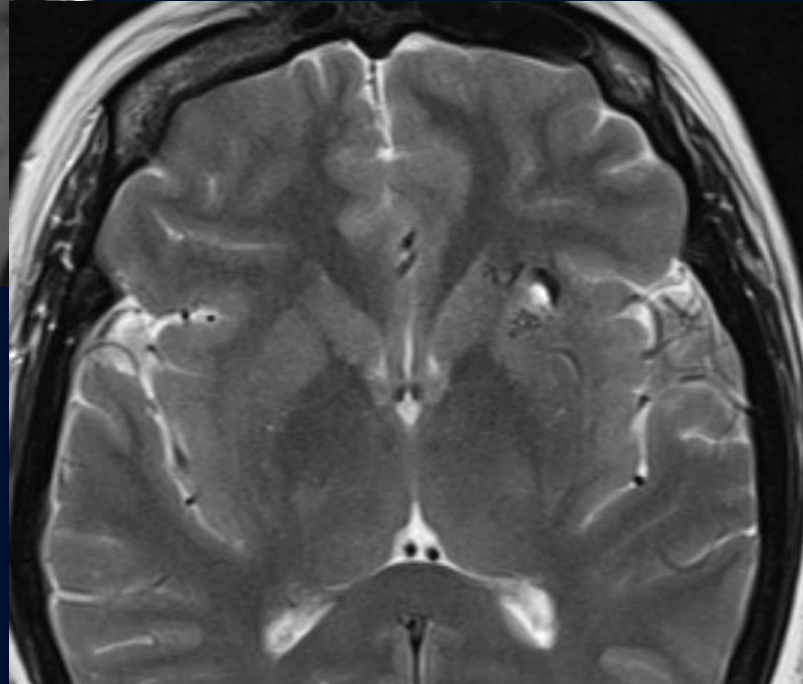
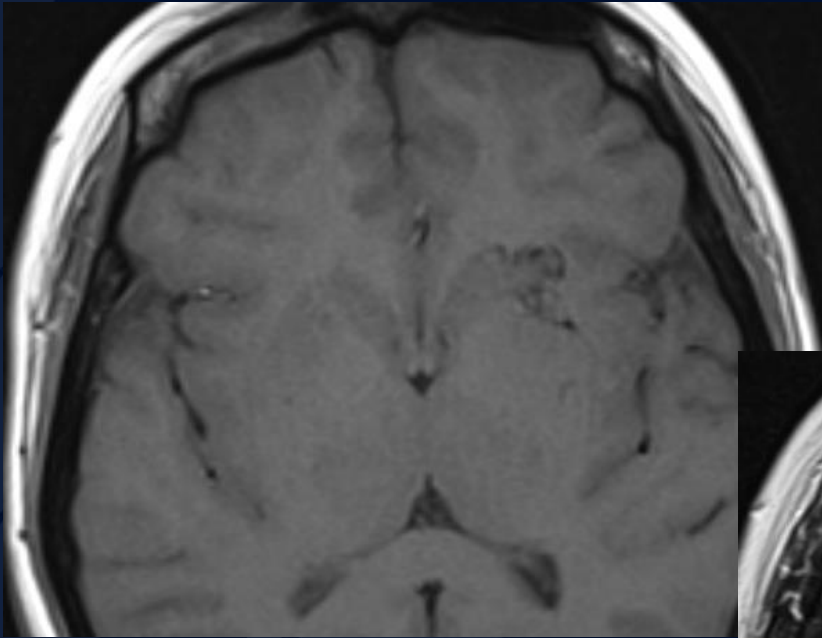
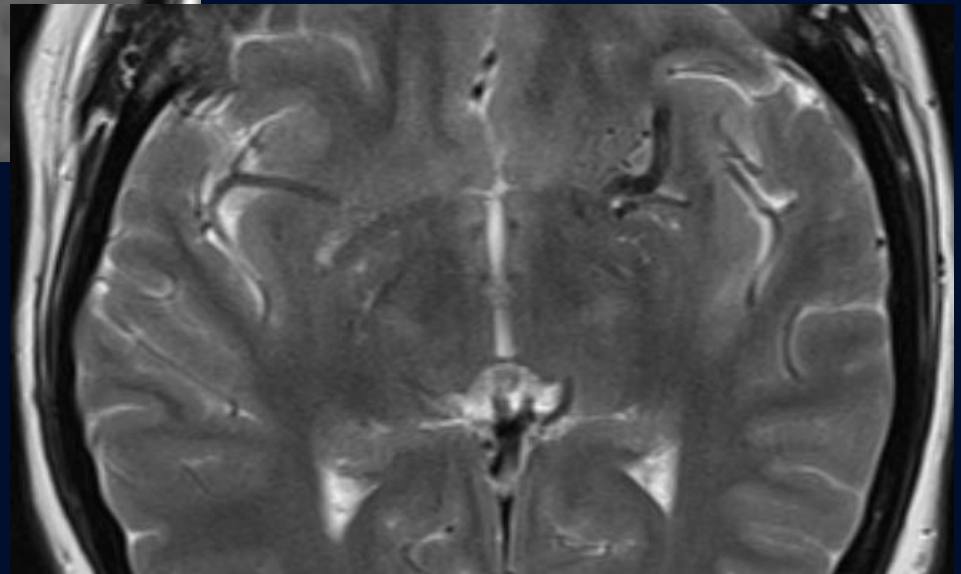
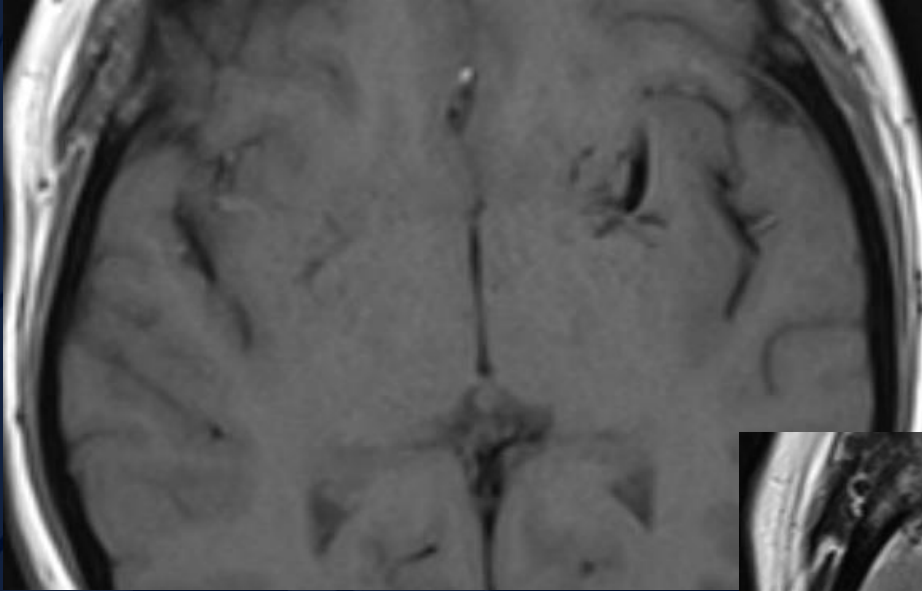


