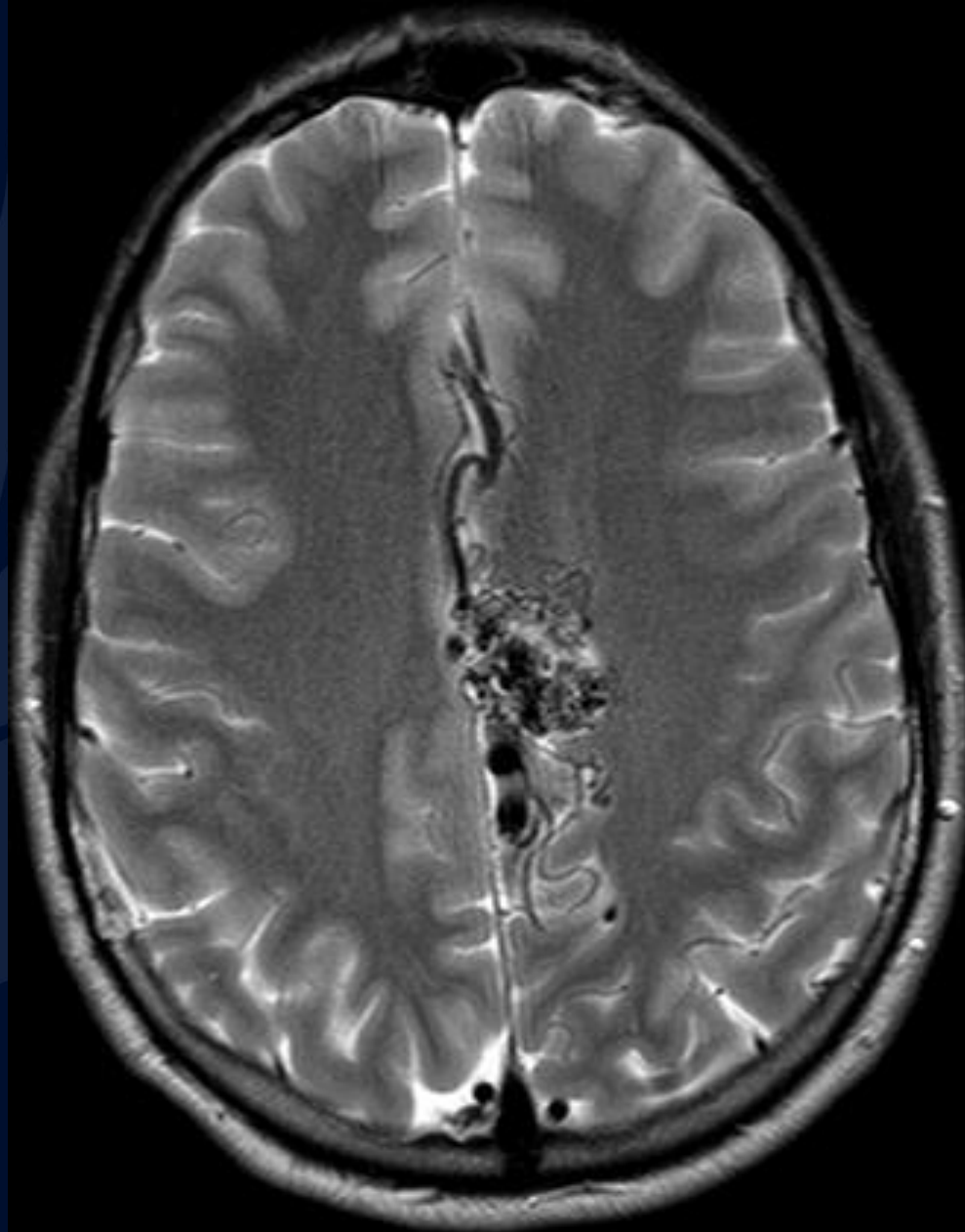


50-year-old male presenting with headaches and recurrent seizures

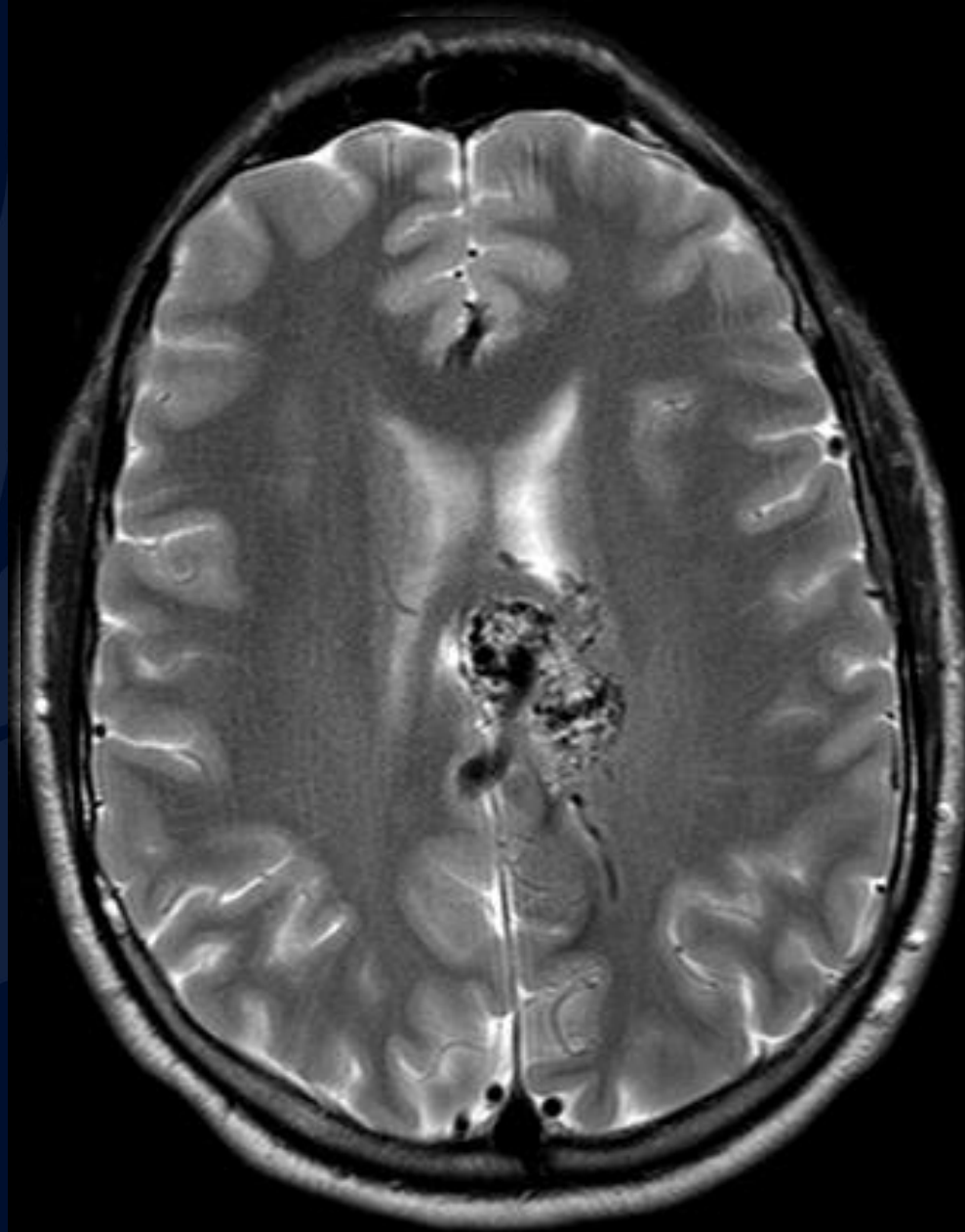
