

46-year-old man who was initially admitted to hospital for new-onset seizures.

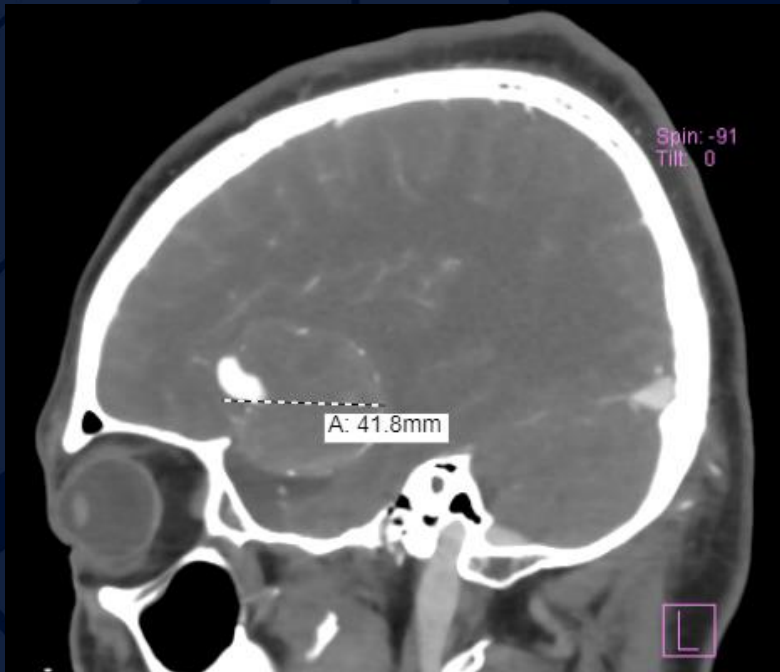
Erica Shen, MD PhD

Ketan Bulsara, MD MBA

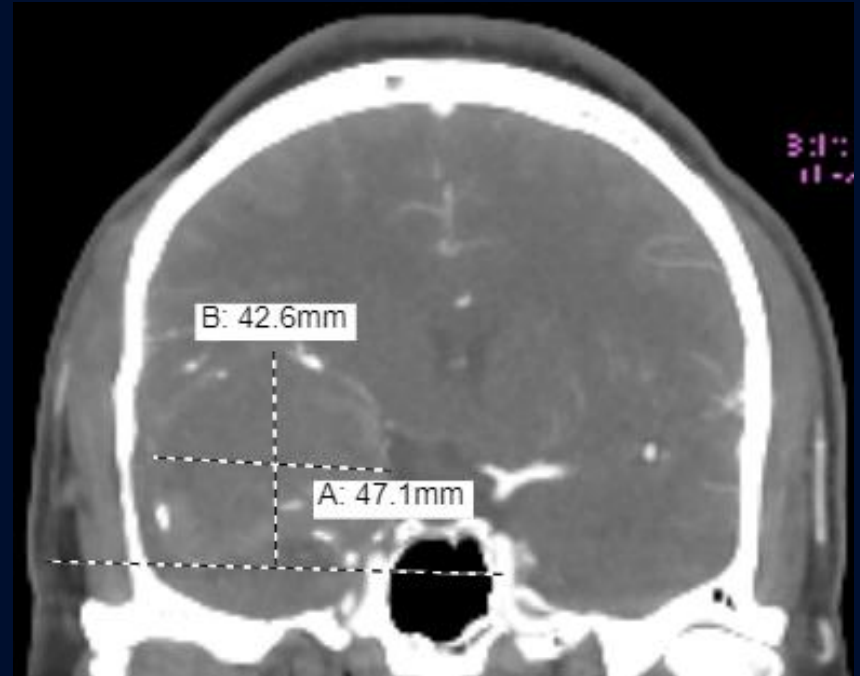
