
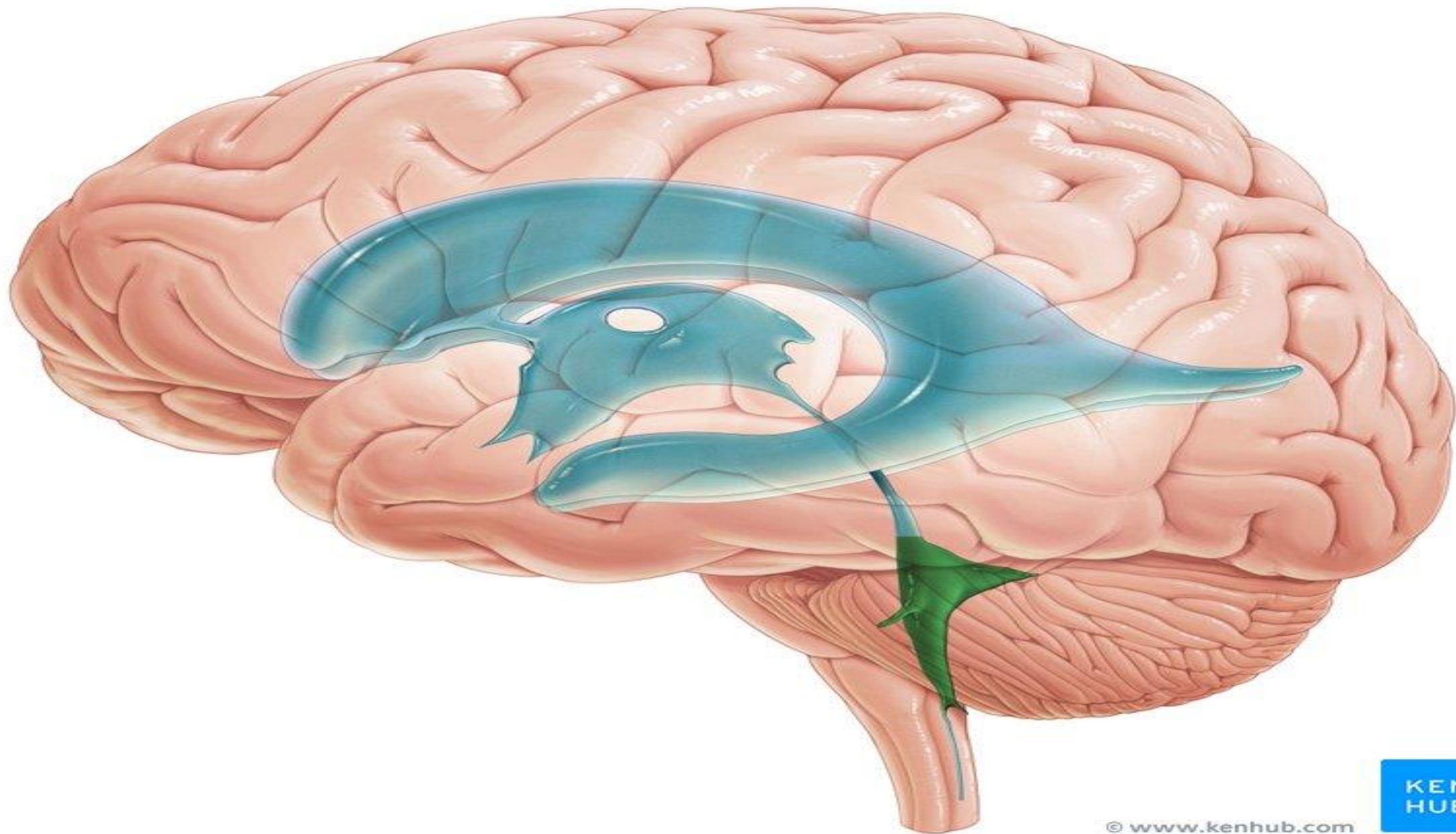


# Fourth ventricle

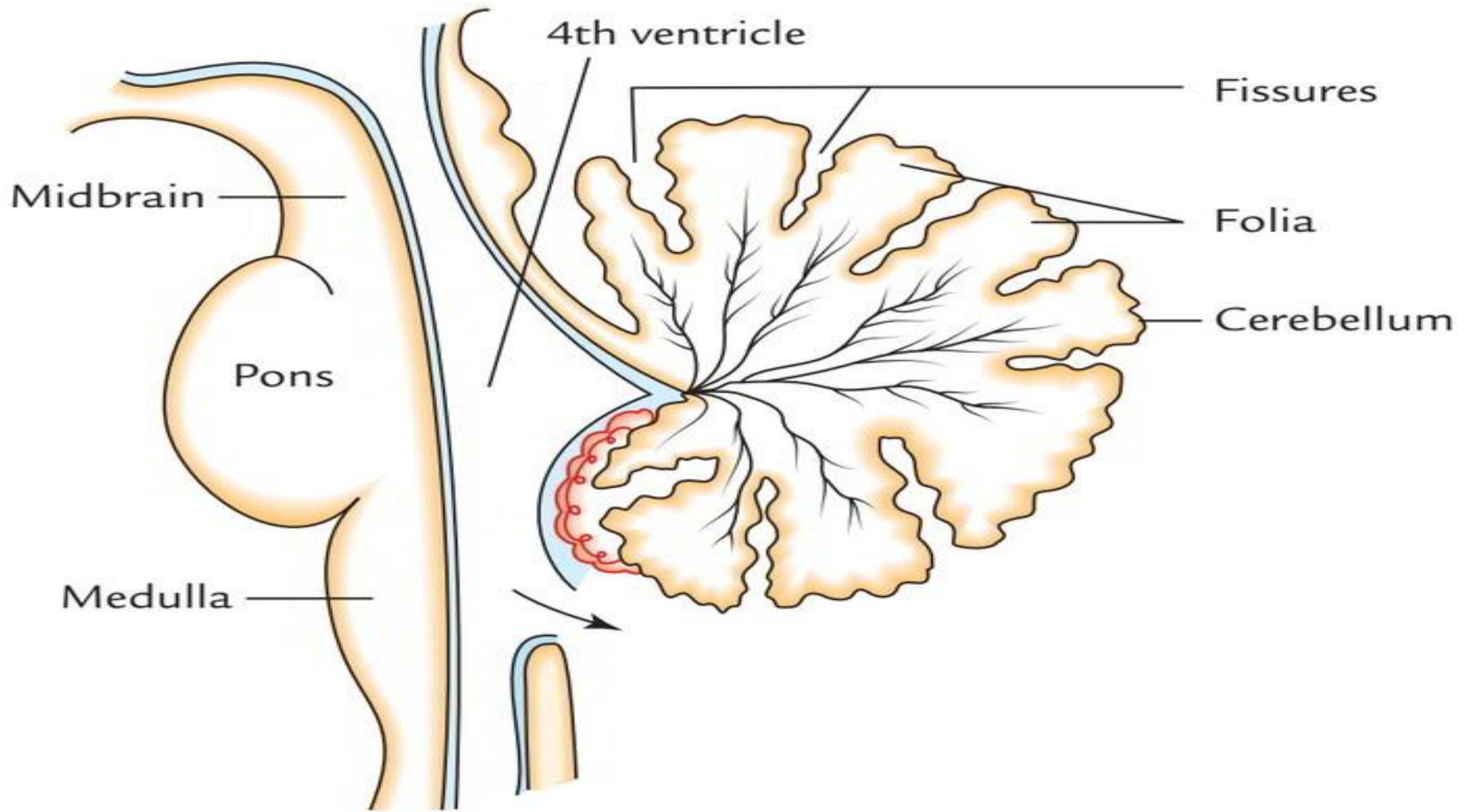
MARWA JAVED

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- ▶ 4<sup>th</sup> ventricle is tent like cavity of hindbrain filled with cerebro spinal fluid.
    - ▶ Situated in posterior cranial fossa
  - ▶ Traingular outline in sigittal section and appears rhomboidal in shape in horizontal section.