48 y/o Female with chronic cluster headache

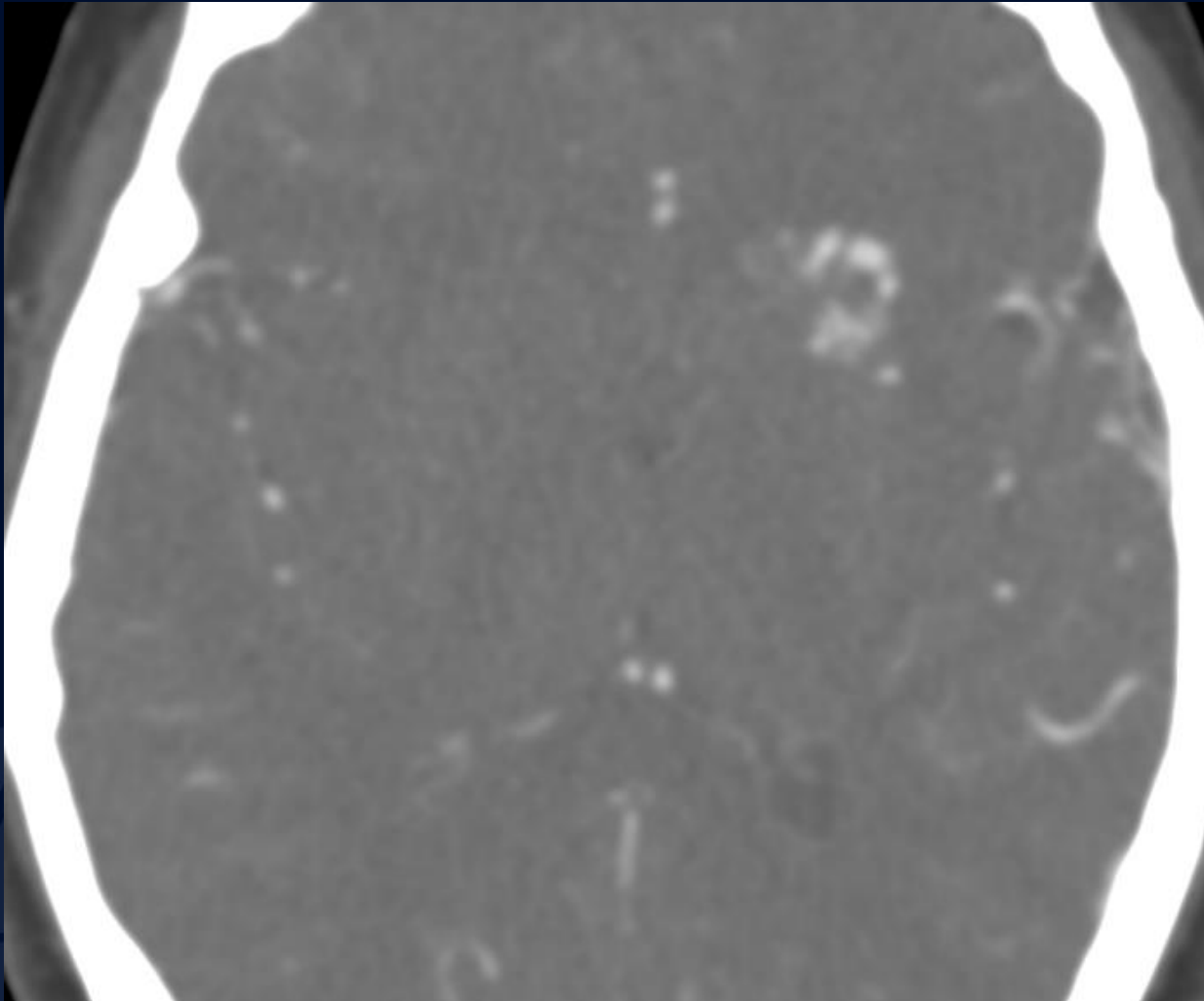
Atul Kumar, MD, MS



