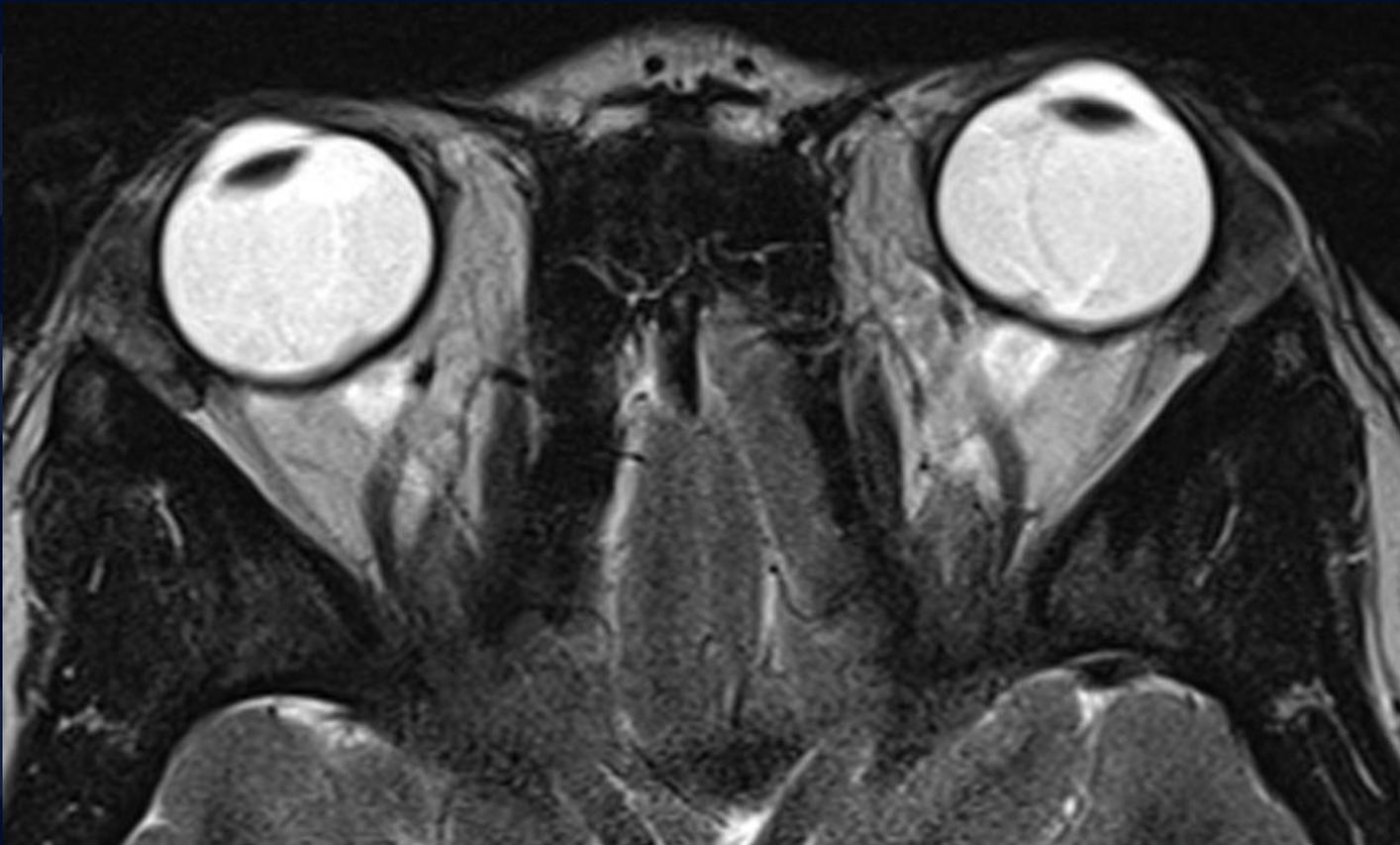