Andrew Klufas, MD, MBA

Racquel Helsing, MD

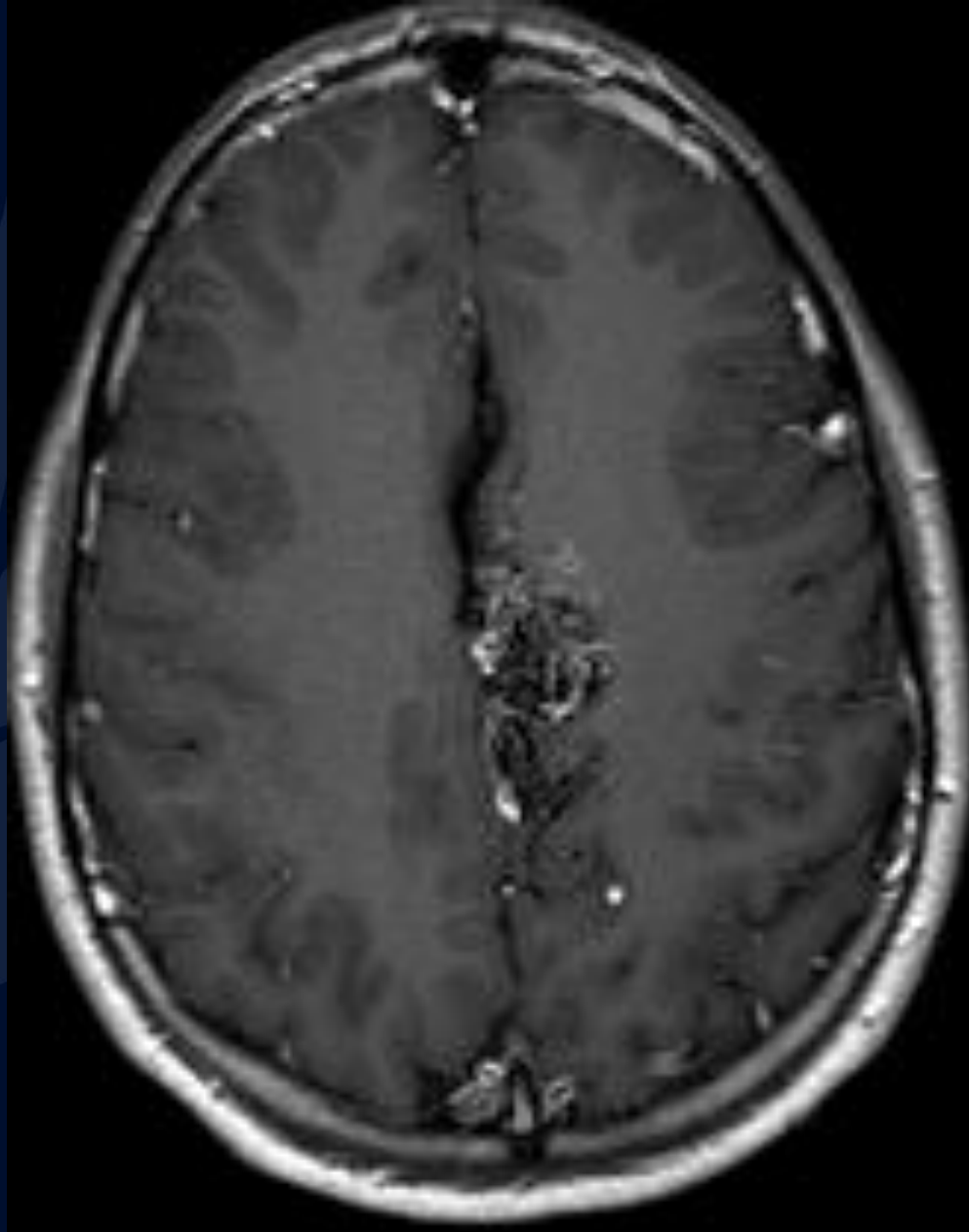
MRI T2



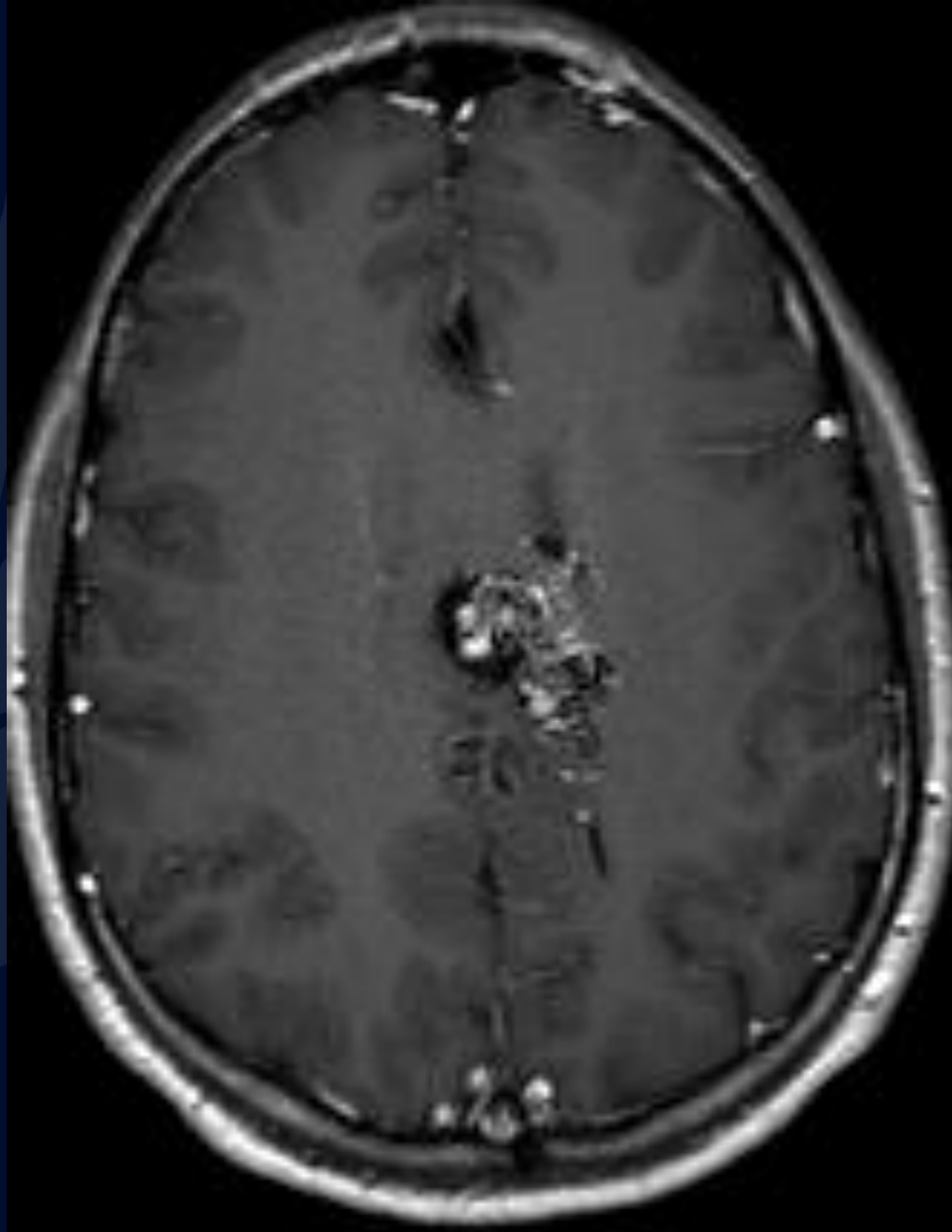
