

NOP 552 – Spring 2004
Spinal Cord Lab Objectives





This image shows a detailed anatomical dissection of the meninges and spinal cord. The spinal cord is visible as a thick, yellowish, cord-like structure. It is surrounded by three layers of meninges: the dura mater (outermost, thick, and fibrous), the arachnoid mater (middle, thin, and web-like), and the pia mater (innermost, thin, and closely adherent to the spinal cord). The dissection is performed on a specimen, likely a pig or similar animal, as evidenced by the surrounding tissue and bone. The labels are placed on the right side of the image, with lines pointing to the corresponding structures.

1a. Spinal cord

3e. arachnoid mater

3b. Spinal dura mater



1b.
Level of origin

Superior orbital foramen

Optic foramen



This image shows a detailed anatomical dissection of a muscle and nerve structure. A white label with black text is placed over the tissue, with a thin black line pointing to a specific horizontal layer. The tissue is layered, with a dark, fibrous muscle layer and a lighter, more fibrous layer above it. A white suture is visible on the left side, and a green suture is visible on the right side. The overall color of the tissue is a mix of brown, tan, and dark purple.

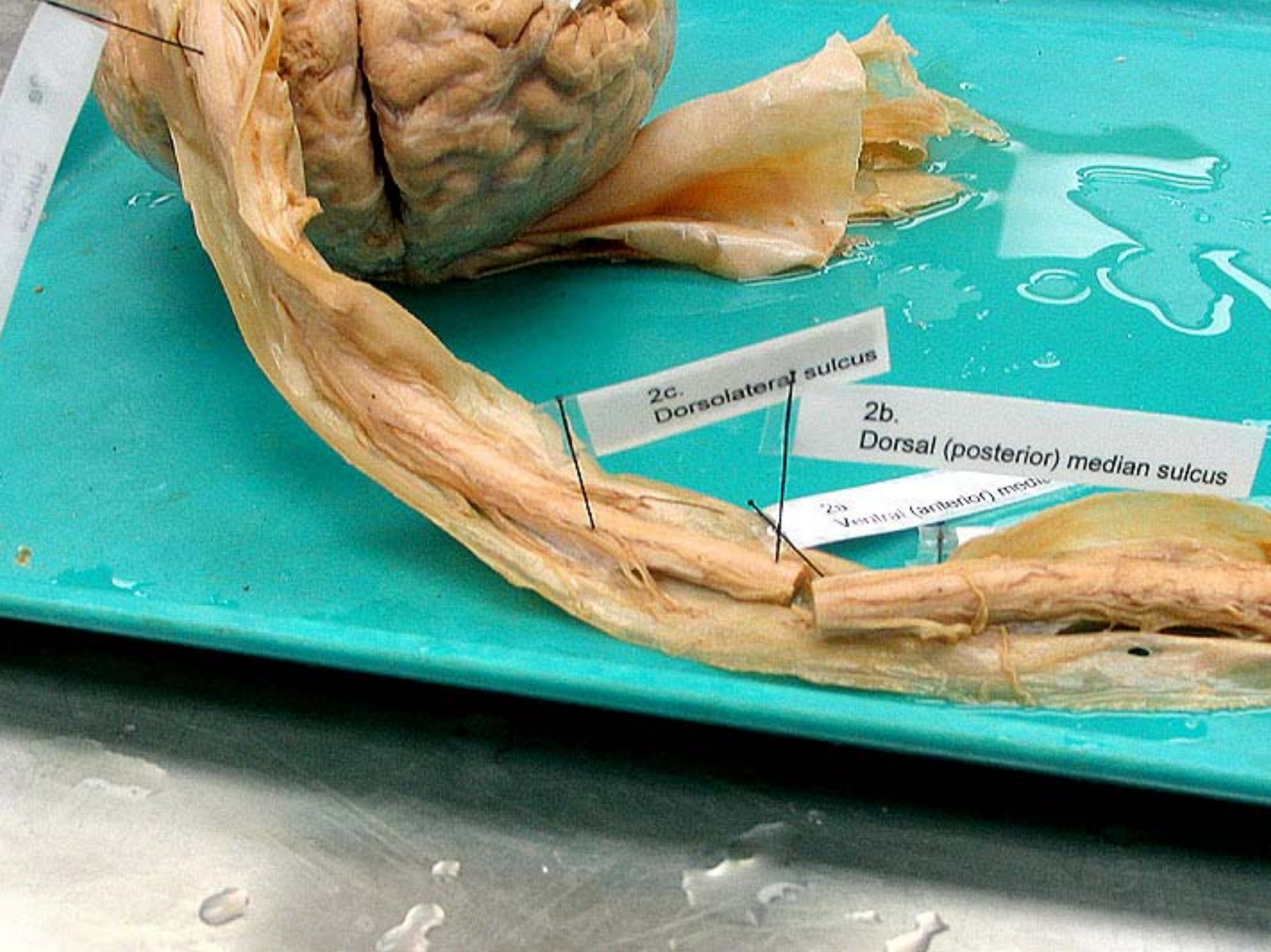
1c.
Level of termination



2h. Dorsal (posterior) root

2a. Ventral (anterior) median fissure

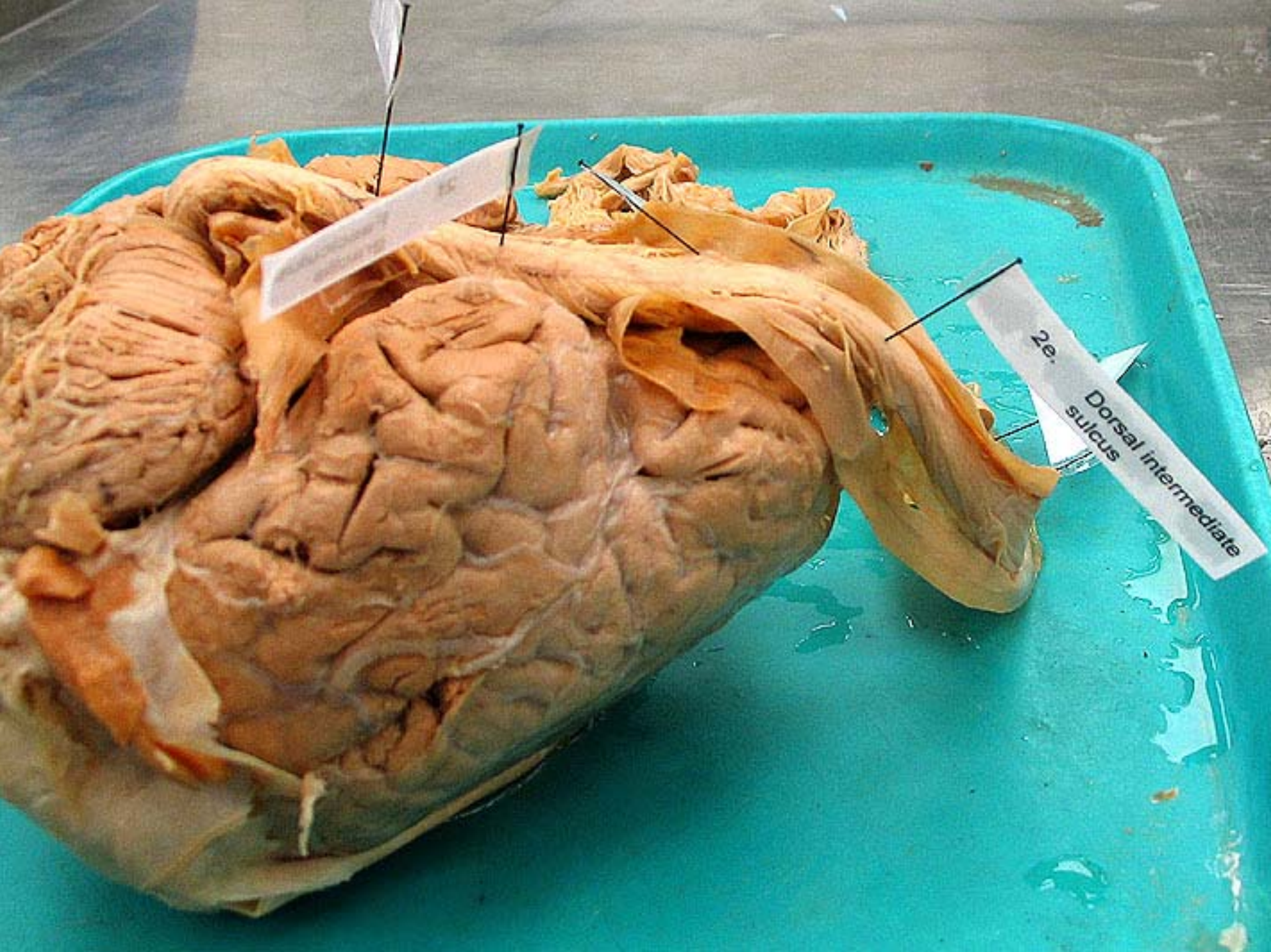
2d. Ventrolateral sulcus



2c.
Dorsolateral sulcus

2b.
Dorsal (posterior) median sulcus

2a.
Ventral (anterior) median sulcus



2e.

