

Delivery and Management of a Parturient with Spontaneous Dural Leak and Intracranial Hypotension

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38-year-old, G2P0,
30w2d new frontal
headache and
dizziness.

30w6d: 1st MRI
reassuring, on
Tylenol

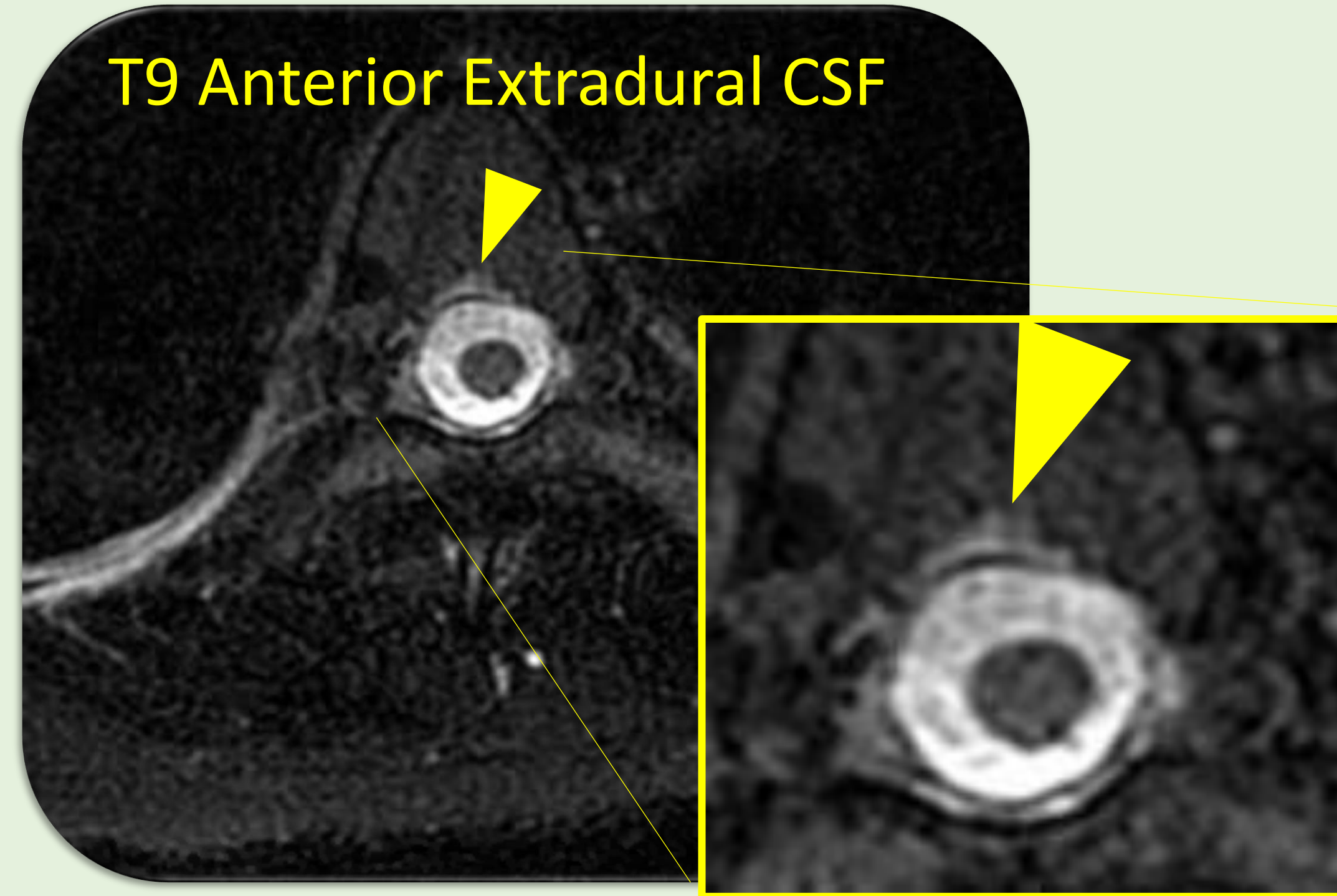
33w1d:
↑ headache +
emesis. Seen by
OB, on Norco.