MRI T2



MRI T1 + Gad



MRI T1 + Gad



MR 3D Angiogram



MR 3D Angiogram



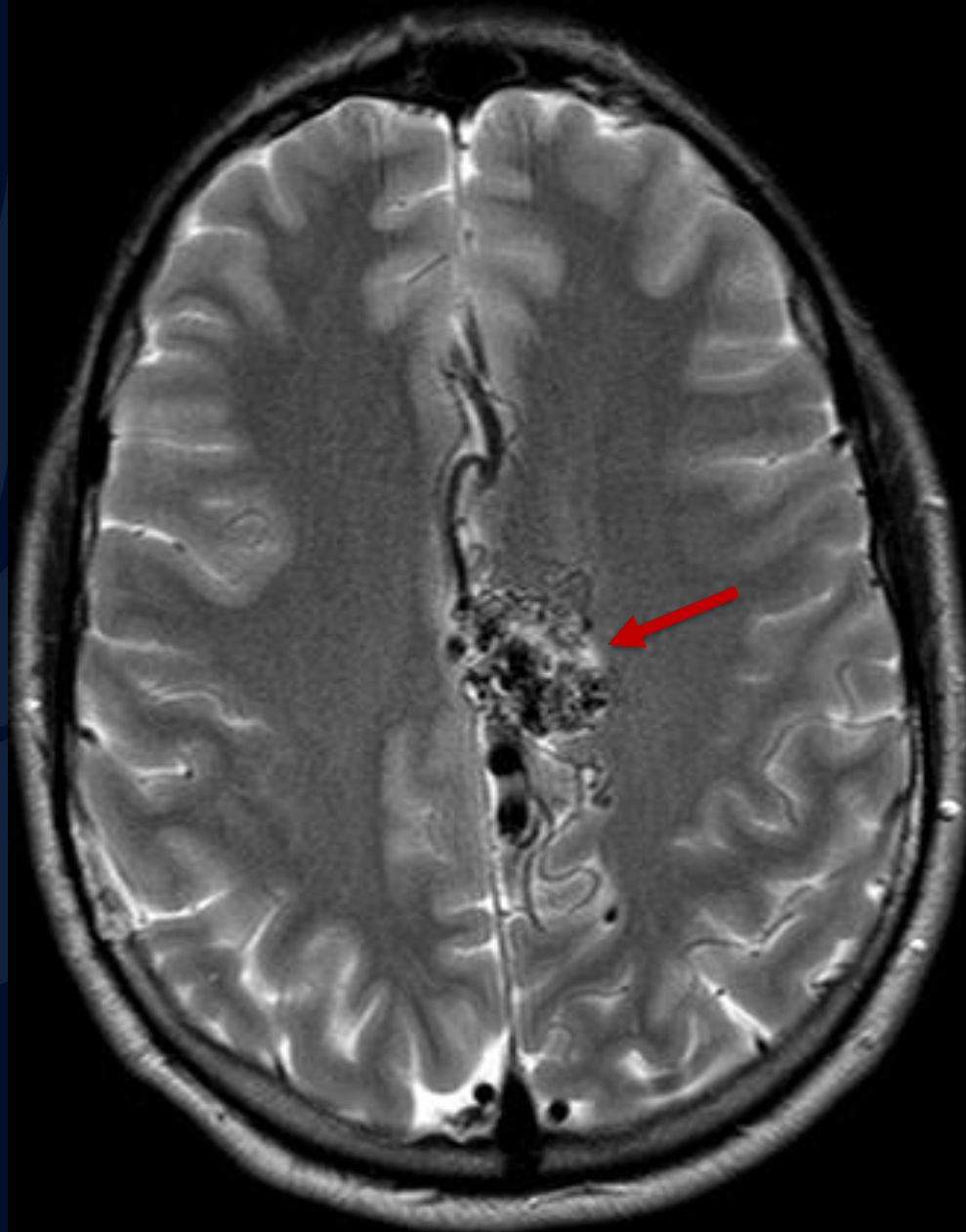
A large, stylized oak leaf graphic in a dark blue color, positioned on the left side of the slide. It features detailed vein patterns and a lobed edge.

?

A large, stylized oak leaf graphic in a dark blue color, positioned on the left side of the slide, partially overlapping the title text.

