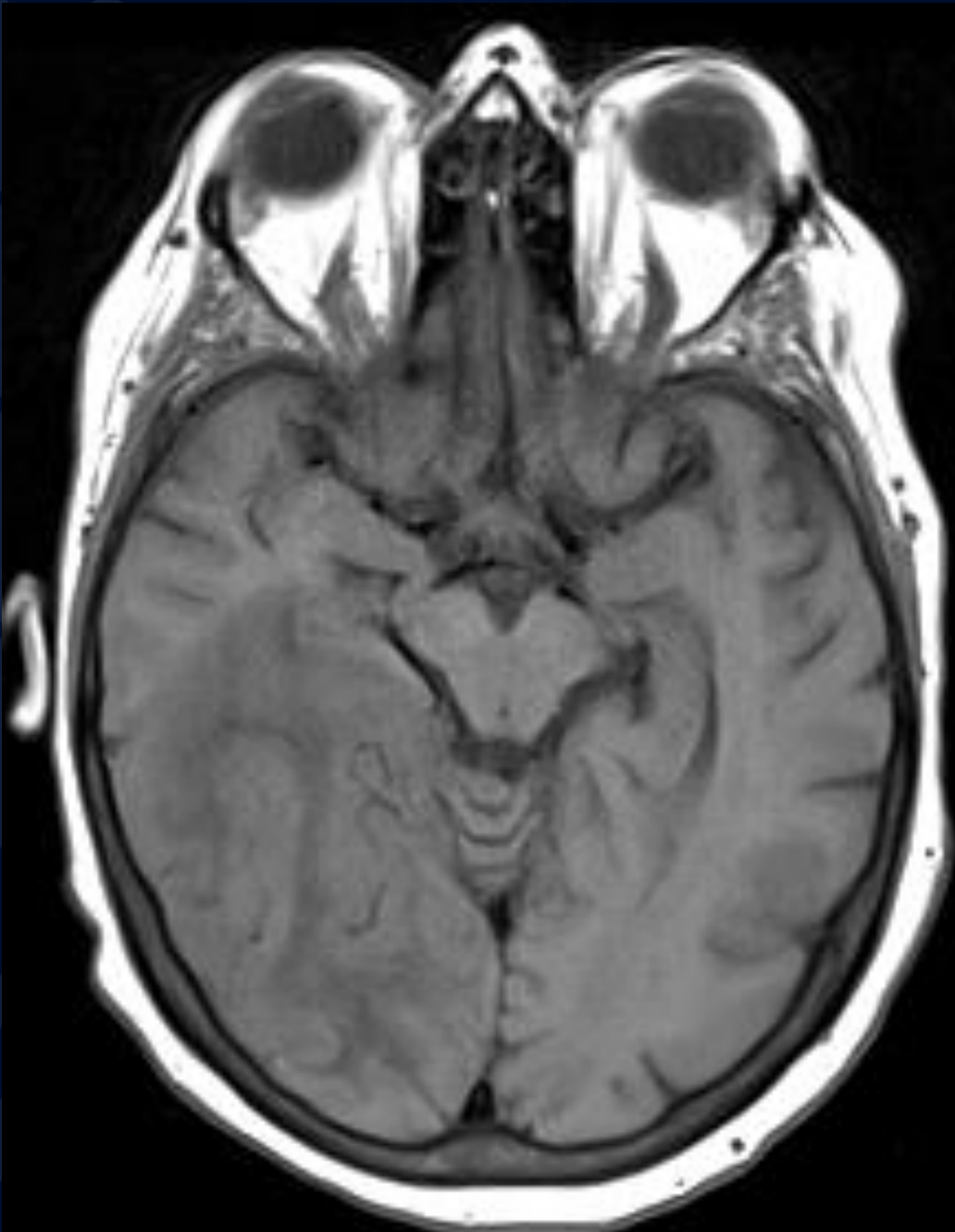
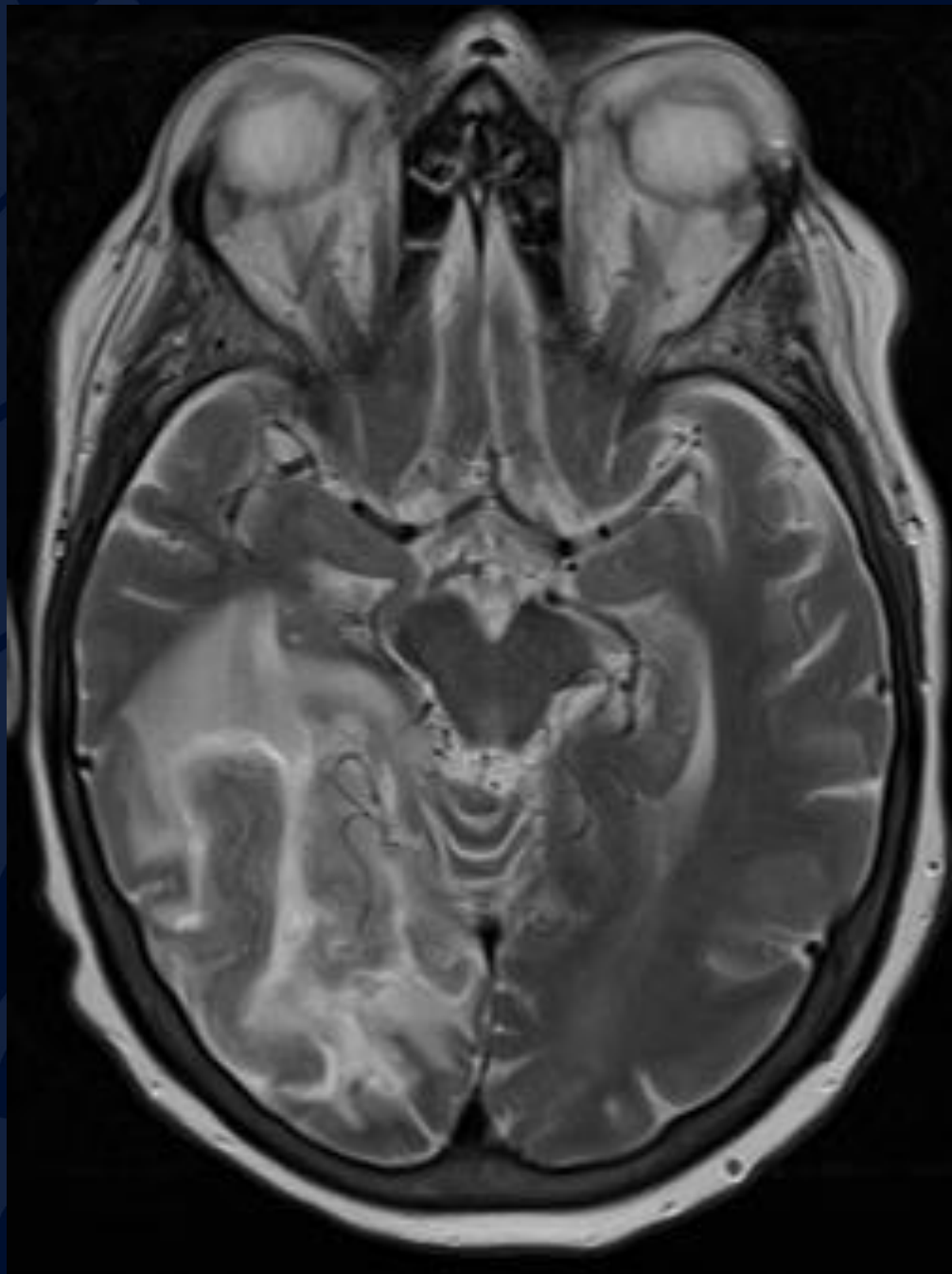