# Location

- ▶ Behind the pons and upper medulla oblongata.
- ▶ In front of cerebellum



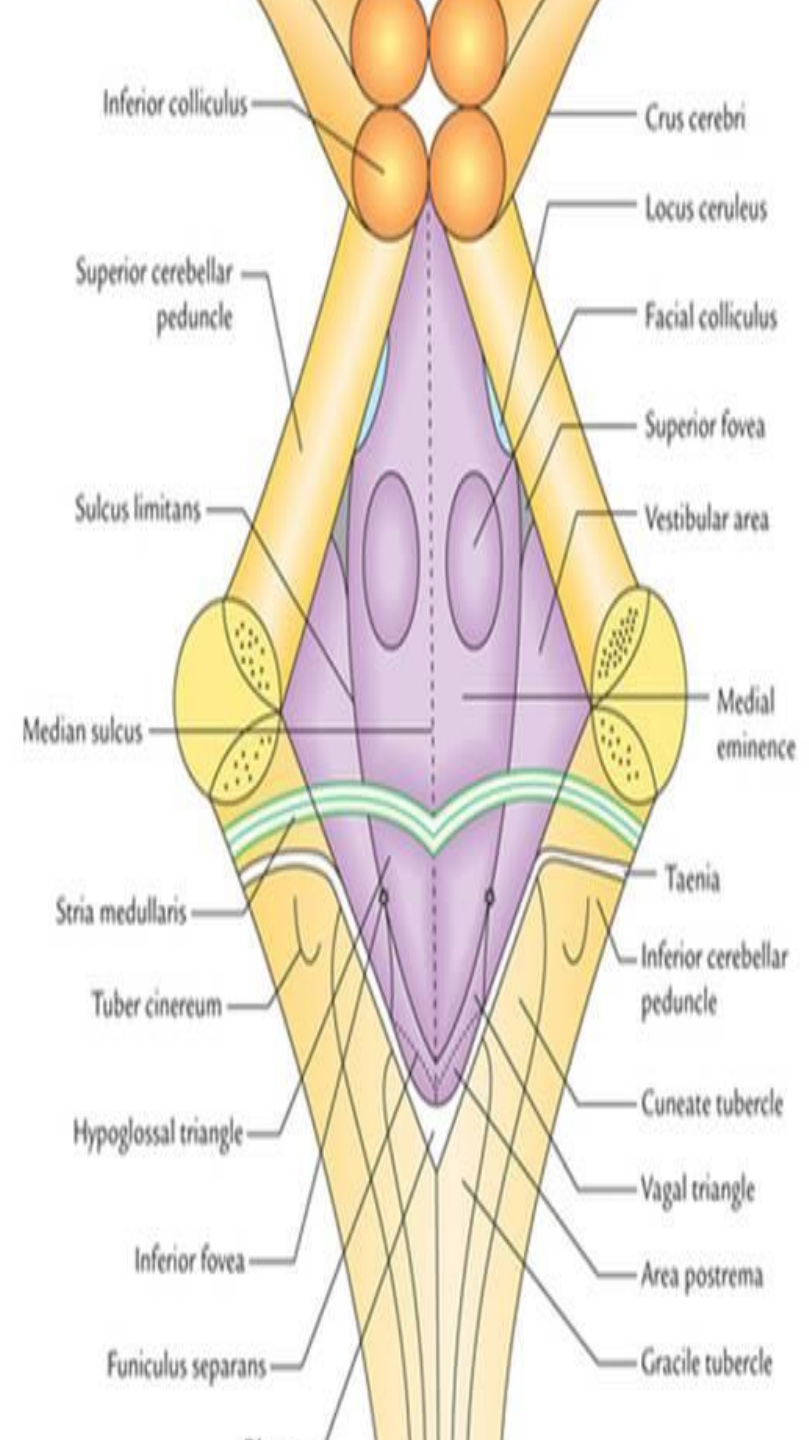
# BOUNDRIES

- ▶ Two lateral boundaries
- ▶ A roof
- ▶ A floor

# Lateral Boundaries

A) Superolateral; superior  
Cerebellar peduncle


B) Inferolateral; inferior  
Cerebellar peduncle

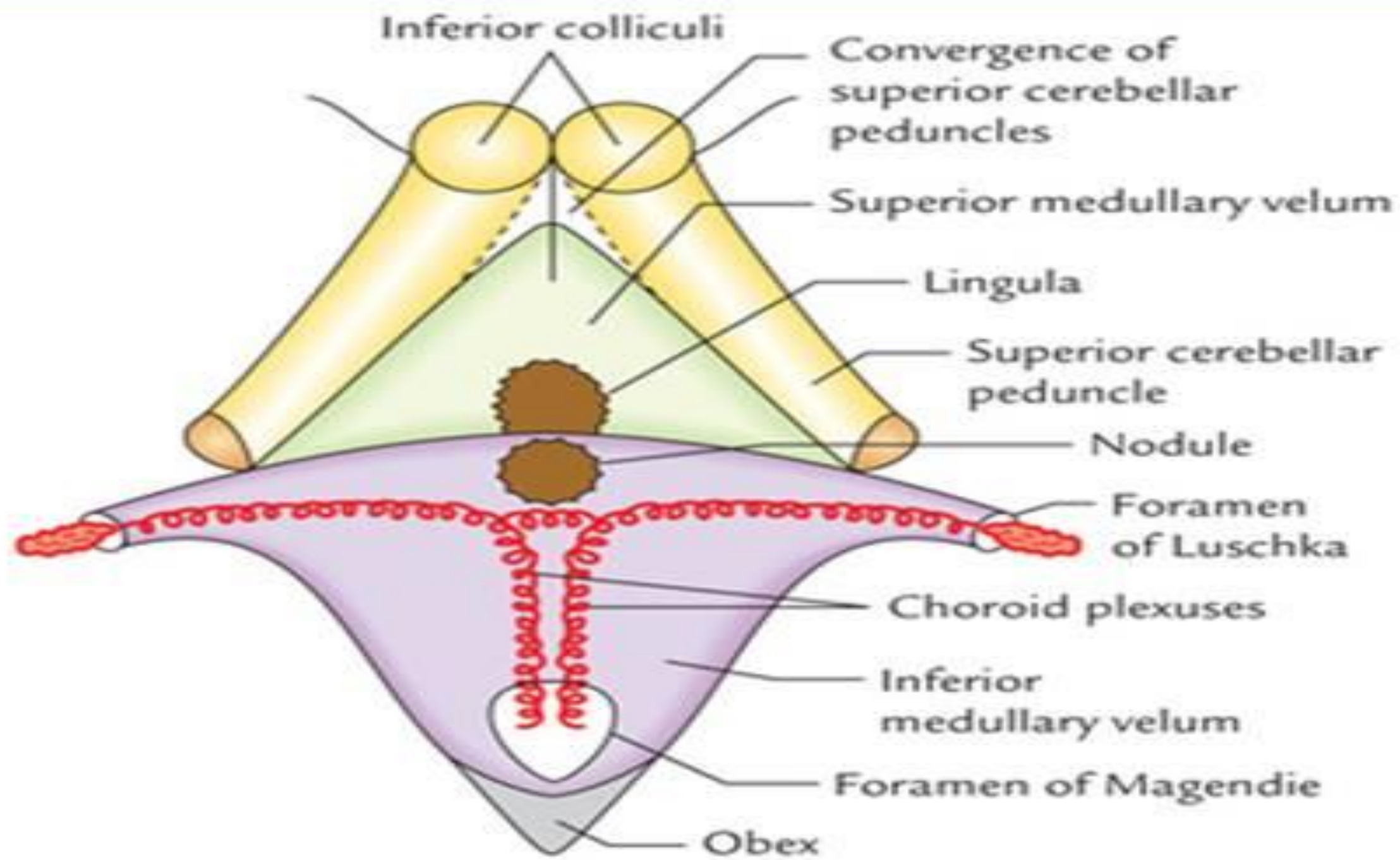


# Roof or Posterior wall

- ▶ Tent shaped projects into cerebellum
- ▶ Superior medullary velum (white matter sheet between two superior cerebellar peduncle)
- ▶ Inferior medullary velum (ependymal cell covered by double layer of pia matter)




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- ▶ The lower part of the roof is perforated by a midline slit, the median aperture (the foramen of Magendie) via which the cavity of the 4th ventricle interacts with all the subarachnoid space of the cerebellomedullary cistern (cisterna magna).
  - ▶ The cavity of the 4th ventricle is prolonged laterally as a narrow lateral recess behind and around the inferior cerebellar peduncle which opens as lateral aperture (foramen of Luschka) into the subarachnoid space in the region of cerebellopontine angle.