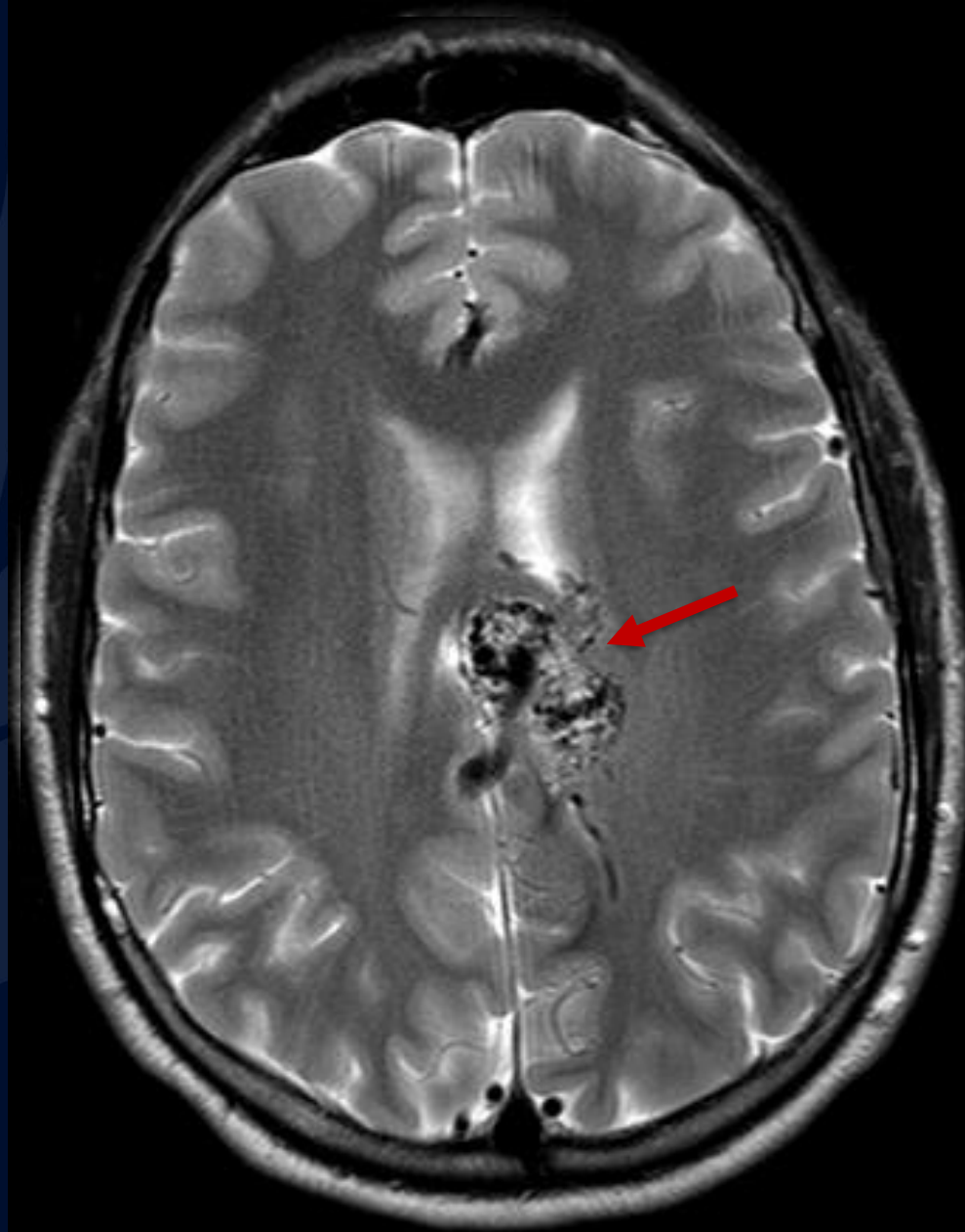
Arteriovenous Malformation

MRI T2