Dorsal intermediate
sulcus

2h. Dorsal
(posterior) root

2a. Ventral (anterior) median fissure

2d. Ventrolateral
sulcus

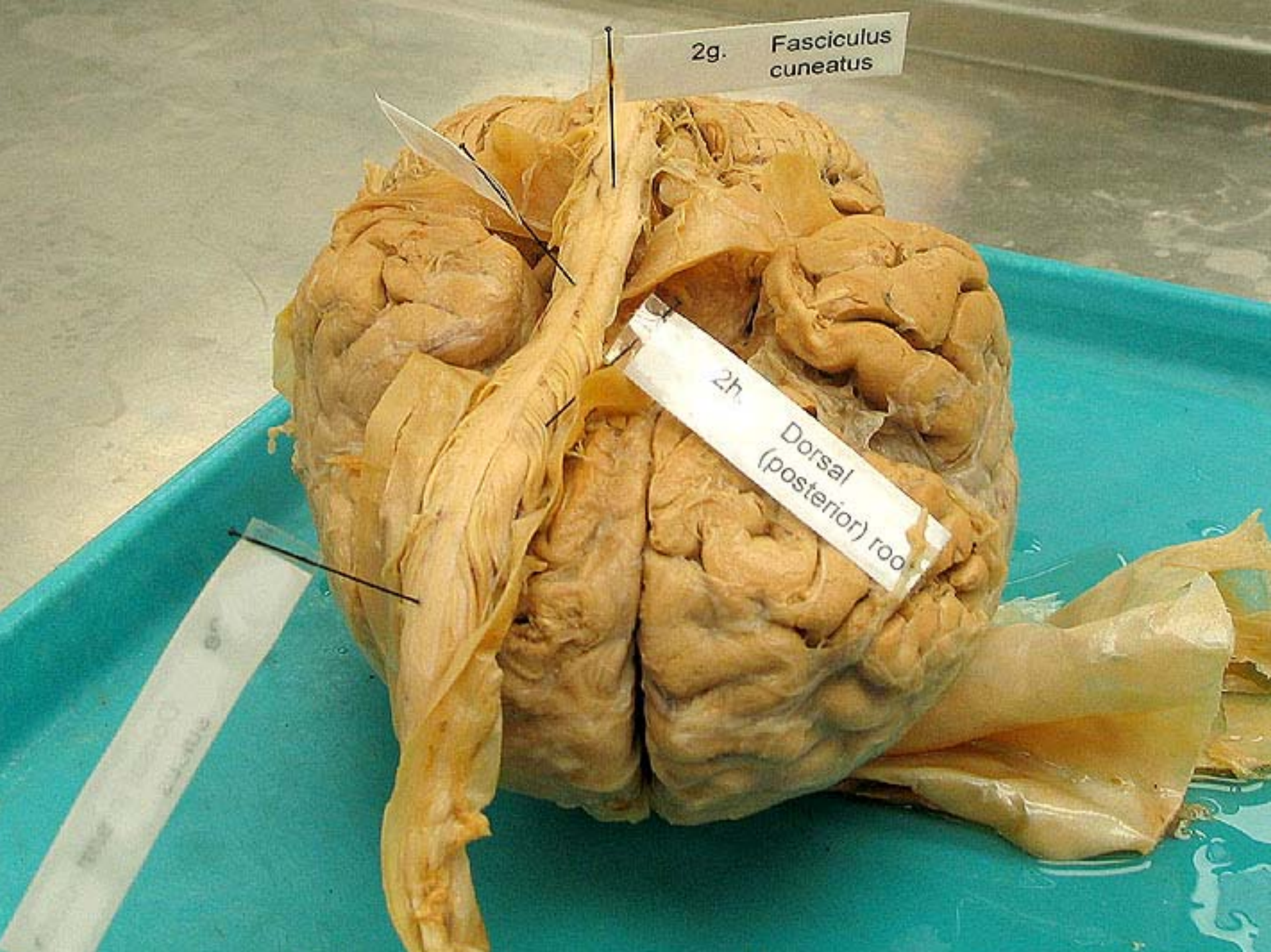


2g. Fasciculus
cuneatus

2h.

Dorsal
(posterior) root

2f. Fasciculus
cuneatus



Fasciculus cuneatus

2h. Dorsal (posterior) root

2a. Ventral (anterior) median fissure

2d. Ventrolateral sulcus





2k. Spinal nerve

2i. Ventral
(anterior) root

20. Cervical
enlargement



2j. Dorsal root
(spinal) ganglion

This image shows a detailed anatomical dissection of a spinal root ganglion. The ganglion is a large, oval-shaped structure with a complex, fibrous internal texture, appearing yellowish-brown. It is surrounded by various layers of connective tissue and muscle. Several yellow plastic strips are used to hold open the dissection, revealing the internal structure. A small black line points from the label to the specific area of the ganglion being identified.



