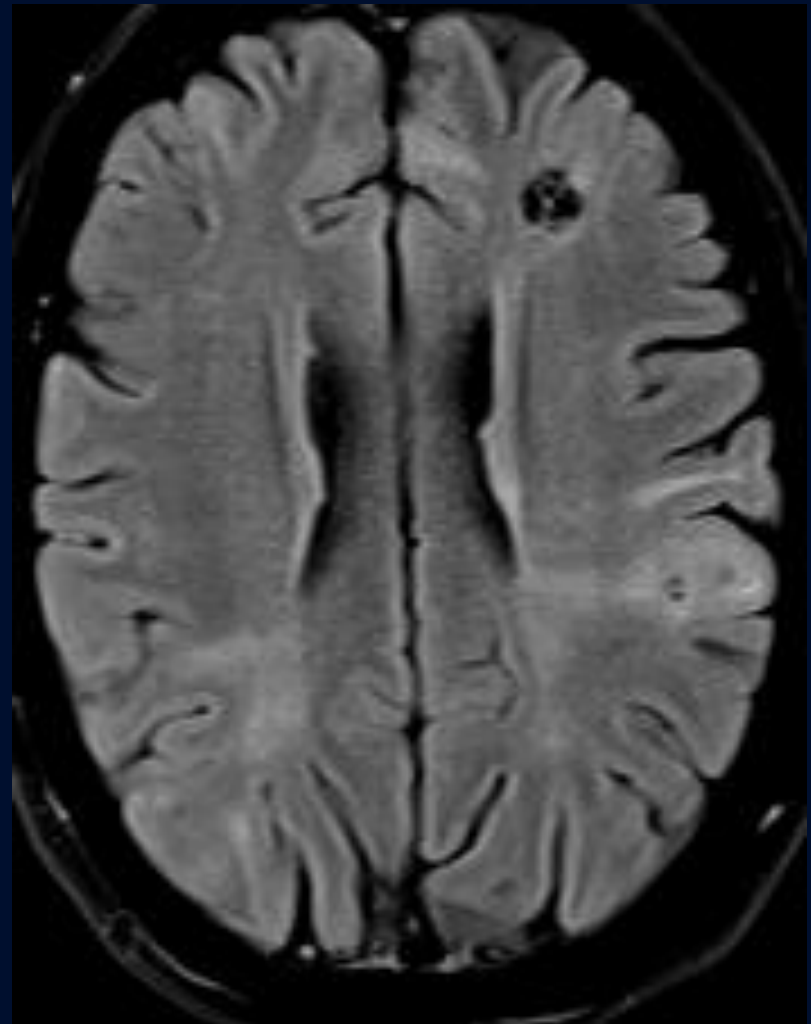
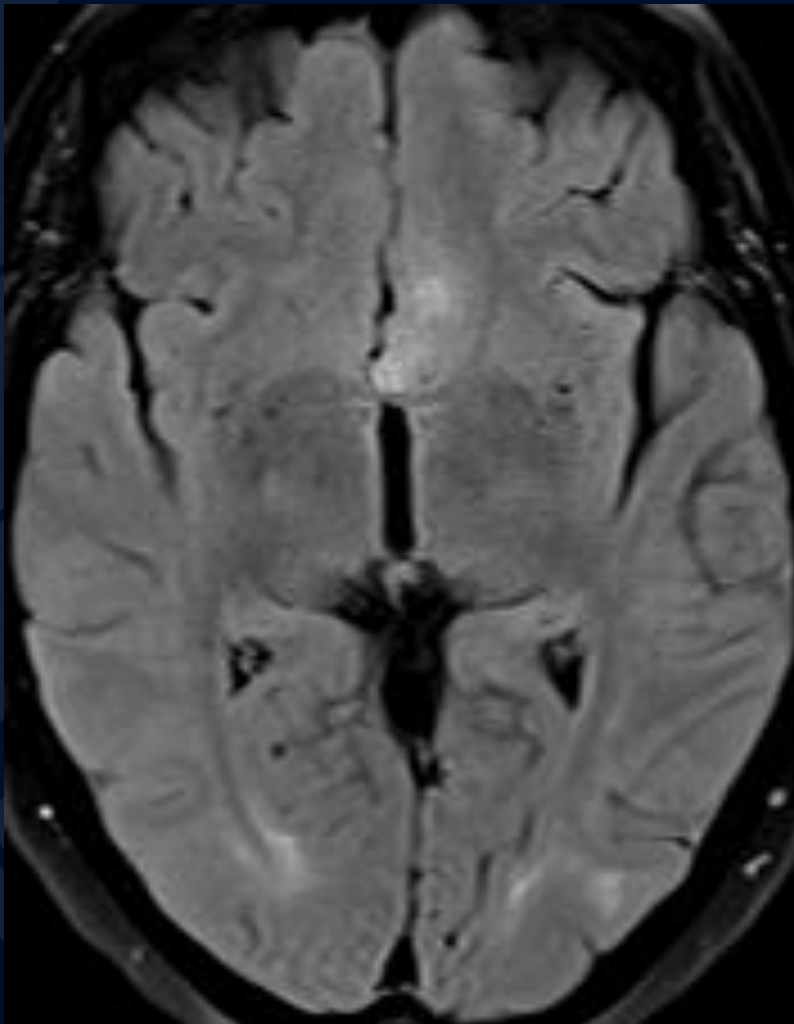