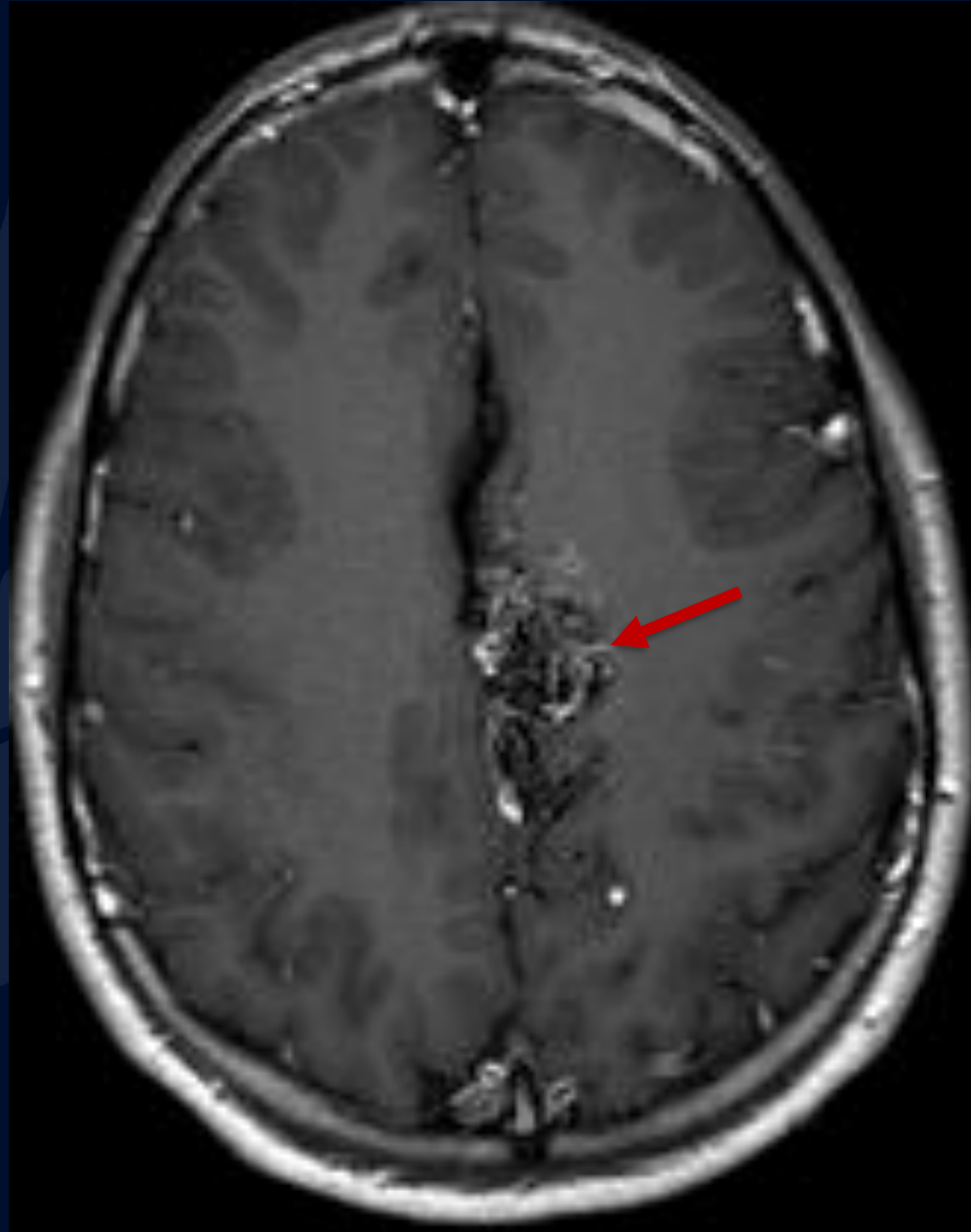
Hypointense “flow void” signal representing arteriovenous malformation