2i. Ventral (anterior) root

2k. Spinal nerve

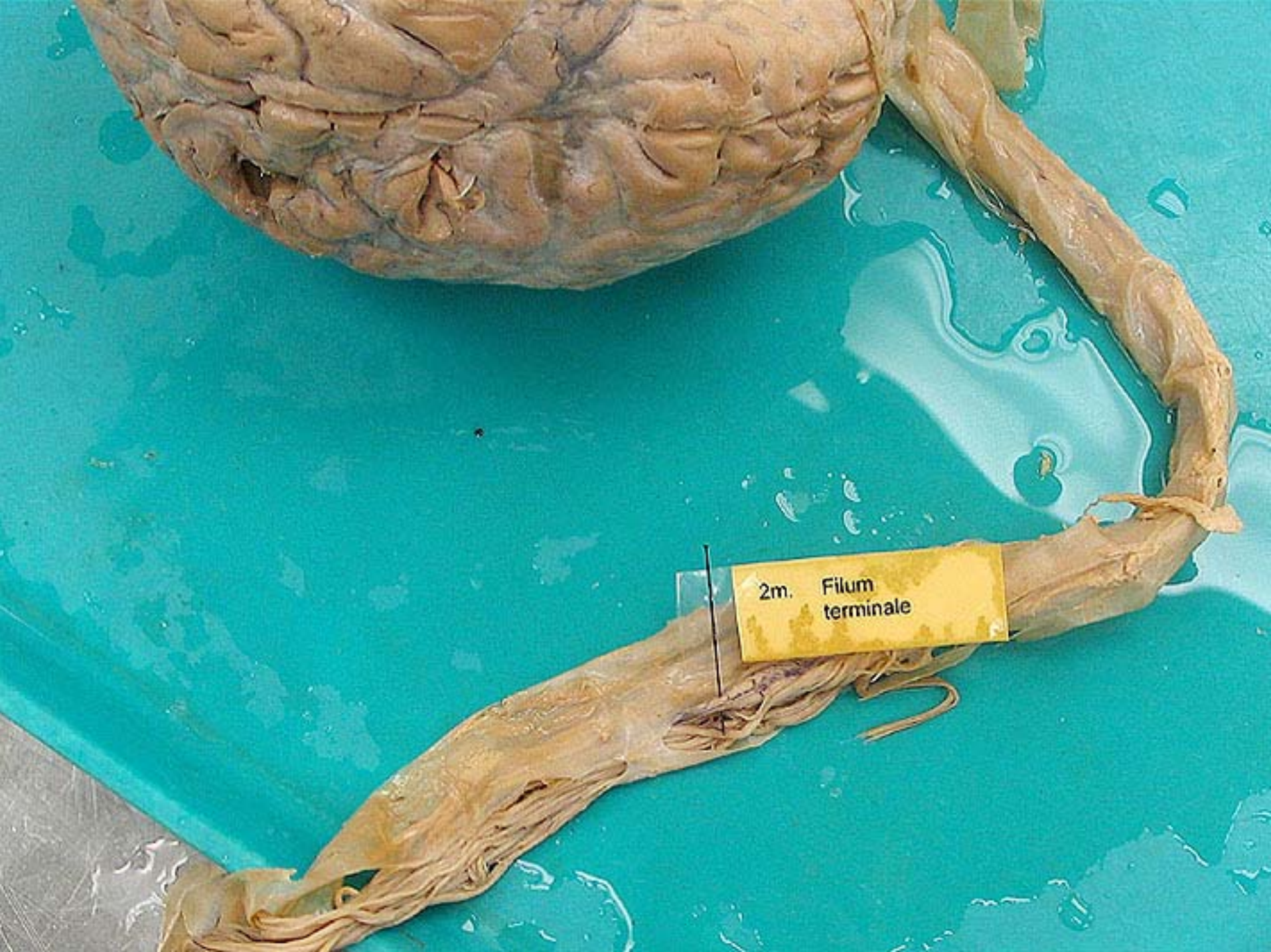
2p. Lumbar enlargement

2p. Lumbar
enlargement

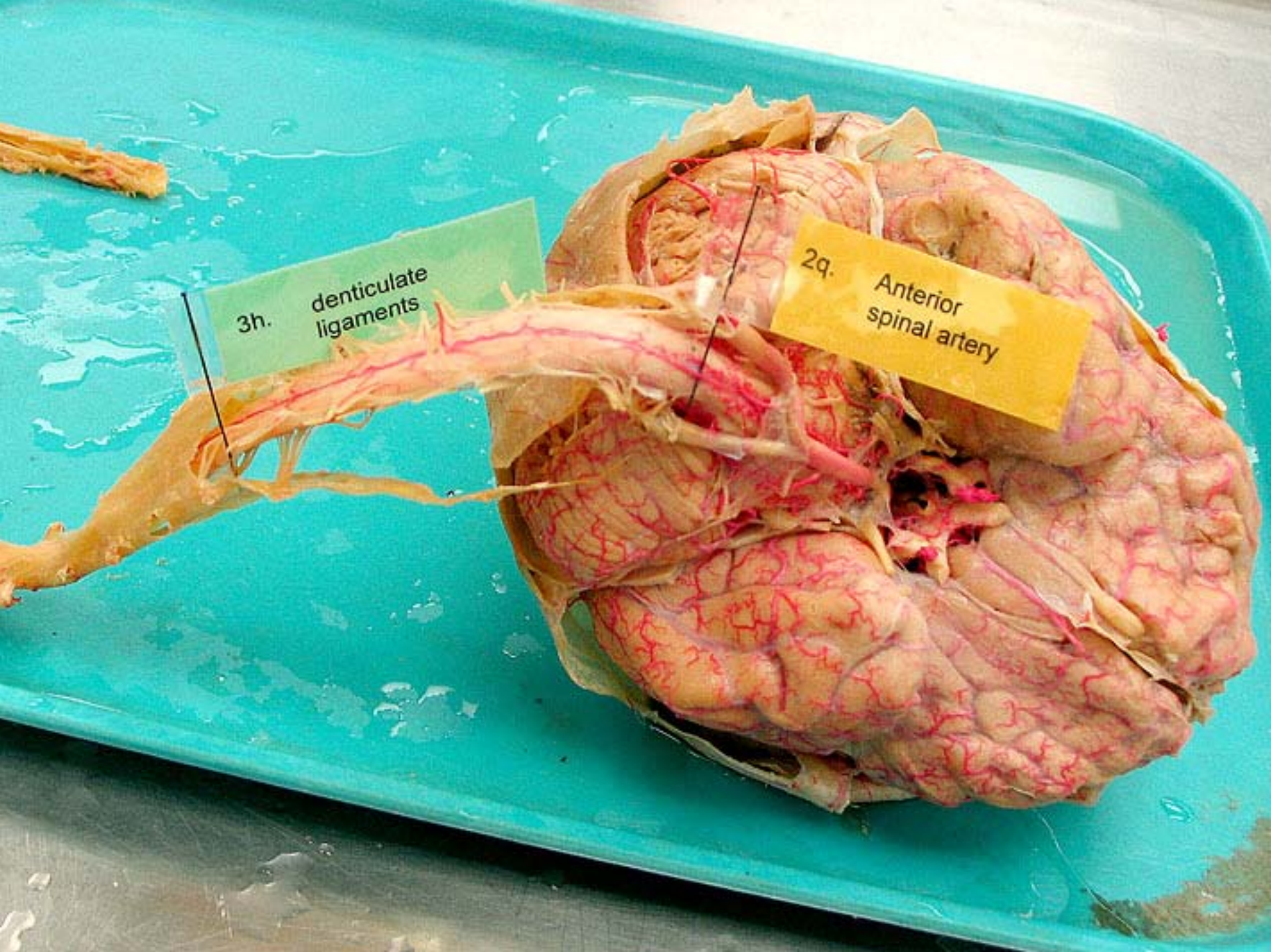
2l. Conus
medullaris

2n. Cauda
equina





2m. Filum
terminale



3h. denticulate
ligaments

2q. Anterior
spinal artery



2r. Posterior
spinal arteries



3b. Spinal dura mater

3a. Epidural space

3f. subarachnoid space

3e. arachnoid mater

1b. Level of origin

3e. arachnoid mater

3b. Spinal dura mater

3c. Pia mater



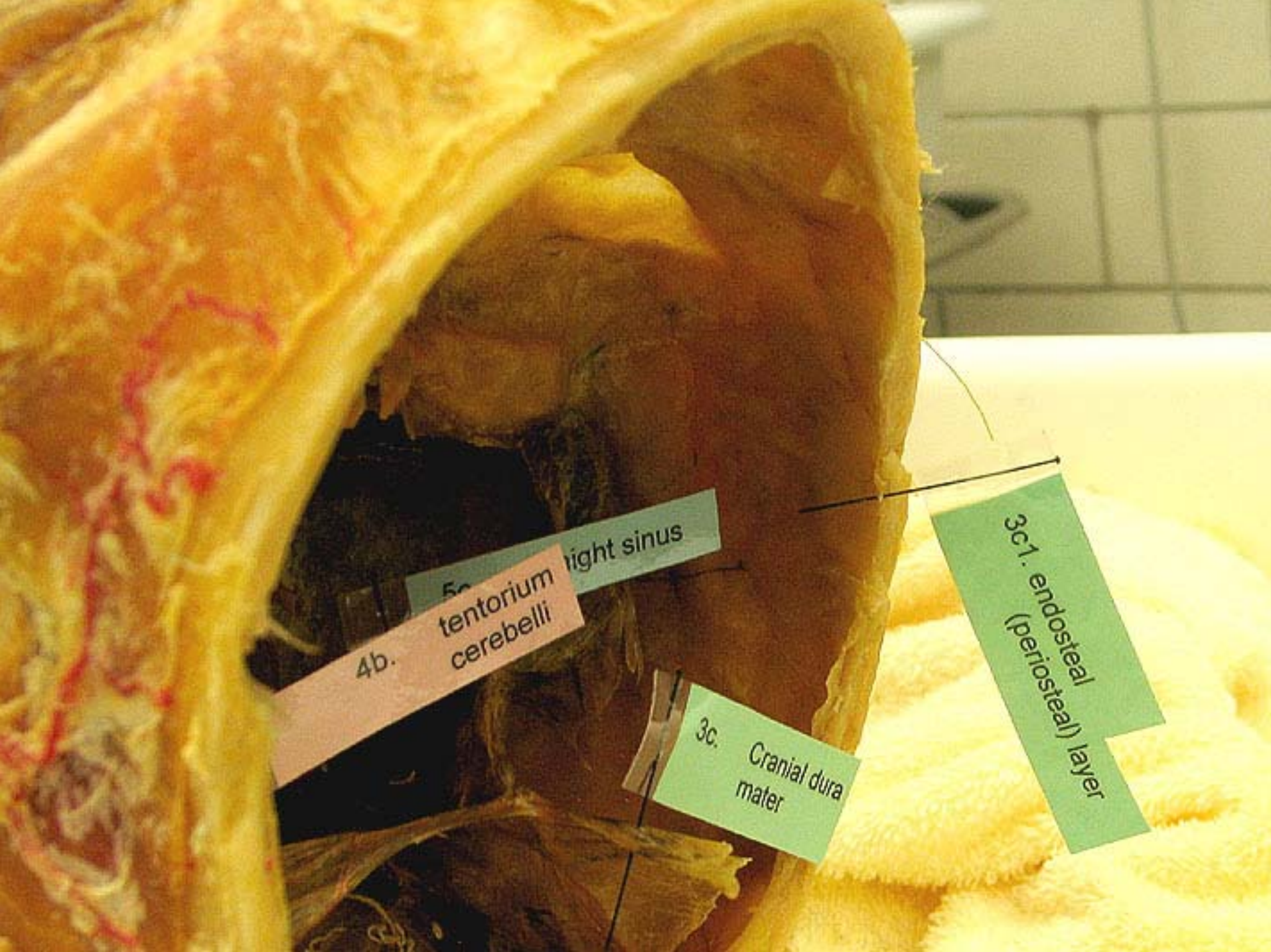
5m.
internal
jugular vein

4b. tentorium
cerebelli

straight sinus

3c.
Cranial dura
mater

3c1. endosteal
(periosteal) layer



4b. tentorium cerebelli

5c. right sinus

3c. Cranial dura mater

3c1. endosteal (periosteal) layer



6c. interpeduncular cistern



3c2. meningeal layer

6c. posterior part of the pons

6c. posterior part of the pons

1b. Level of origin

3e. arachnoid mater

3b. Spinal dura mater

3c. Pia mater



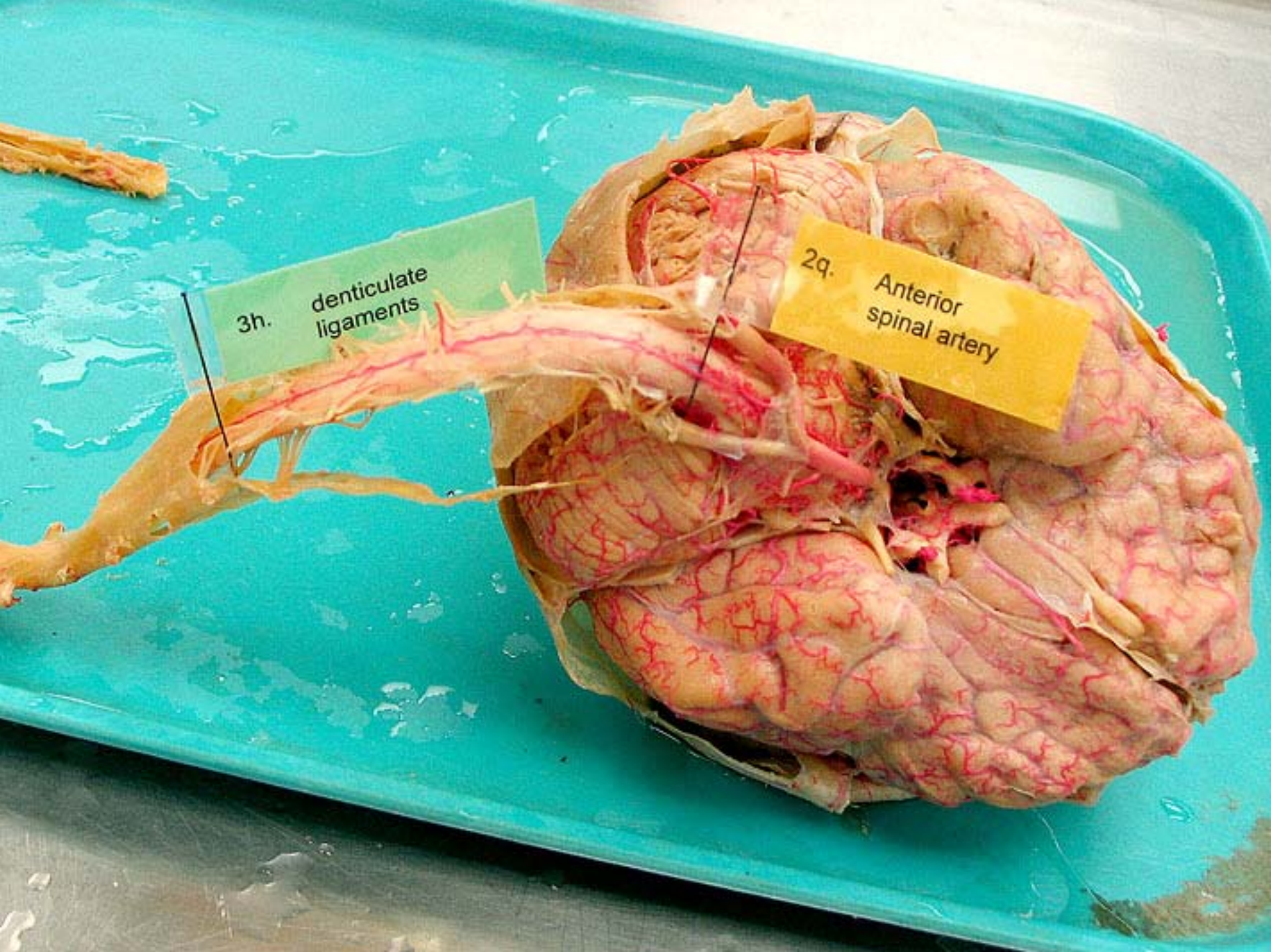
This image shows a detailed anatomical dissection of the meninges and spinal cord. The spinal cord is visible in the center, surrounded by the arachnoid and pia mater. The epidural space is the area between the dura mater and the vertebral canal, while the subarachnoid space is the area between the arachnoid and pia mater. The dissection is labeled with green tags and black lines pointing to the respective spaces.

