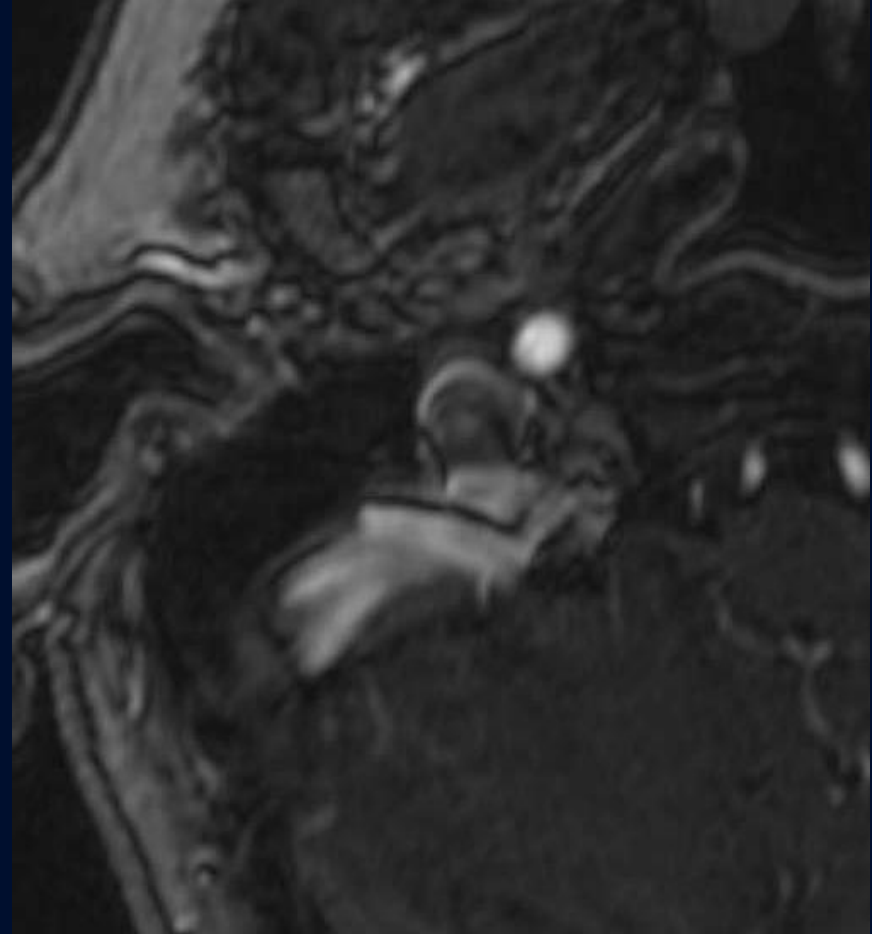
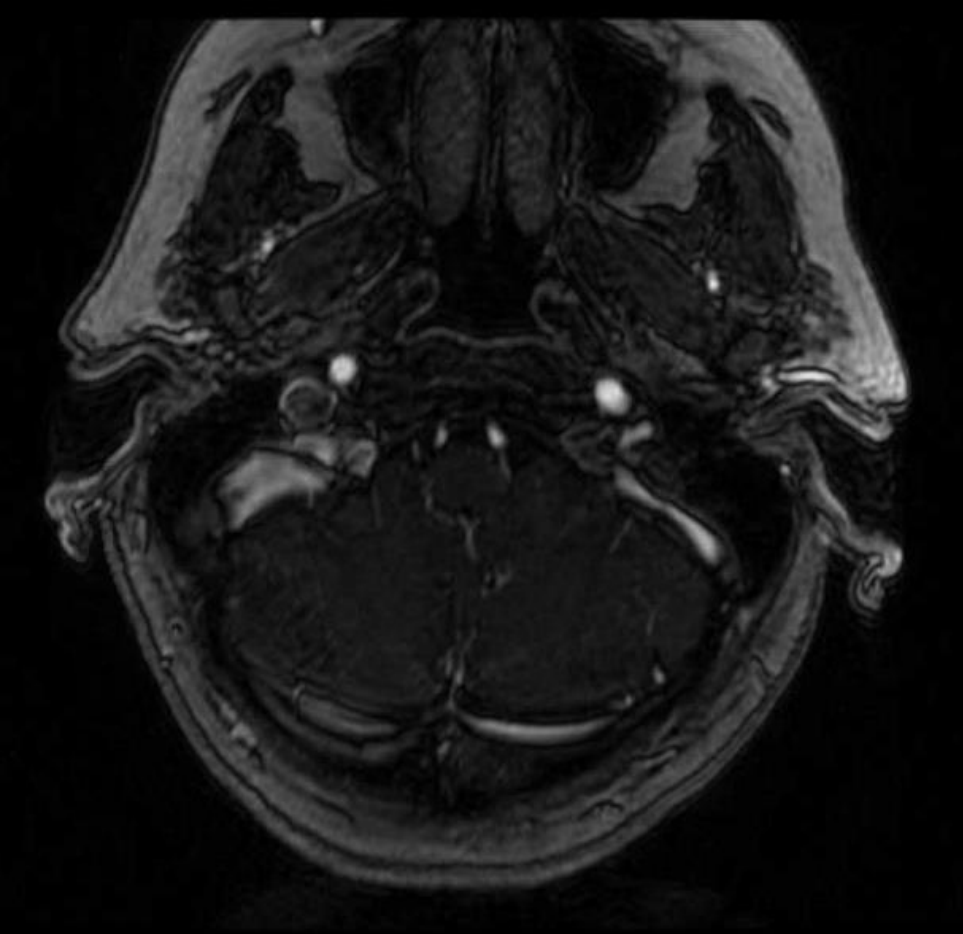


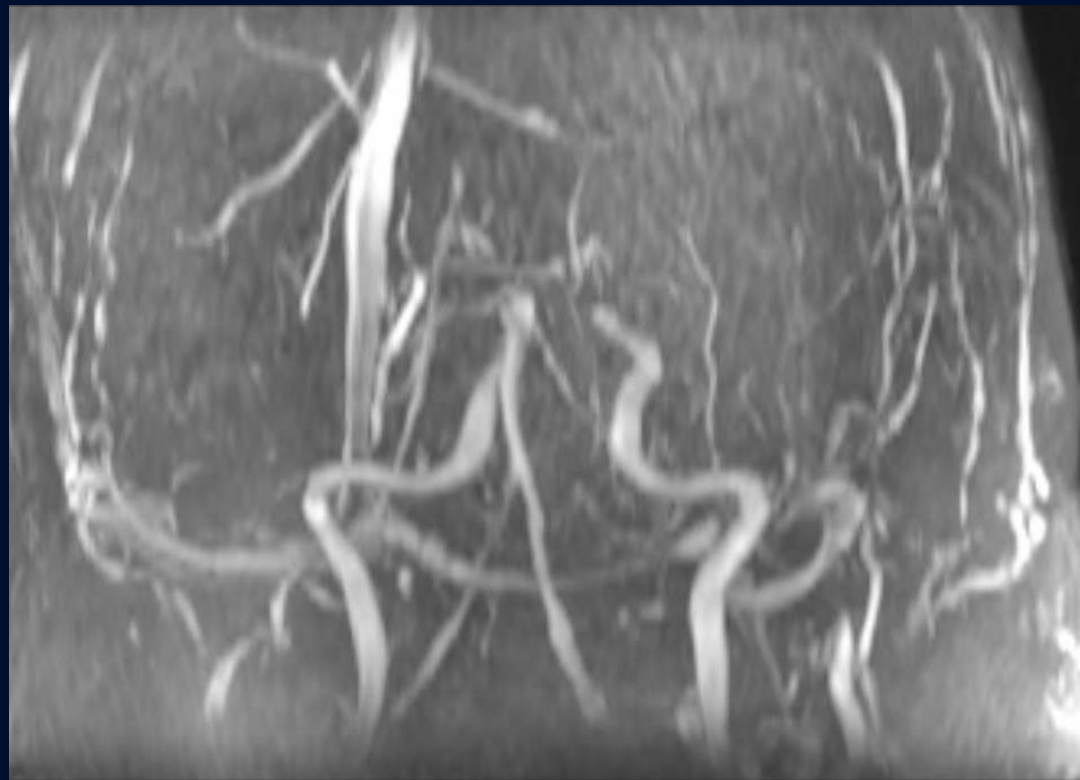
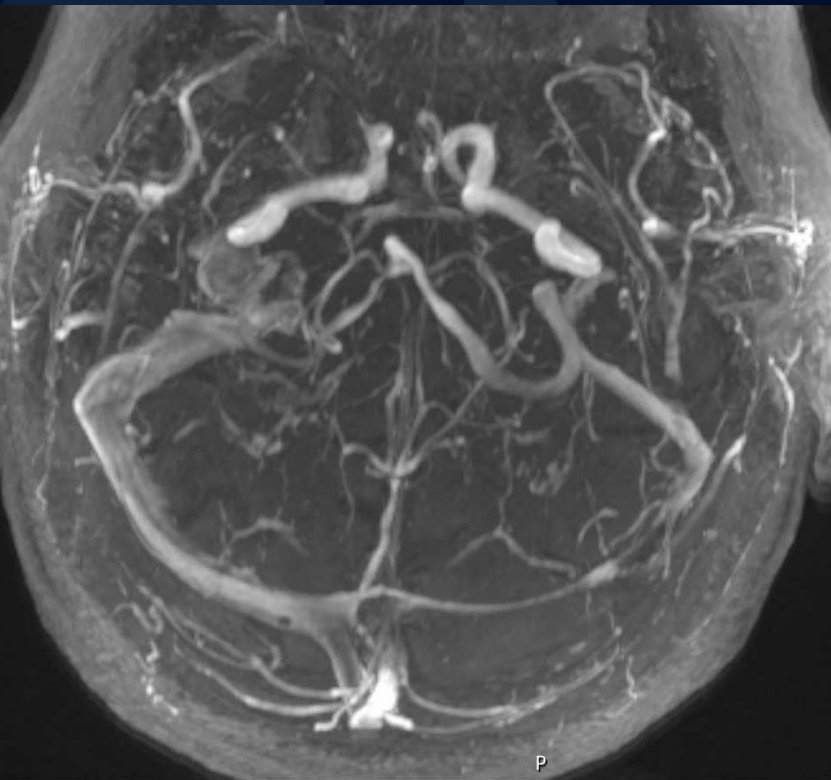
# 82-year-old female with repeated altered mental status and lethargy