Abner Gershon, MD

Leo Wolansky, MD

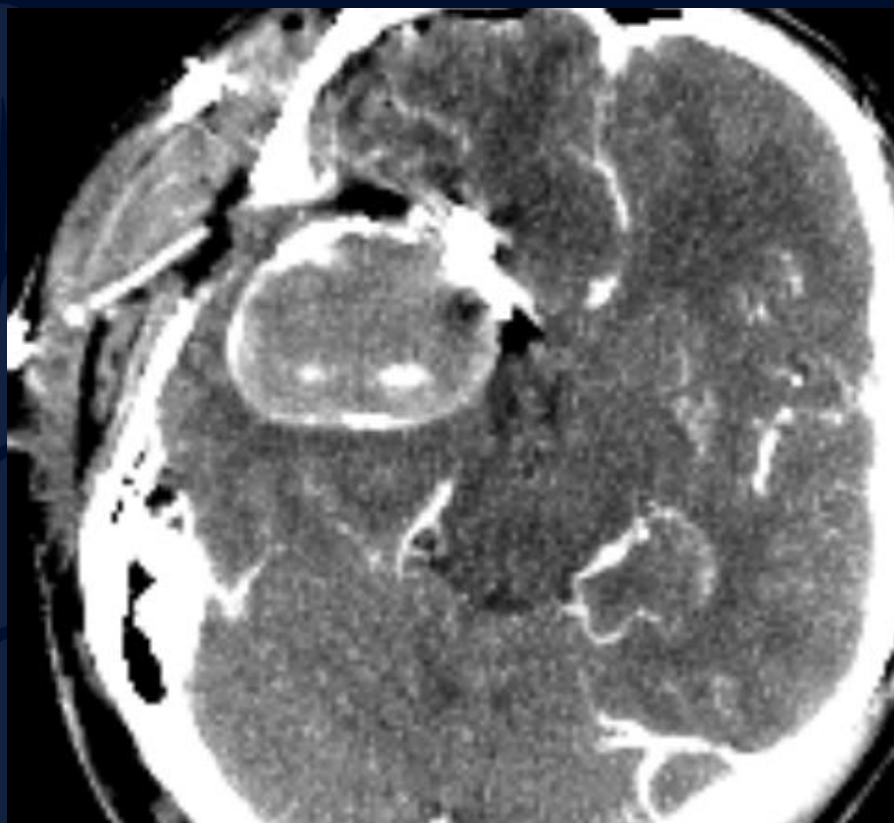
CT with IV contrast



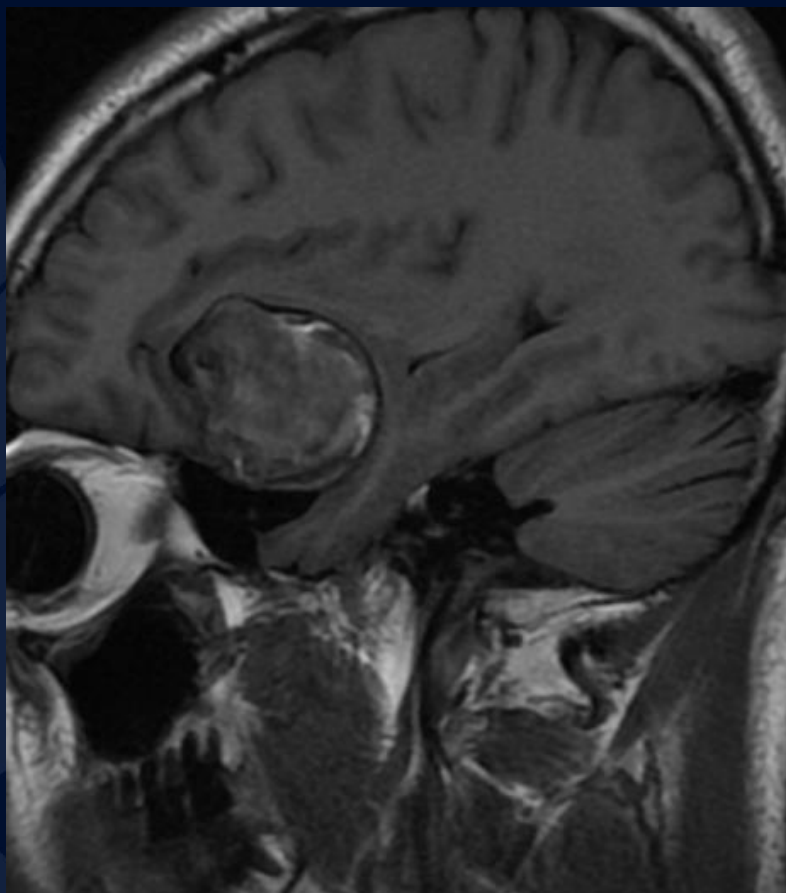
Sagittal



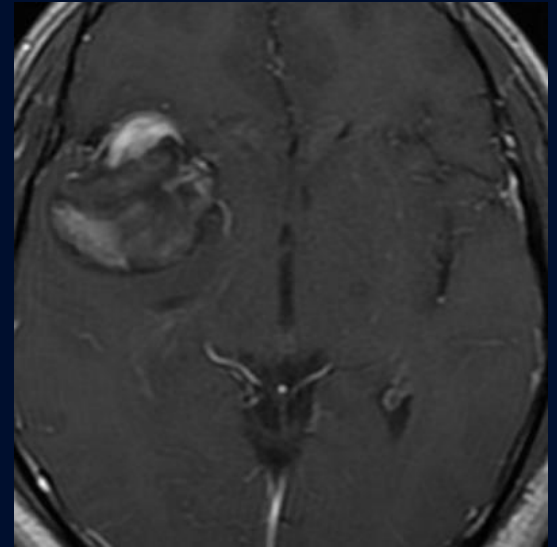
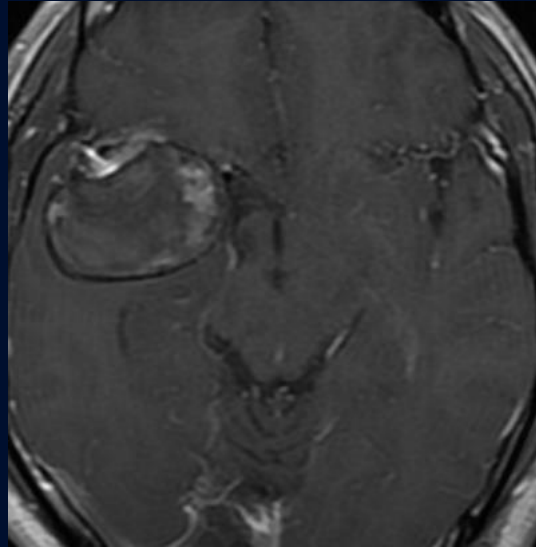