33w6d:
Neurology
consult

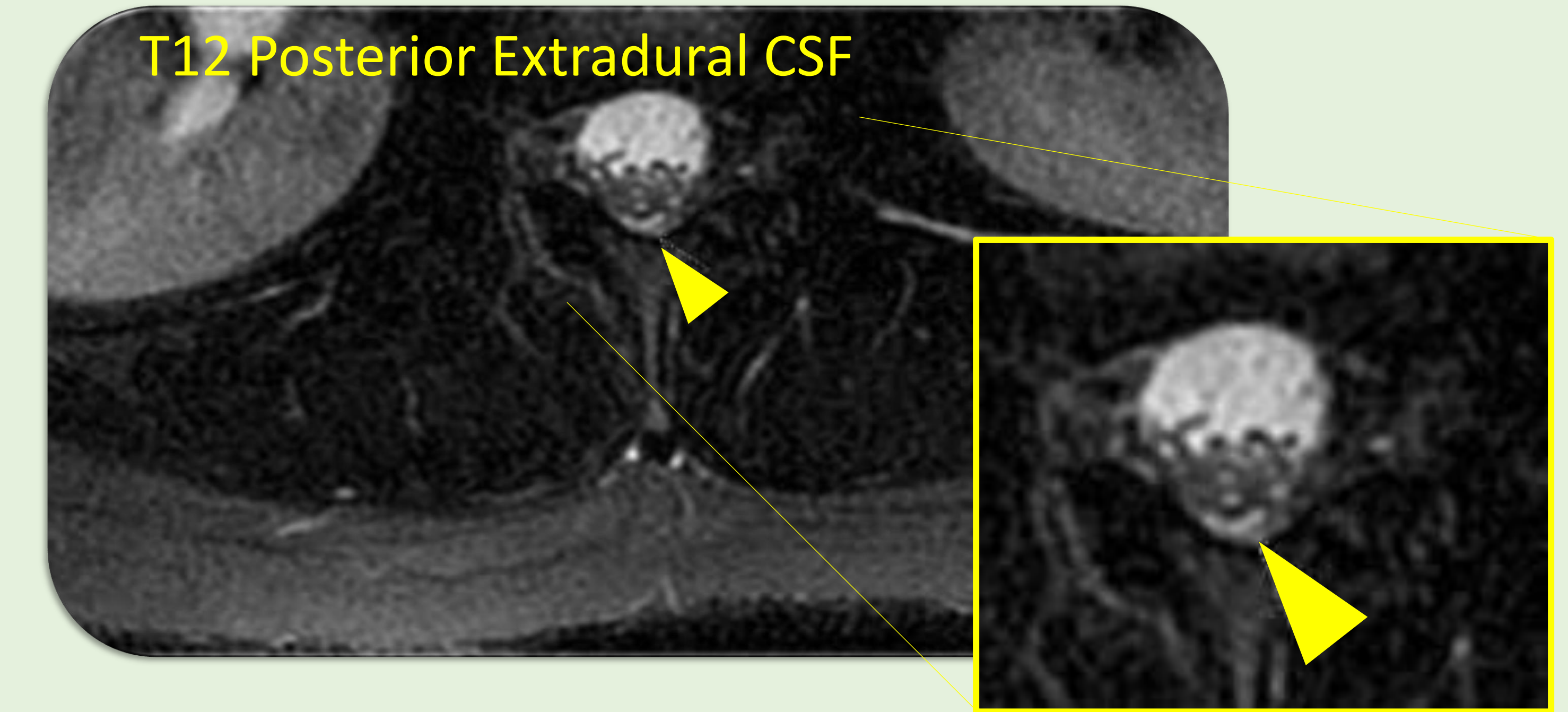
Headache Phenotype:

- Frontal, bilateral extends up and back
- Mild photophobia, no phonophobia
- “Ears feel clogged”
- Tense, tight quality
- “Only thing that helps is lying down”

T9 Anterior Extradural CSF



T12 Posterior Extradural CSF



Conservative management:
recumbency, caffeine,
hydration

35w6d:
Repeat MRI:
intracranial
hypotension.

Stricter bedrest.
Pain ↓ but now
symptoms with
Valsalva

MRI 35w6d:

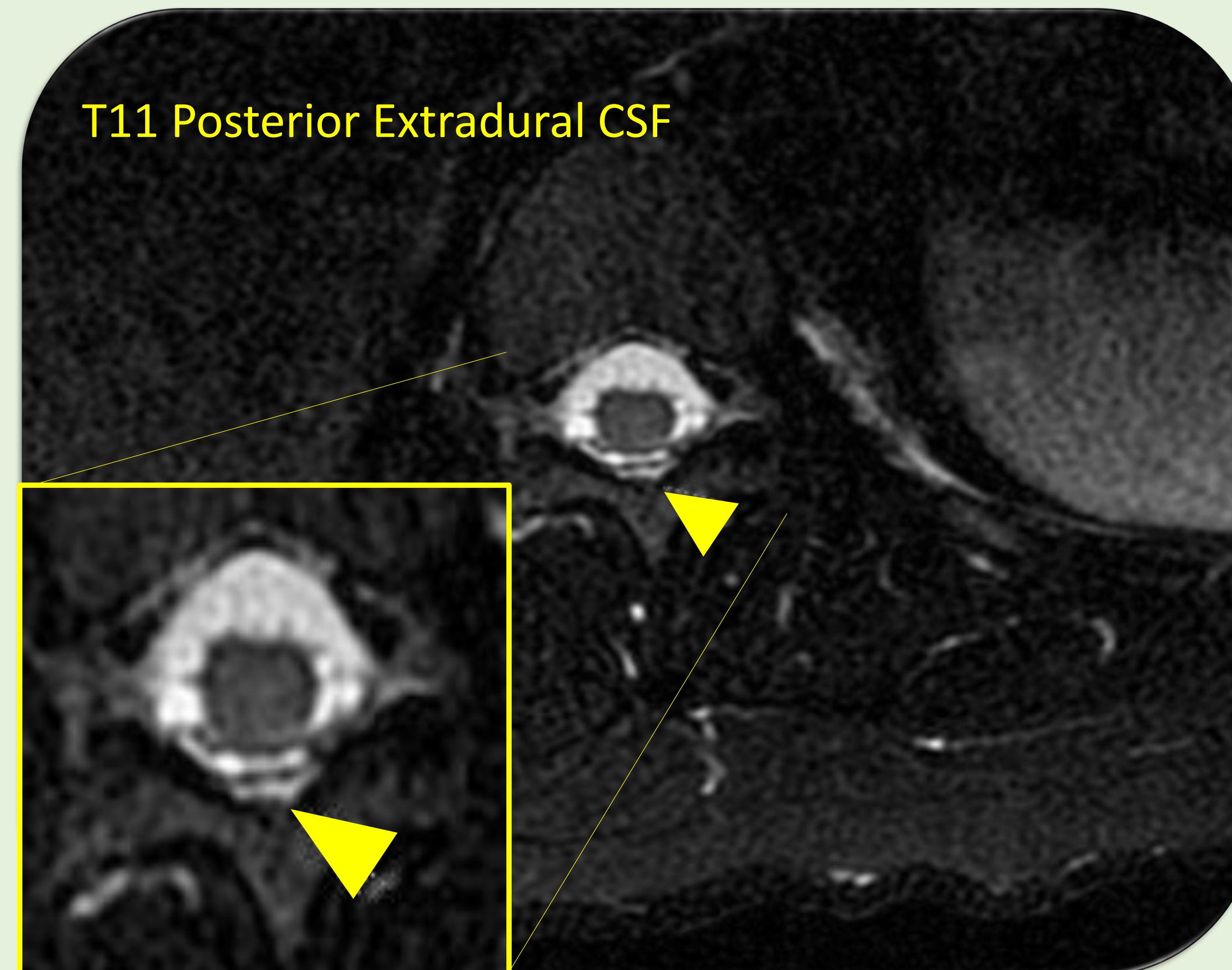
FINDINGS:

A **"sagging" brain appearance** is seen with caudal displacement of the cerebellar tonsils and inferiorly displaced mid brain. There is diffuse thickening of the dura. The pituitary gland appears enlarged. These findings may be seen with intracranial hypotension.

IMPRESSION:

1. Caudal displacement of the brain, diffuse dural thickening, and enlargement of the pituitary gland. These findings are suggestive of intracranial hypotension.

T11 Posterior Extradural CSF



MRI 37w0d:

1. No intracranial abnormality.
2. Small amount of dorsal epidural fluid at the T11-L2 levels raising the possibility of CSF leak.

