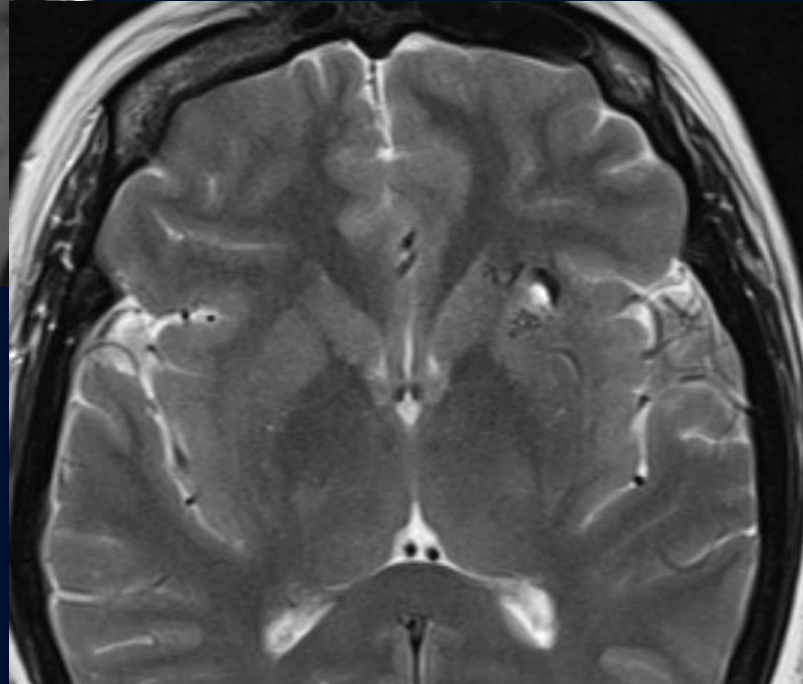
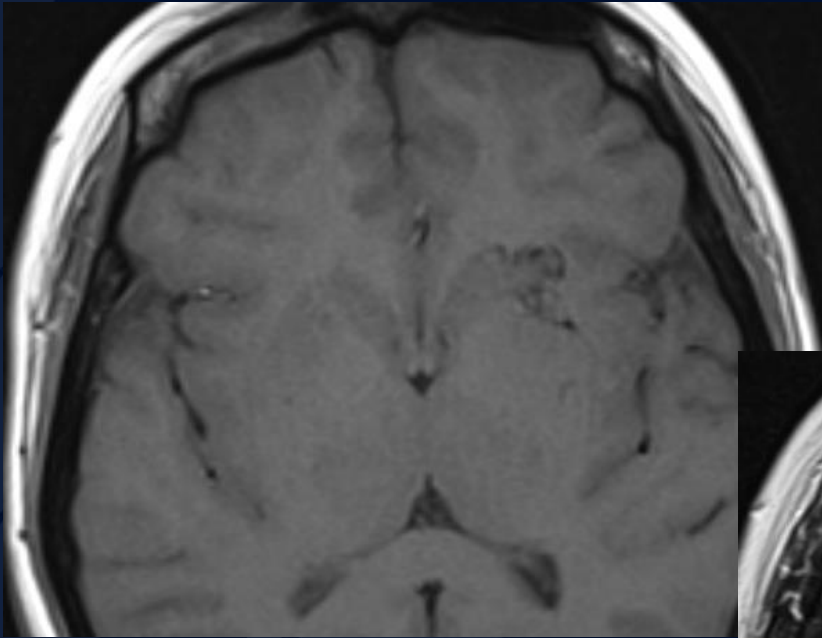
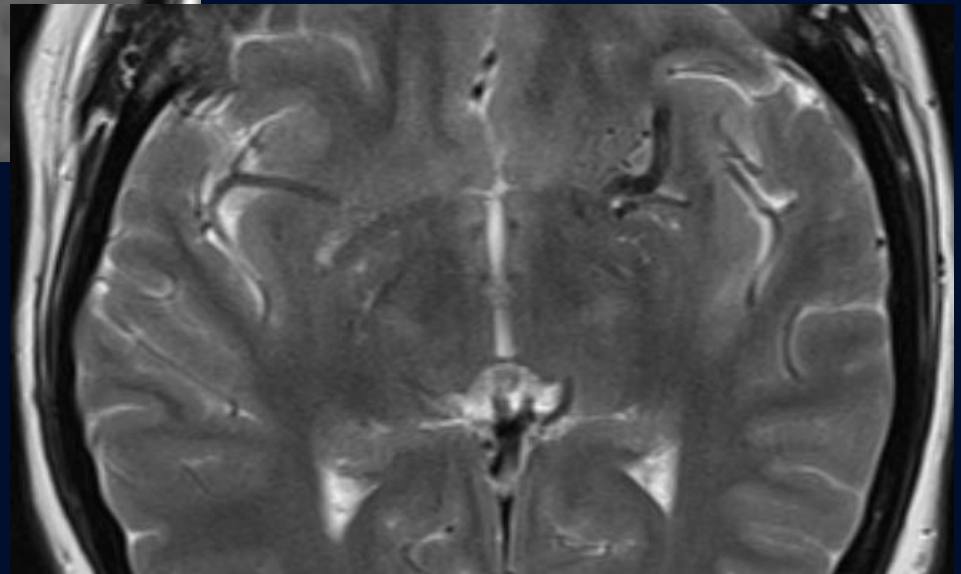