3a. Epidural space

3f. subarachnoid space



3g. pia mater



3h. denticulate
ligaments

2q. Anterior
spinal artery



40.

lula cerebrum

41.

lula cerebrum

42.

lula cerebrum



4c1. subtentorial region

This image shows a detailed anatomical dissection of a rodent skull. The skull is open, revealing the brain and associated structures. The dura mater is partially removed, exposing the underlying brain tissue. The brain is divided into two main regions: the subtentorial region (4c1) and the supratentorial region (4c2). The subtentorial region is located below the tentorium, while the supratentorial region is located above it. The brain is surrounded by a thick layer of yellowish, fibrous tissue, likely the dura mater. The brain itself is a dark, textured mass with visible gyri and sulci. The surrounding tissue is a lighter, yellowish color. The skull is placed on a white surface, and the dissection is labeled with two pink tags.

4c2. supratentorial region



superior cisterns
(anterior and inferior)

4d. falx cerebelli

5b. inferior sagittal sinus

4a. falx cerebri



51. internal jugular vein

52. superior petrosal sinus

53. inferior petrosal sinus

54. transverse sinus

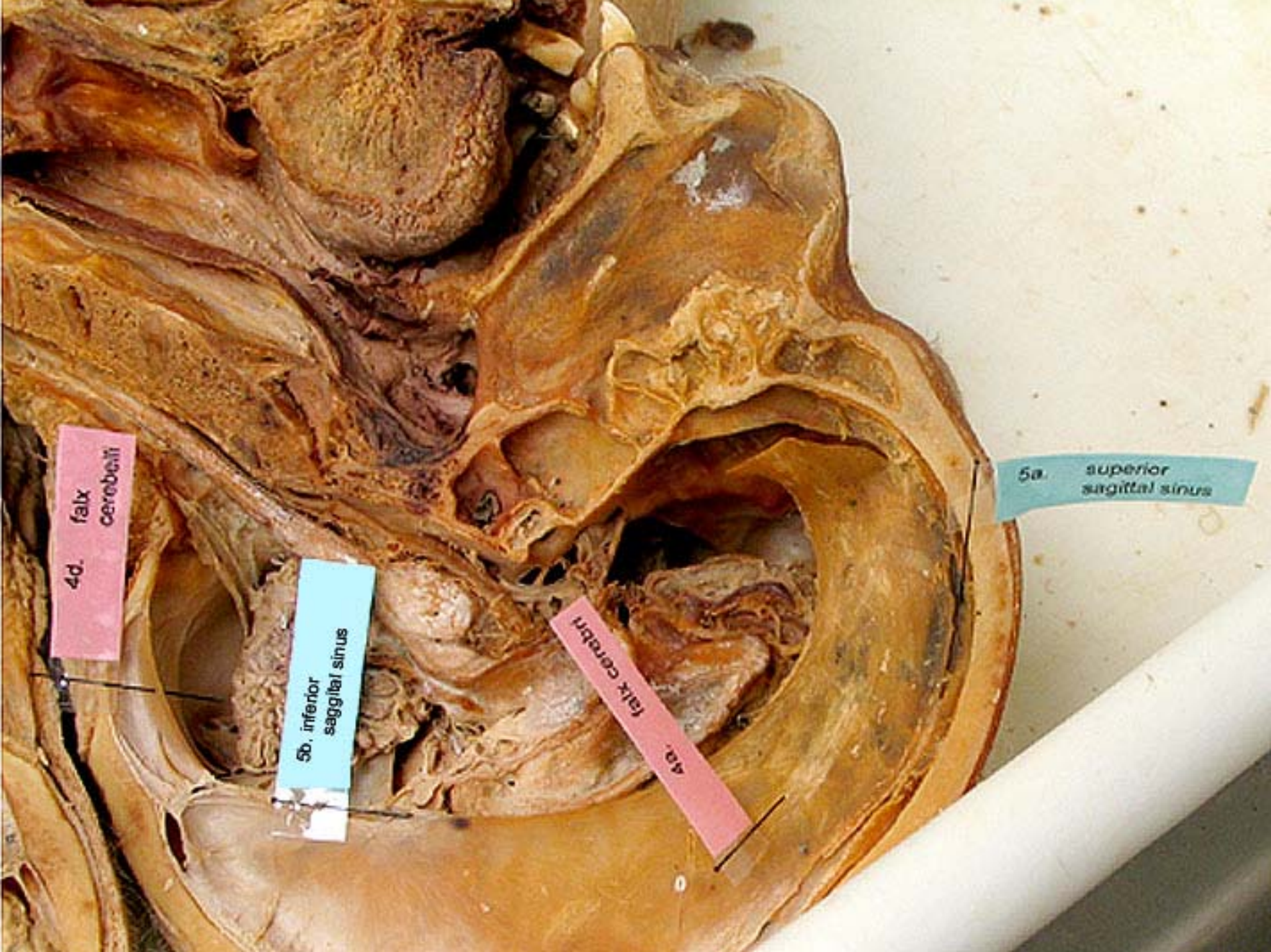
55. confluence of internal jugular vein and transverse sinus

4d. falx cerebelli

5b. inferior sagittal sinus

4a. falx cerebri

5a. superior sagittal sinus



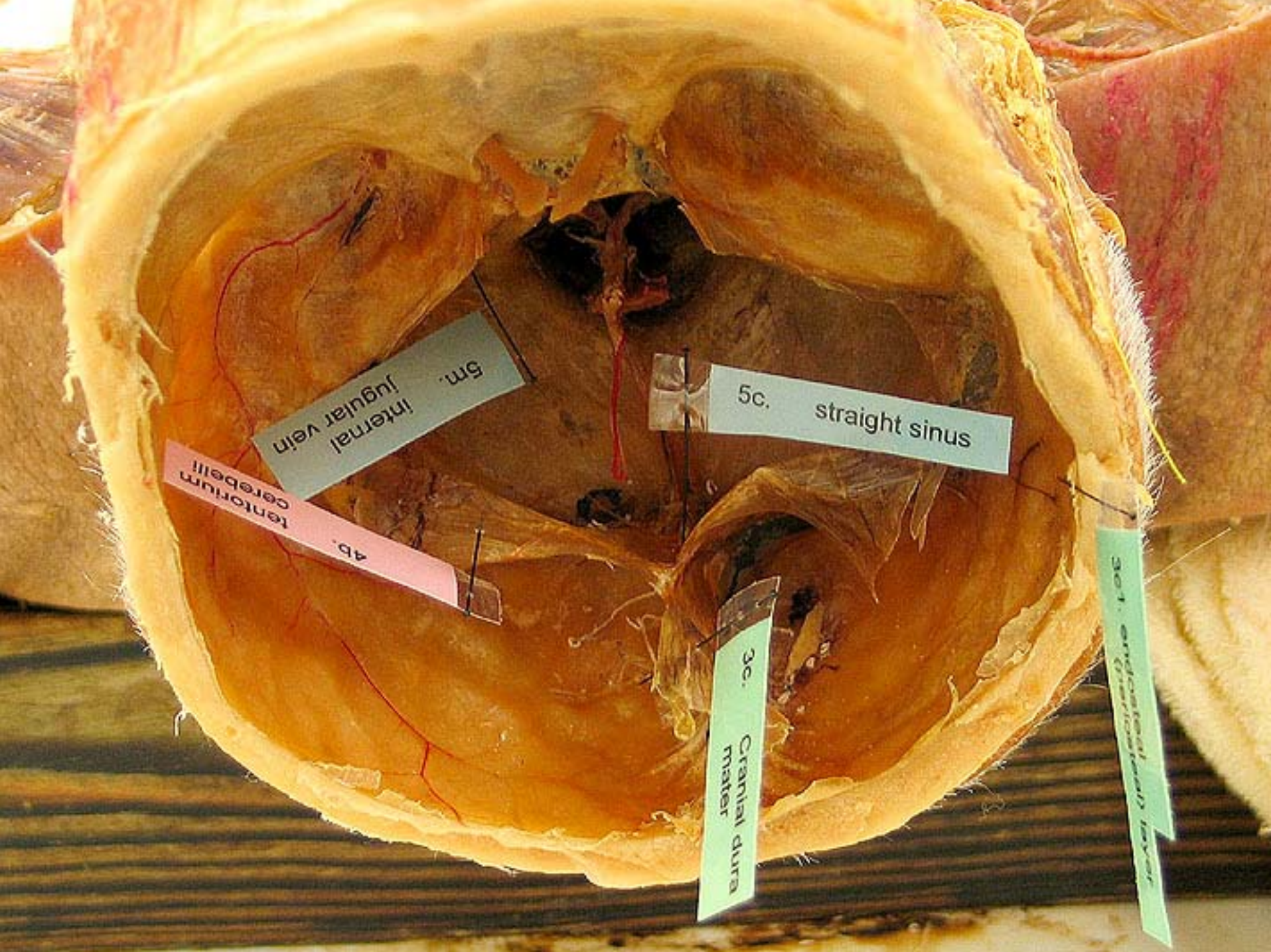


superior cisterns
(anterior and inferior)