Rodolfo Valentini, MS3

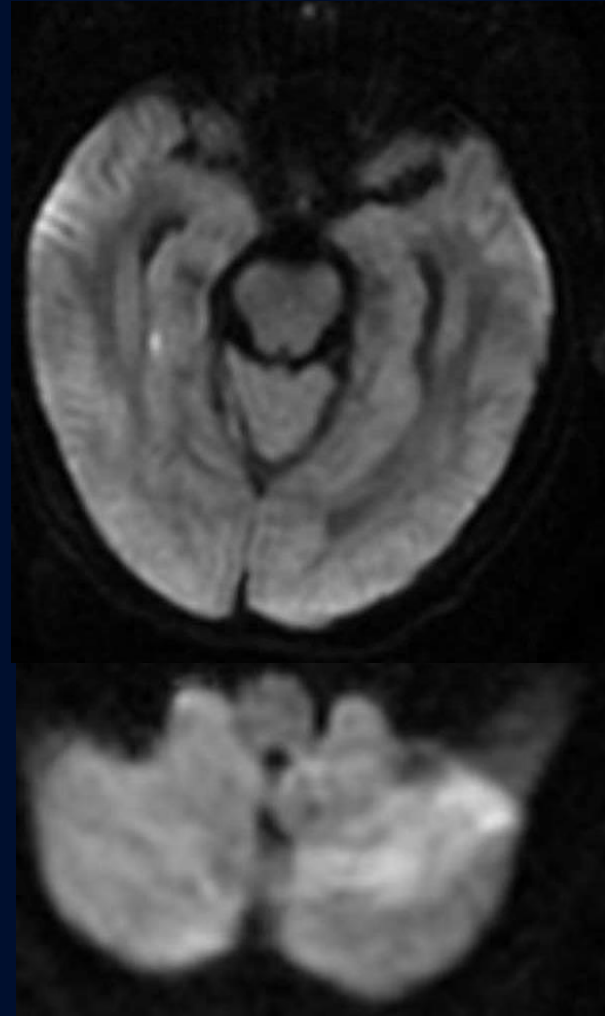
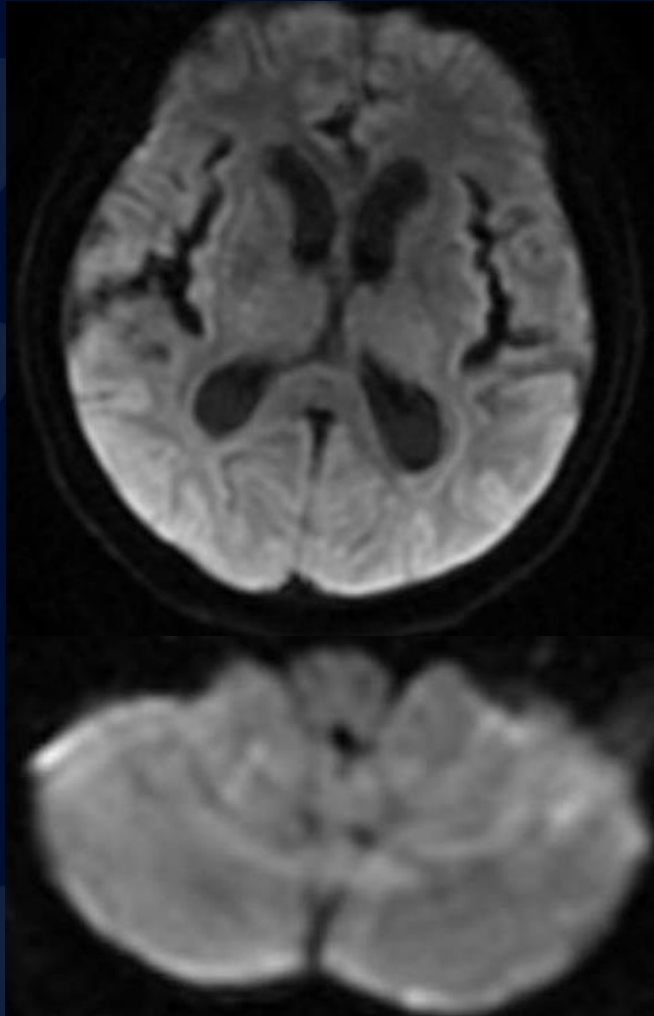
# MRA (1<sup>st</sup> admission)