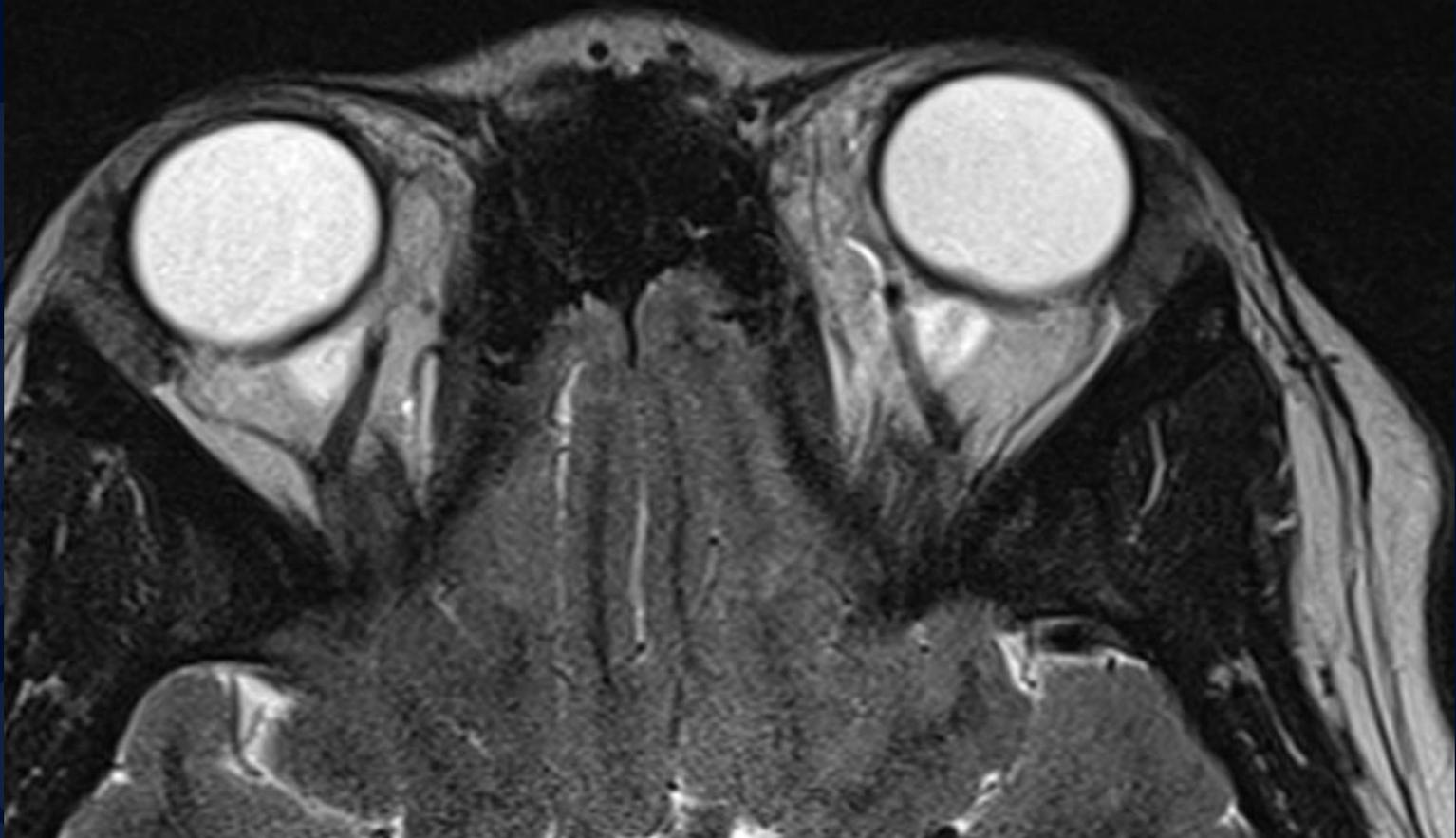
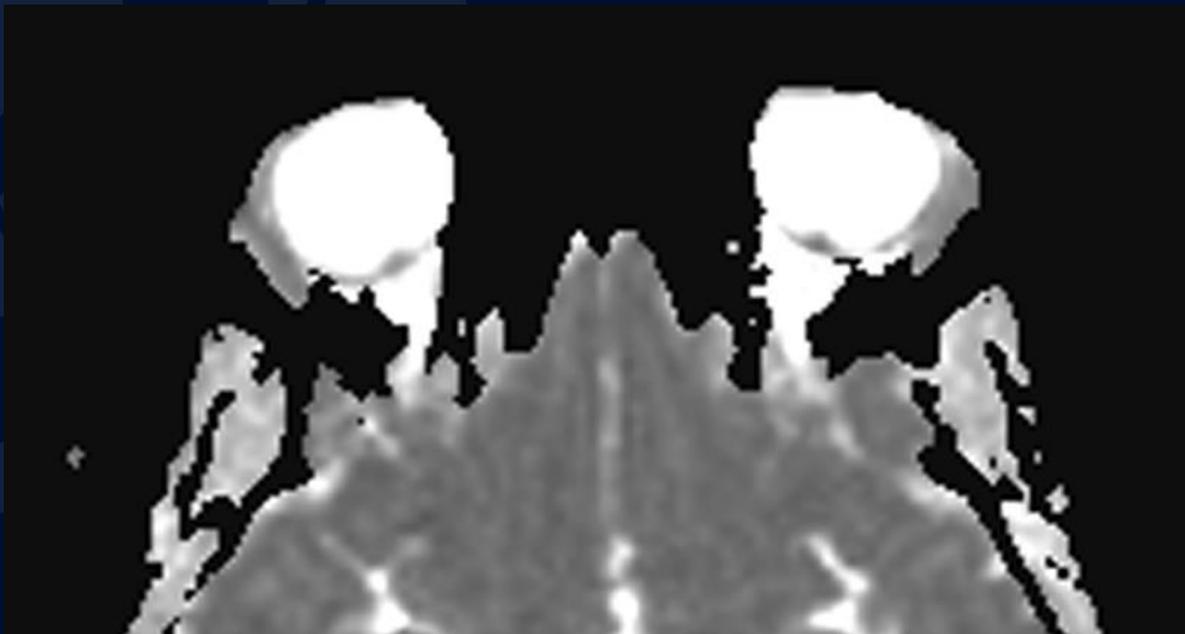