Axial T1 and T2 MRI



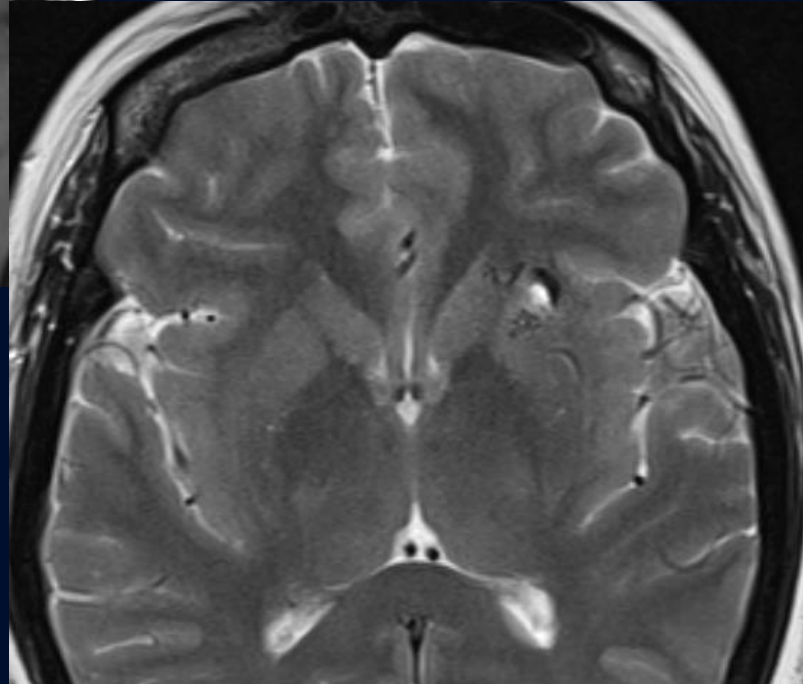
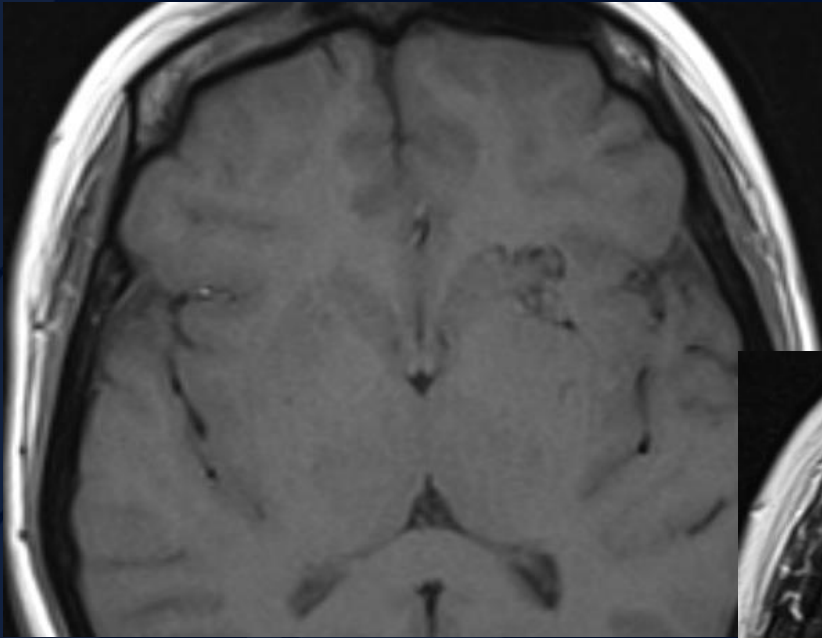
Axial T1 and T2 MRI