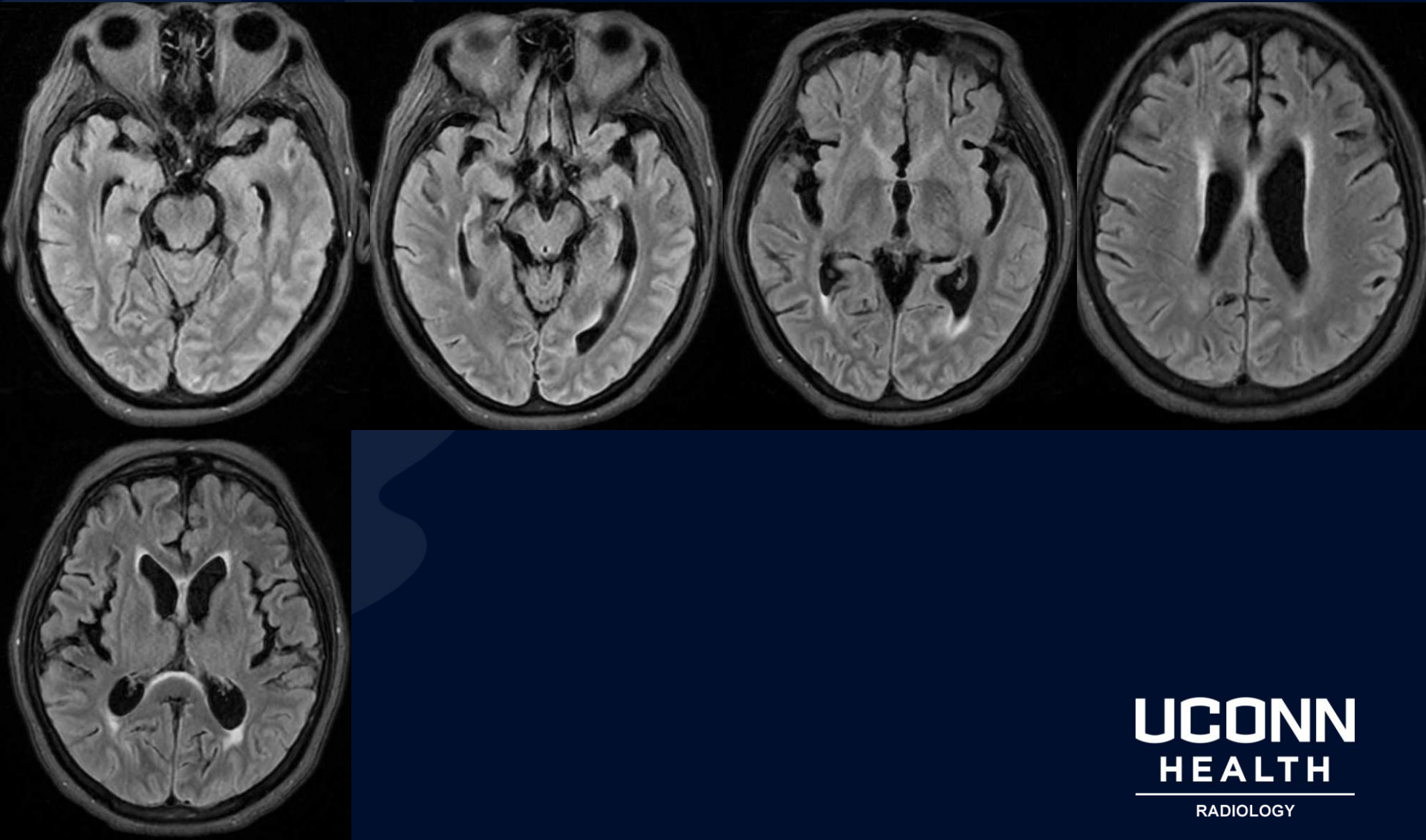
# MRA venous phase (1<sup>st</sup> admission)



# DWI (2<sup>nd</sup> admission)

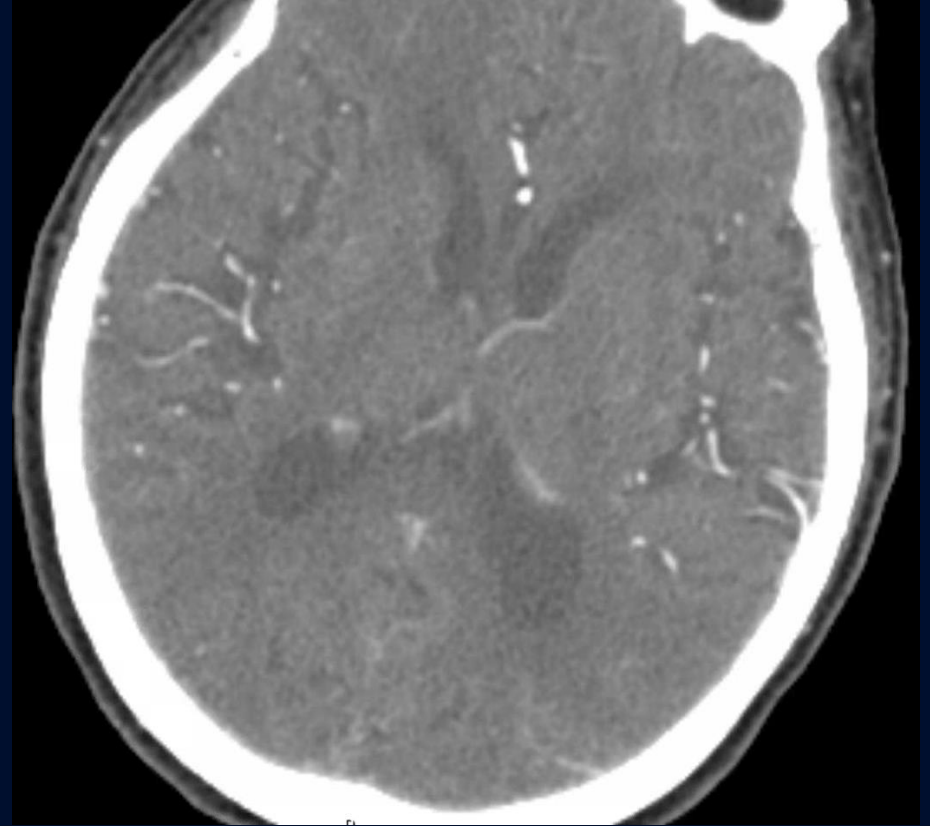
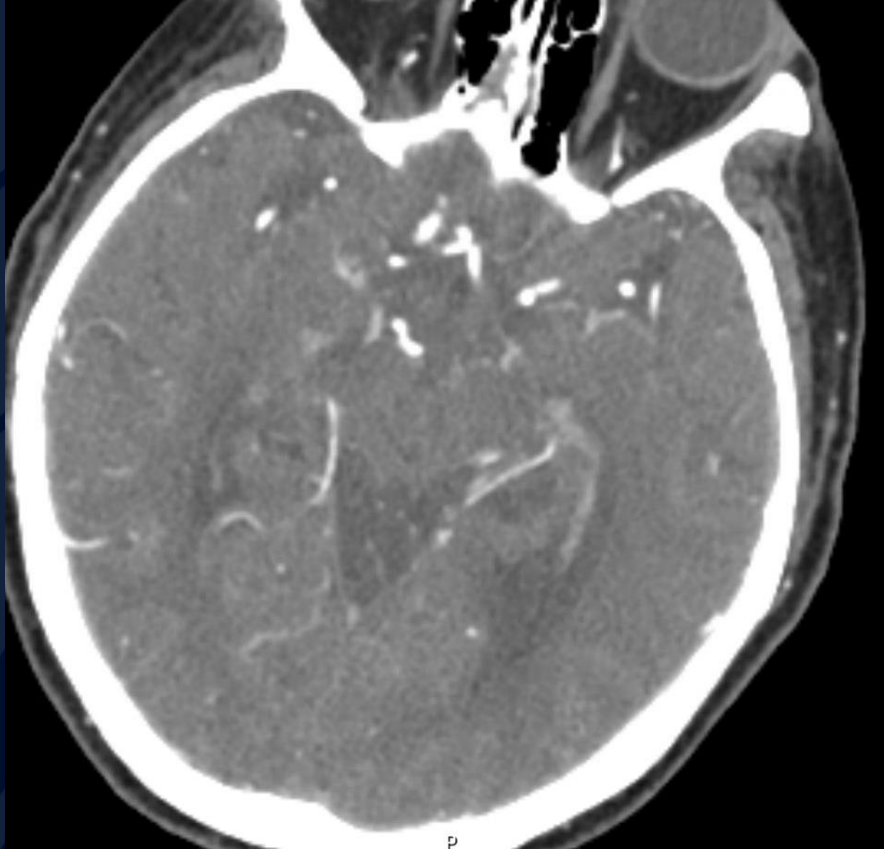