62F with a history of seizures, now with head trauma after MVA being a belted driver that rear-ended another vehicle

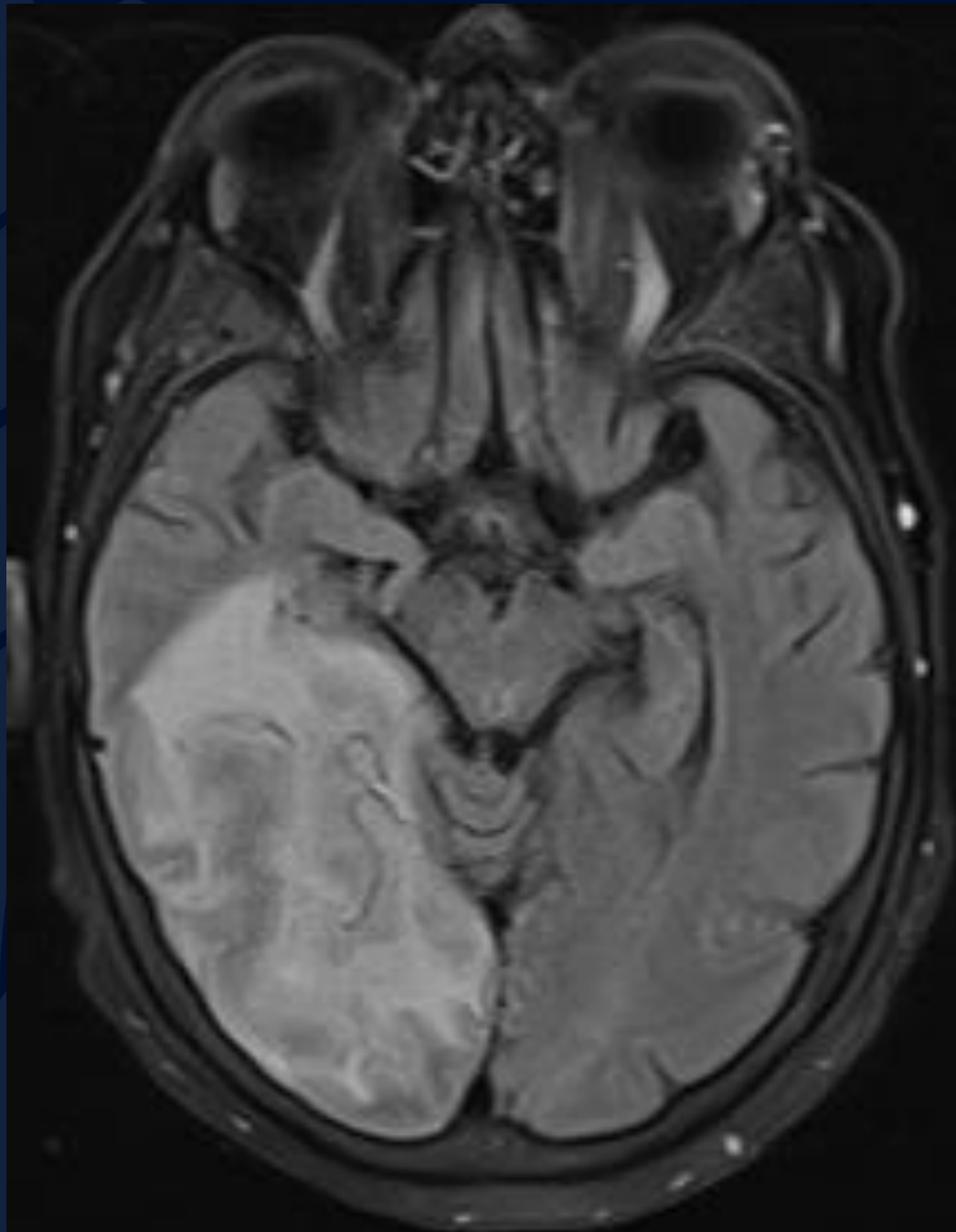
Ivan Wolansky  
Abner Gershon, MD



T1 Weighted  
Image (T1w)