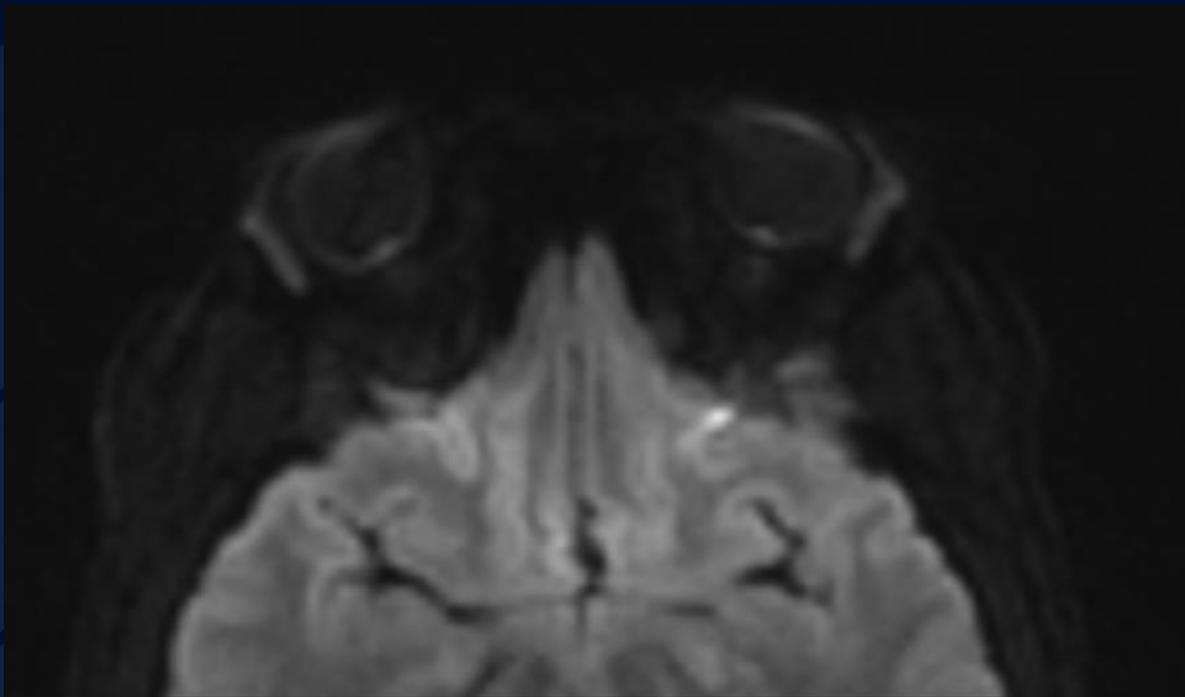