# Floor or Rhomboid fossa

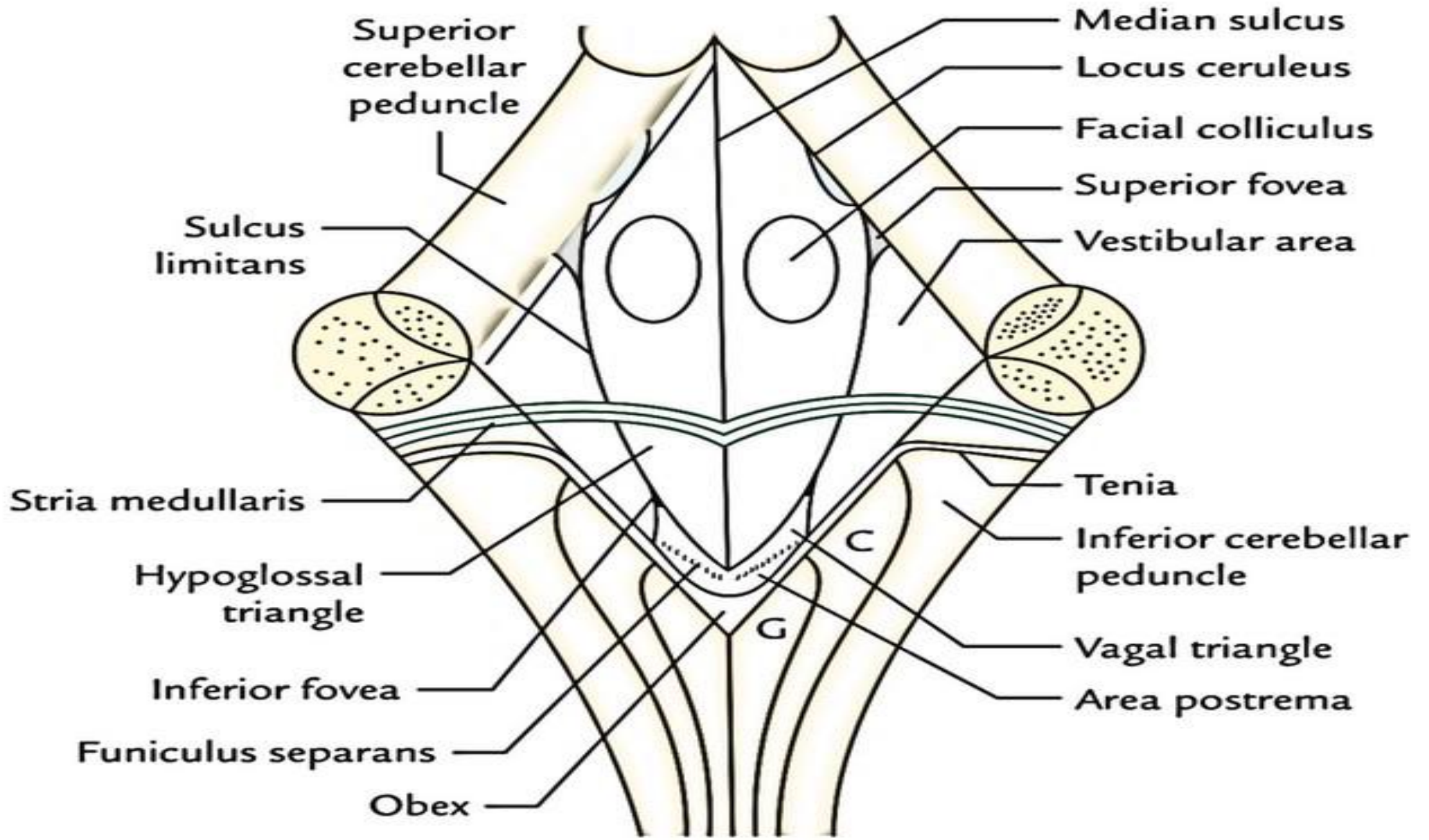
- ▶ Rhomboid in shape (diamond shaped)
- ▶ Formed by posterior surface of pons and upper part of medulla

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- ▶ Three parts
  - ▶ A] upper triangular part - posterior surface of pons
  - ▶ B] lower triangular part - upper part of posterior surface of medulla
  - ▶ C] intermediate part at junction of medulla and pons

# Features

- ▶ Median sulcus
- ▶ Medial eminence
- ▶ Lateral to median eminence is sulcus limitans
- ▶ Lateral to sulcus limitans is vestibular area [vestibular nucleus]
- ▶ On either side of medial eminence, an oval swelling is present, facial colliculus