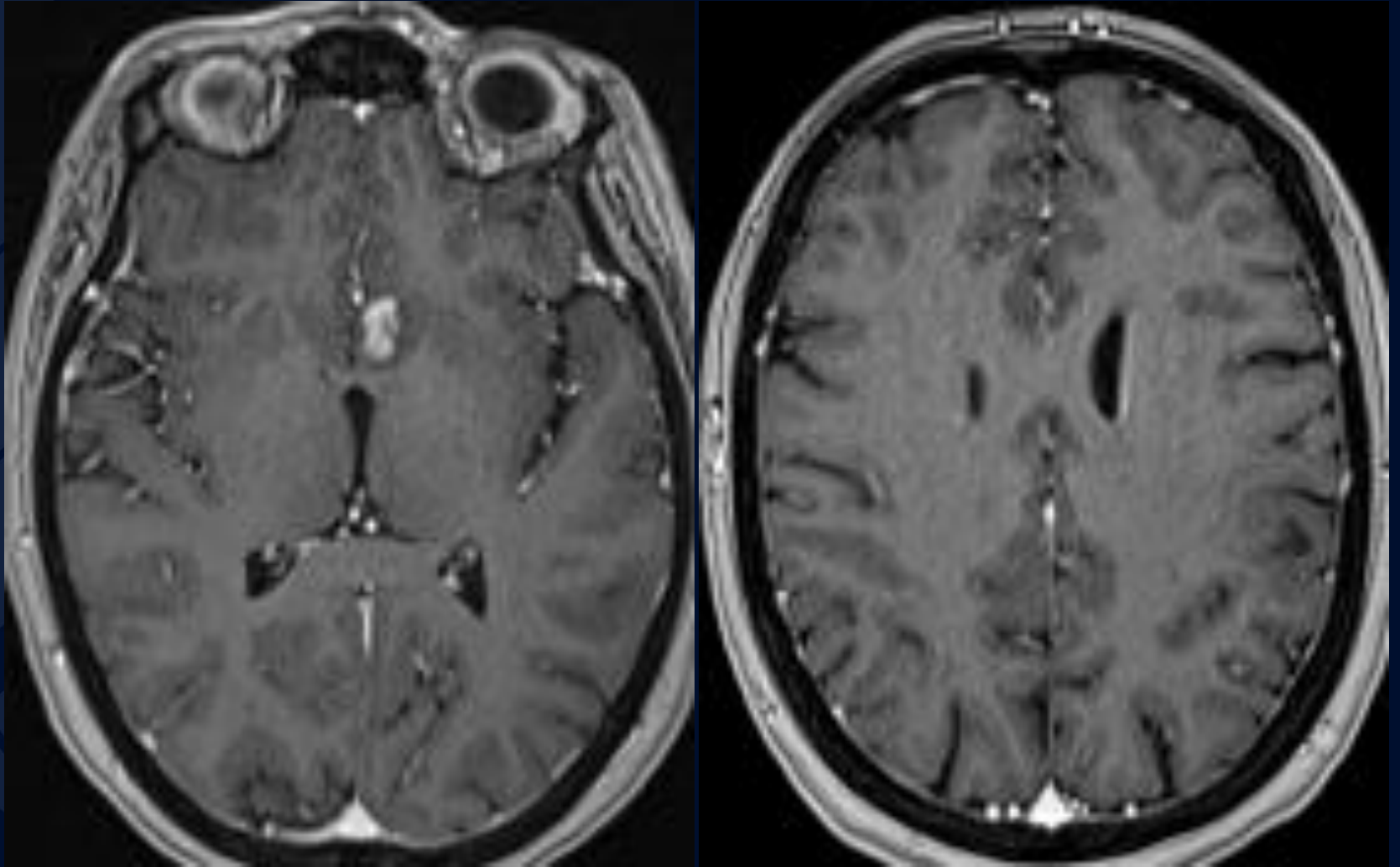
53-year-old female with a lung
nodule and renal insufficiency,
and other history withheld