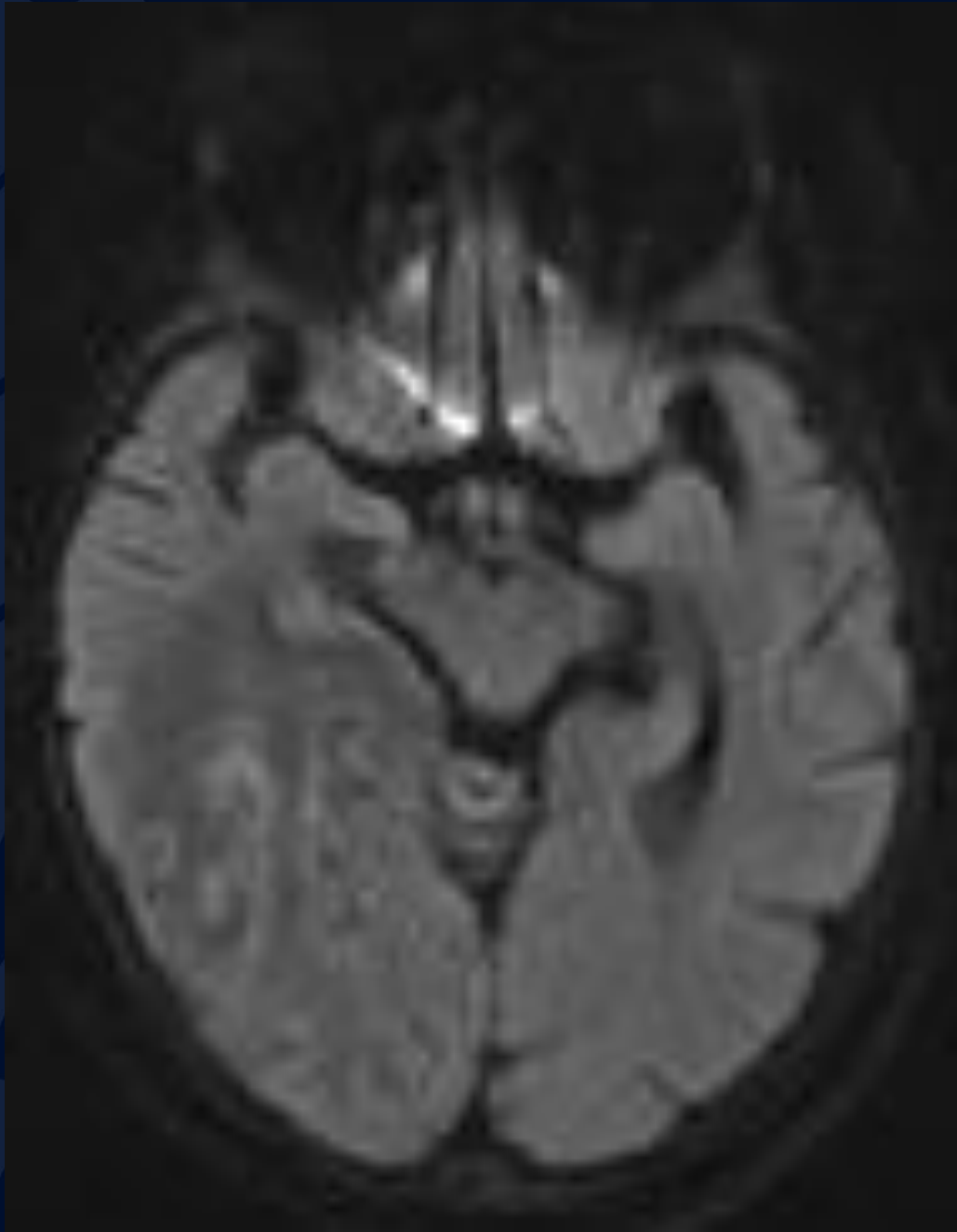


T2 Weighted  
Image (T2w)

