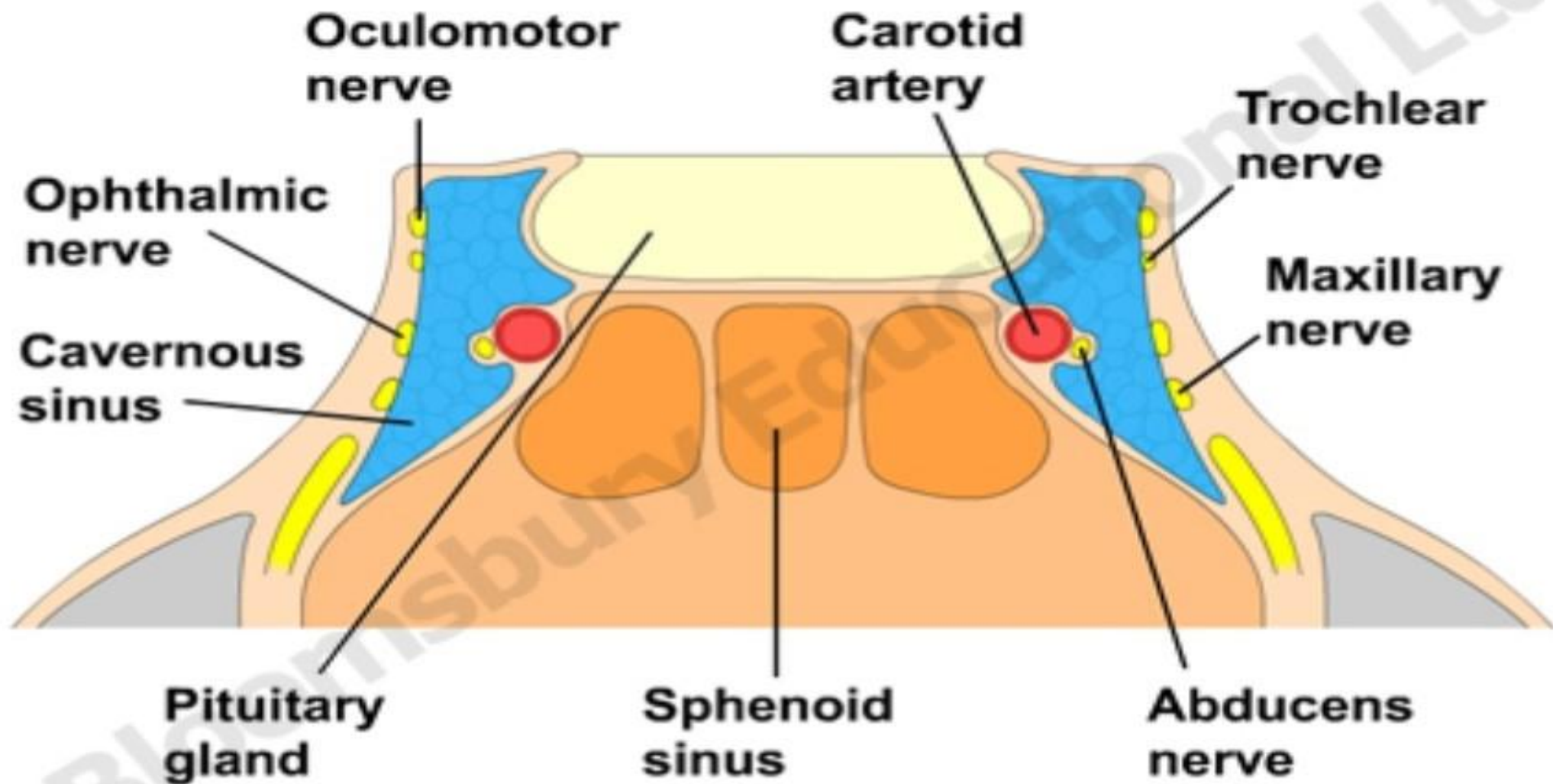


Figure 2.30 Drawing in a sagittal plane showing the brainstem and cerebellum and the major posterior fossa veins.

Cavernous sinuses



Anatomical variations transverse sinus

- 39% hypoplasia of the left sinus
- 31% symmetric
- 20% aplasia of the left sinus
- 6% hypoplasia of the right sinus
- 4% aplasia of the right sinus

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Importance of Anatomical Asymmetries of Transverse Sinuses: An MR Venographic Study

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Keywords: > [Transverse sinus](#)

> [Anatomic asymmetries](#) > [MR venography](#)

> [Thrombosis](#)

Anatomical variations.