Katherine Dobosh, BS

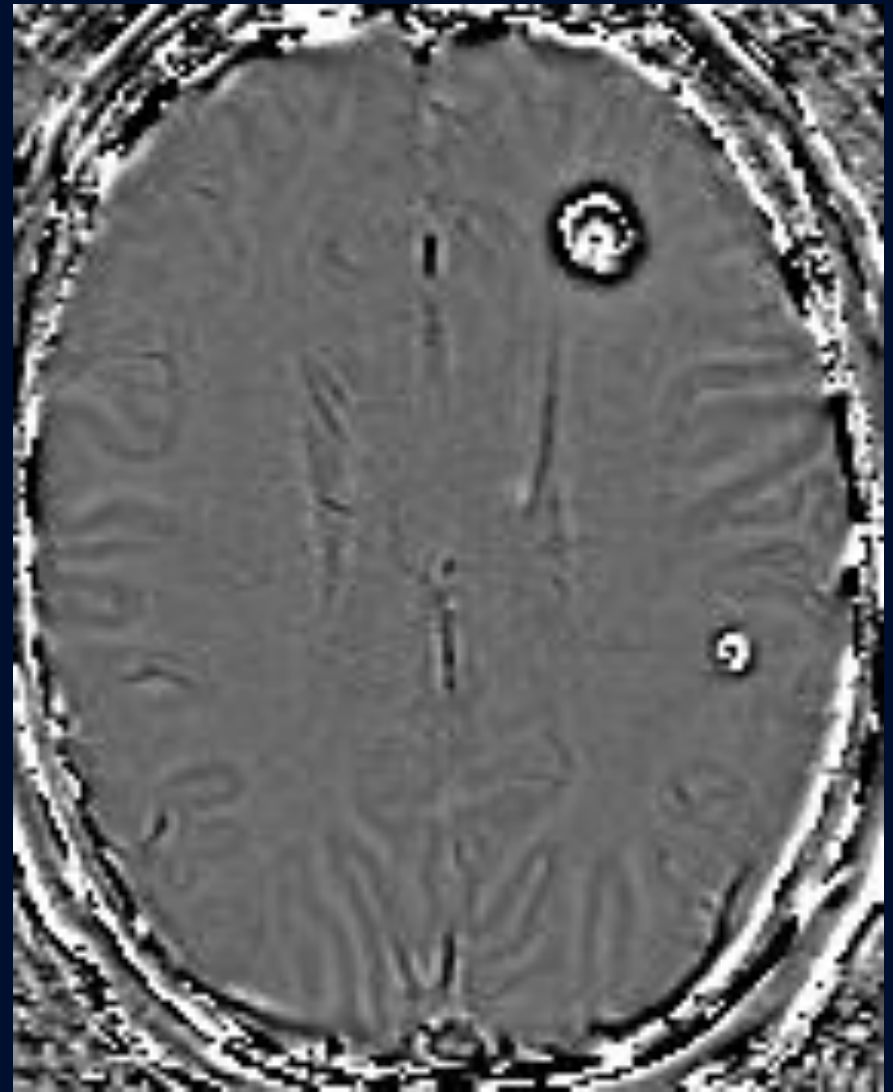
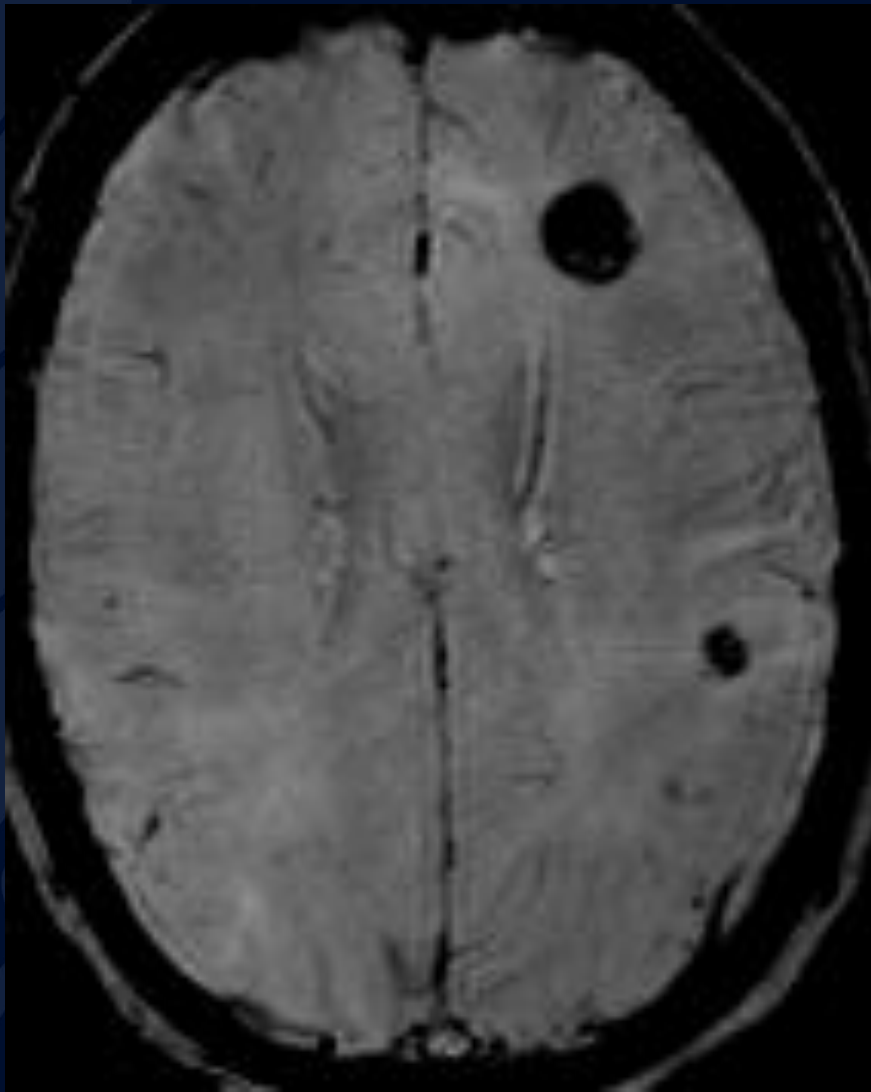
Leo Wolansky, MD