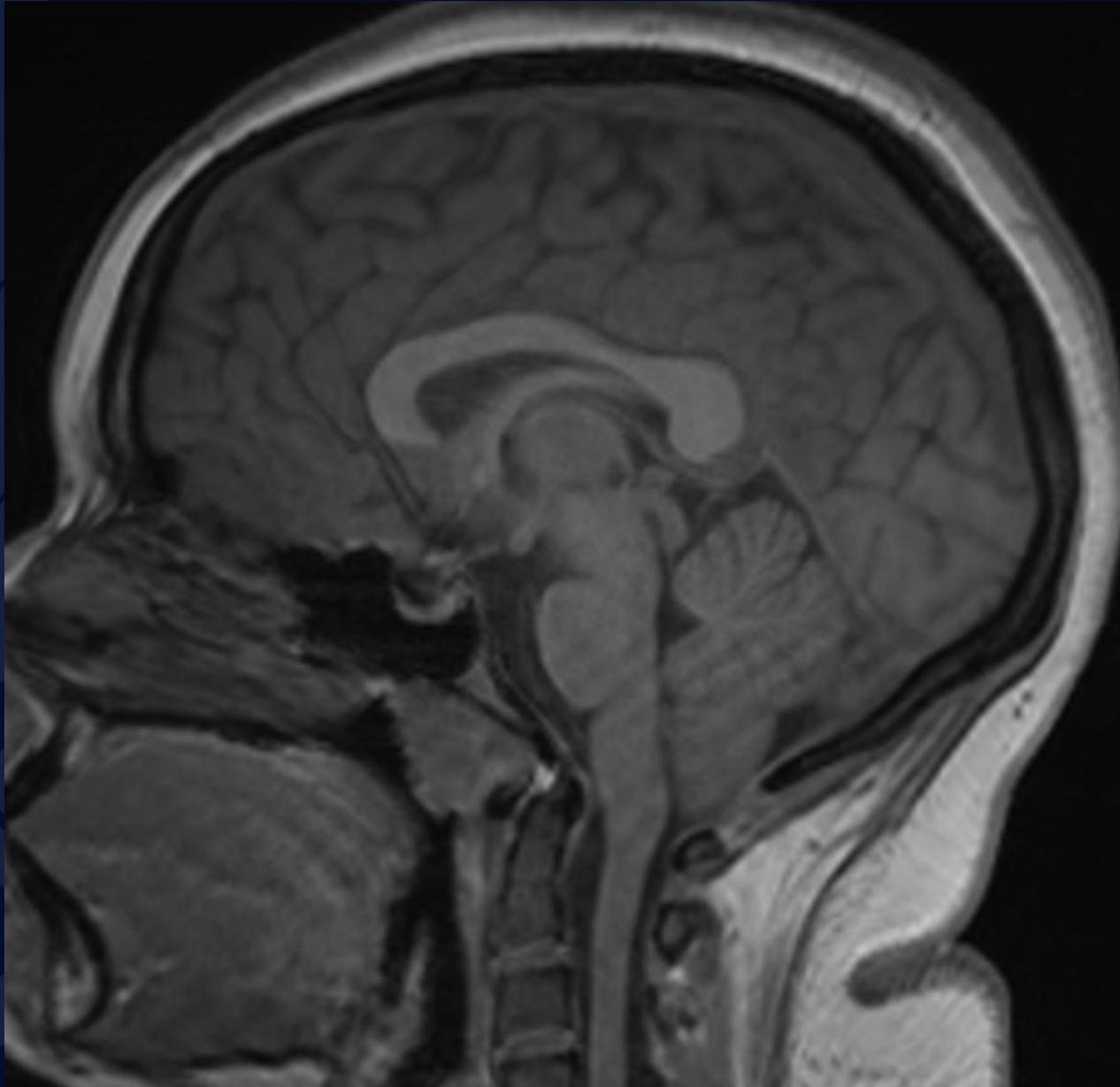
17 y/o woman presenting with headache and visual disturbance