# FLAIR (2<sup>nd</sup> admission)

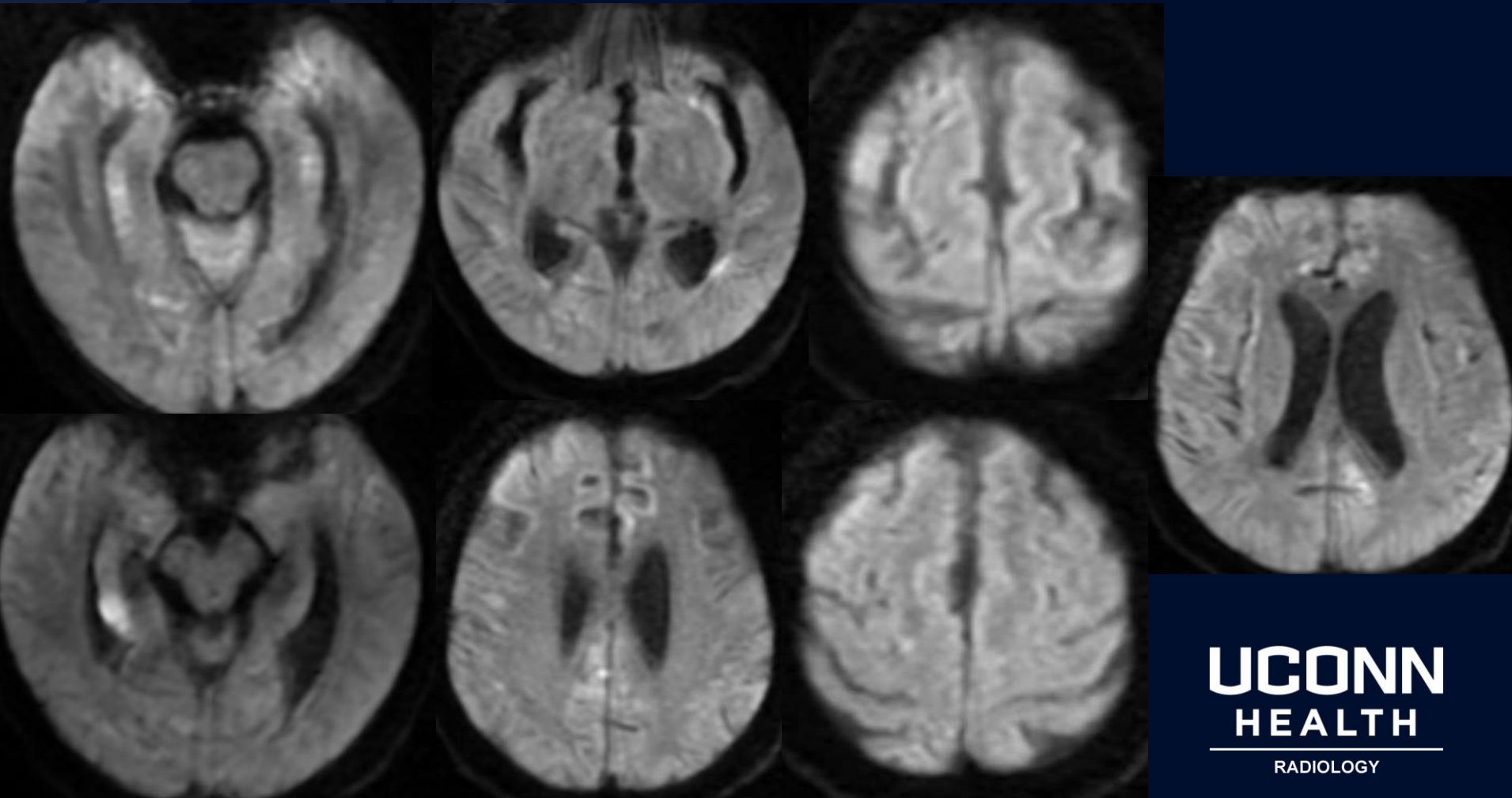




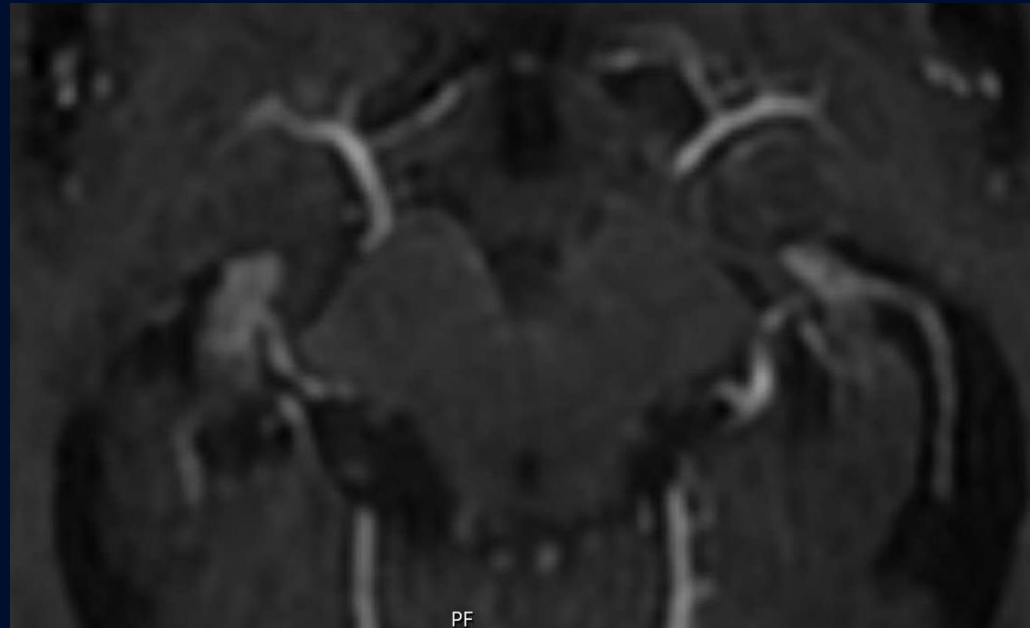
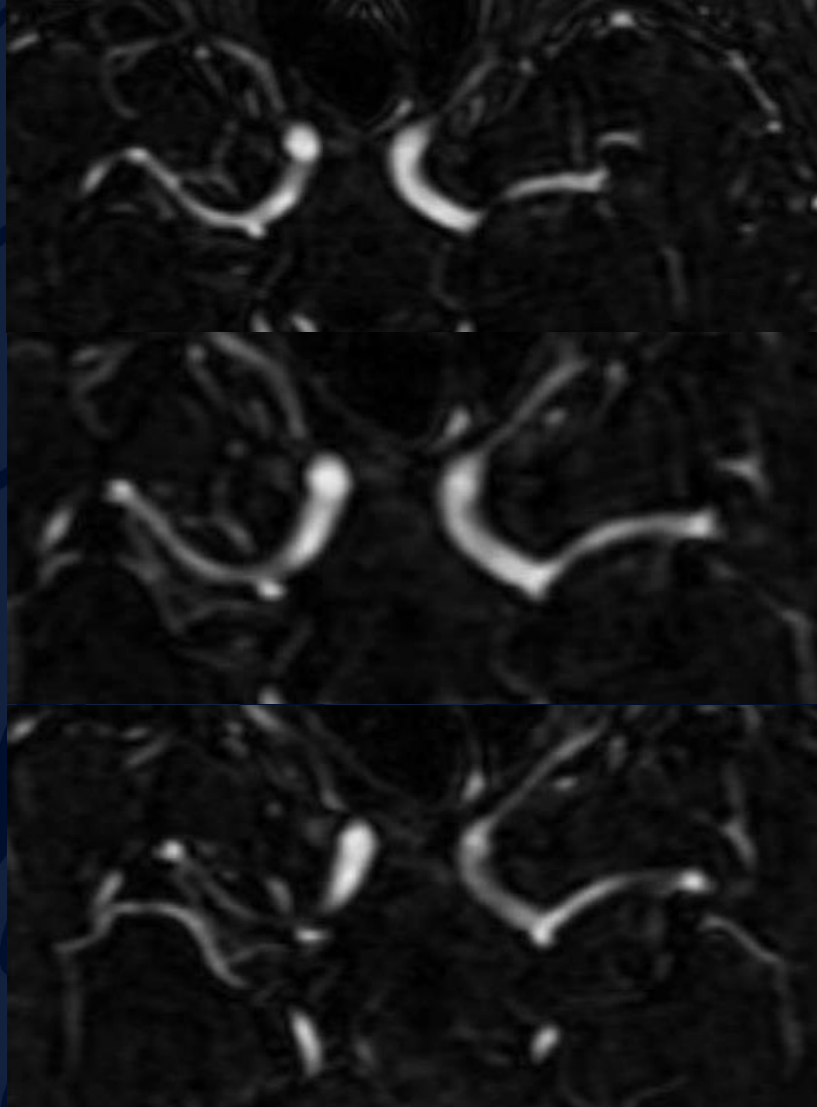
# CTA