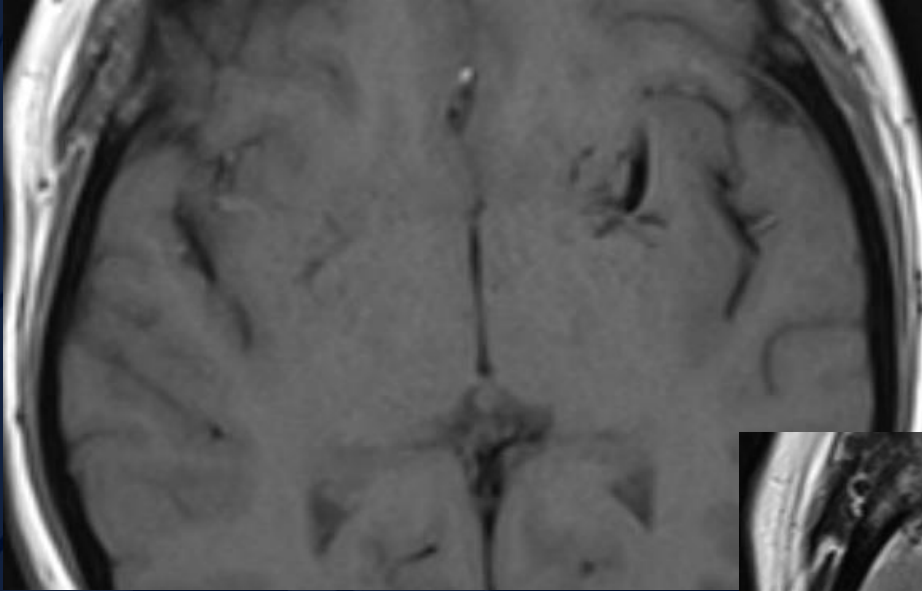


# 48 y/o Female with chronic cluster headache

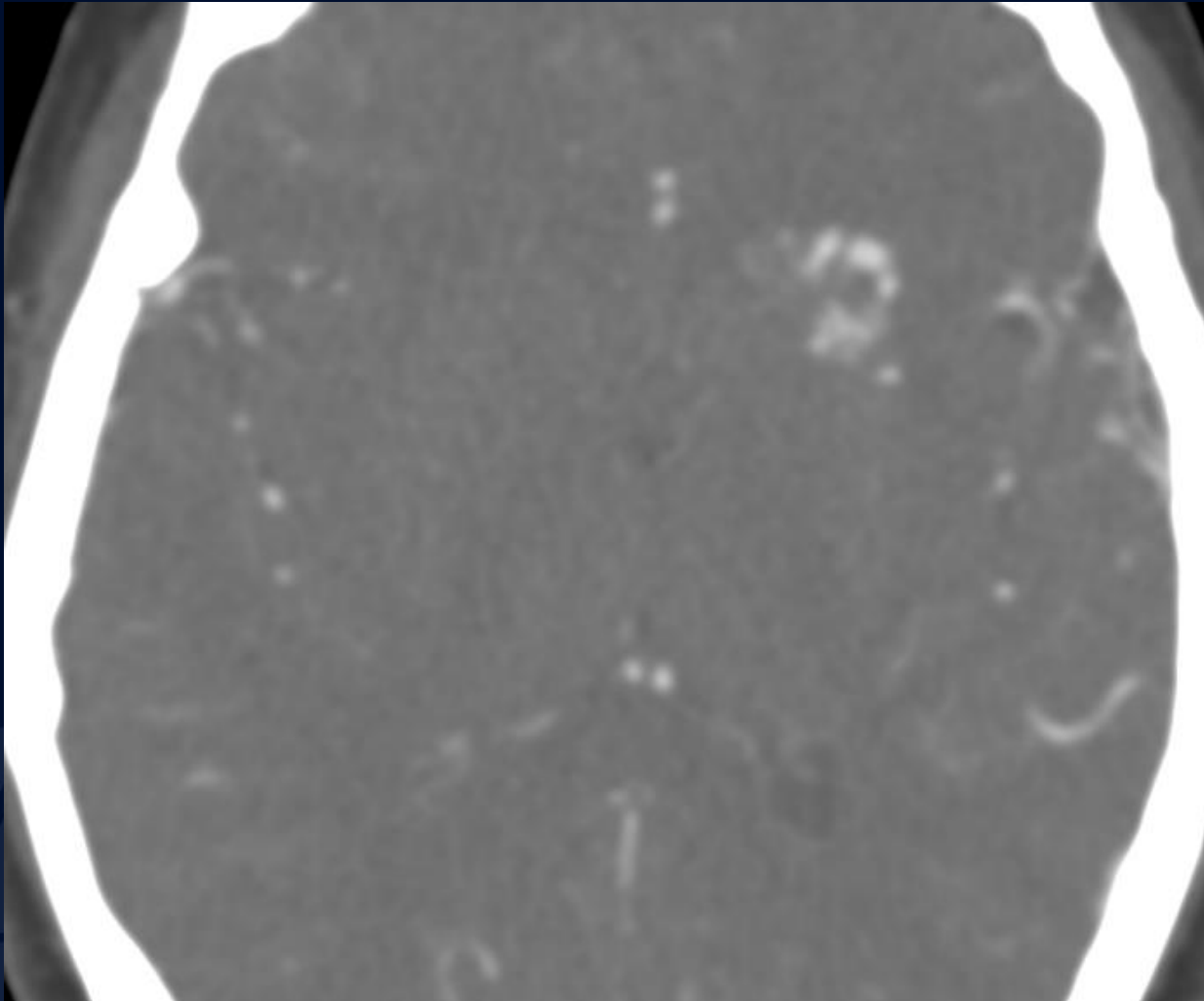