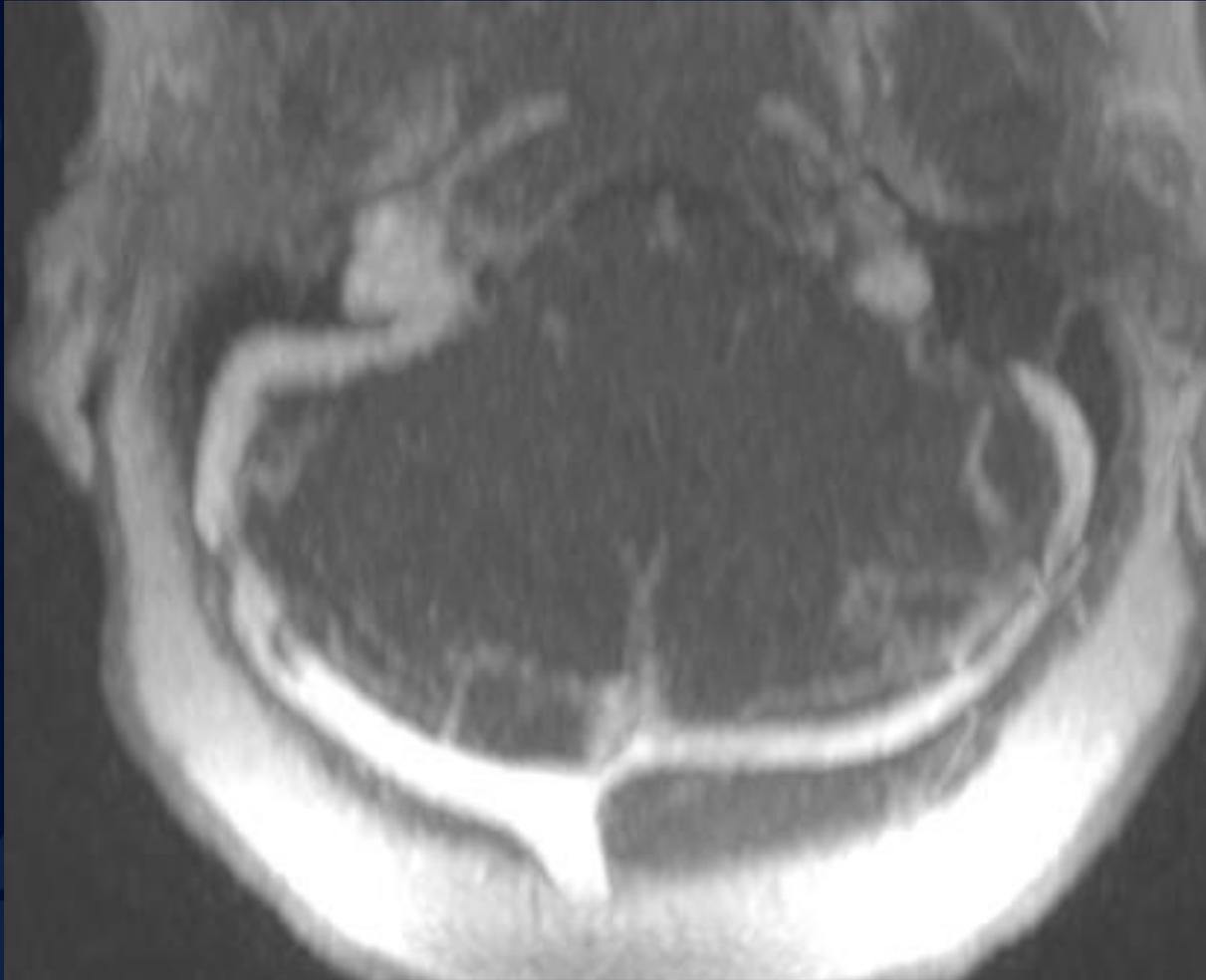
Martin Ollenschleger, MD











A large, stylized oak leaf graphic in a dark blue color, positioned on the left side of the slide. The leaf has a prominent central vein and several smaller veins branching off it. The edges of the leaf are slightly wavy.

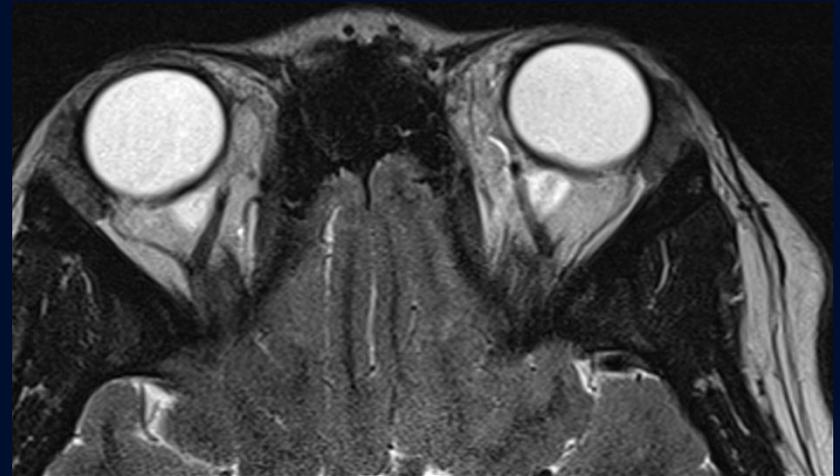
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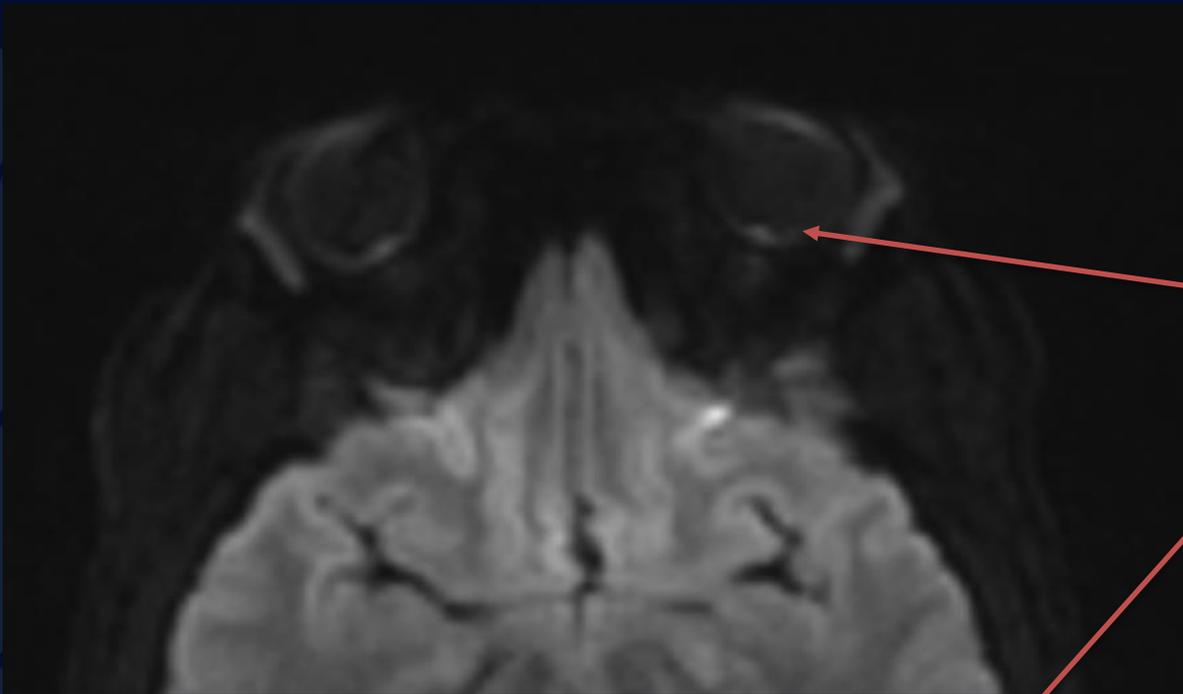
Idiopathic Intracranial Hypertension (IIH) (Pseudotumor Cerebri)