FLAIR



Gd T1-weighted



Susceptibility-weighted

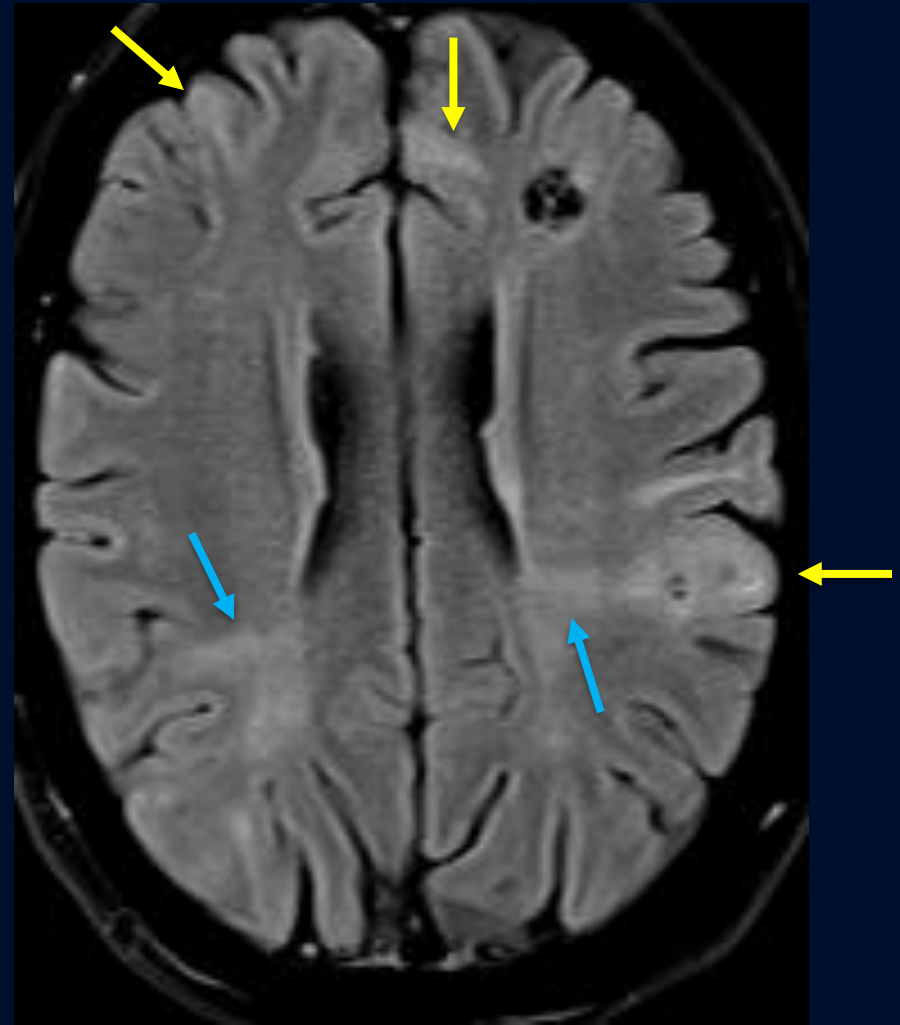
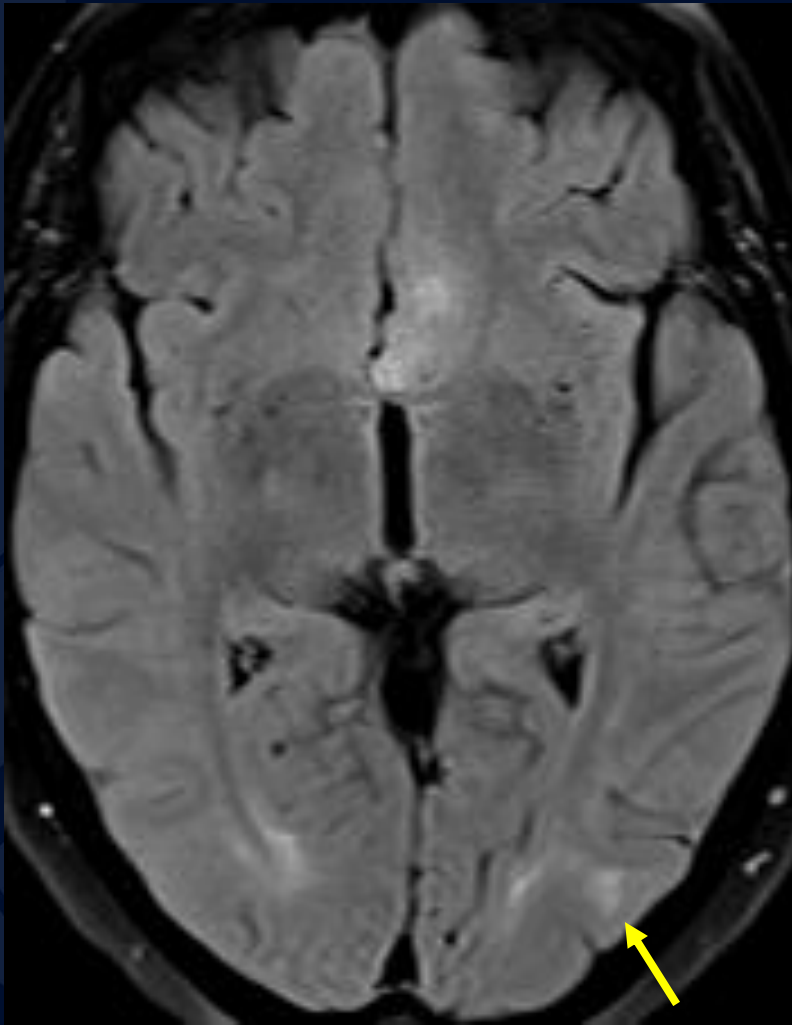
Phase image