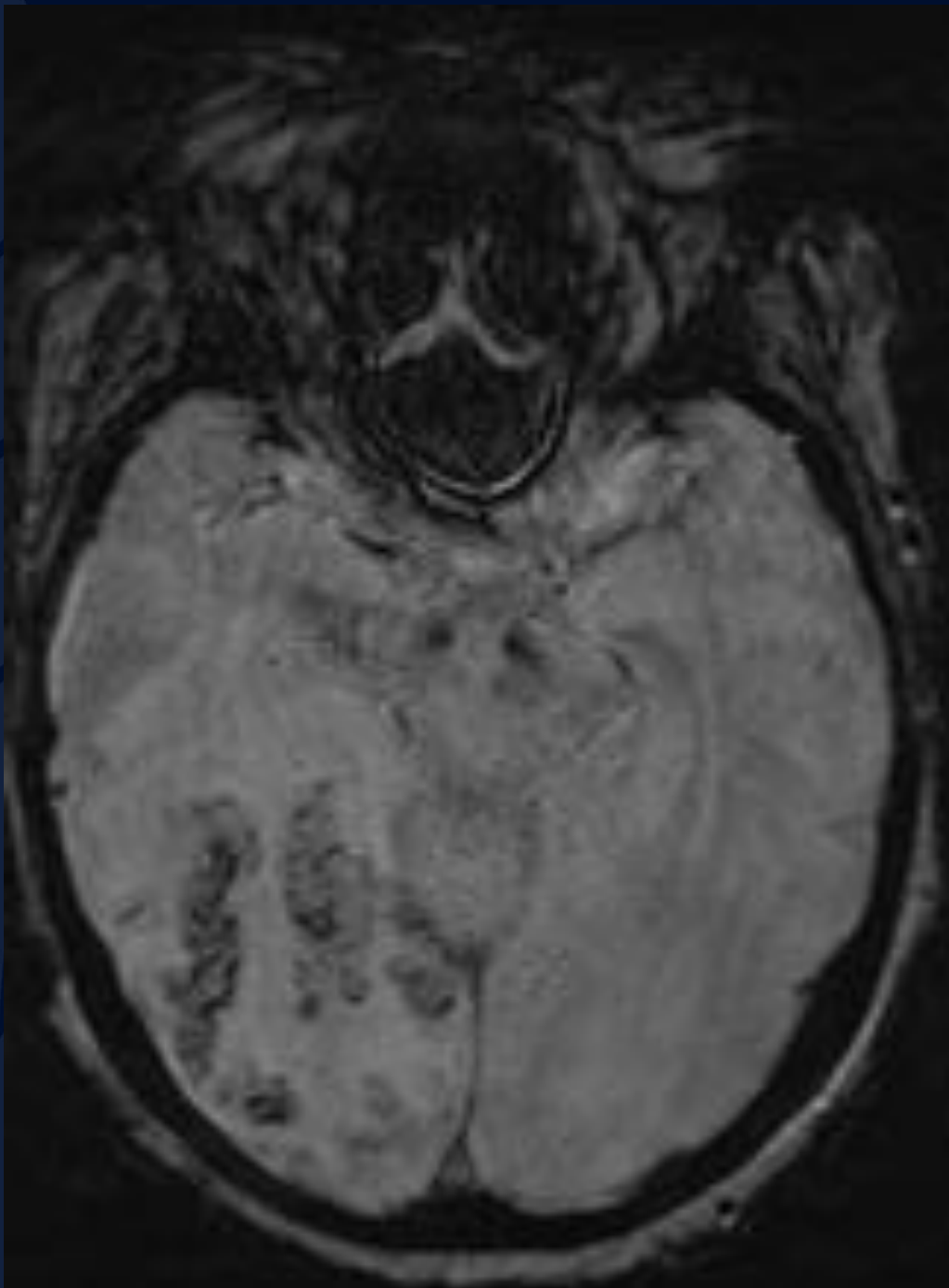


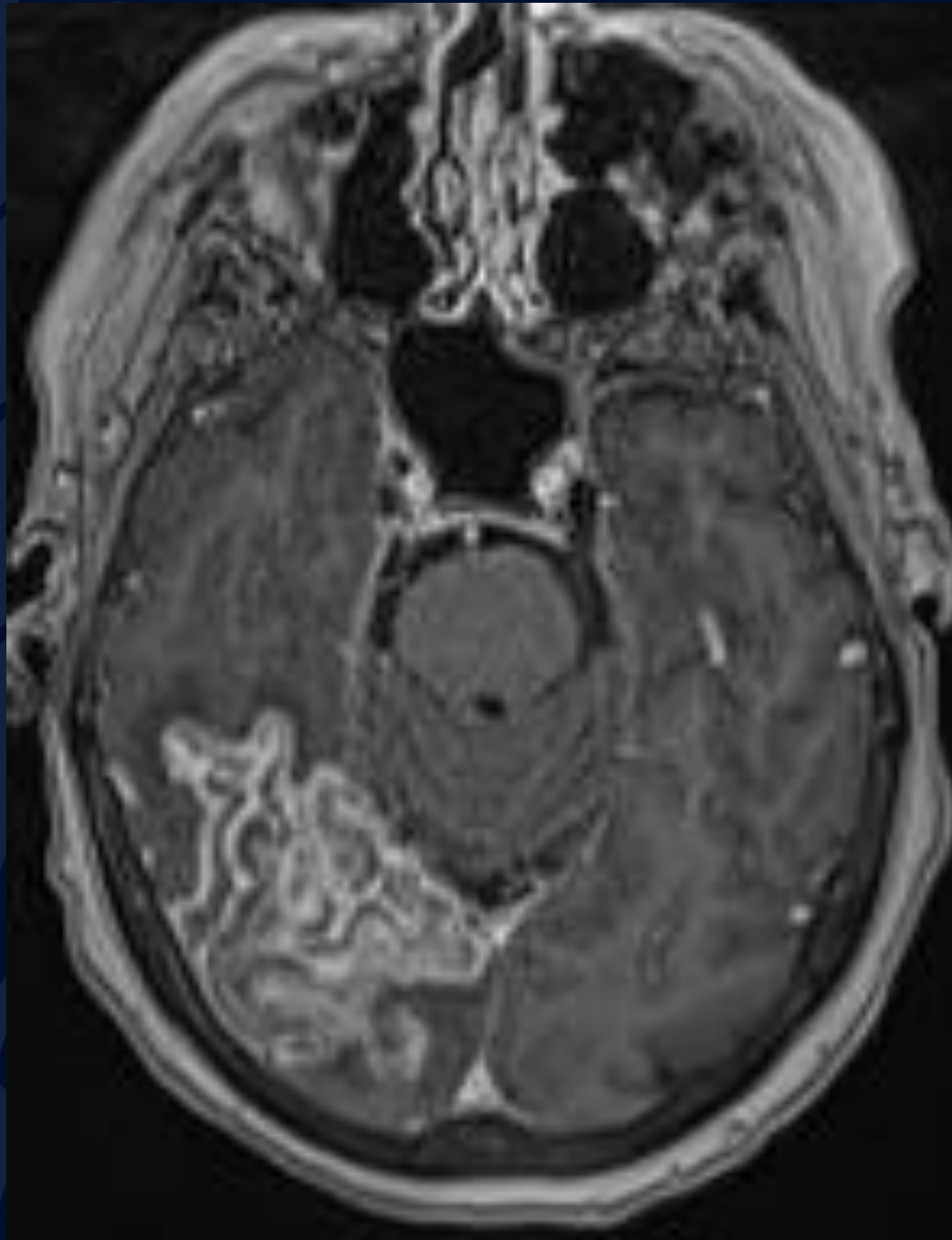
# Fluid Attenuated Inversion Recovery (FLAIR)