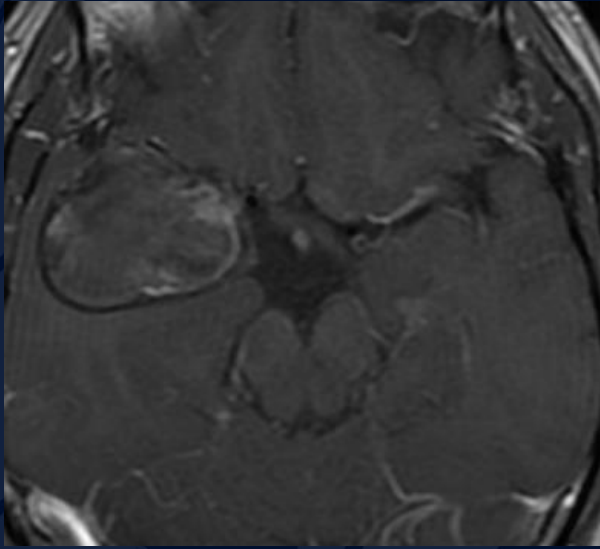
Coronal



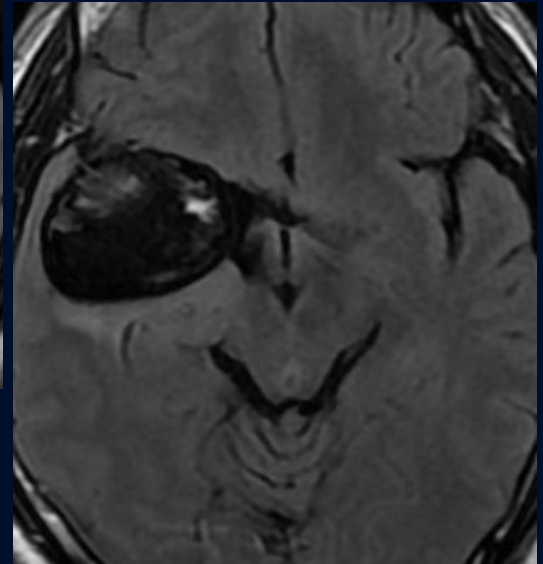
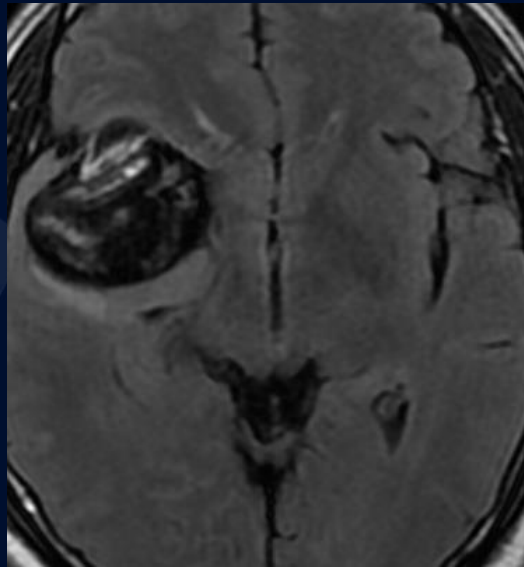
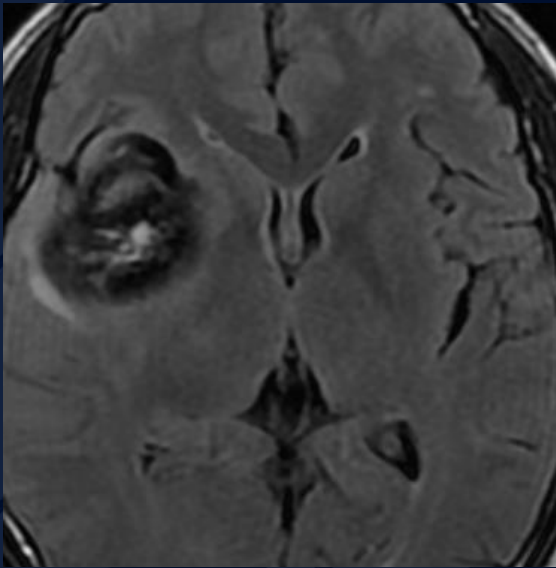
CT with IV contrast, Axial