Superior sagittal sinus

- ▶ DUPLICATION OF ANTERIOR SSS
- ▶ UNILATERAL HYPOPLASTIC ANTERIOR SSS.
- ▶ COMPLETE OR BILATERAL HYPOPLASTIC ANTERIOR SSS. THE absent portion ...replaced by a pair of LARGE PARASAGITAL SUPOERIOR FRONTAL CORTICAL VEINS.

^ References

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2. Jr. HRJJ, Burns T, Aminoff MJ et-al. The Netter Collection of Medical Illustrations: Nervous System, Volume 7, Part 1 - Brain. Elsevier Health Sciences. (2013) ISBN:1455733873. [Read it at Google Books](#) - [Find it at Amazon](#)
3. D. San Millán Ruíz, J.H.D. Fasel, P. Gailloud. Unilateral Hypoplasia of the Rostral End of the Superior Sagittal Sinus. (2012) American Journal of Neuroradiology. 33 (2): 286. doi:10.3174/ajnr.A2748 - [Pubmed](#)

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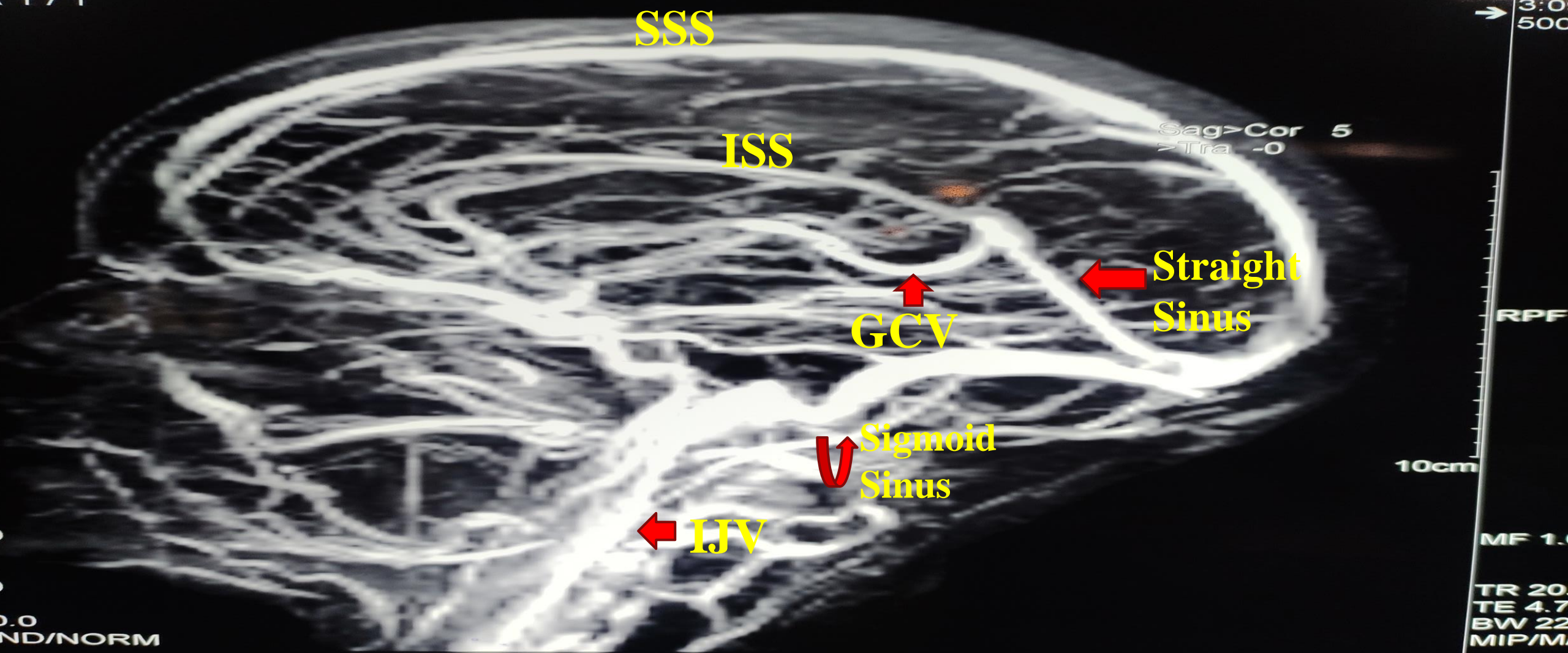