# Diffusion Weighted Image (DWI)



# Susceptibility Weighted Image (SWI)





# Gadolinium-T1 Weighted Image (Gd-T1w)



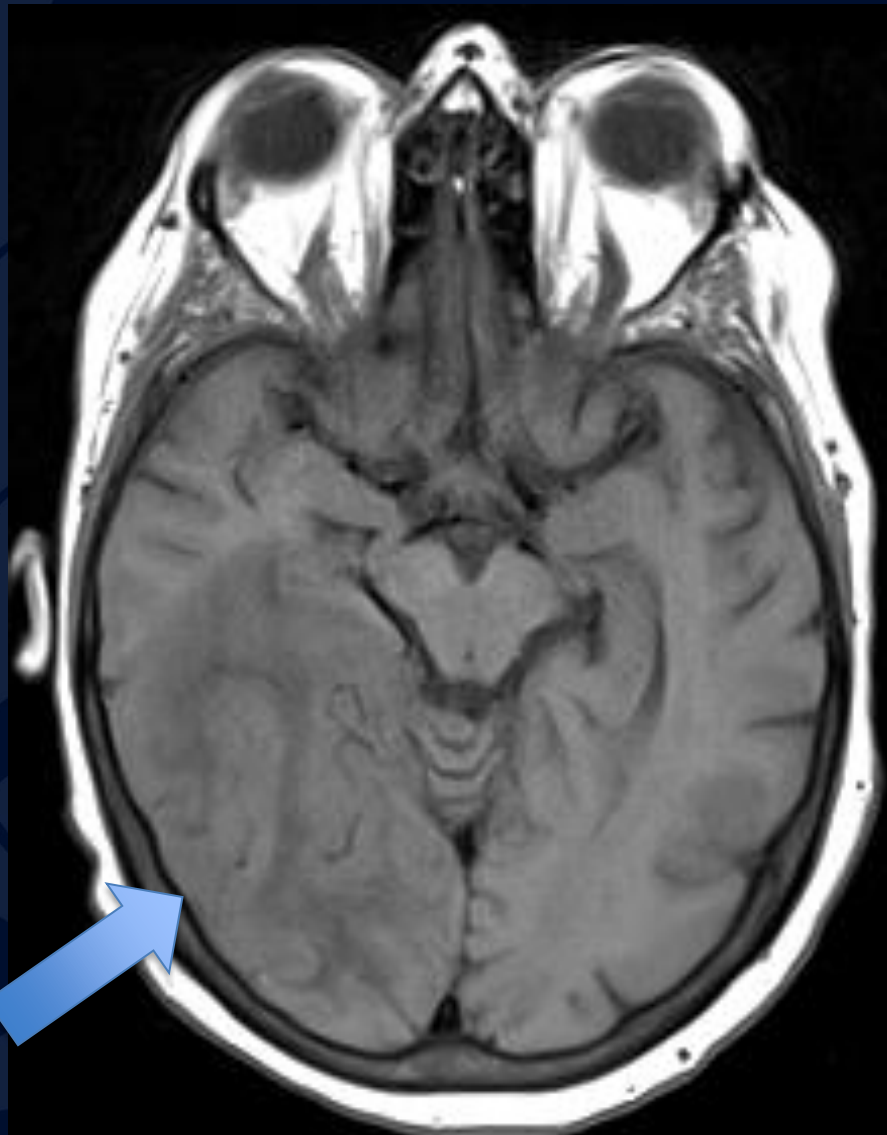
**UConn**  
**HEALTH**  

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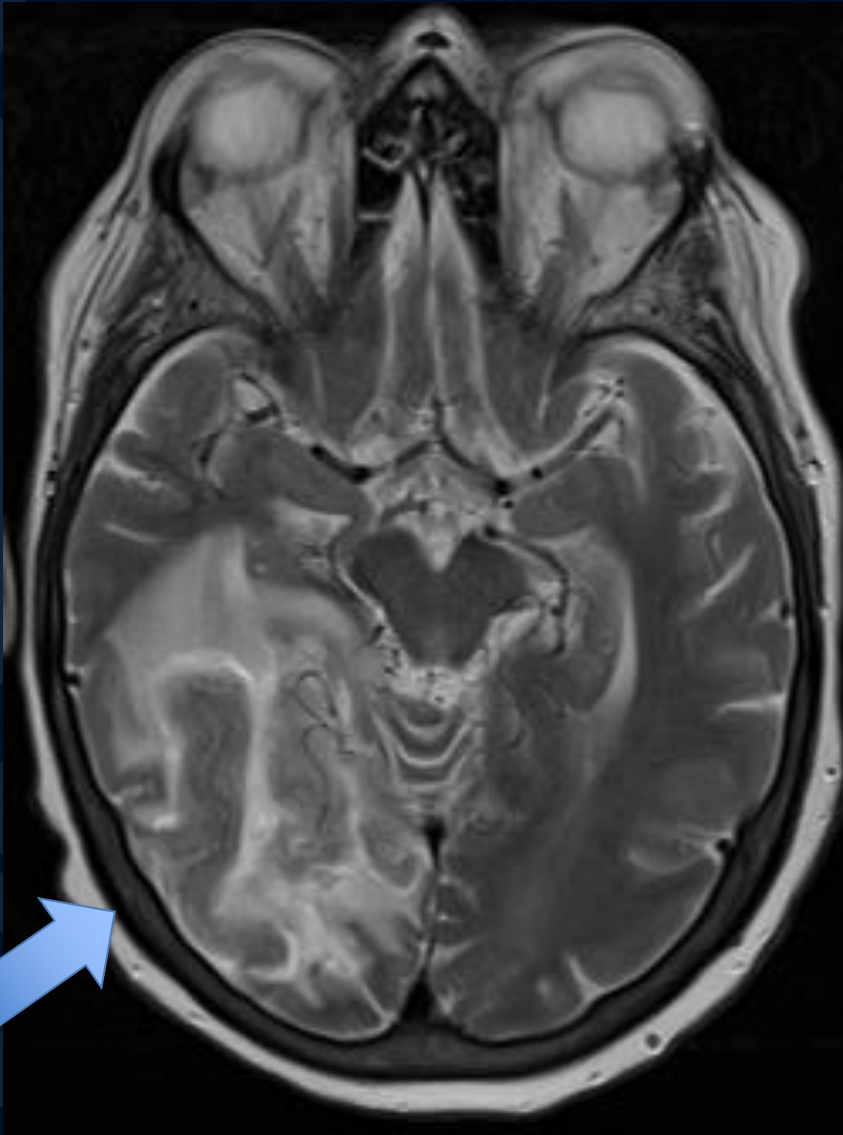
**RADIOLOGY**



# Subacute Cerebral Infarction

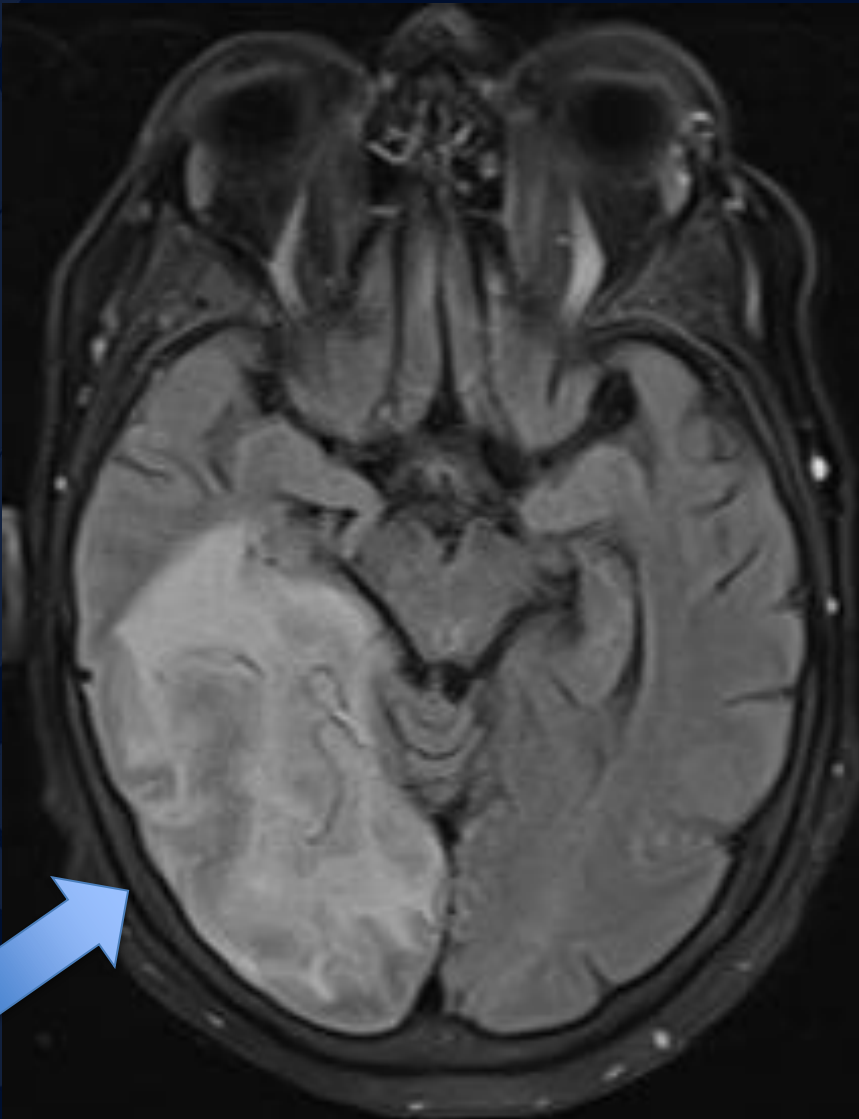


T1 weighted image demonstrates typical appearance of vasogenic edema, not characteristic appearance of infarction because infarction is usually imaged in acute phase (arrow).