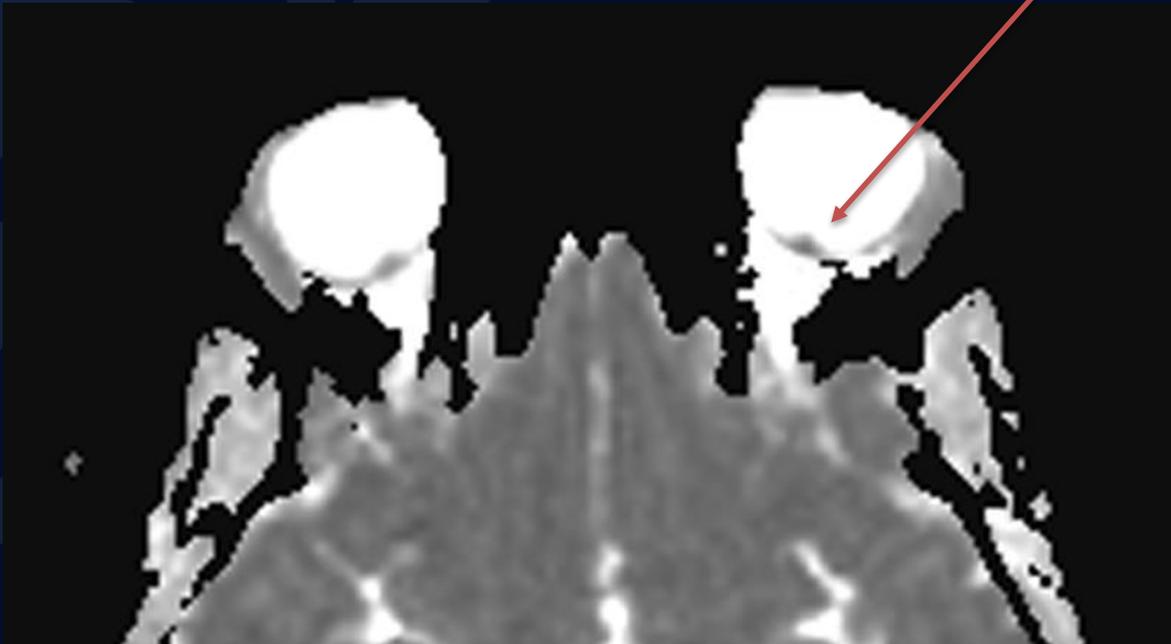
Protrusion of the optic nerve heads bilaterally