Atul Kumar, MD, MS



Axial T1 and T2 MRI



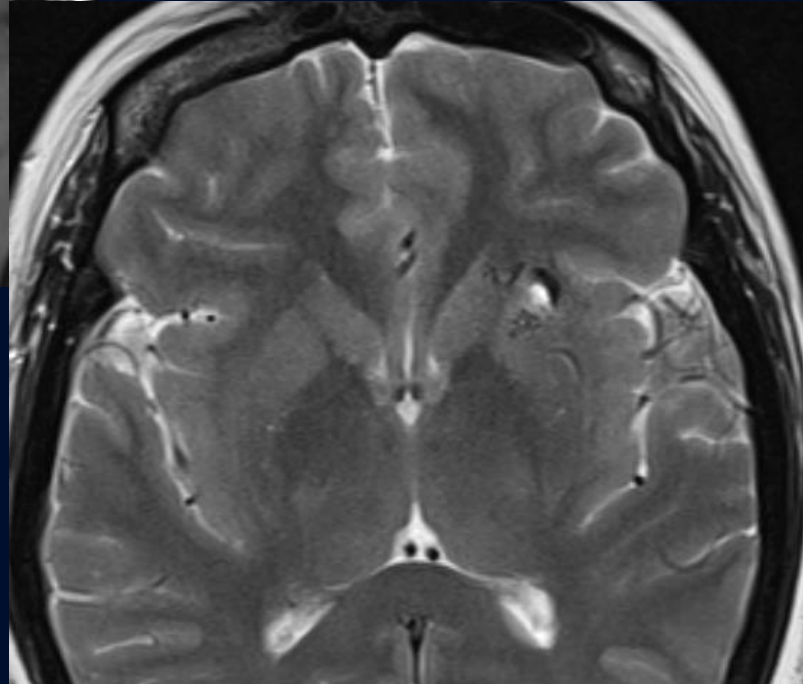