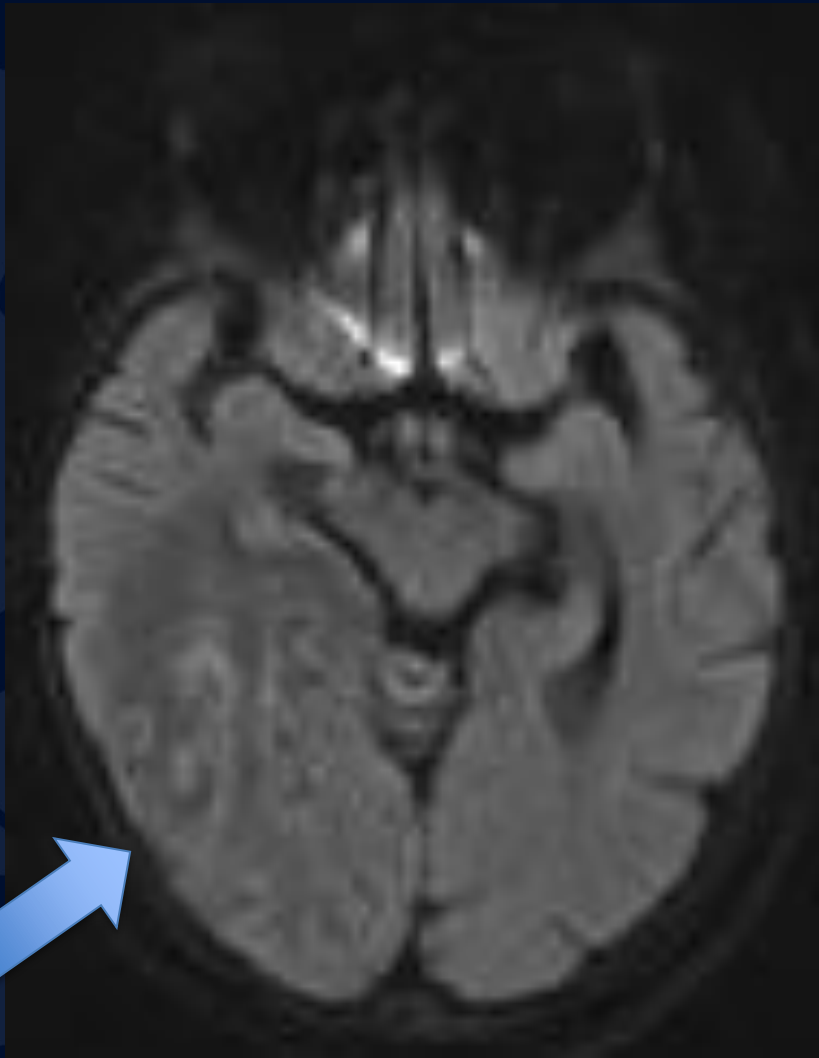


T2 weighted image demonstrates typical appearance of vasogenic edema, not characteristic appearance of infarction because infarction is usually imaged in acute phase (arrow).

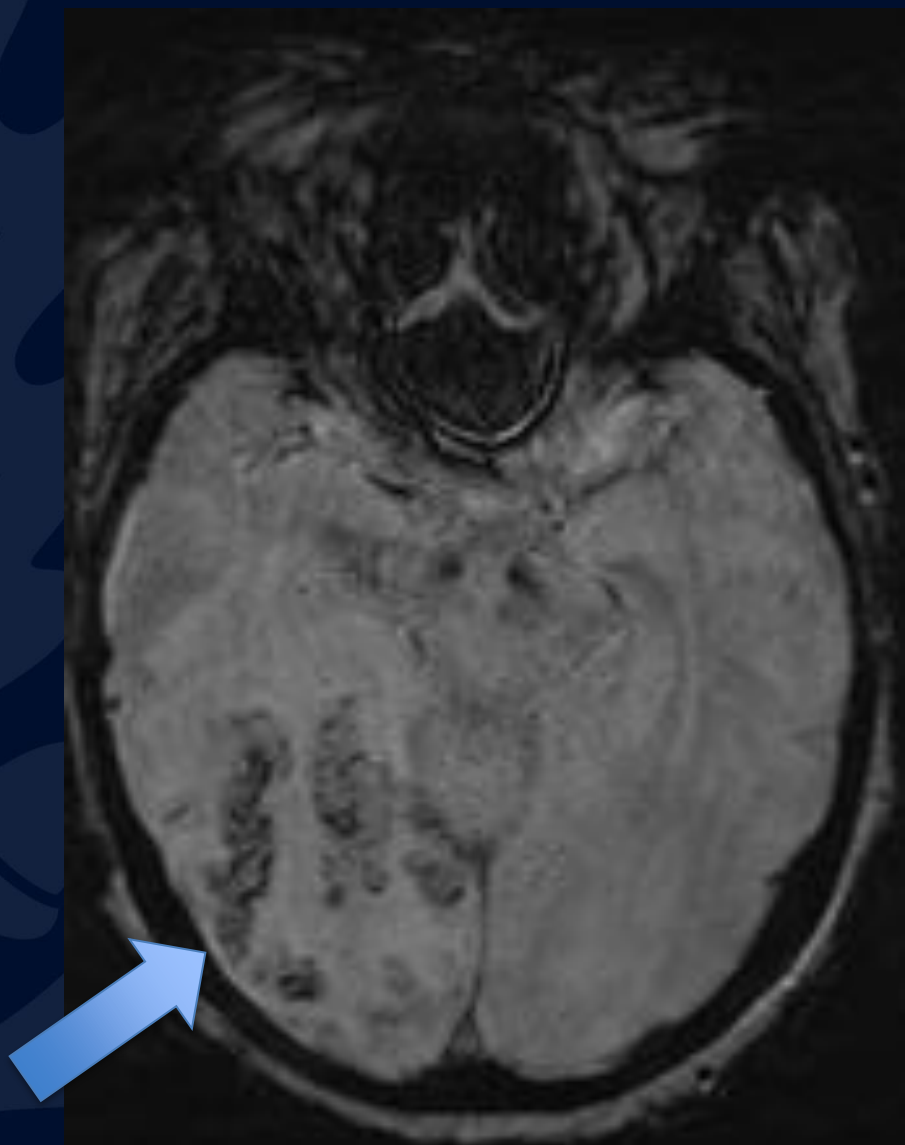
FLAIR image demonstrates gray and white matter both involved and displays mass effect (arrow)