MRI T2



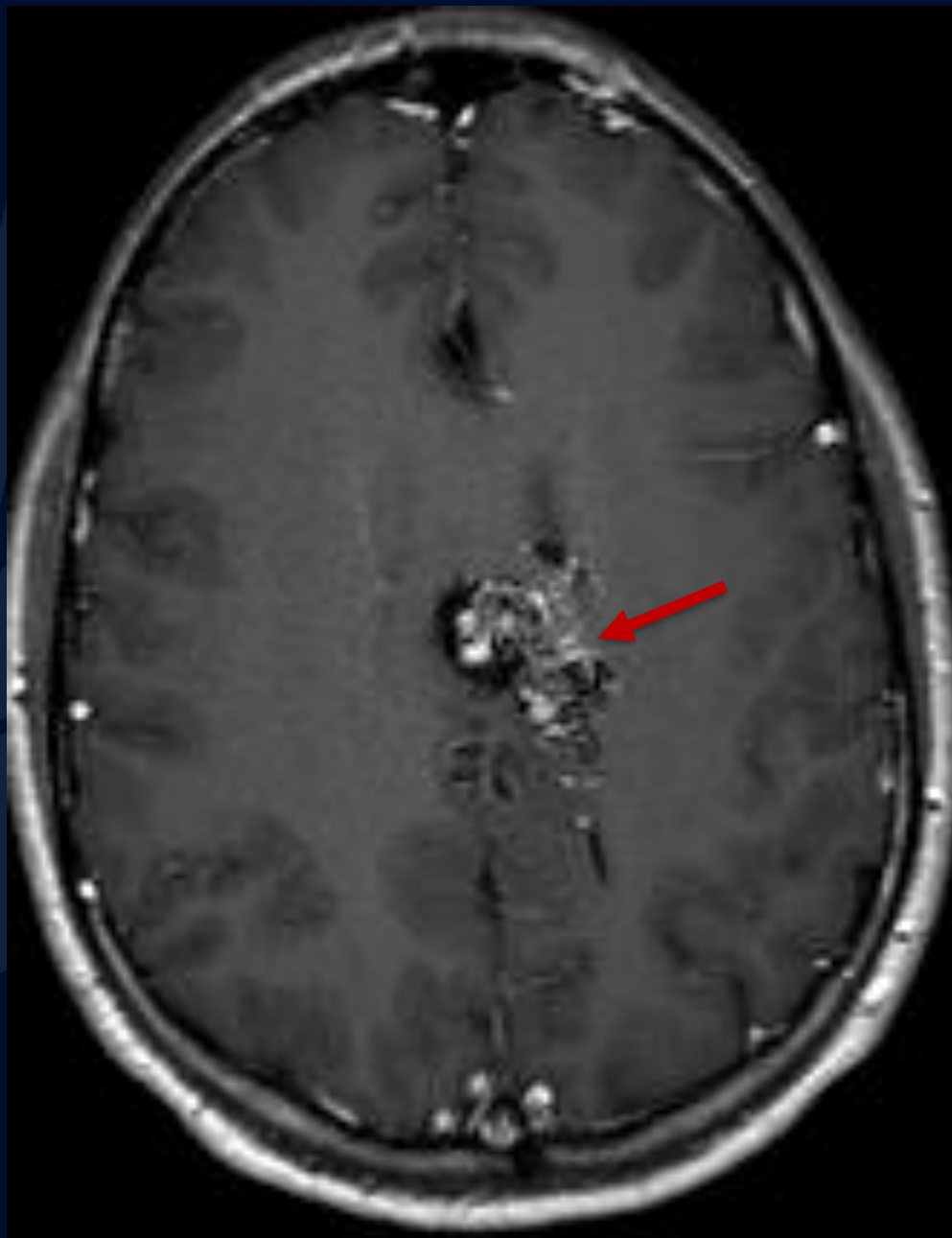
Hypointense “flow void” signal representing arteriovenous malformation

MRI T1 + Gad



Multiple enlarged, tortuous vessels and flow voids

MRI T1 + Gad



Multiple enlarged,
tortuous vessels
and flow voids

MR 3D Angiogram

Hyperintense
signal
abnormality
representing
arteriovenous
malformation



MR 3D Angiogram



Hyperintense
signal
abnormality
representing
arteriovenous
malformation

Arteriovenous Malformation

AVMs are congenital vascular malformations which are often found during evaluation of cerebral hemorrhage

- Often asymptomatic, when symptomatic typically present with seizures, headaches, or ischemic events
- Tend to be supratentorial and superficial
- Often solitary
- MRI is needed for assessment and diagnosis

Differential

- Cerebral proliferative angiopathy
- Dural arteriovenous fistula
- Glioblastoma
- Non-specific vascular tumor

Imaging Findings

CT

- Non-contrast- Hyperdense compared to adjacent parenchyma

CTA

- "Bag of Worms" appearance due to complex architecture

MRI

- T1- Usually hypointense
- T1 + Gad - Mild enhancement
- T2- Hypointense, Fast flow generates "flow voids"

MRA

- Beneficial in separating an AVM from a hematoma in the setting of acute cerebral hemorrhage

References

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