# DWI



# MRA Arterial Phase



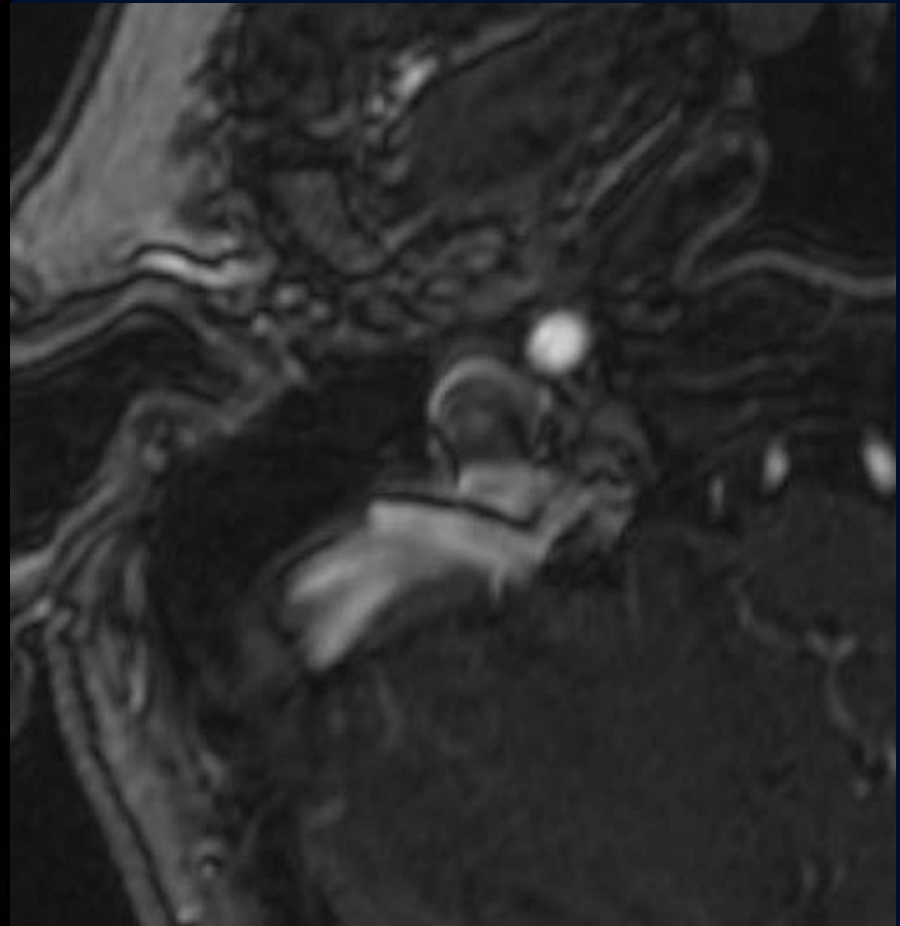
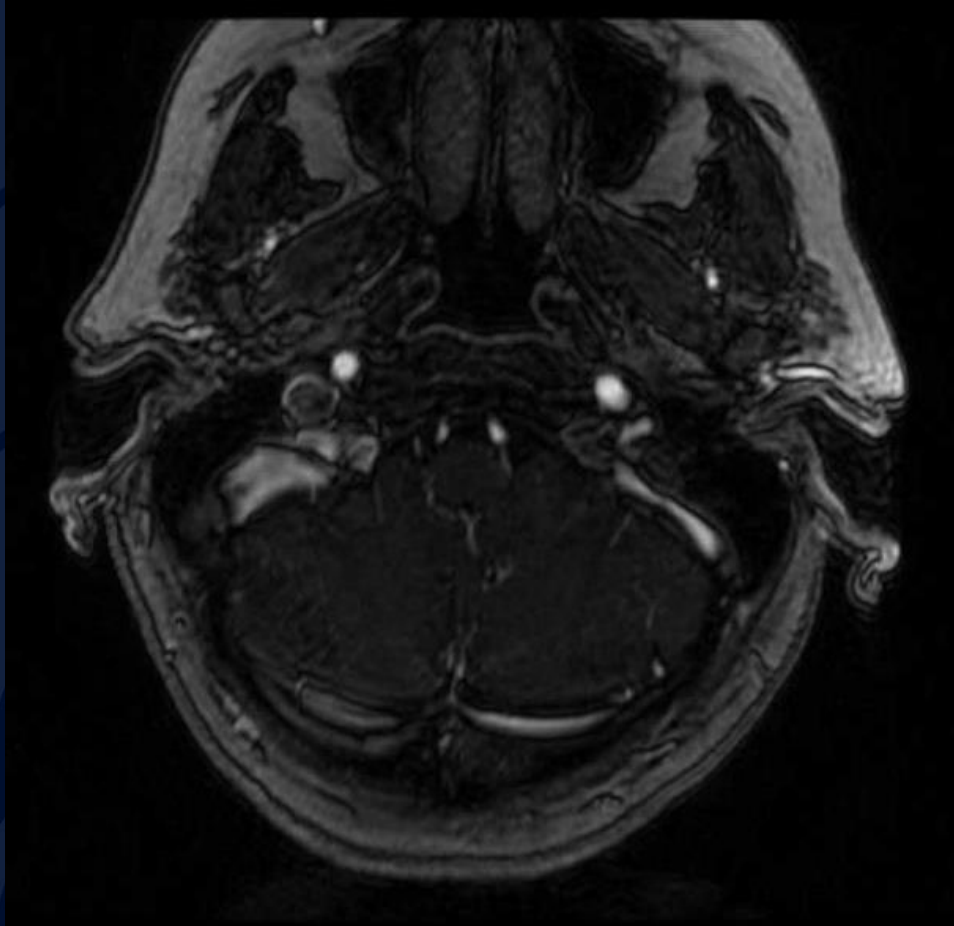


A large, stylized oak leaf graphic in a dark blue color, positioned on the left side of the slide. It features detailed vein patterns and a lobed edge.

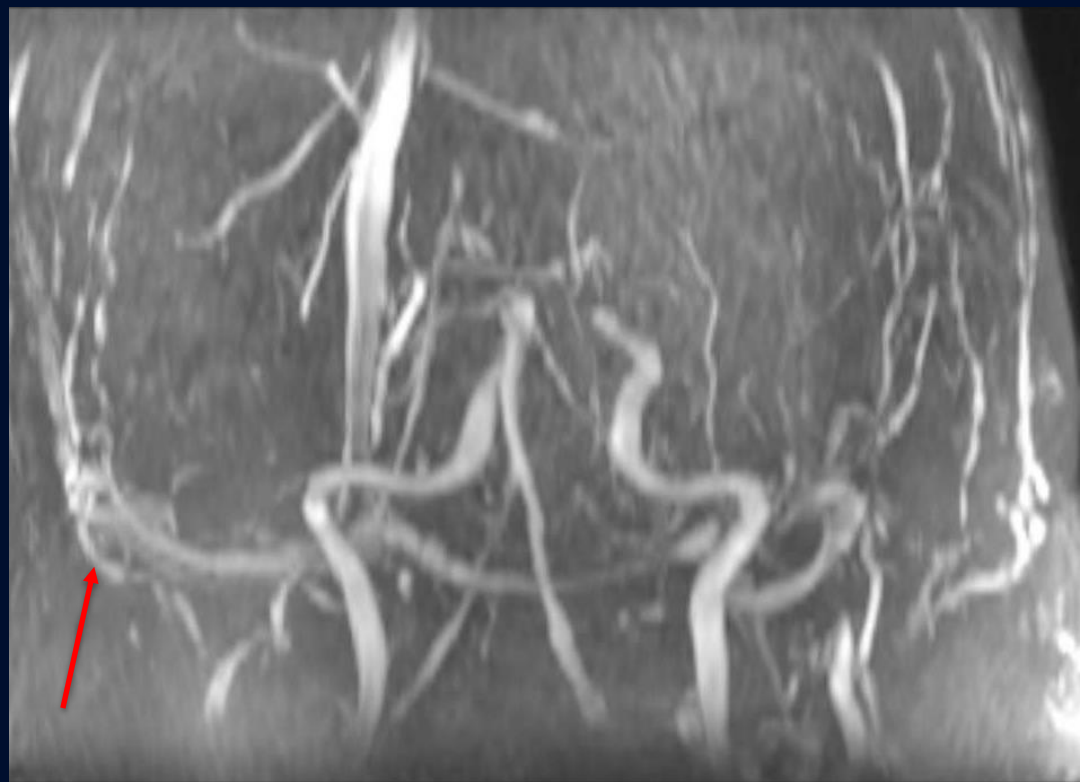
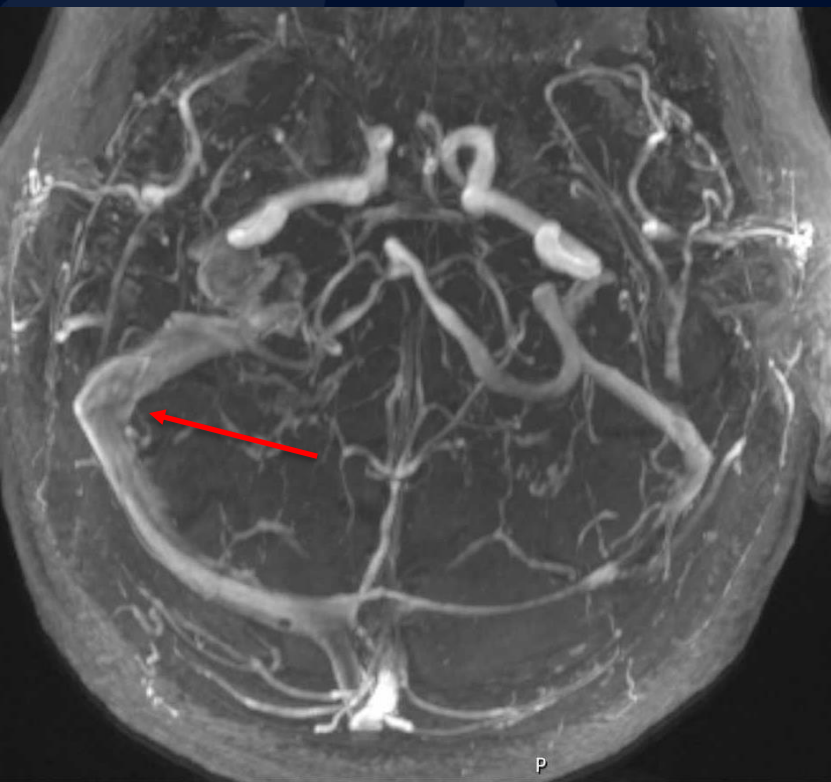
?