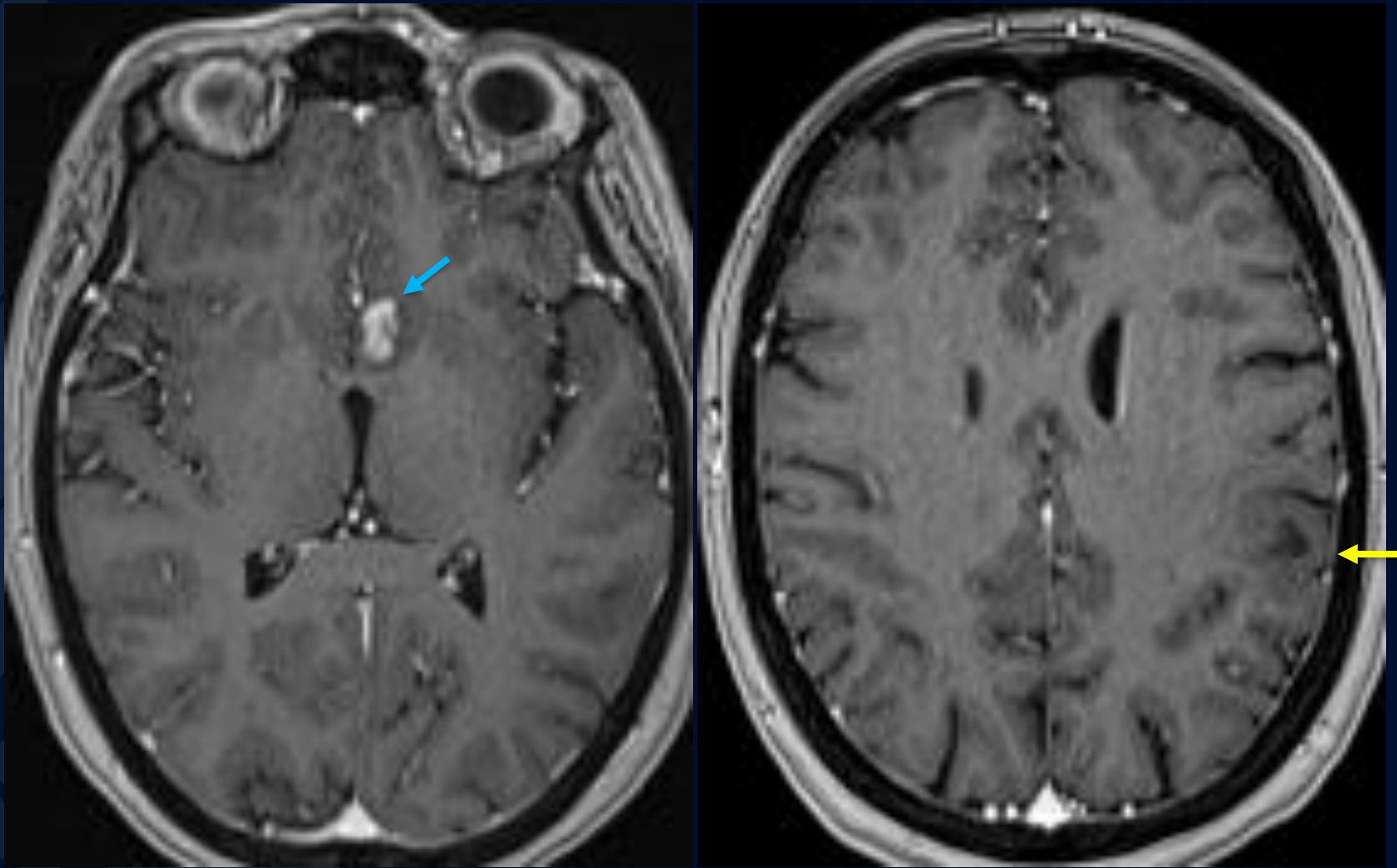
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A large, stylized oak leaf graphic in a dark blue color, positioned on the left side of the slide. The leaf has a prominent central vein and several smaller veins branching off it. The background is a solid dark blue.