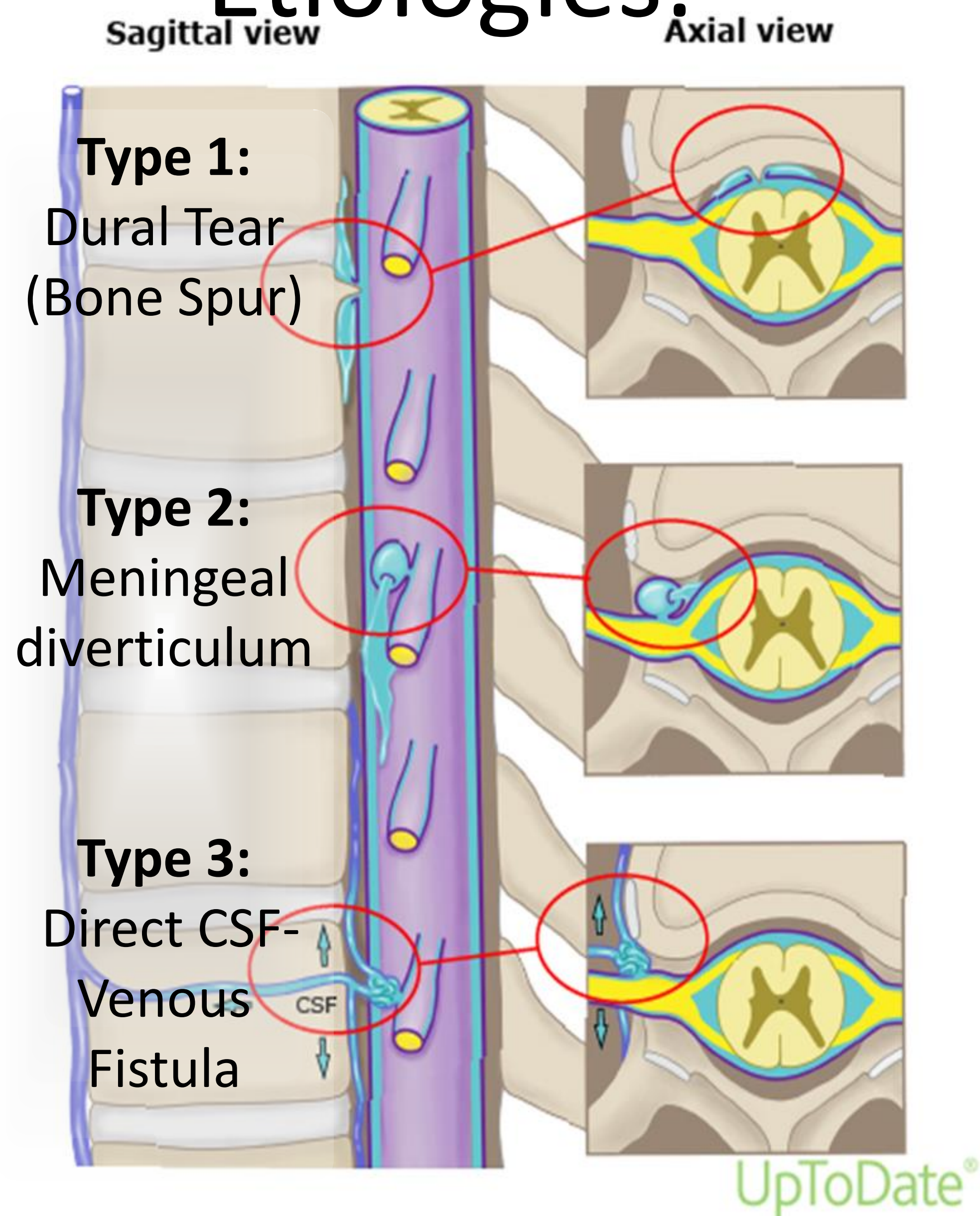
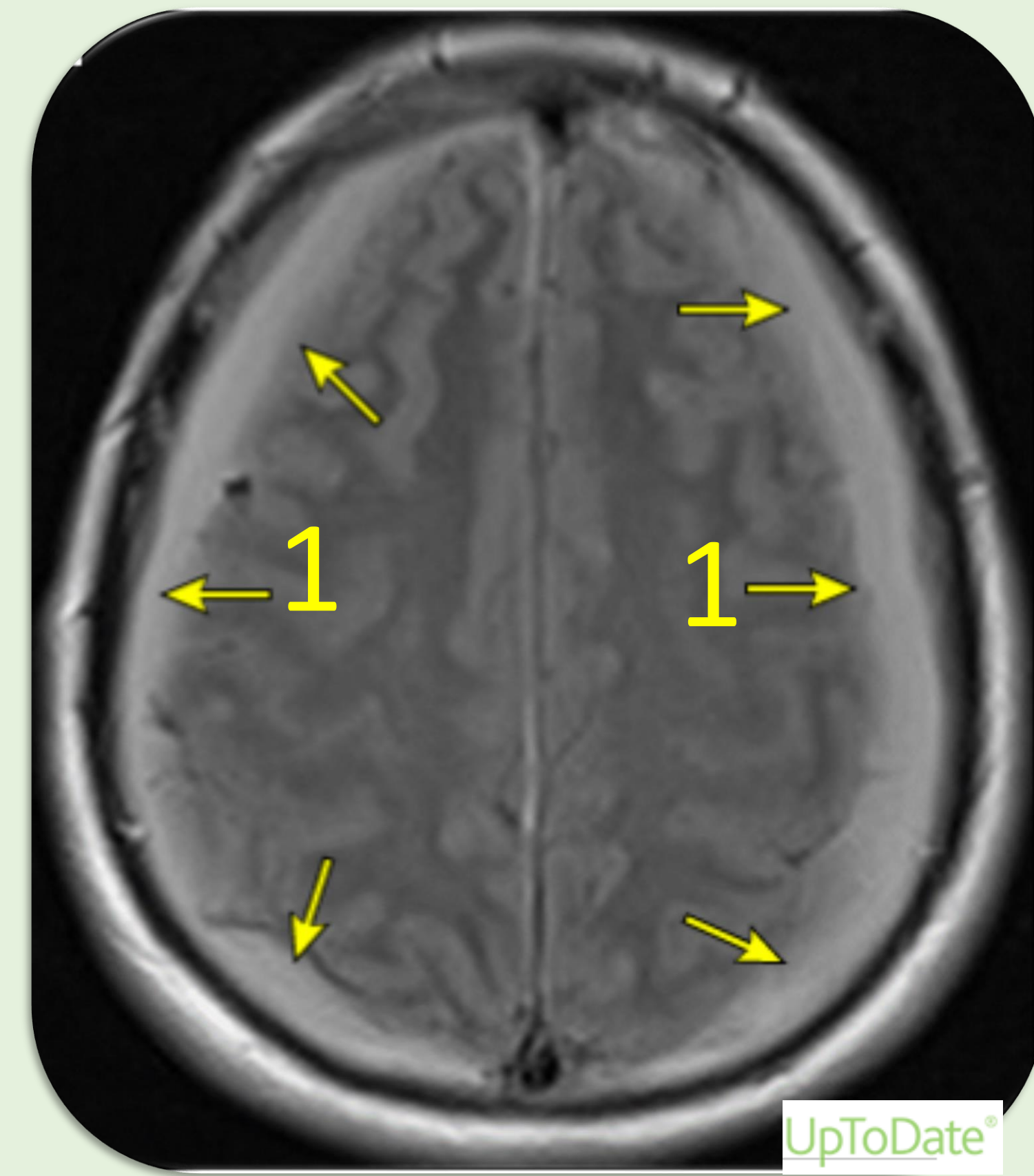
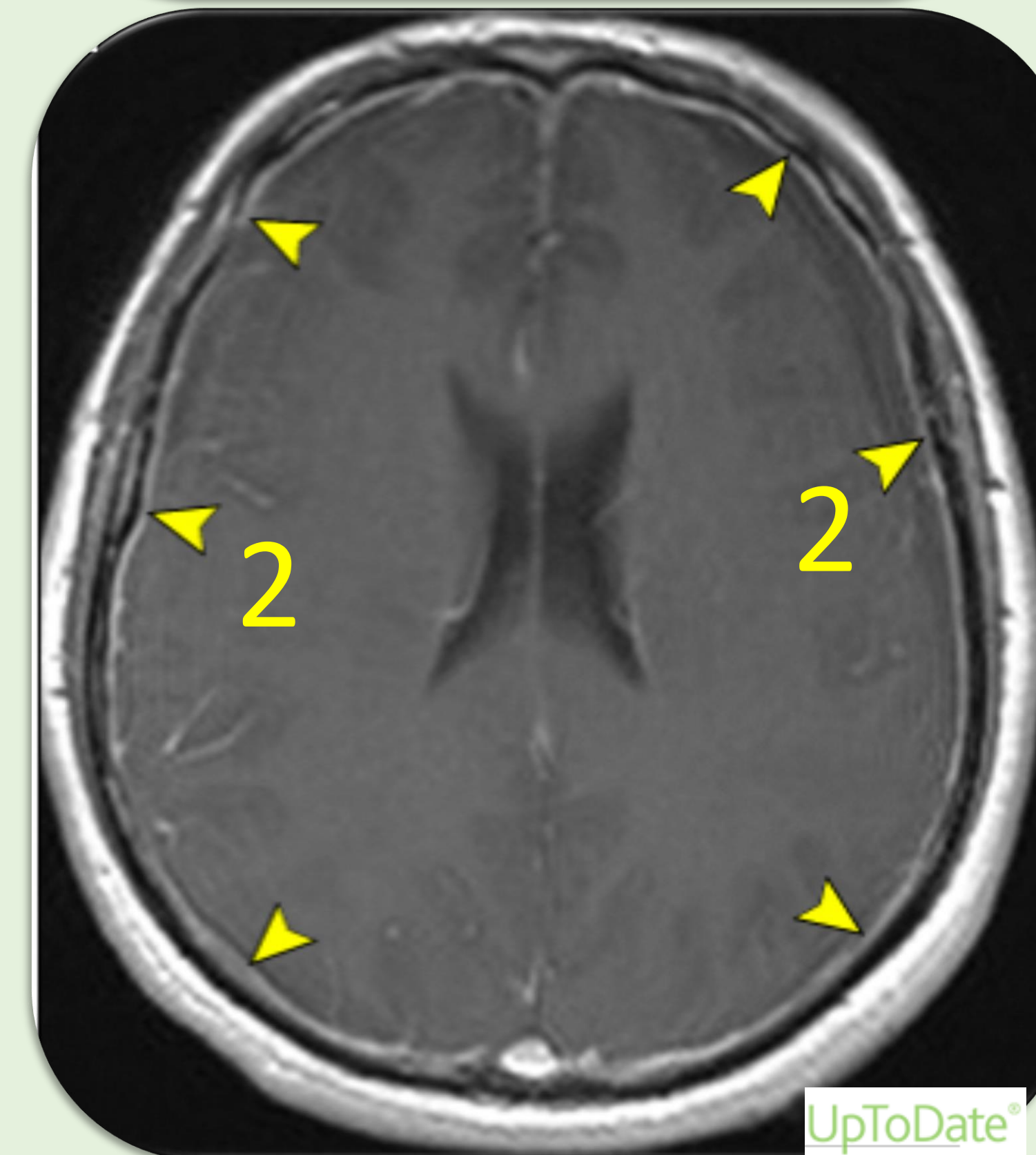