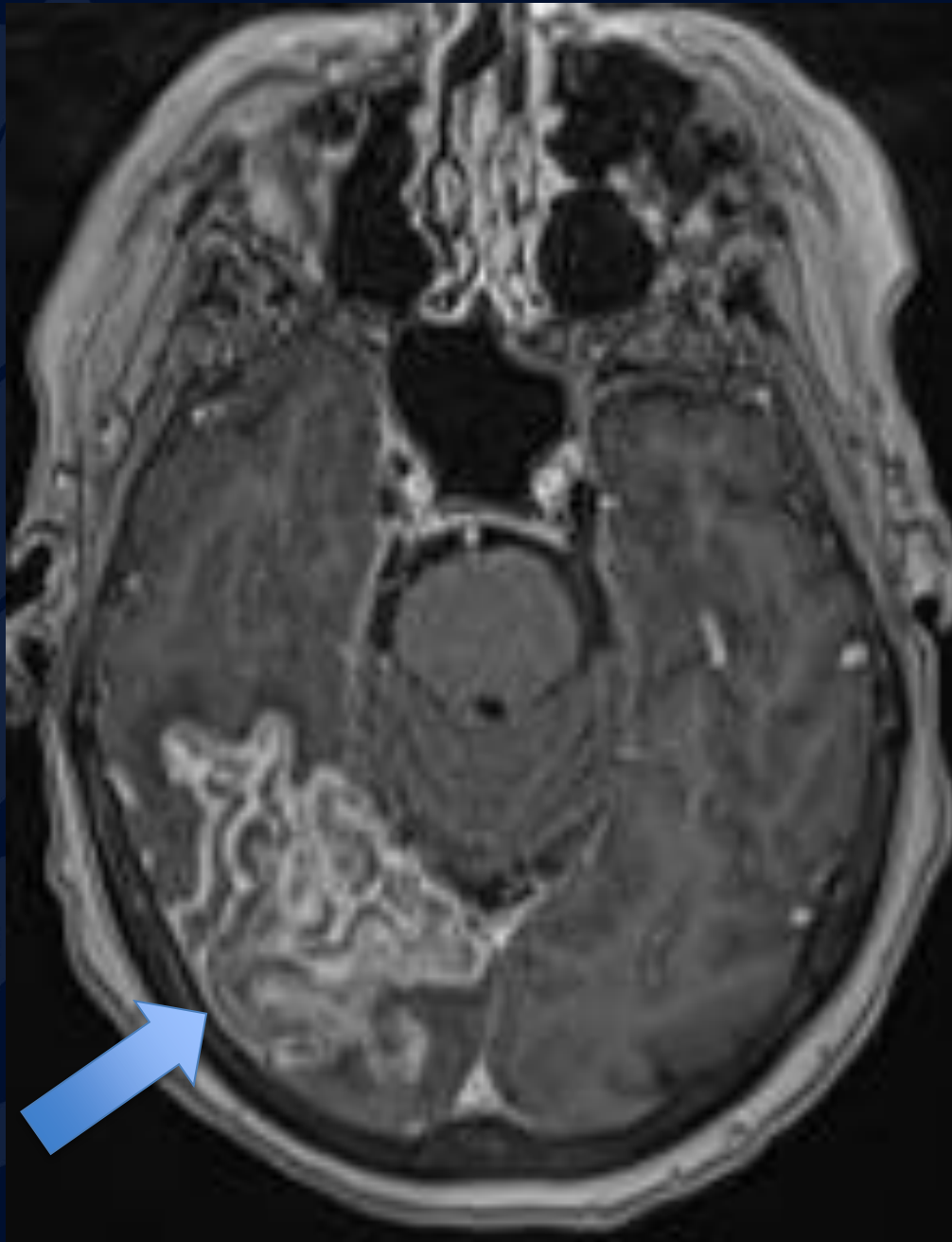


DWI fails to demonstrate characteristic hyperintensity (diffusion restriction) typical of acute infarction, due to the presence of vasogenic edema, which is much less specific (arrow)