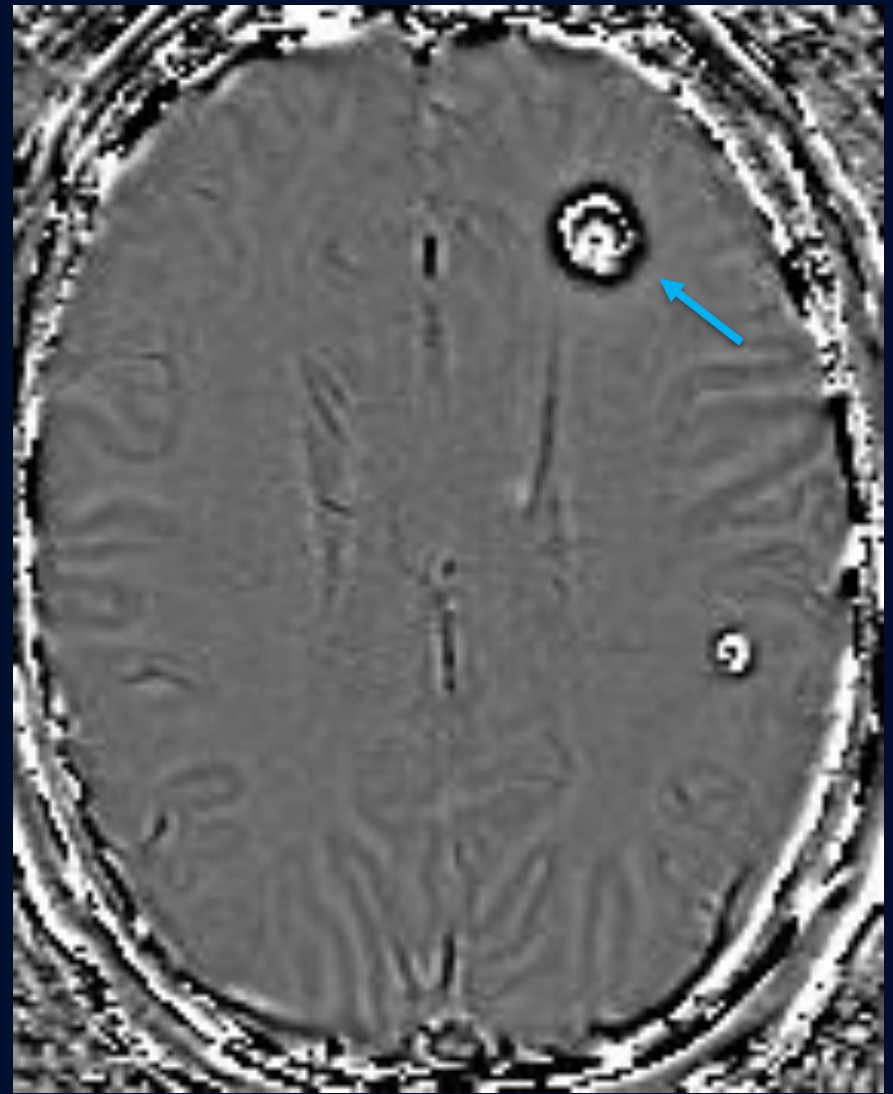