4d. falx cerebelli

5b. inferior sagittal sinus

4a. falx cerebri



5m. internal jugular vein

5c. straight sinus

4b. tentorium cerebelli

3c. Cranial dura mater

301. endocranial layer



5i. occipital
sinus

5f.
sigmoid sinus

5g. cavernous
sinuses



5g. cavernous
sinuses

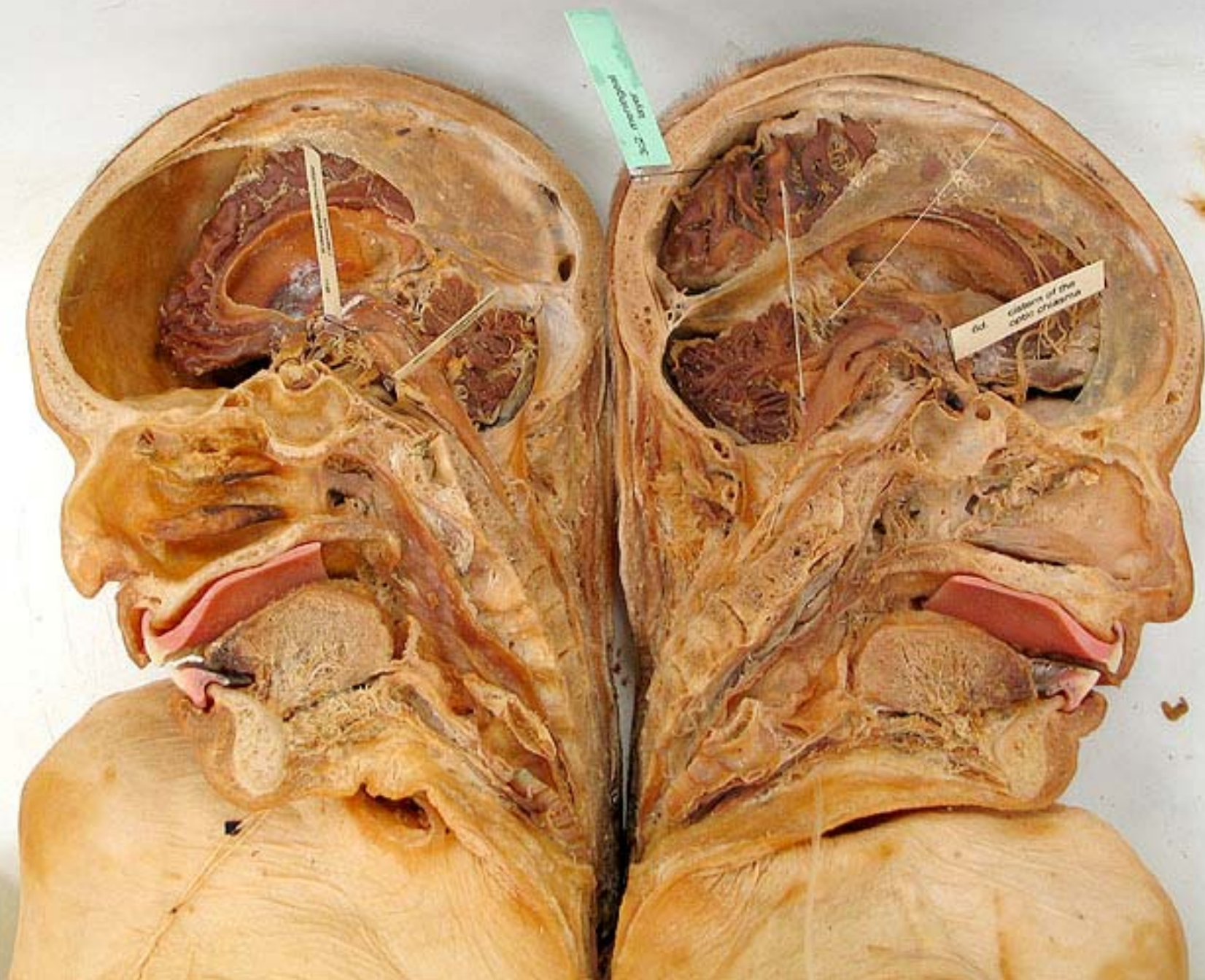
5k. basilar sinus

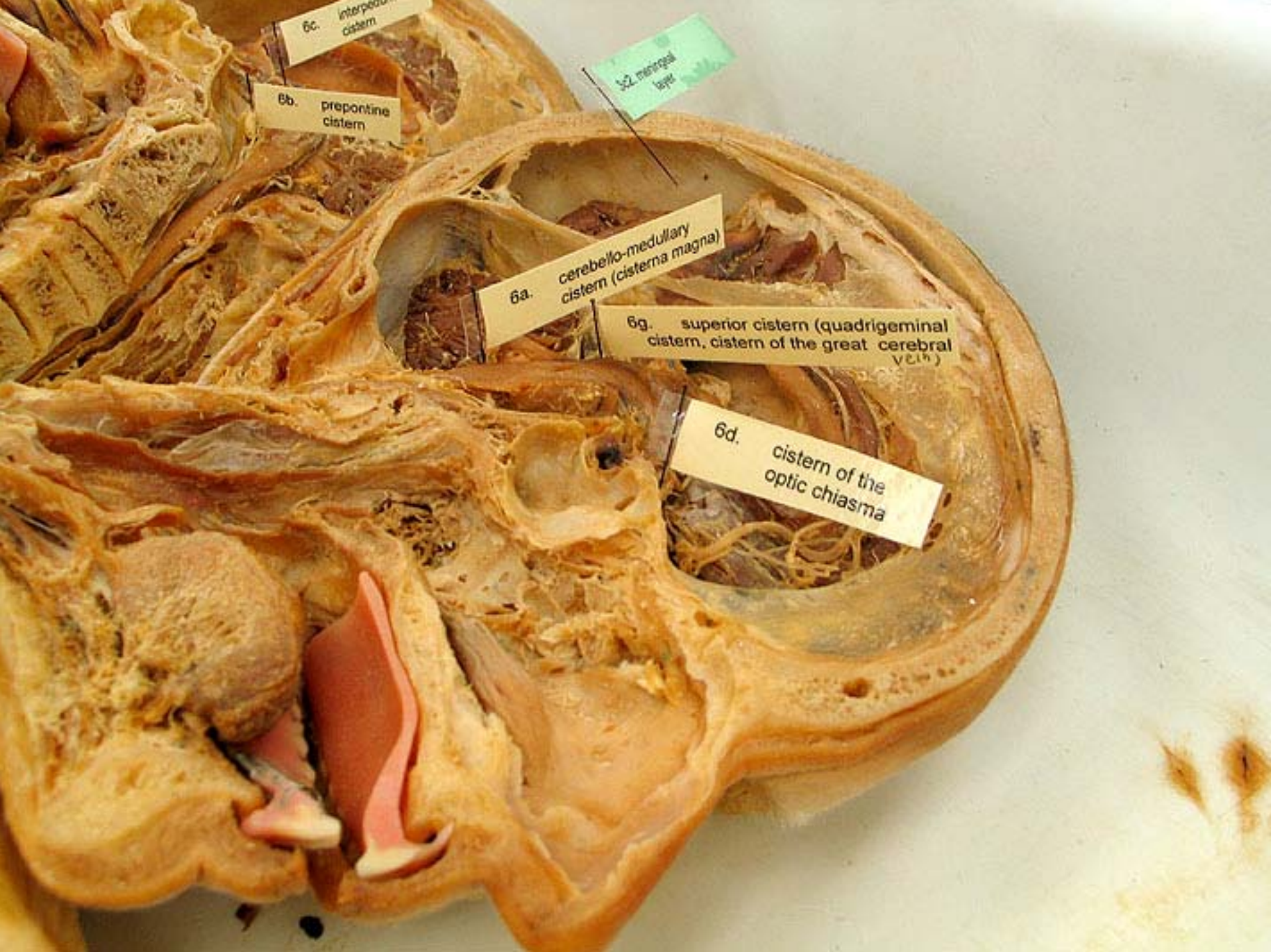


5j. inferior petrosal sinus

5h. intercavernous sinus (circular sinus)

sinus petrosal inferior





6c. interpeduncular cistern

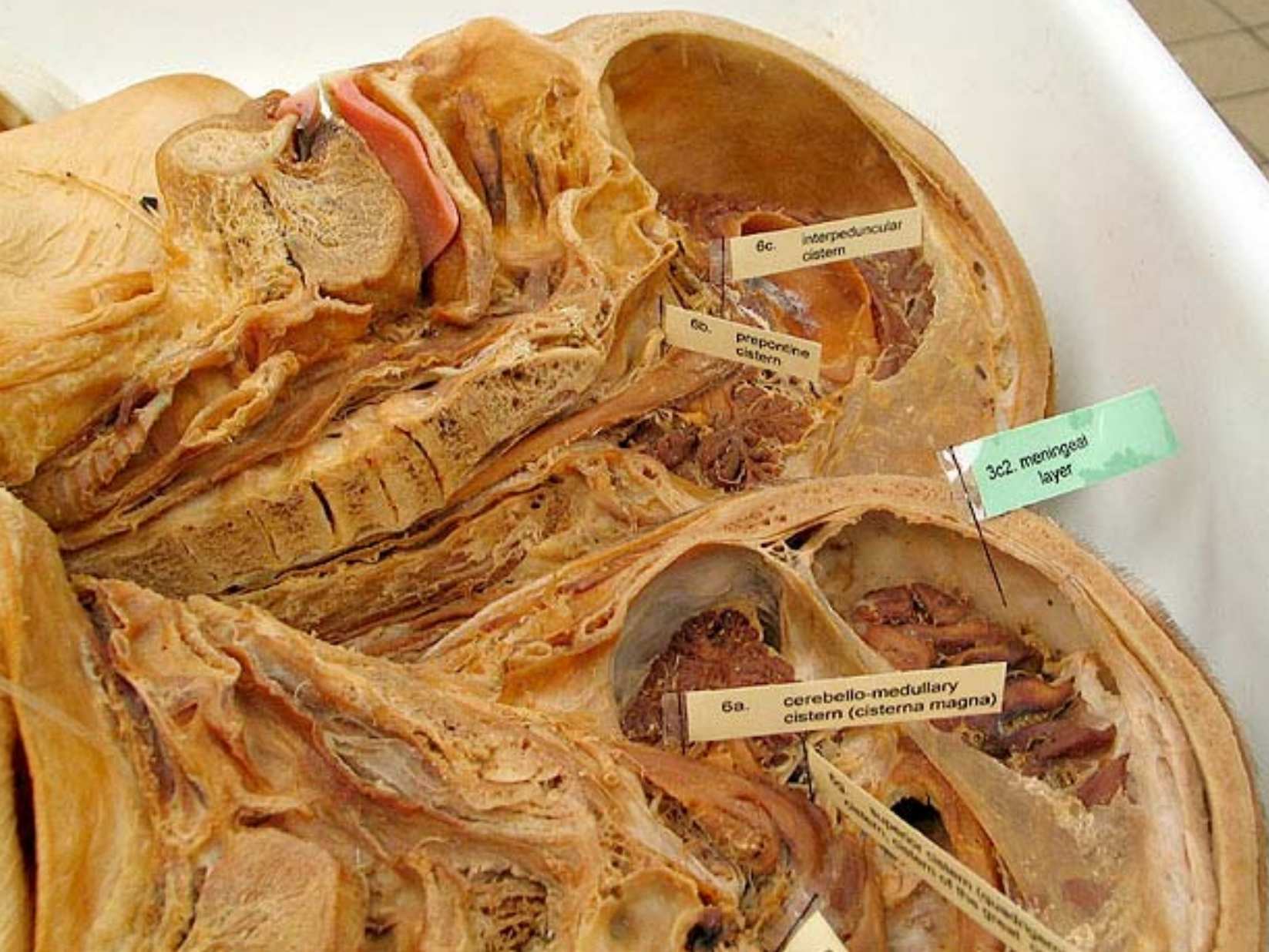
6b. prepontine cistern

3.2 meningeal layer

6a. cerebello-medullary cistern (cisterna magna)