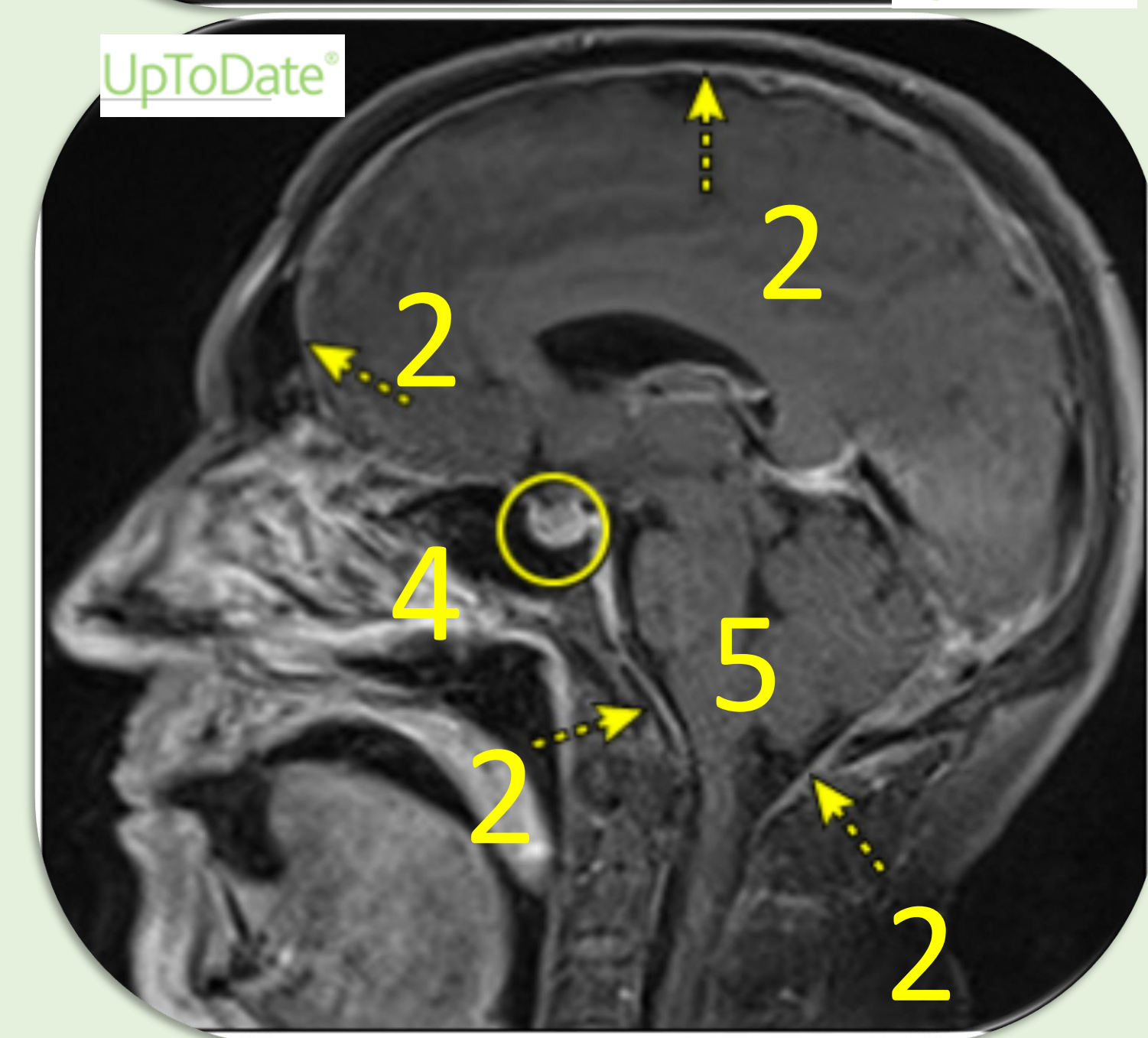
36w6d: Admitted to
antepartum. Spine +
Brain MRI