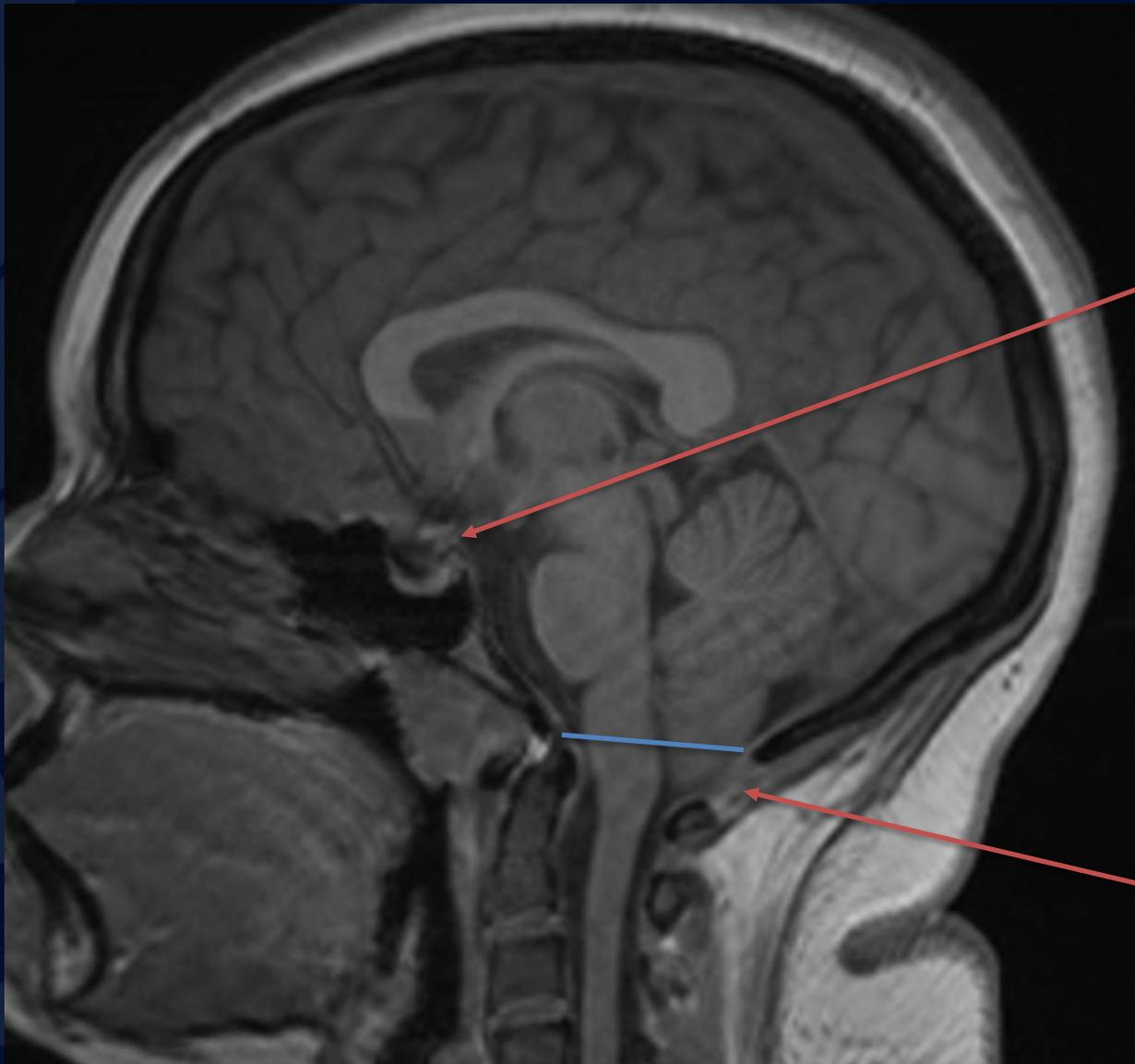
Flattening of the posterior globe and prominence of the optic nerve sheath bilaterally