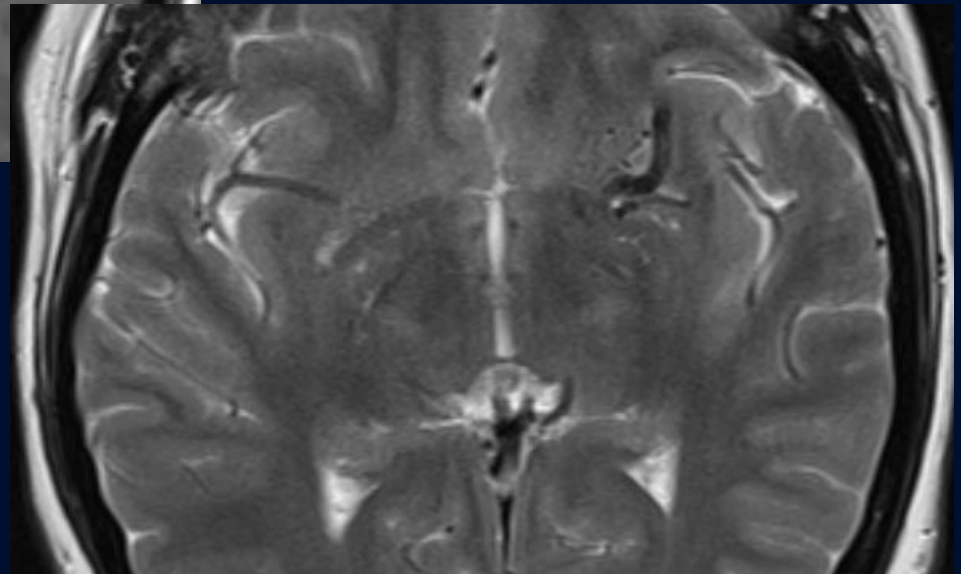
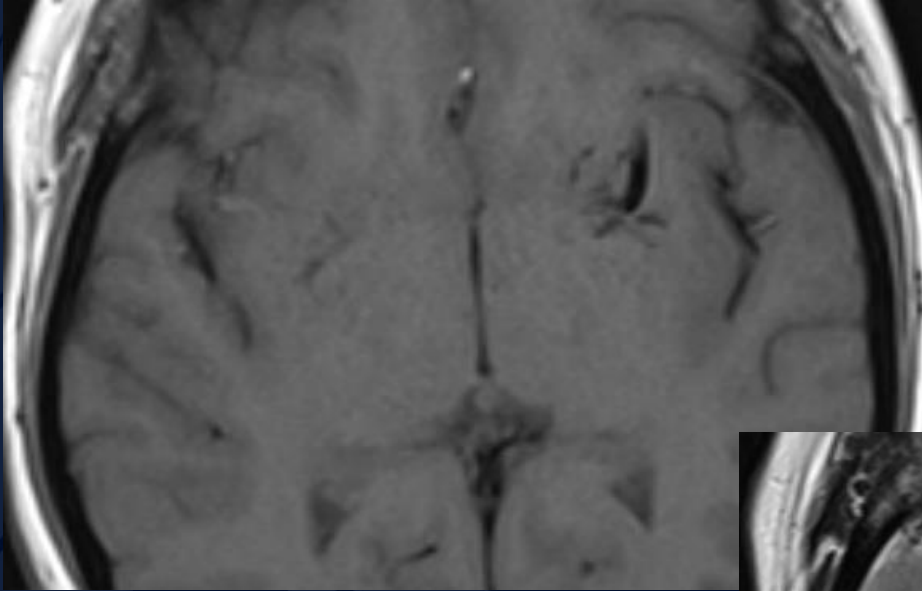
Axial CTA of Brain