# Cryptococcal Vasculitis

# MRA (1<sup>st</sup> admission)

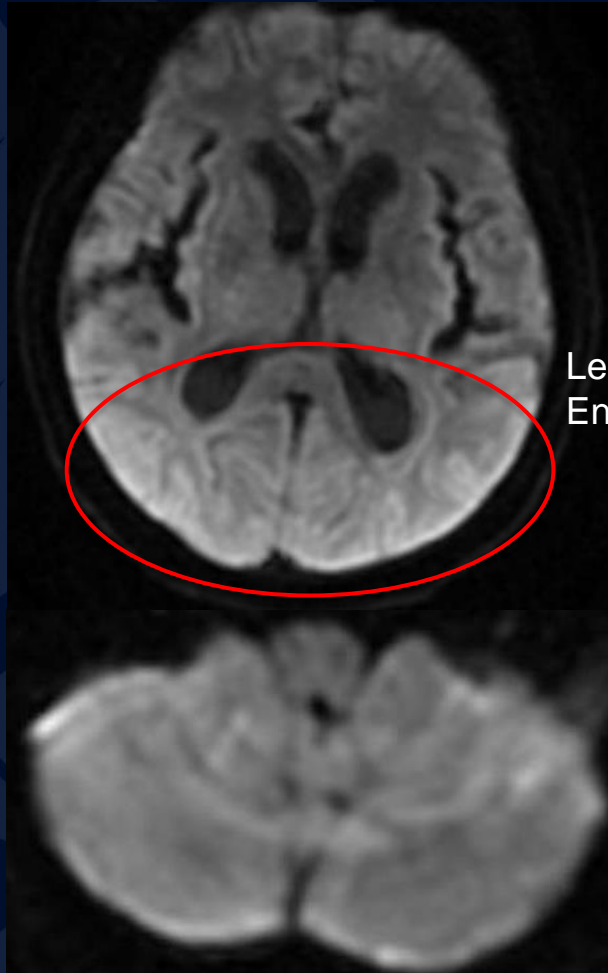


# MRA venous phase (1<sup>st</sup> admission)

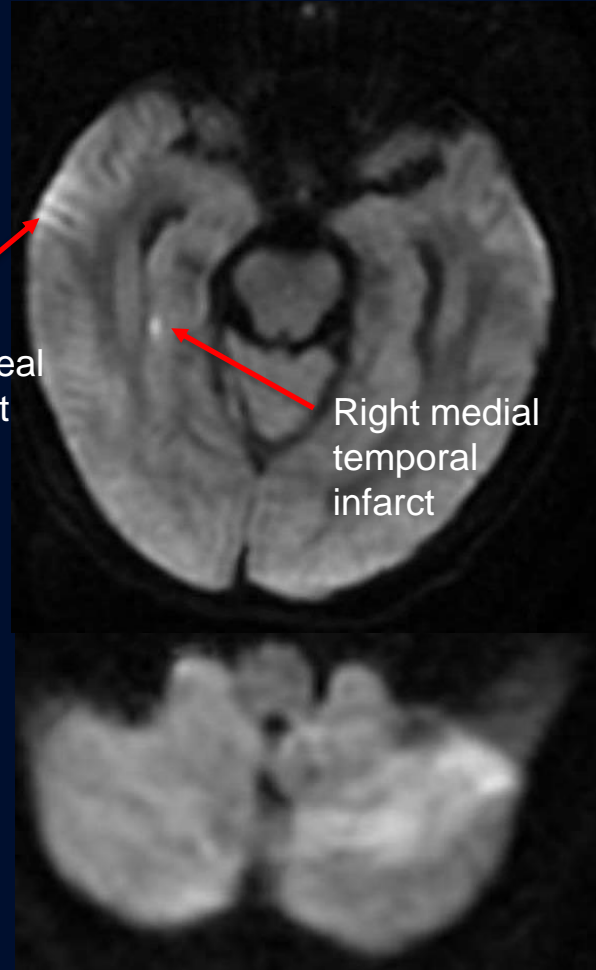


Abnormal venous enhancement

# DWI (2<sup>nd</sup> admission)



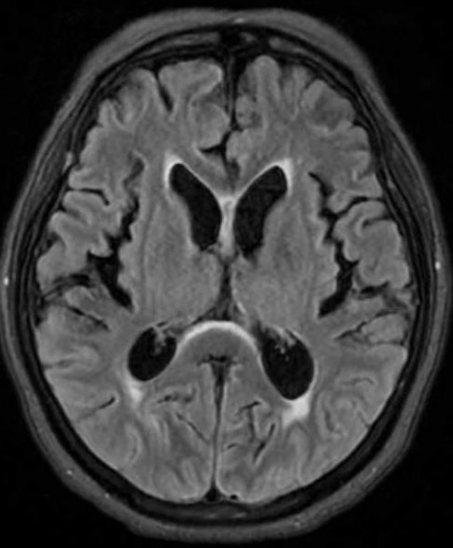
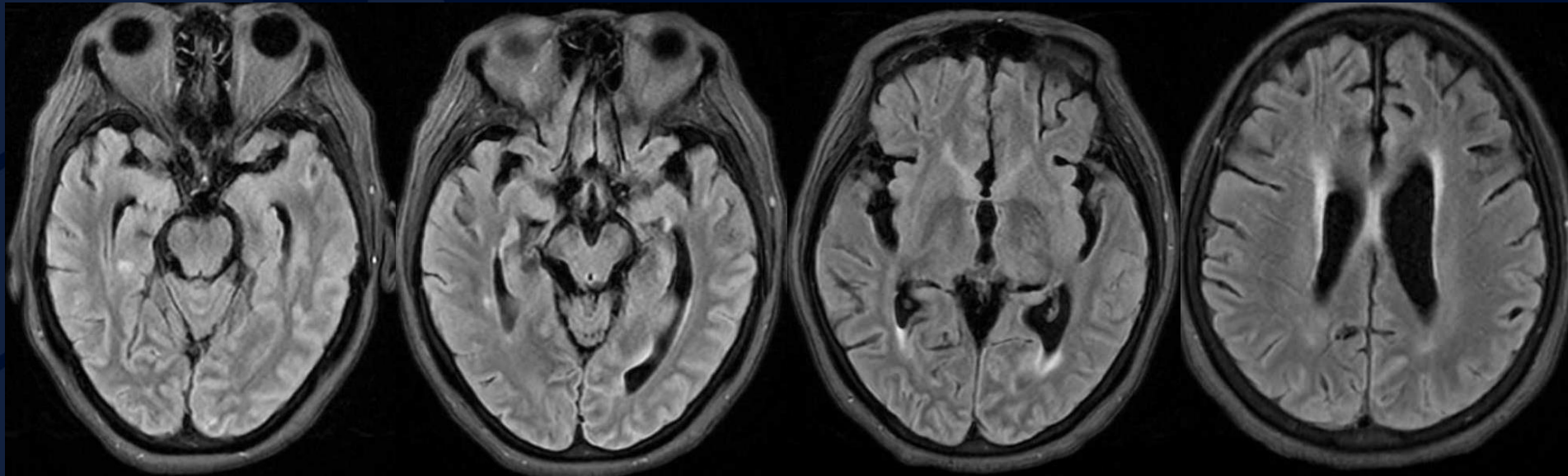
Leptomeningeal  
Enhancement