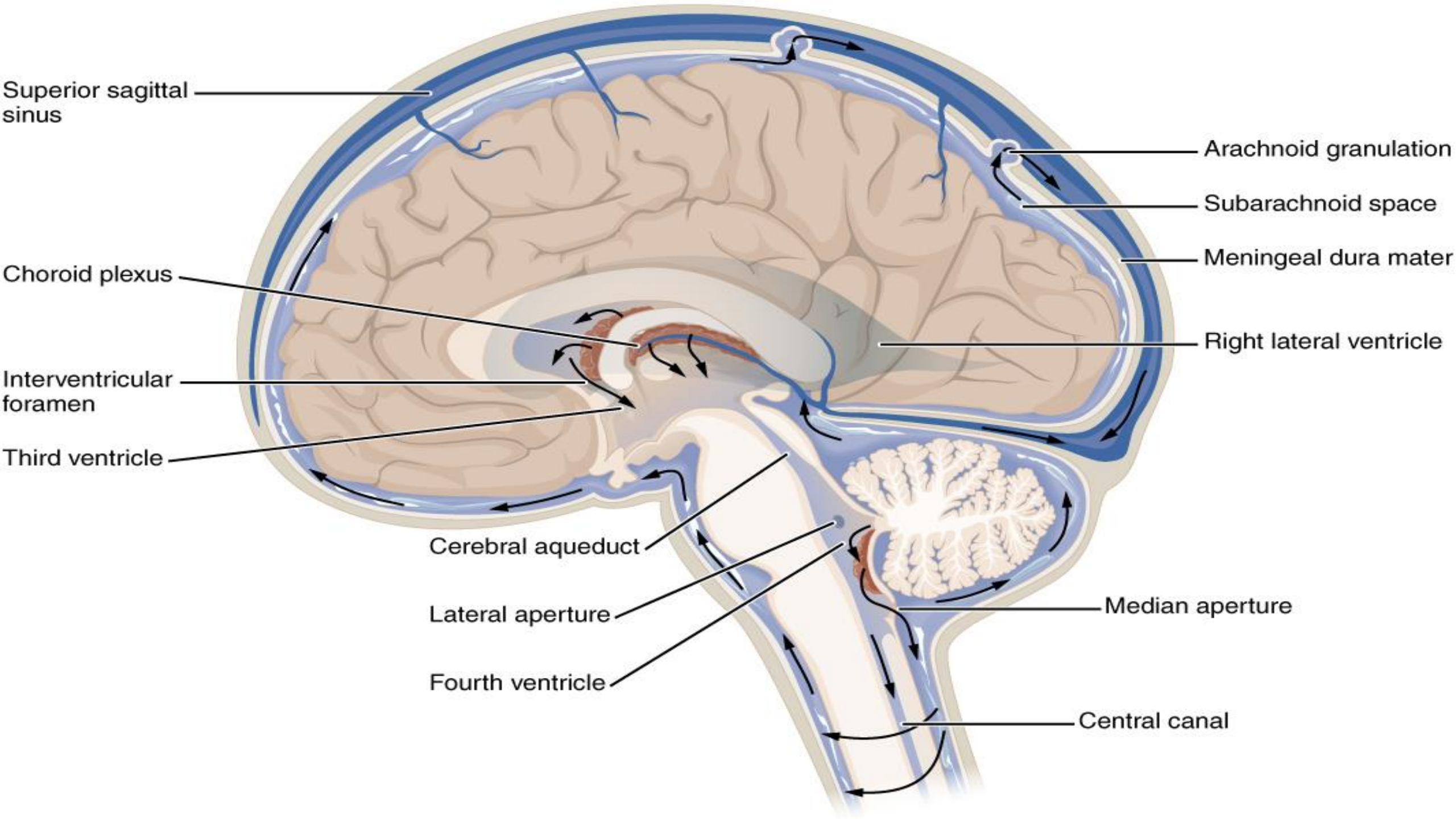
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- ▶ Stria medulla; derived from arcuate nuclei.  
Emerge from median sulcus and merge with inferior cerebellar peduncle.  
Inferior to stria medularis there is hypoglossal triangle, lateral to hypoglossal triangle there is vagal triangle.