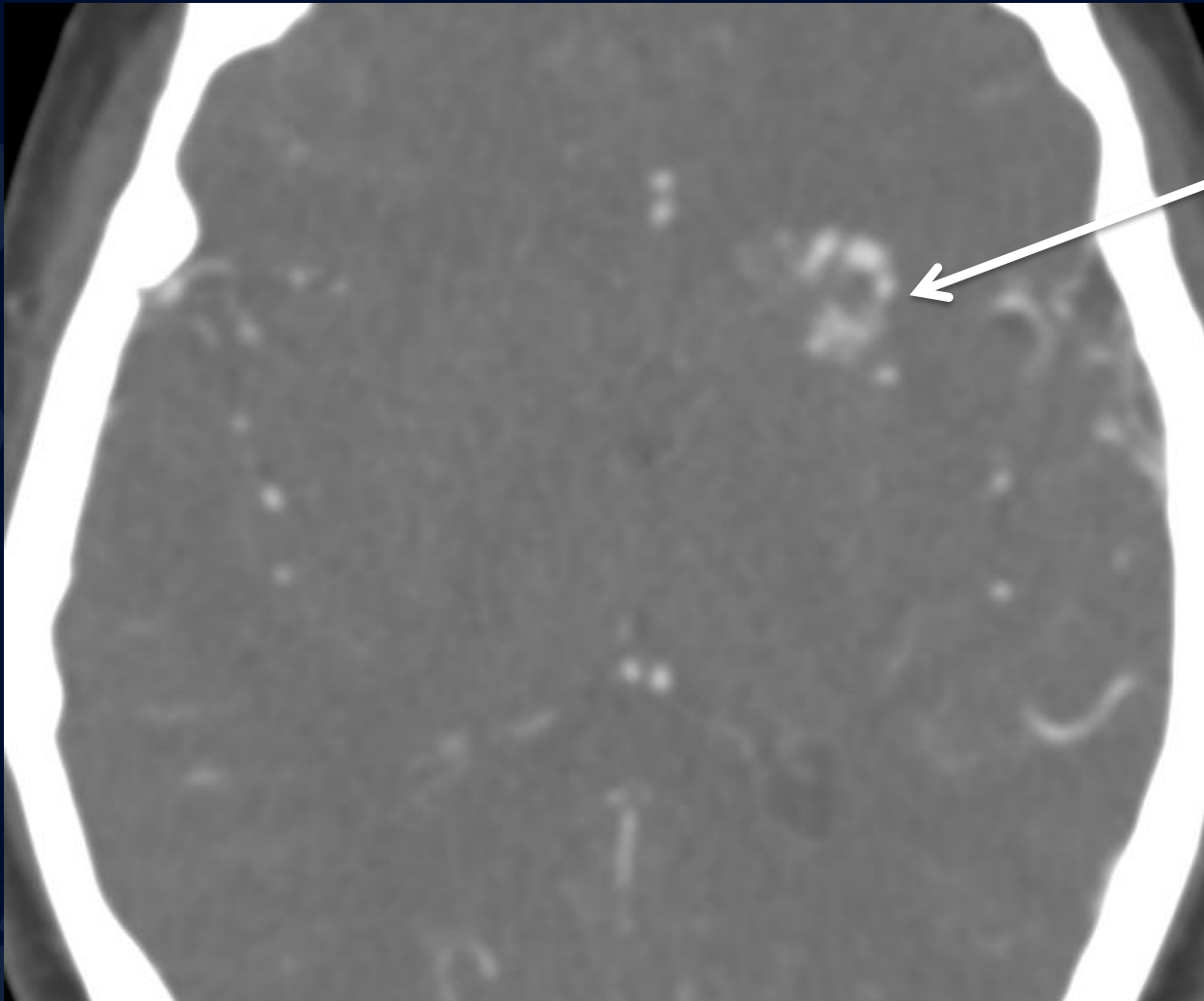
Arteriovenous Malformation



Axial T1 and T2 MRI

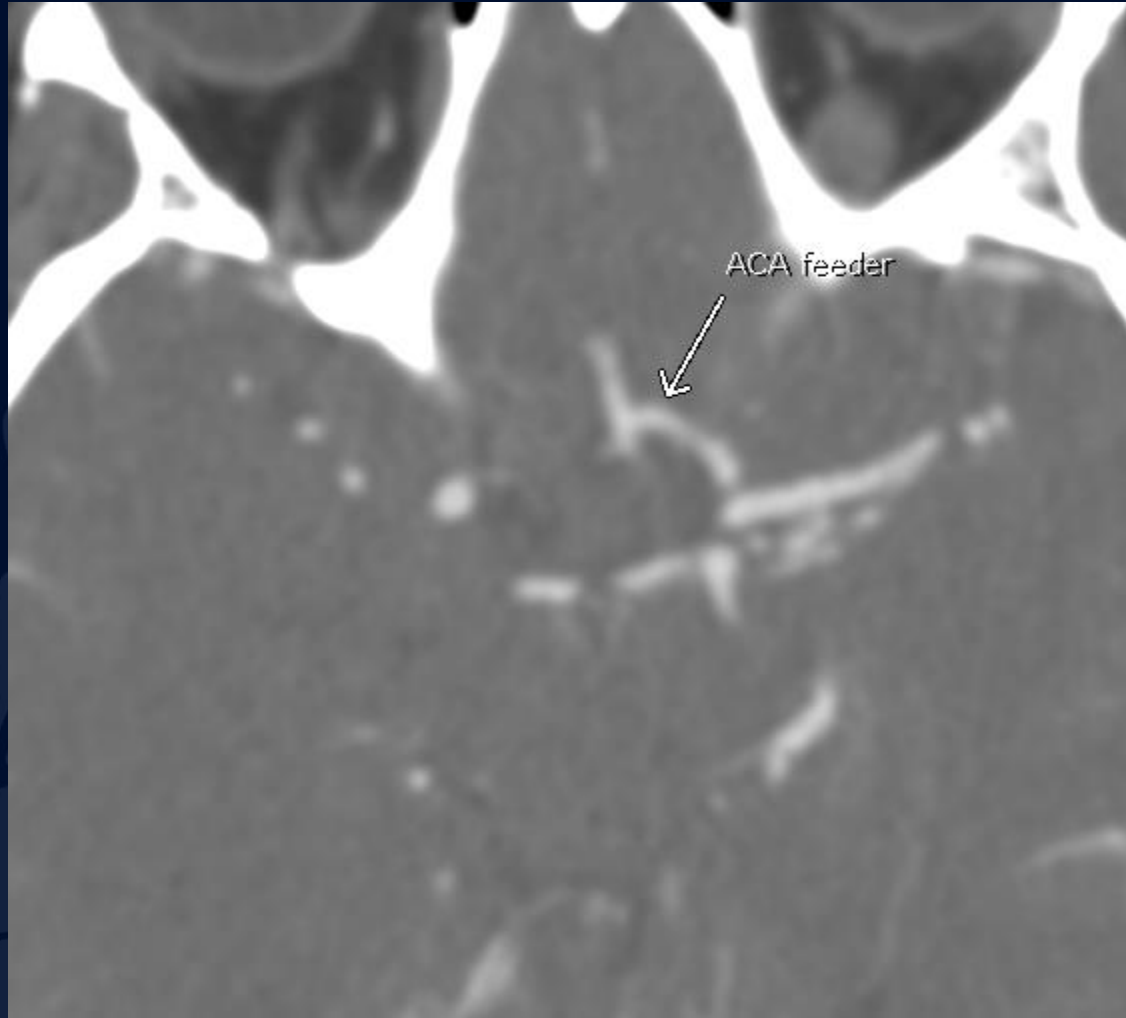


Axial T1 and T2 MRI

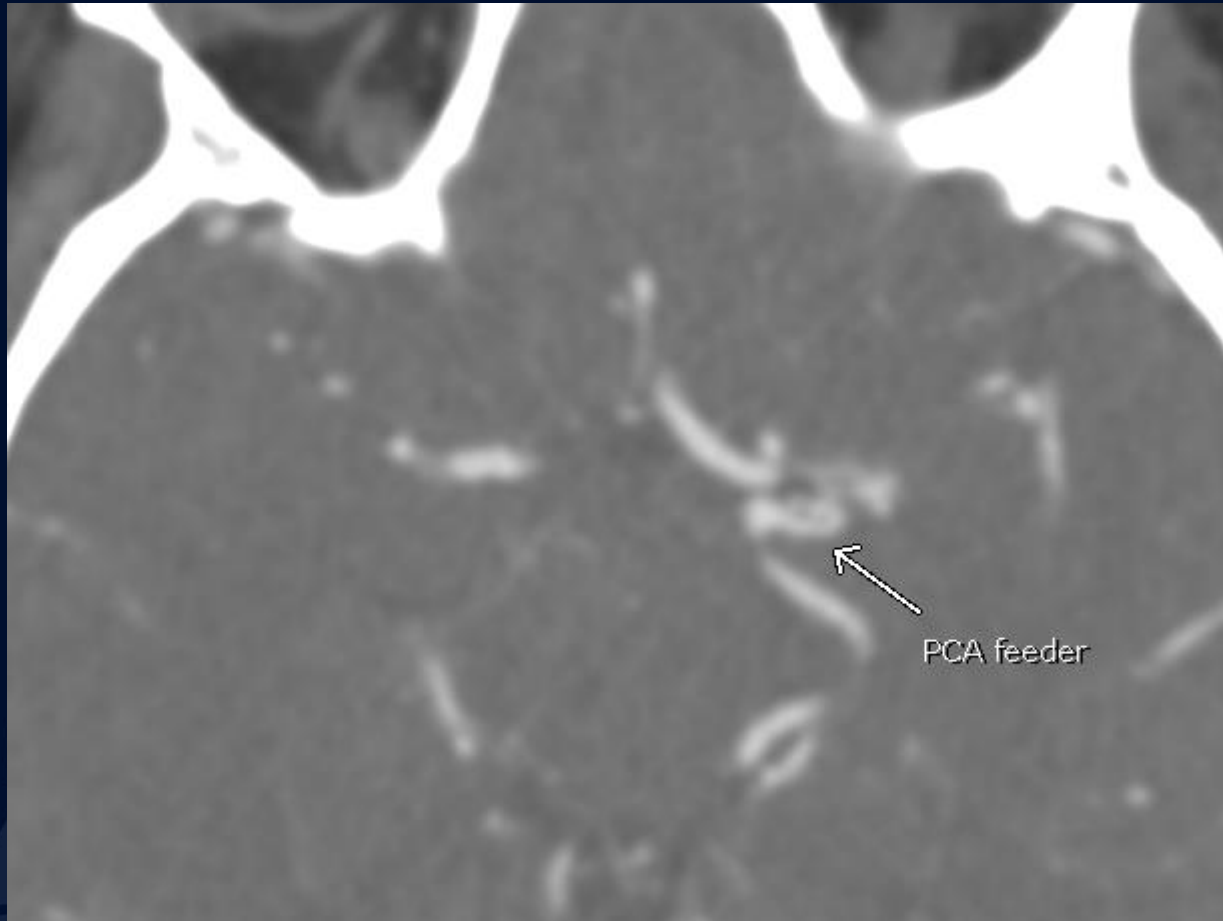


Nidus

Axial CTA of Brain



Axial CTA of Brain



Axial CTA of Brain

Arteriovenous Malformation

- Vascular malformation where artery goes directly to normal or abnormal veins with no capillary bed
- Nidus forming between feeding artery and draining vein
- > 95% are solitary
- Multiple AVM's associated with syndromes
 - Osler-Weber-Rendu (hereditary hemorrhagic telangiectasia)
 - Wyburn-Mason
- Complication
 - Hemorrhage
 - Aneurysm of feeding artery (10-15%) or nidus vessel (> 50%)
- Imaging
 - MRI: bag of worms without intervening normal brain
 - CTA: enhancement of arterial feeders, nidus, draining veins
 - DSA: feeding arteries, nidus, draining veins