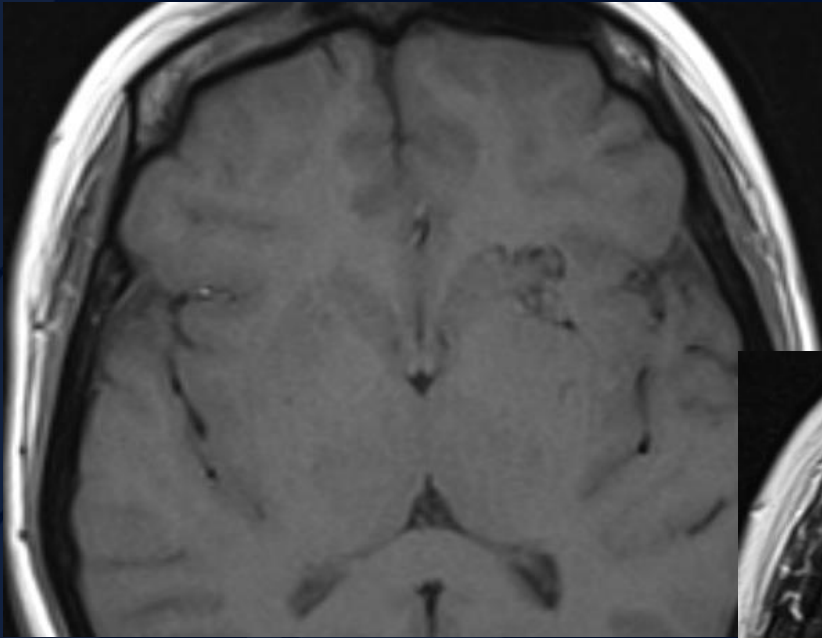
Axial T1 and T2 MRI



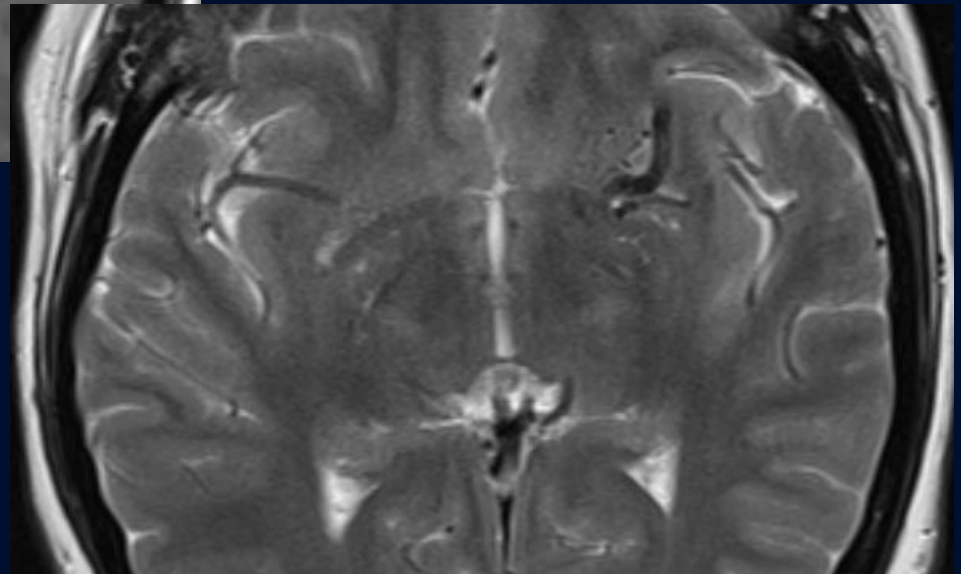
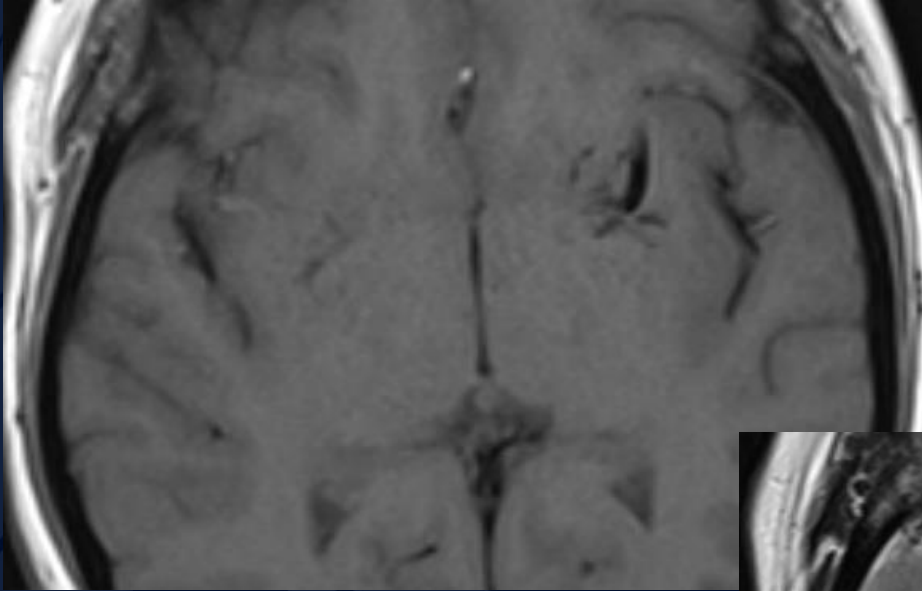