6g. superior cistern (quadrigeminal cistern, cistern of the great cerebral vein)

6d. cistern of the optic chiasma

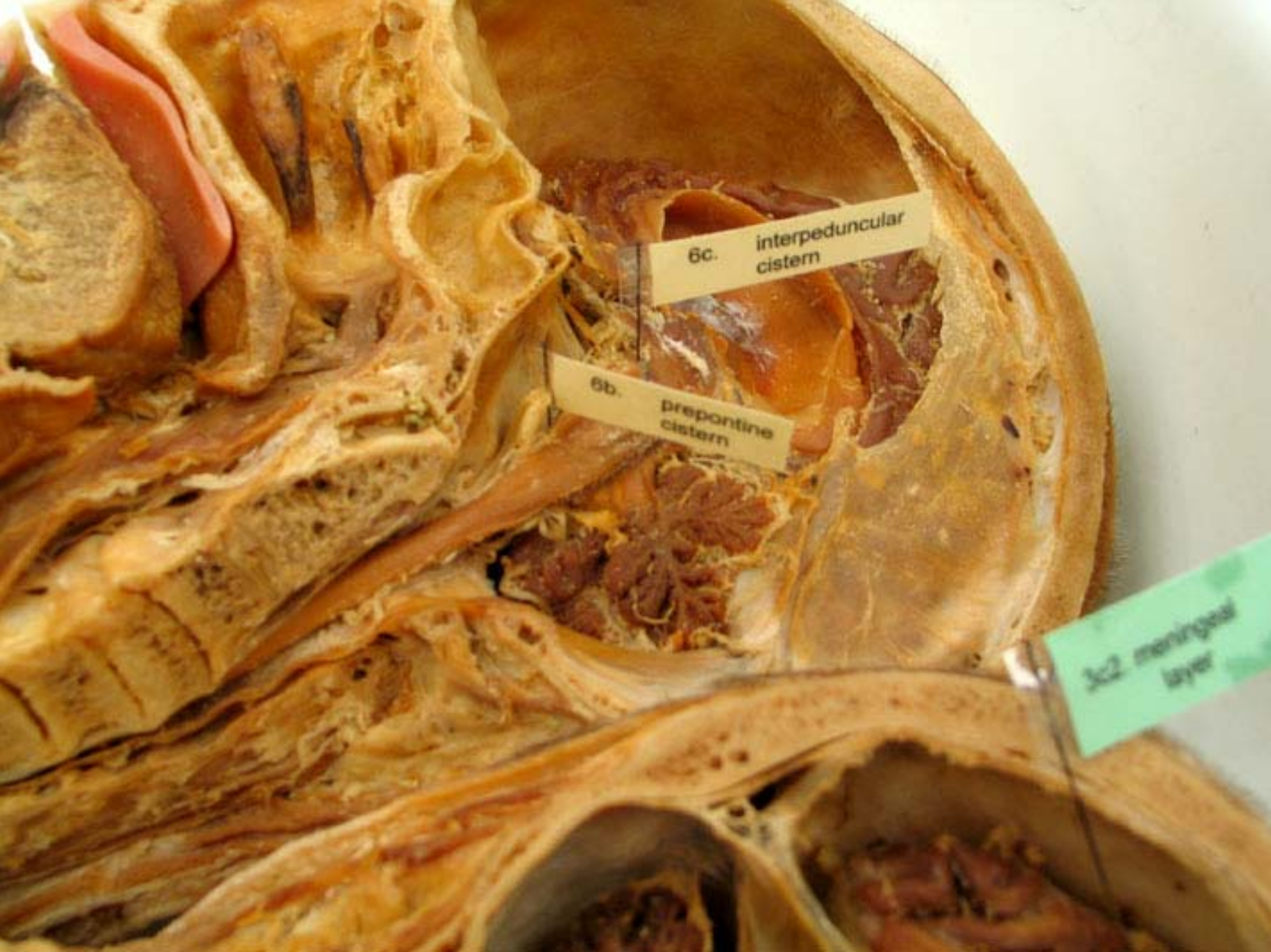


6c. interpeduncular cistern

6b. prepontine cistern

3c2. meningeal layer

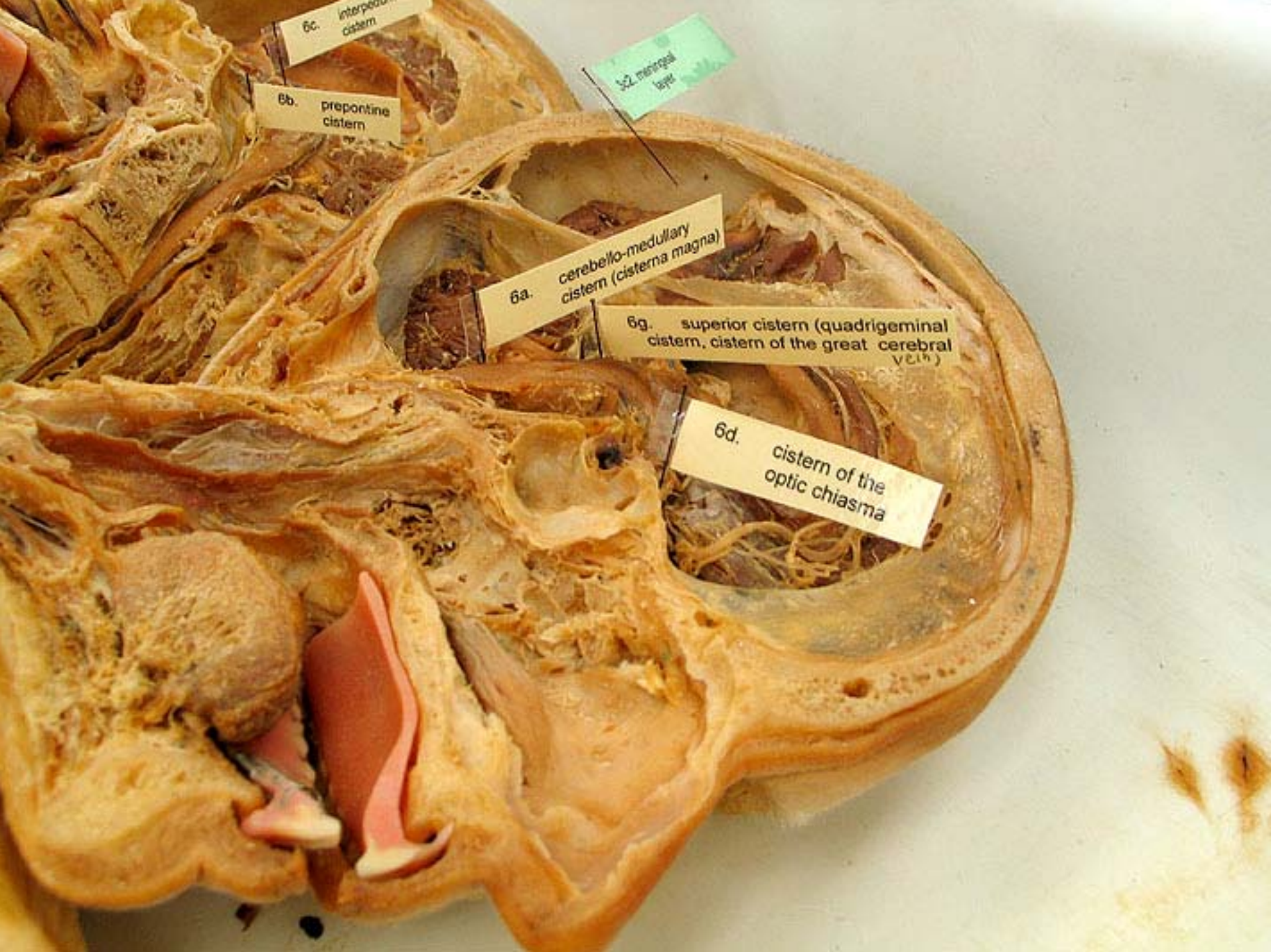
6a. cerebello-medullary cistern (cisterna magna)



6c. interpeduncular
cistern

6b. prepontine
cistern

3x2 meningeal
layer



6c.

interpeduncular
cistern

6b.

prepontine
cistern

3d. meningeal
layer

6a.

cerebello-medullary
cistern (cisterna magna)