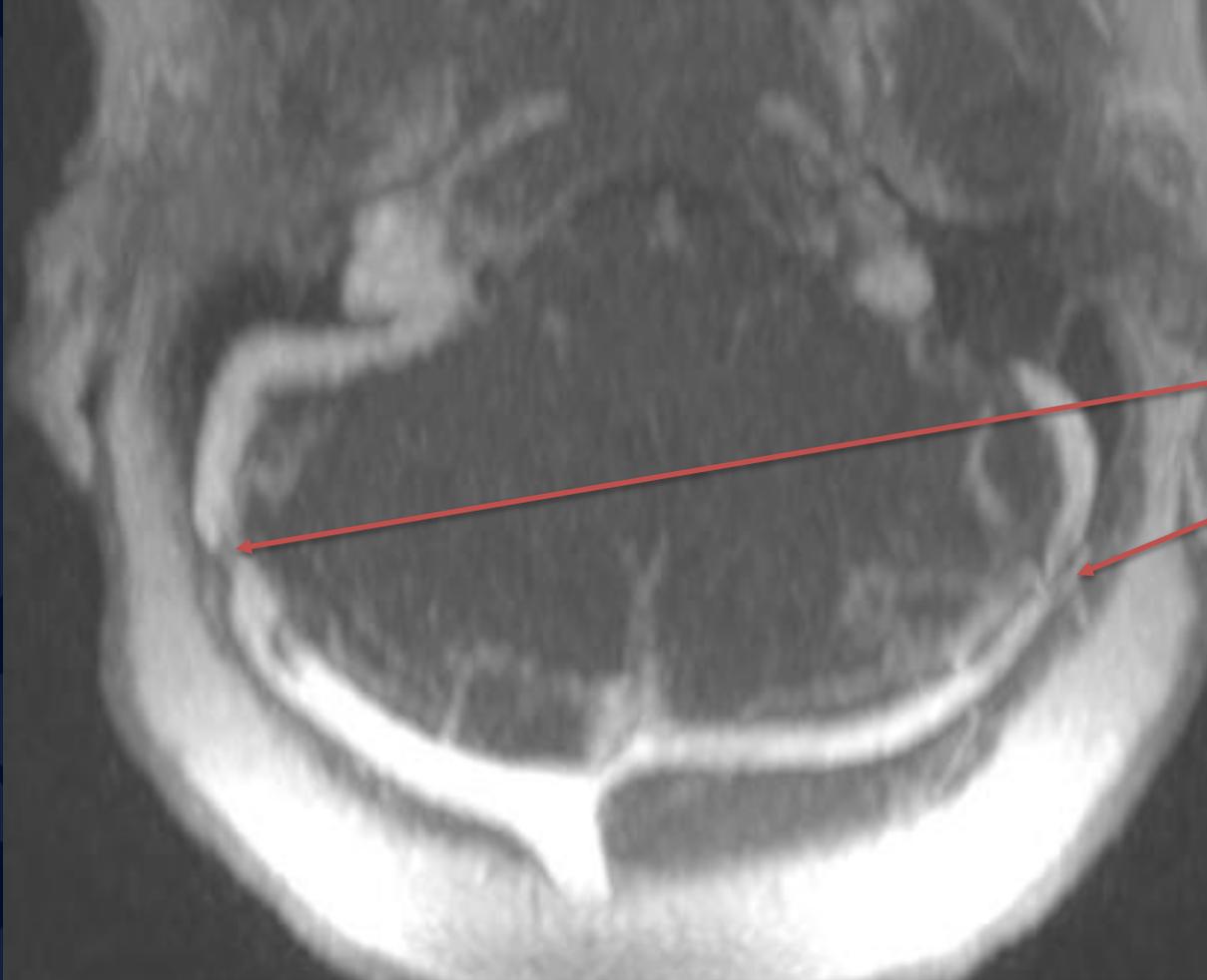
Restricted diffusion of the optic nerve head





Partially empty sella

Tonsillar herniation



Transverse
sinus stenosis

Idiopathic Intracranial Hypertension

- Idiopathic intracranial hypertension (IIH, also known as pseudotumor cerebri) is an idiopathic condition resulting in elevated intracranial pressure without an underlying structural lesion or other cause identified
- Typical patient presentation is an obese woman of childbearing age presenting with headaches and visual loss
- Symptoms include:
 - Headache
 - Visual obscuration or diplopia
 - Dizziness
 - Pulsatile tinnitus
 - Neck or back pain

Idiopathic Intracranial Hypertension

- Patients suspected of IIH should be imaged with MRI and MRV of the brain without and with contrast to exclude underlying structural lesion or other causes of elevated ICP
- Several findings on MRI have been associated with IIH with varying sensitivities and specificities. The most common findings are:
 - Empty sella
 - Flattening of the posterior aspect of the globes
 - Protrusion of the optic nerve head
 - Enhancement and diffusion restriction of the optic nerve head
 - Distention of the optic nerve sheath, often with tortuosity
 - Tonsillar herniation
 - Transverse sinus stenosis (often bilateral or unilateral stenosis of the dominant sinus and a hypoplastic contralateral sinus)

Idiopathic Intracranial Hypertension

- Modified Dandy Criteria
 - Used for diagnosis of IIH
 - “Definite” if patient meets all 5 criteria:
 - Papilledema
 - Normal Neurological examination except for CN findings
 - Normal brain imaging without evidence of hydrocephalus, mass, structural lesion, meningeal enhancement, or sinus thrombosis
 - Normal CSF composition
 - Opening pressure >250 mm water in adults (280 mm water in children)
 - “Probable” if patient meets first 4 criteria, but has lower opening pressure
- In the absence of papilledema or 6th nerve palsy, the diagnosis can be suggested with at least 3 of the following imaging findings:
 - Empty Sella
 - Flattening of the posterior aspect of the globe
 - Distention of the perioptic subarachnoid space with or without a tortuous optic nerve
 - Transverse sinus stenosis

References

- Bidot, et al. Brain Imaging in Idiopathic Intracranial Hypertension. Journal of Neuro-Ophthalmology 2015;35:400–411
- Nagarajan et al. Is Magnetic Resonance Imaging Diffusion Restriction of the Optic Disc Head a New Marker for Idiopathic Intracranial Hypertension? J Neurosci Rural Pract 2020 Jan; 11(1): 170–174.
- Ollenschleger M. Idiopathic Intracranial Hypertension. Radiology Online (2021)