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Symptoms:

- Postural headache – 93%
- Nausea or vomiting – 49%
- Neck pain or stiffness – 35%
- Tinnitus – 27%
- Dizziness – 50%

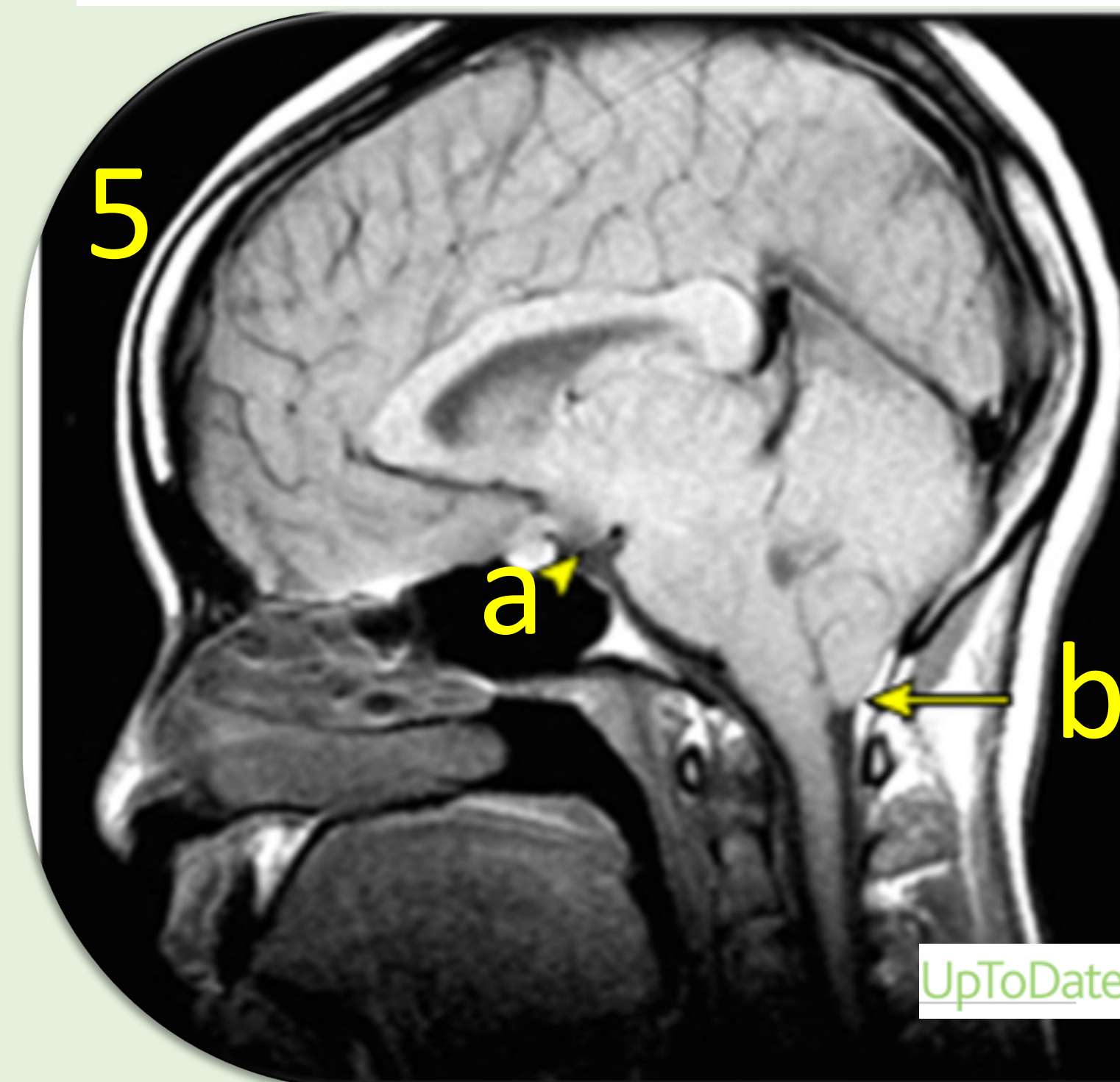
Etiologies:



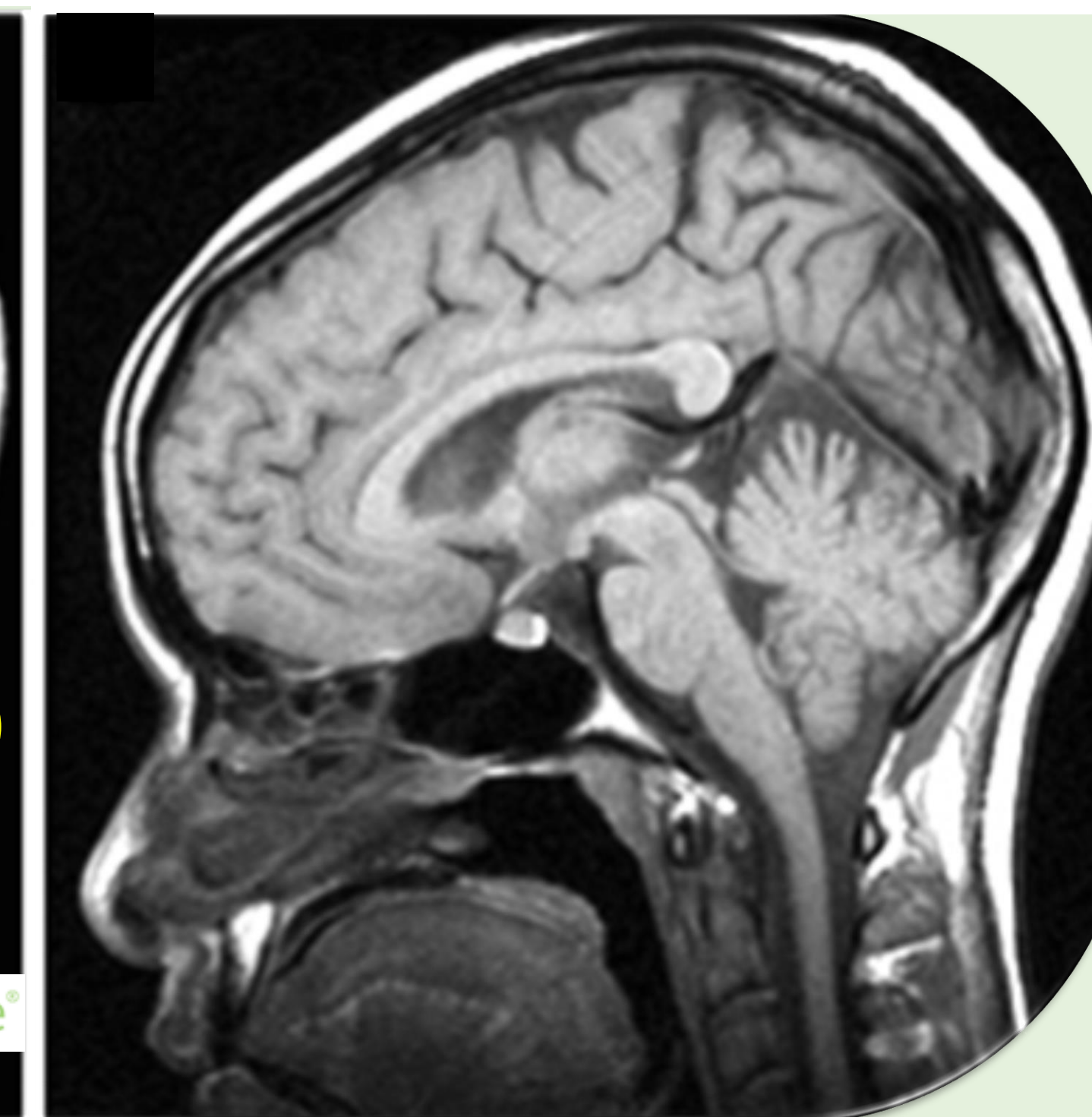
MRI Findings: **SEEPS**

1. Subdural fluid collections
2. Enhancement of the pachymeninges
3. Engorgement of the venous structures
4. Pituitary enlargement
5. Sagging of the brain