Axial CTA of Brain



# Arteriovenous Malformation

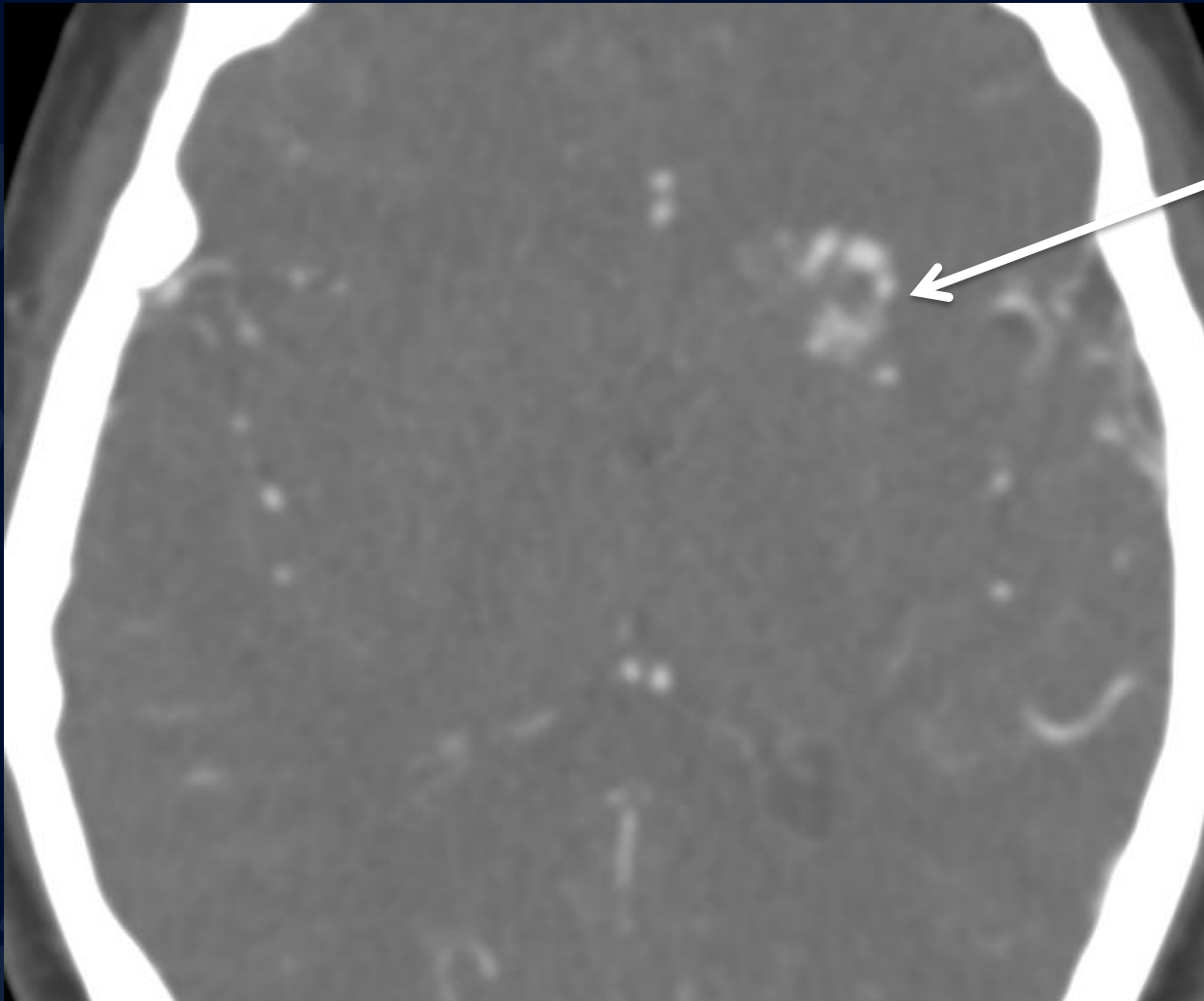


Axial T1 and T2 MRI