Right medial  
temporal  
infarct

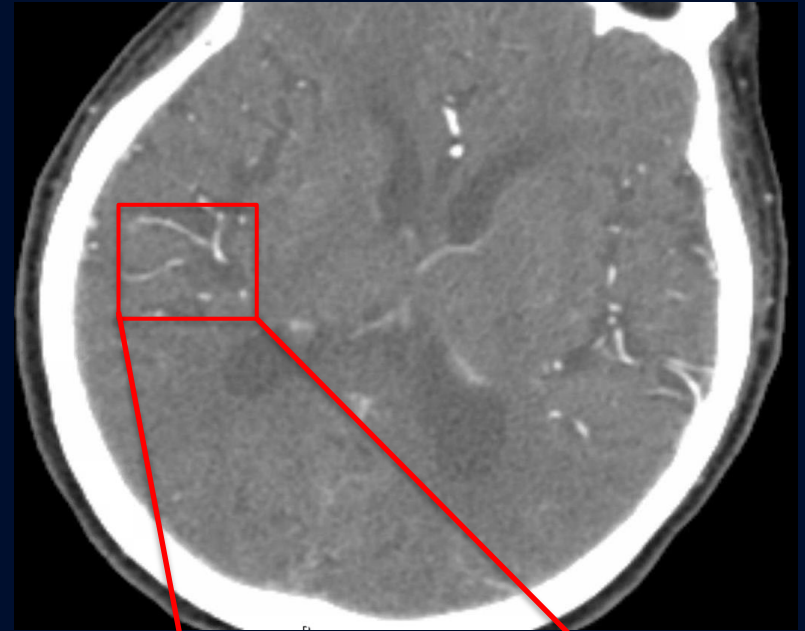
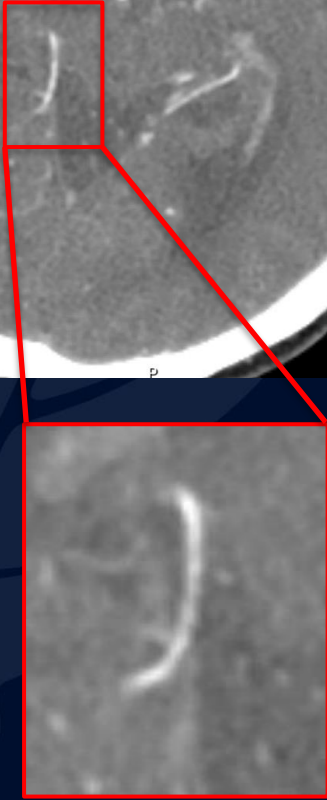
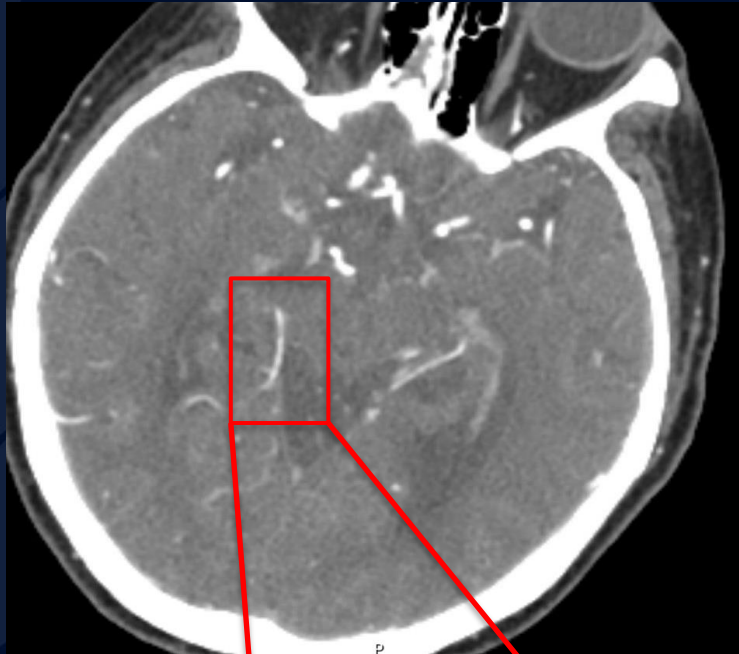


# FLAIR (2<sup>nd</sup> admission)



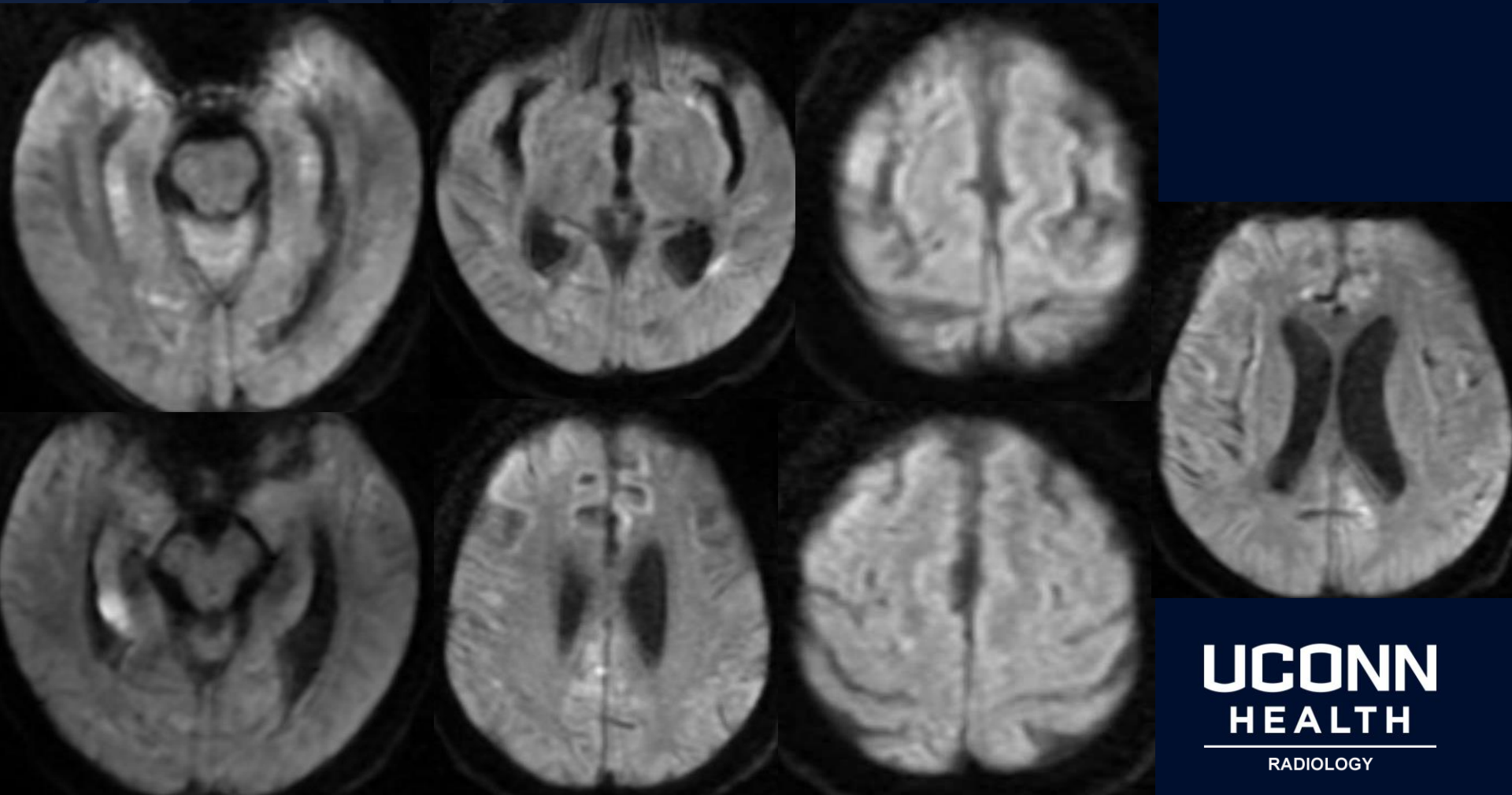
Failure of CSF suppression  
surrounding ventricles and  
meninges