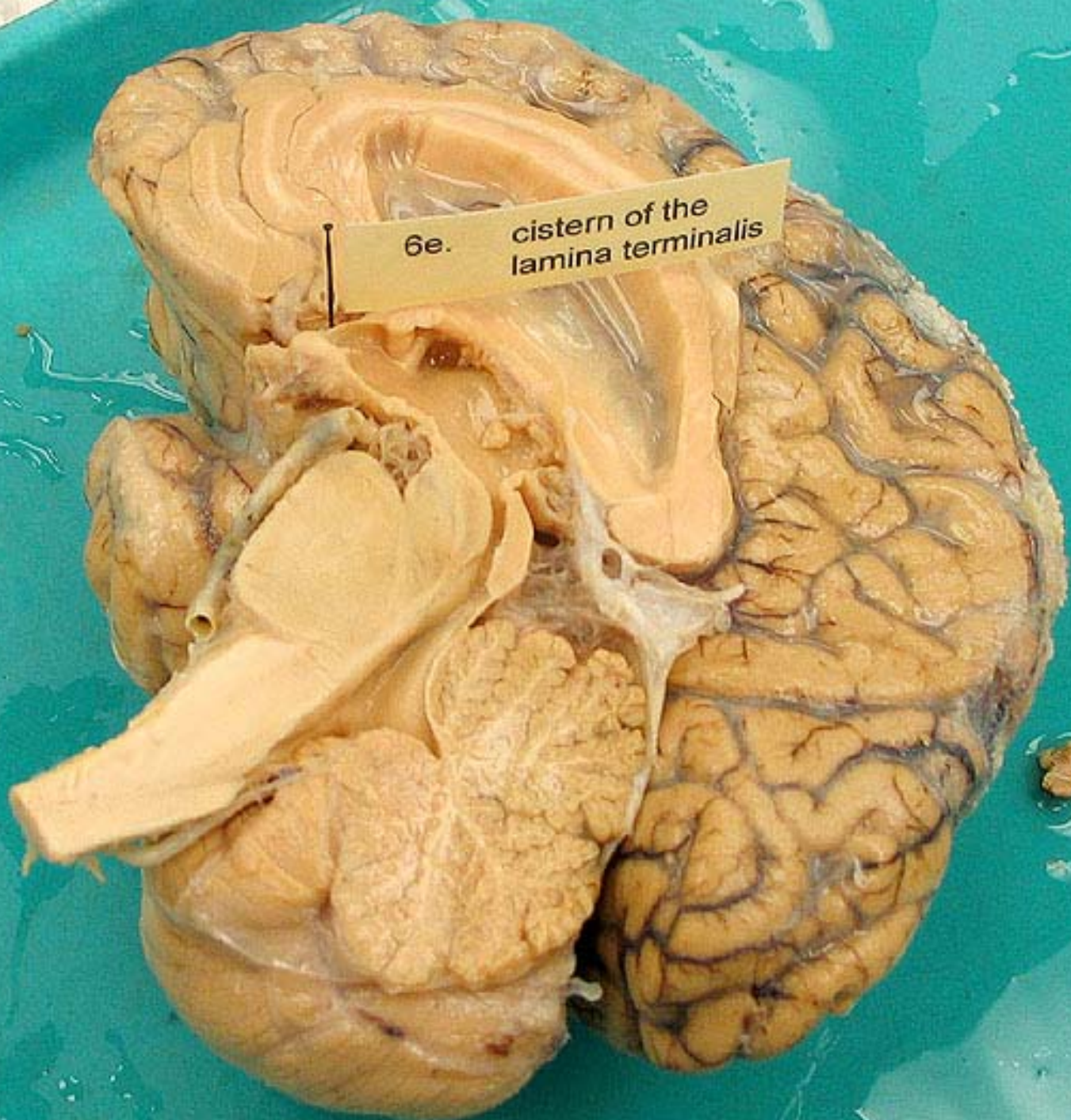
6g.

superior cistern (quadrigeminal
cistern, cistern of the great cerebral
vein)

6d.

cistern of the
optic chiasma

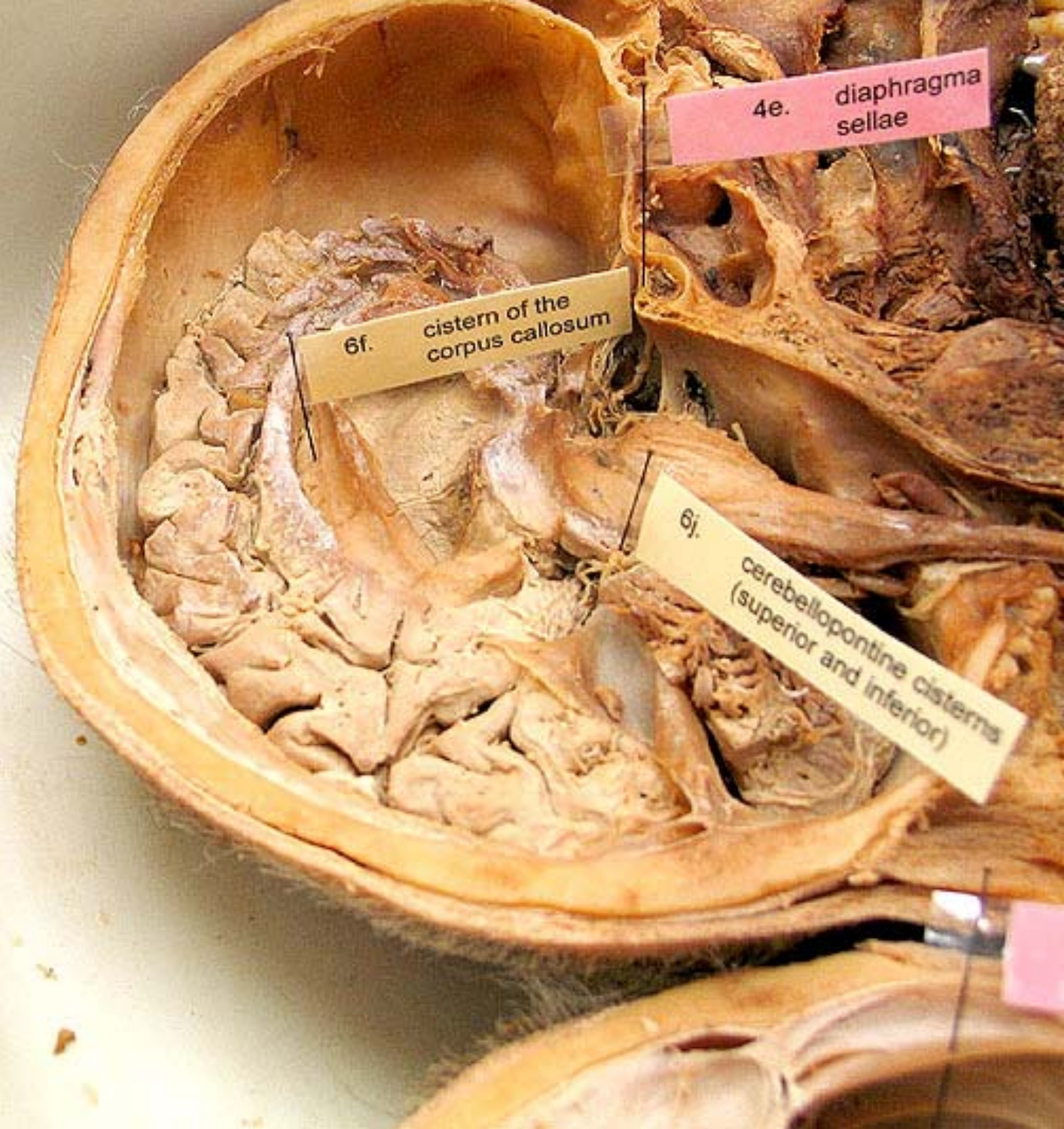
6e. cistern of the
lamina terminalis

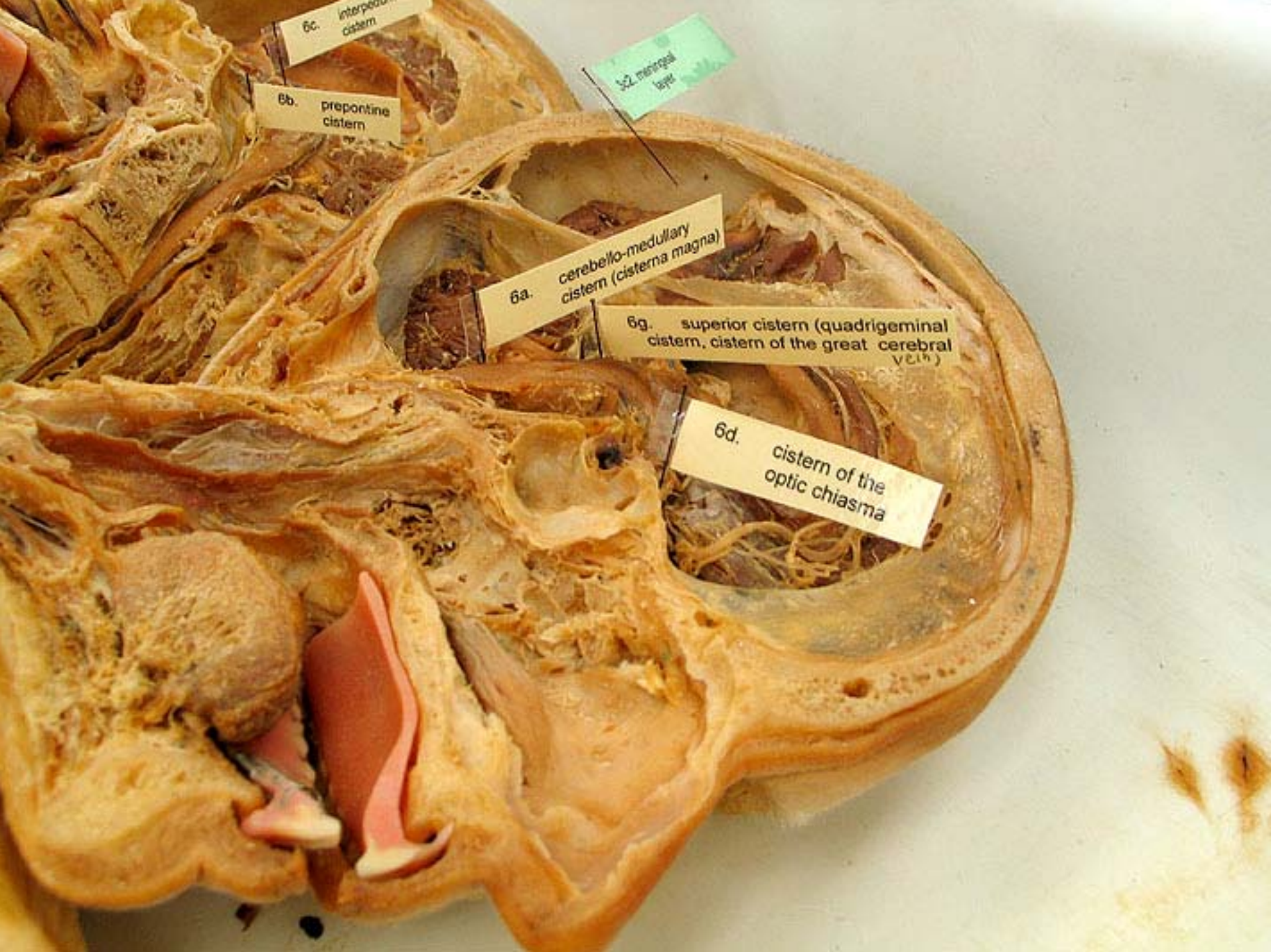


4e. diaphragma
sellae

6f. cistern of the
corpus callosum

6j. cerebellopontine cisterna
(superior and inferior)