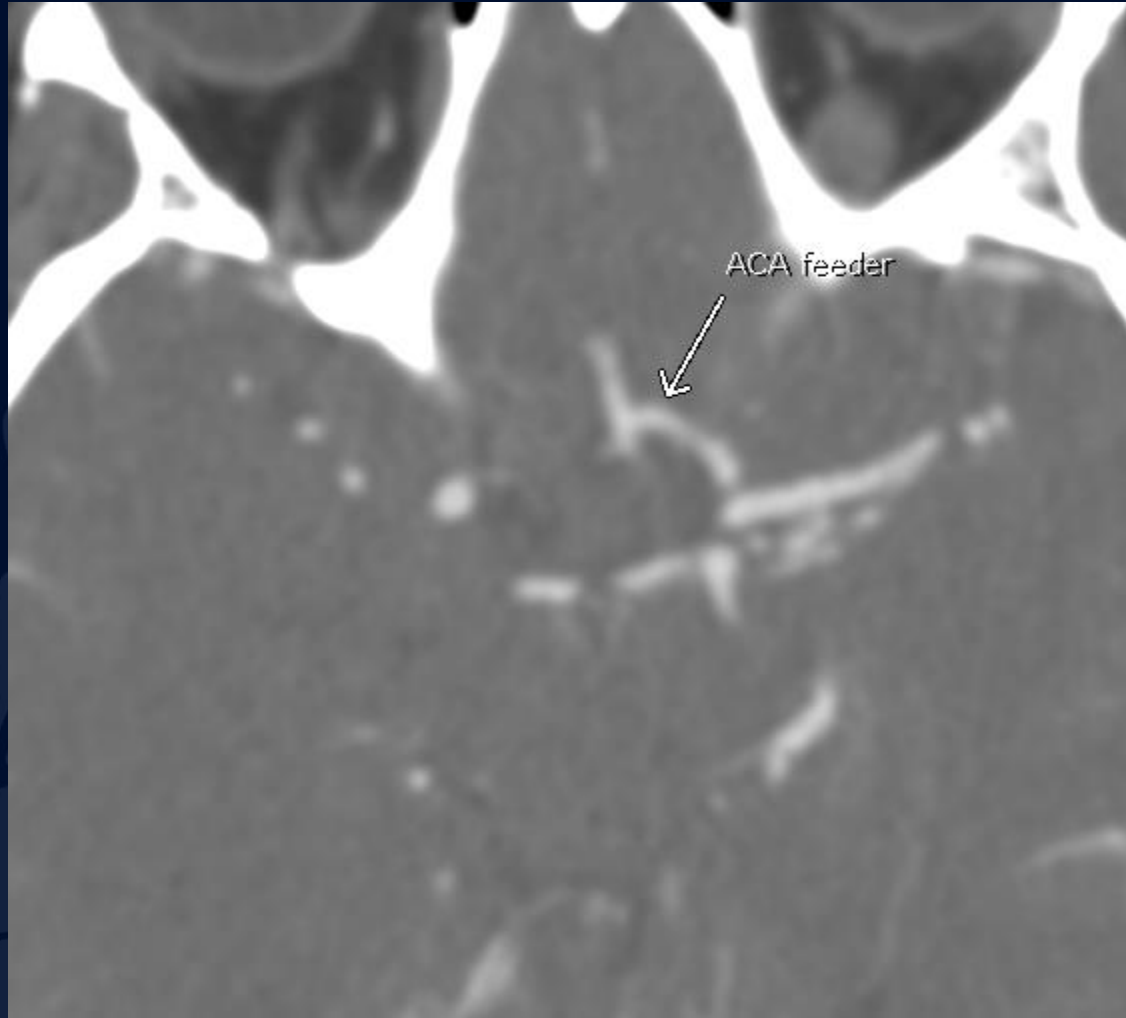
Axial T1 and T2 MRI



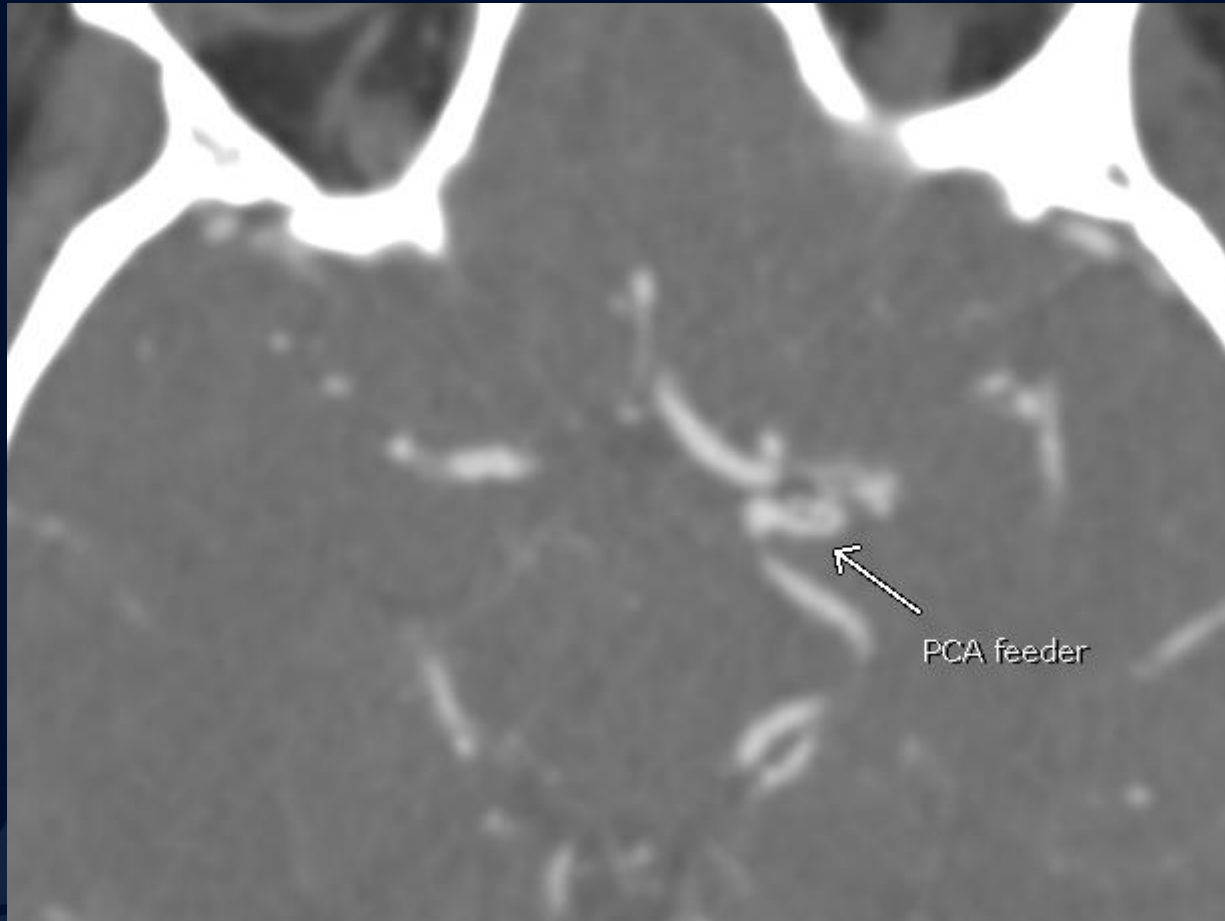


Nidus

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 nidal 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