# CTA

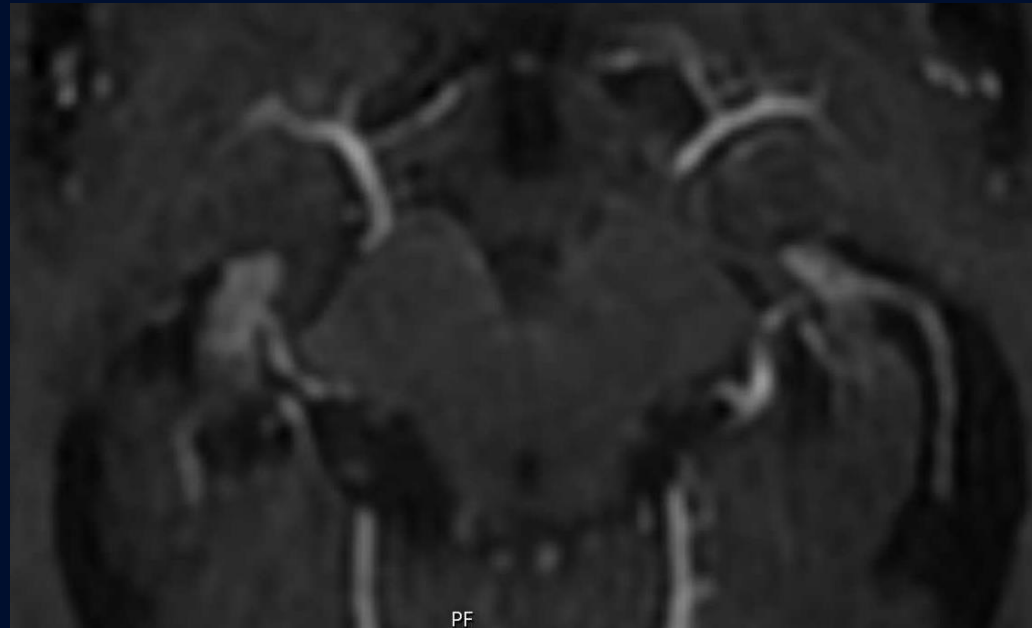
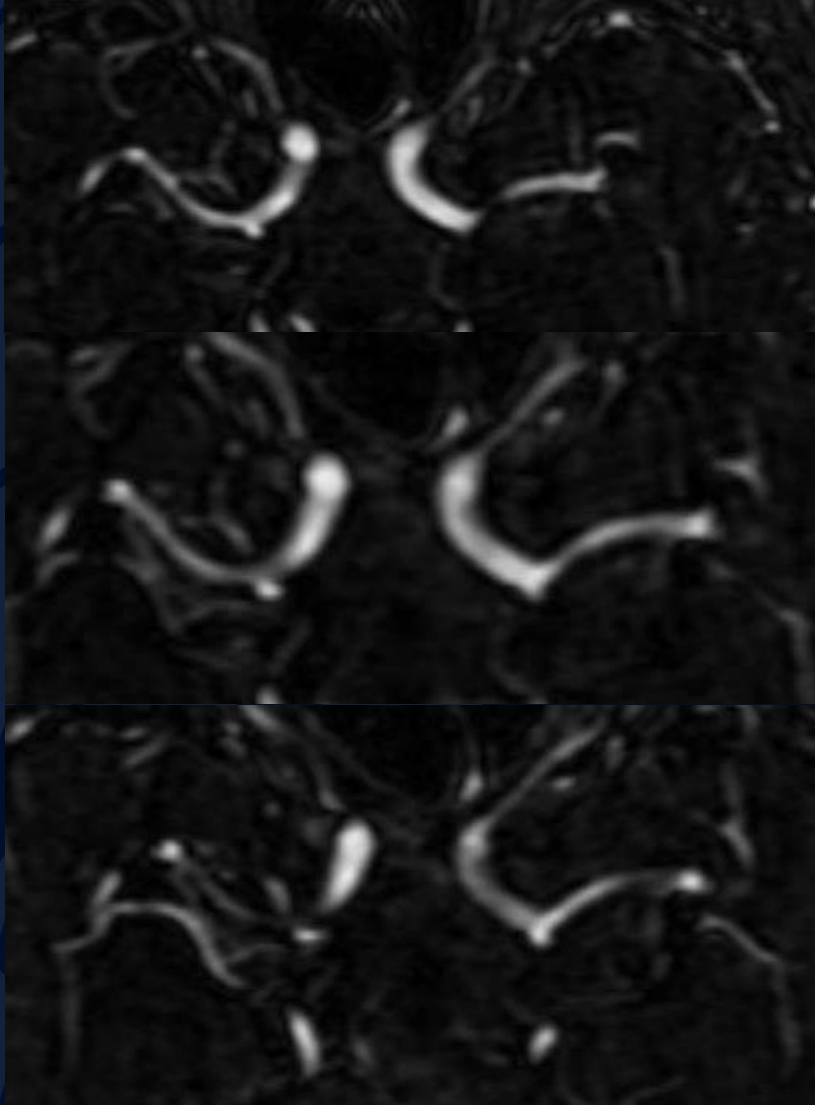


Vascular  
bleeding

# DWI - Broad Diffusion Restriction



# MRA Arterial Phase



MCA narrowing at M1 division

# Cryptococcal Vasculitis (CV)

- Small to medium vessel vasculitis
  - Can cause multiple cerebral infarcts along multiple vascular territories
- Clinical presentation of CV
  - Extremely rare in immunocompetent patients
  - Nonspecific presentation, including headache, nuchal rigidity, AMS, lethargy, nausea, vomiting, seizure, stroke-like symptoms
  - Leptomeningeal enhancement common in cryptococcal infections
- \*\*\*Any CNS infection can cause hyponatremia\*\*\*
- Delirium is common and can take time to resolve but persistence of AMS for one month should be concerning



# Imaging Findings

- Variable and nonspecific findings
- Ischemic infarctions are most common
  - Occur in 53% of vasculitis cases
  - Bilateral and affect multiple territories
    - Most common in basal ganglia territory – supplied by lenticulostriate arteries from M1 division of MCA
  - MRI more specific
    - FLAIR common in primary angiitis but nonspecific
- Vascular beading
  - Alternating areas of constriction in arteries, giving appearance of beads strung together
  - Indicative of inflammation causing periodic vessel narrowing along affected area
  - Not easy to see unless you're looking for it
  - Can be misconstrued as artifact
- Failure of CSF suppression most prominent in leptomeninges
  - Leptomeningeal enhancement will be diffuse

# References

- Bell, Daniel J. “Intracranial Arterial Beading: Radiology Reference Article.” *Radiopaedia Blog RSS*, Radiopaedia.org, 27 Dec. 2019, <https://radiopaedia.org/articles/intracranial-arterial-beading?lang=us>.
- Chieng, Raymond. “Central Nervous System Vasculitis: Radiology Reference Article.” *Radiopaedia Blog RSS*, Radiopaedia.org, 24 Mar. 2023, <https://radiopaedia.org/articles/central-nervous-system-vasculitis-2?lang=us>.
- Sengal, Buket, et al. “Cryptococcus Meningitis Presented with Multiple Cerebral Infarcts in an Immunocompetent Patient.” *IDCases*, Elsevier, 7 May 2021, <https://www.sciencedirect.com/science/article/pii/S2214250921001104>.
- Tarhan, Bedirhan, et al. “Cryptococcosis Presenting as Cerebrovascular Disease.” *Cureus*, 10 Nov. 2021, <https://www.cureus.com/articles/76561-cryptococcosis-presenting-as-cerebrovascular-disease#!/>.
- Thakkar, Richa, et al. “Cryptococcal Meningitis and Suspected Small Vessel Vasculitis in an Immunocompetent Patient: A Case Report (P8-9.005).” *Neurology*, Wolters Kluwer Health, Inc. on Behalf of the American Academy of Neurology, 3 May 2022, [https://n.neurology.org/content/98/18\\_Supplement/1077](https://n.neurology.org/content/98/18_Supplement/1077).