# Connections

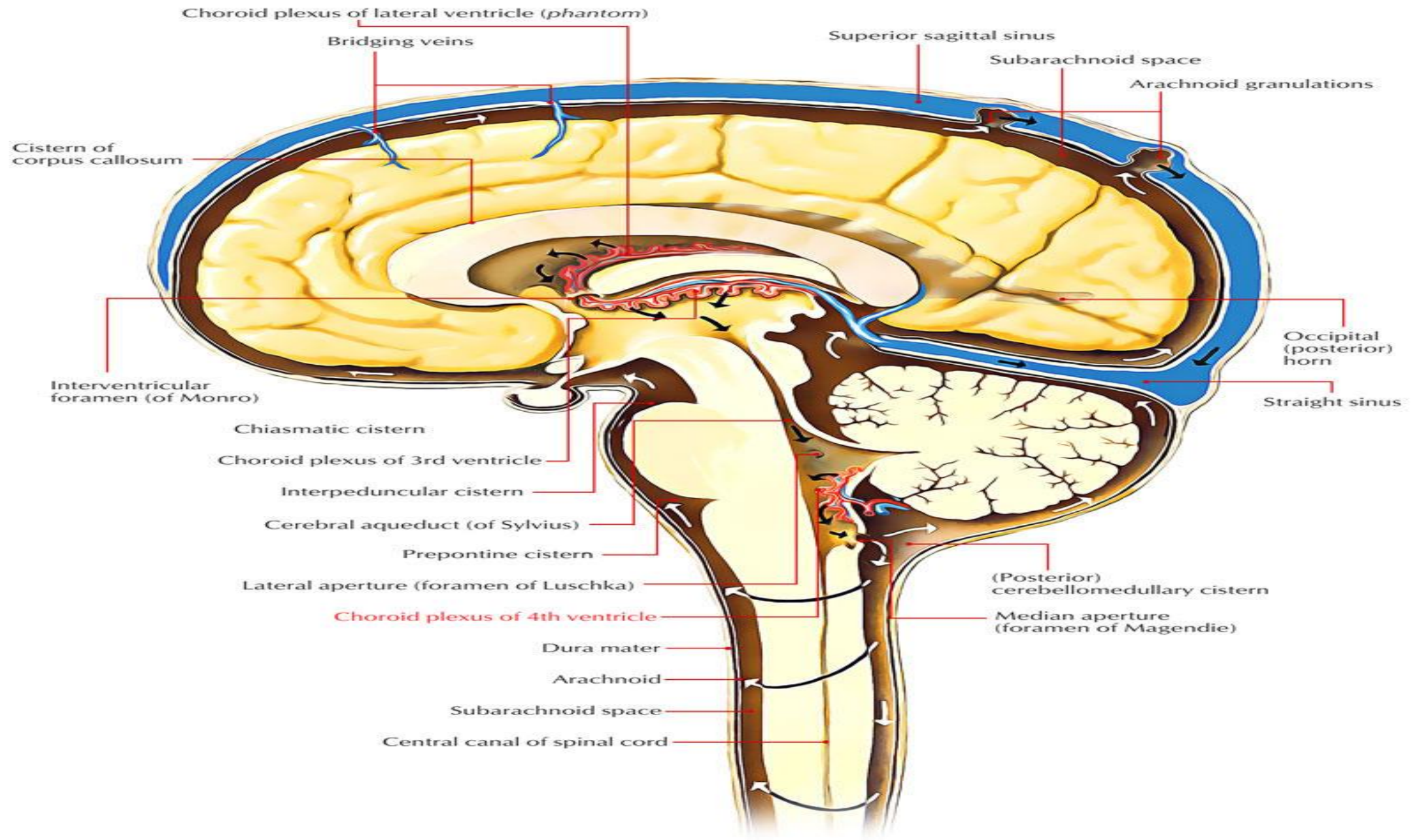
- ▶ Continue superiorly with cerebral aqueduct that connect it to third ventricle
- ▶ Continue inferiorly with central canal of medulla oblongata
- ▶ It communicate with subarchinoid space through foramen of magenda and Iuschka.





# Choriod plexus

- ▶ Choriod plexus has t shape
- ▶ It is suspended from inferior part of roof of ventricle
- ▶ Formed by highly vascular tela choriodea[it is double layer of pia matter that project through roof of ventricle and covered by ependymal]
- ▶ Blood supply is posterior inferior cerebellar arteries





Thank you