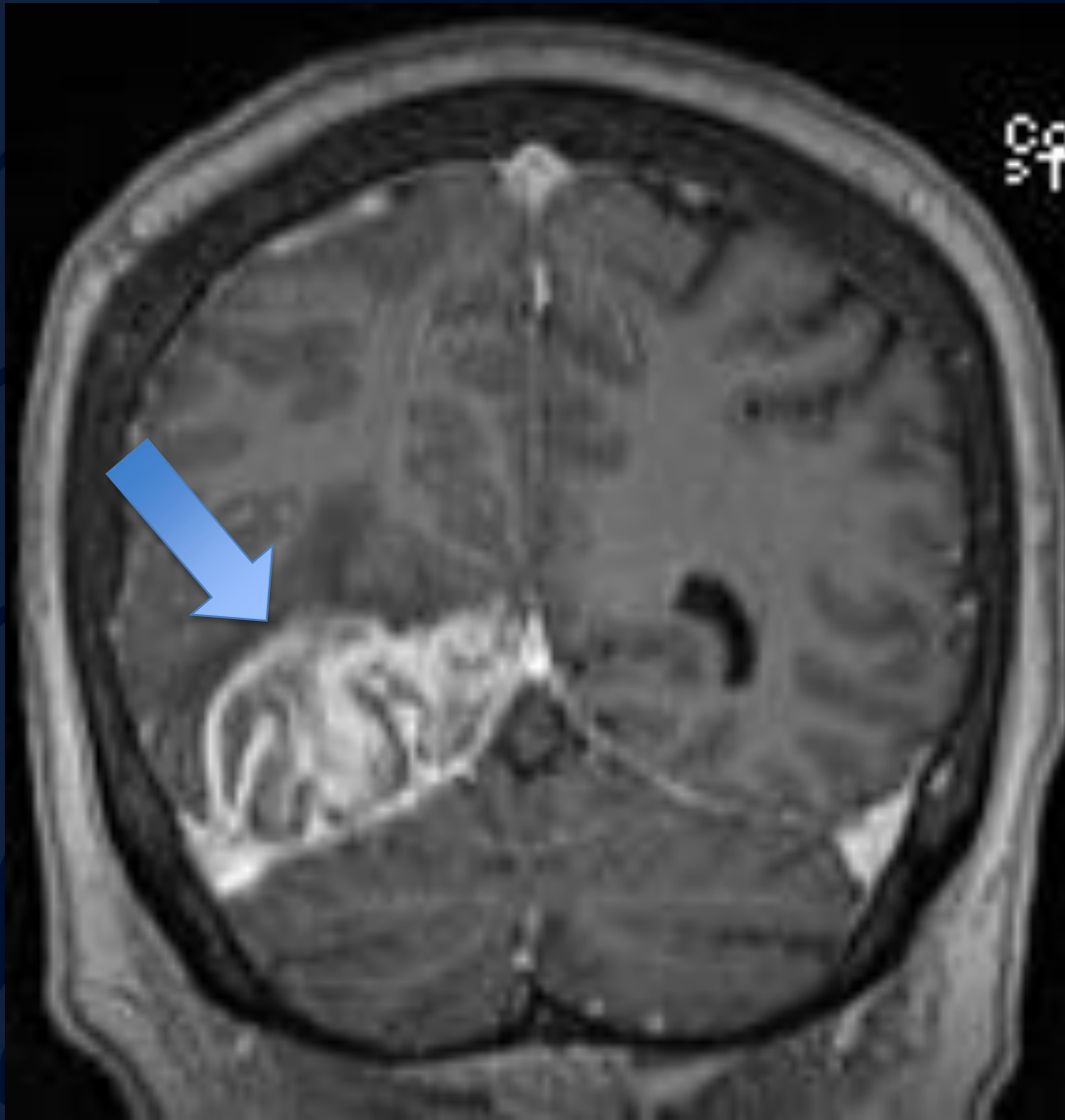


Susceptibility weighted image demonstrates cortical hemorrhage, presumably petechial (arrow), which probably contributed to the vasogenic edema



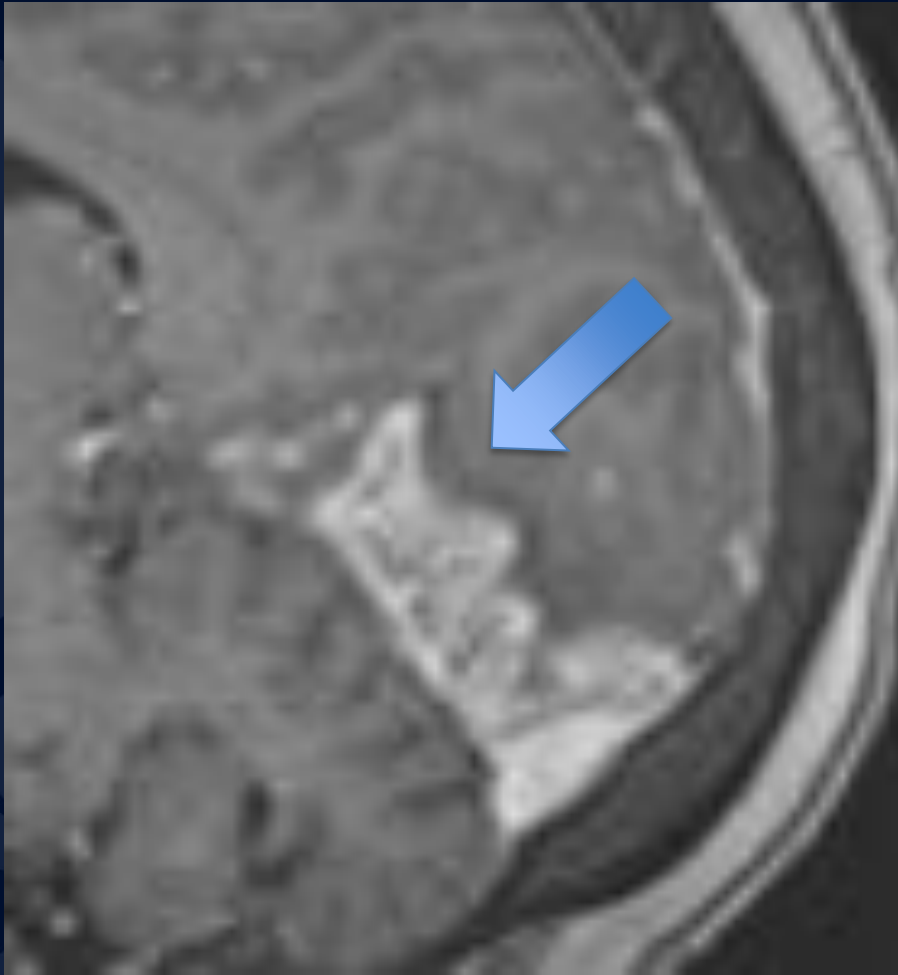


Contrast enhanced study reveals gyriform enhancement typical of subacute infarction (arrow) and sulcal enhancement.



Contrast enhanced coronal image better illustrates the posterior cerebral artery vascular territory (arrow) making diagnosis more evident.





Contrast enhanced sagittal image illustrates the characteristic posterior cerebral artery vascular territory (arrow)

# Late Subacute Cerebral Infarction

- Mixture of vasogenic and cytotoxic edema, which nullifies the diffusion restriction characteristic of acute infarction
- Hyperemia & blood brain barrier breakdown preferentially involving the cortex account for:
  - a) Characteristic intense enhancement
  - b) Blood products (presumably deoxyHb)All contribute to vasogenic edema

# Clinical

- Infarcts in the dominant hemisphere are more likely to present in acute stage
- Infarcts involving the visual cortex, as in this case, can escape detection acutely
- This patient only presented because of an MVA
- It is not clear if the patient's seizure or visual deficit caused the accident

# Differential Diagnosis

## (Distinguishing Features)

- Herpes Encephalitis
  - (Typically in temporal lobe(s))
- Glioblastoma
  - (Would not expect sulcal enhancement)
- Venous Infarct
  - (Would not observe arterial territory)

# References

- Levi C, et al. Extensive Hemispheric Cerebral Infarction. J Stroke Cerebrovasc Dis Nov-Dec. 1998.
- Wolansky I, Gershon A. Subacute Cerebral Infarction. Radiology Online (2021)