179°
0°



4, F, 27Y
M
1 / 1

Skyra 32079
MR E11 *3/22/19
HFS
+LPH
ST
3/2
3:0
→ 500



0.0
ND/NORM

1

t70 / 60

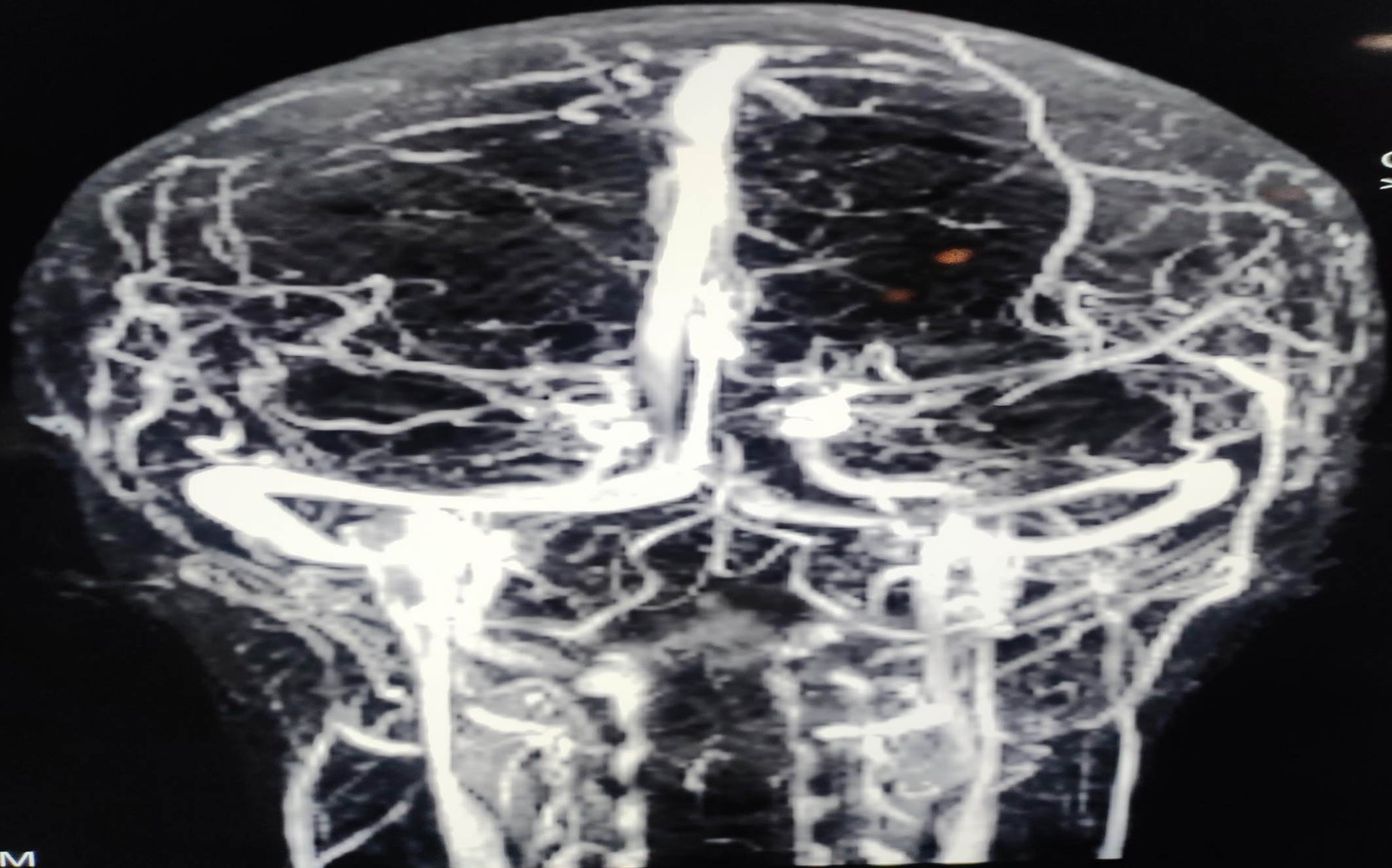
ELA 27Y F

994, F, 27Y
Y 1

with contrast

AFR GOVT MEDICAL COLLEGE SRINAGAR(E...)