6c. interpeduncular cistern

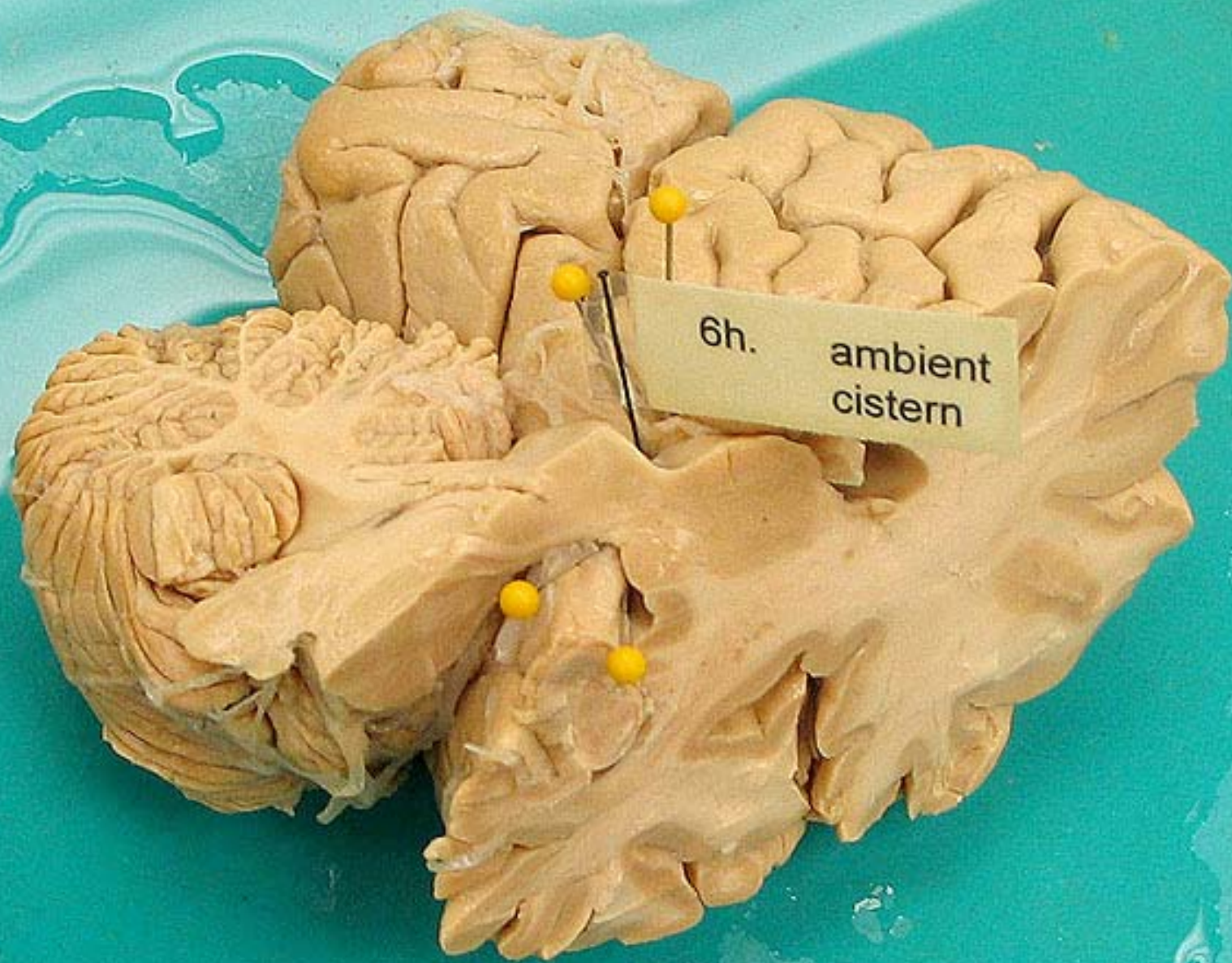
6b. preoptine cistern

Arachnoid layer

6a. cerebello-medullary cistern (cisterna magna)

6g. superior cistern (quadrigeminal cistern, cistern of the great cerebral vein)

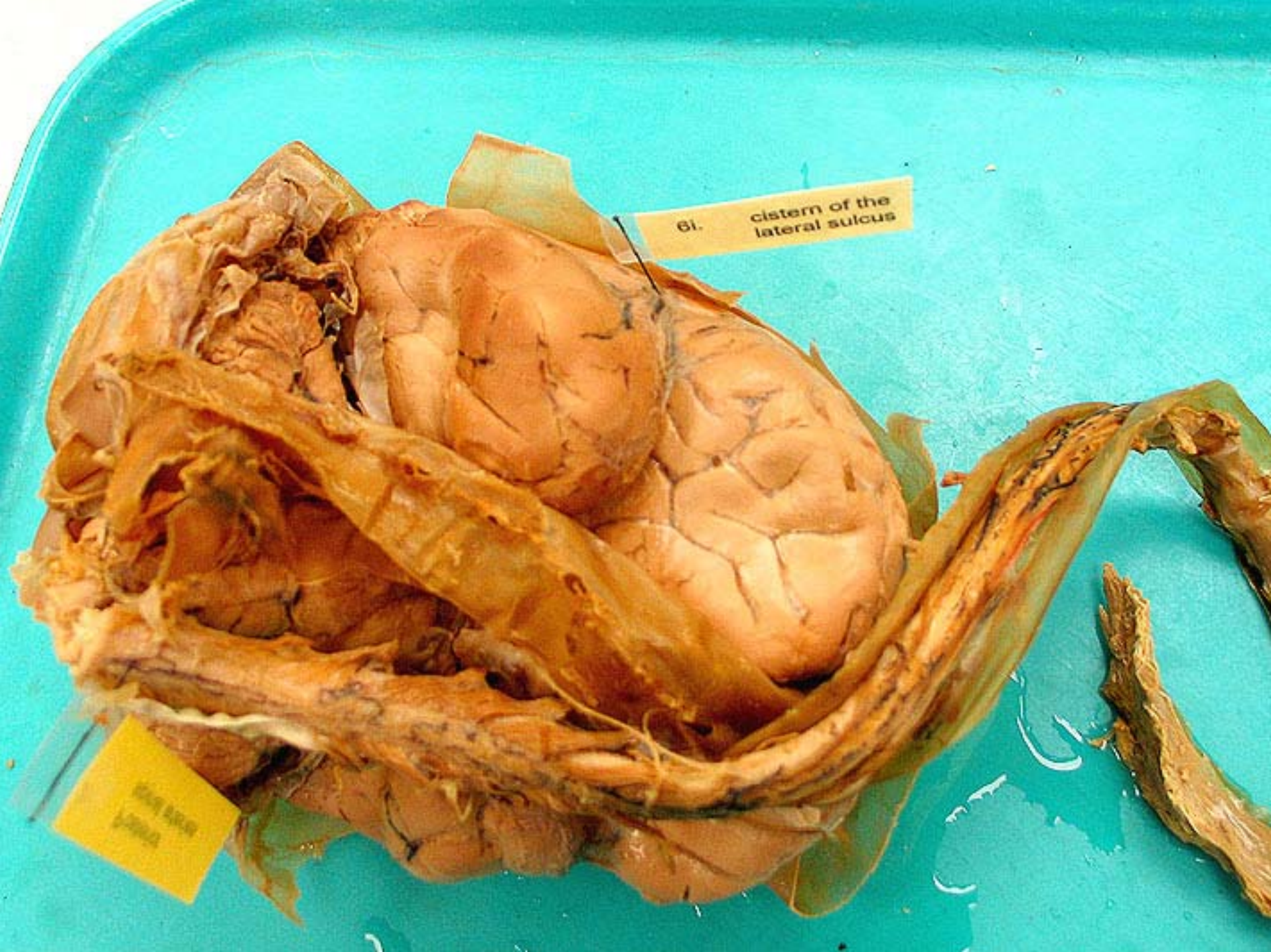
6d. cistern of the optic chiasma



6h. ambient
cistern

6i. cistern of the lateral sulcus

1000 1000 1000





6j. arachnoid villi
(granulations)

3g. pia mater



6f.

cistern of the
corpus callosum

6j.

cerebellopontine cisterns
(superior and inferior)

4d.

falx
cerebelli



This image shows a detailed anatomical dissection of the lumbar cistern, also known as the spinal cistern. The tissue is a complex, layered structure with a yellowish-brown hue. A pink suture is used to hold back muscle and soft tissue, providing a clear view of the underlying structures. A small, light-colored label is placed near the dissection site, and a larger, rectangular label is positioned below it. The dissection is performed on a white, textured surface, likely a surgical drape.

6k. lumbar cistern
(spinal cistern)