Pretreatment

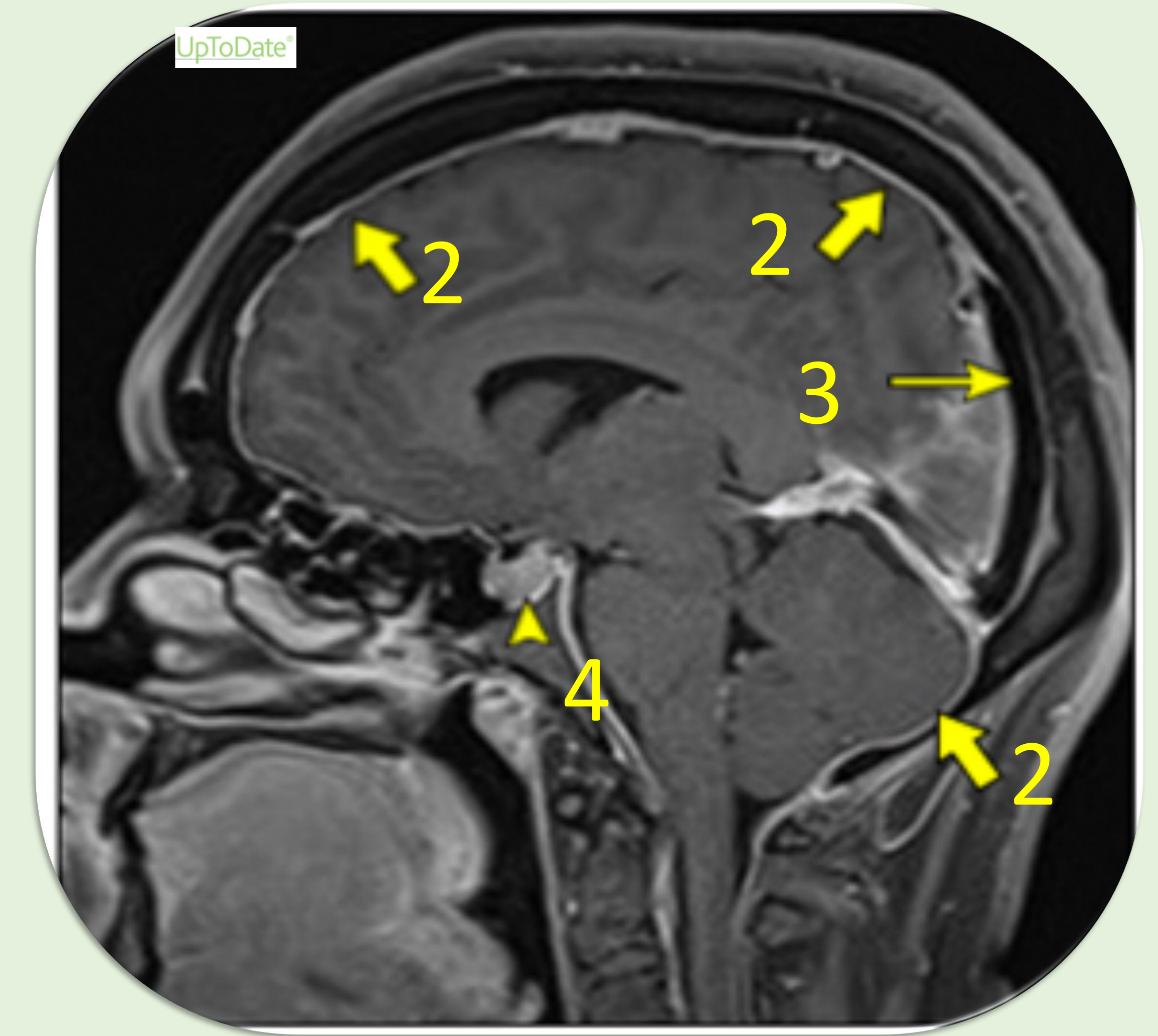


Post-treatment



MRI of Brain sagging with low CSF pressure Headache

- **crowding and pointing of the cerebellar tonsils** at the foramen magnum mimicking a Chiari 1
- **inferior displacement of the floor of the third ventricle**



Catastrophic Complications:

- Acute subdural hematoma
- Cerebellar hemorrhage
- Posterior circulation infarction
- Cerebral venous sinus thrombosis
- Reversible posterior leukoencephalopathy syndrome
- Reversible cerebral vasoconstriction syndrome

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