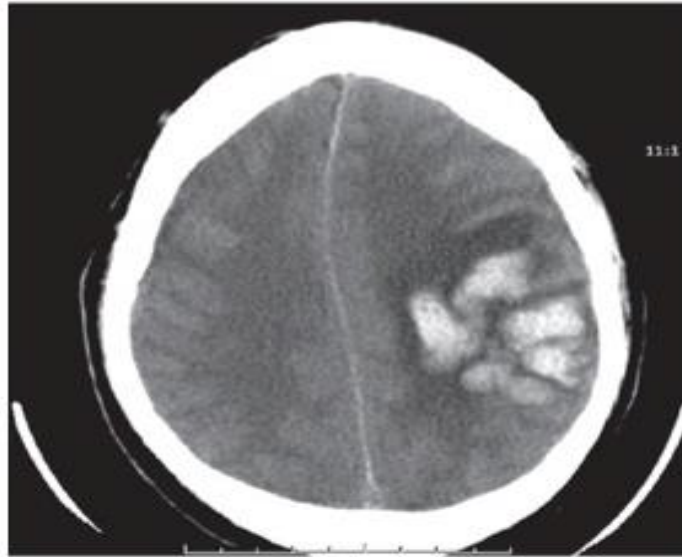
Sag>Cor(5.3)>Tra(-0.1)



Cor>Tra
>Sag -5

NORM

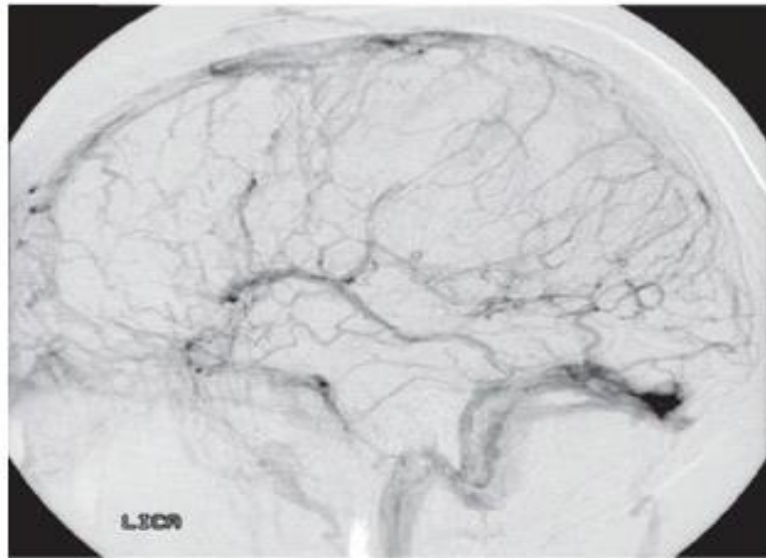
Cor>Tra(-19.7)>S



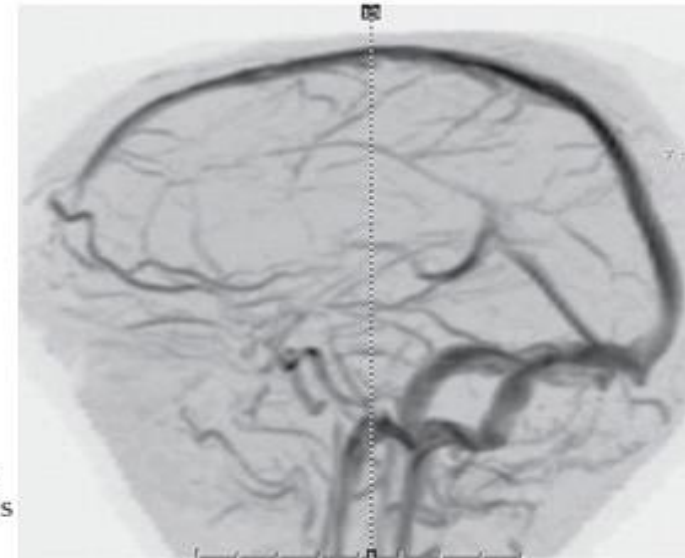
A. CT 2 days after admission showing left posterior frontal parietal patchy hemorrhage within the ischemic region.



B. Magnetic resonance venography (MRV) demonstrates absence of flow in posterior sagittal sinus and some cortical veins.



C. Digital angiogram, venous phase confirms the MRV findings.



D. Normal MRV for comparison.

Figure 56-6 Sagittal Sinus Thrombosis.

THANK YOU