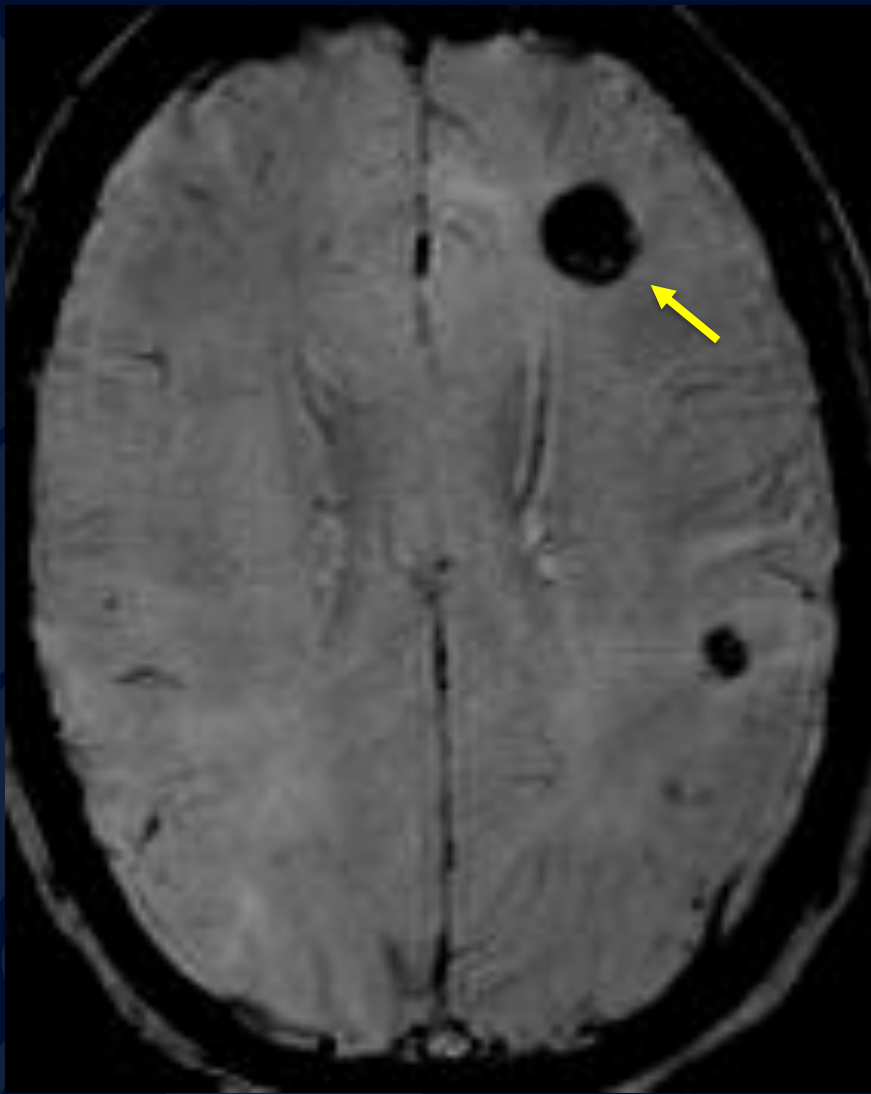
Tuberous Sclerosis



Cortical tubers (yellow arrows)
Radial migration lines (blue arrows)



Gyral Core Cortical tuber (yellow arrow)
Subependymal Giant Cell Astrocytoma
(blue arrows)



Deep White Matter Lesion (yellow arrow) turns hyperintense on Phase image (blue arrow) indicating calcification

Tuberous Sclerosis

- Classic clinical triad
 - Seizures
 - Developmental Delay
 - Adenoma Sebaceum

Tuberous Sclerosis

- Mutations in either of the two genes— TSC1 or TSC2 causes benign tumors
- Cortical tubers or subcortical tubers are present in 95-100% of cases and white matter abnormalities are present in 40%–90% of cases

Tuberous Sclerosis

- Four common CNS abnormalities are
 - cortical tubers
 - subependymal nodules
 - subependymal giant cell astrocytomas (SGCAs)
 - white matter abnormalities

Tuberous Sclerosis

- Four locations of white matter lesions
 - Near occipital horn
 - Near frontal horn
 - Corpus callosum
 - Deep white matter

References:

Umeoka, S., Koyama, T., Miki, Y., Akai, M., Tsutsui, K., & Togashi, K. (2008). Pictorial Review of Tuberos Sclerosis in Various Organs. *RadioGraphics*, 28(7). doi: 10.1148/rg.e32

Van Tassel, P. (1997). Cystlike white matter lesions in tuberous sclerosis. *American Journal of Neuroradiology*, 18(7), 1367–1373.

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