T1 Sagittal



Gd-T1 Axial

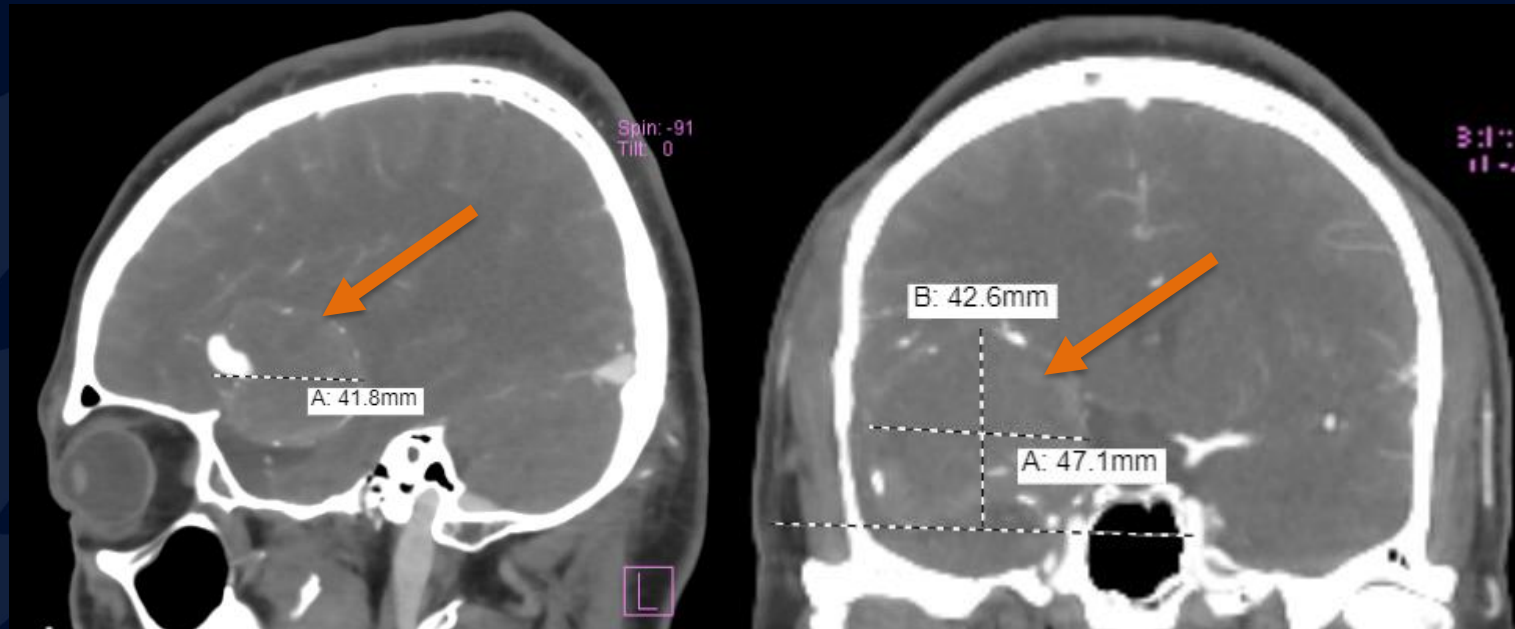


T2 FLAIR



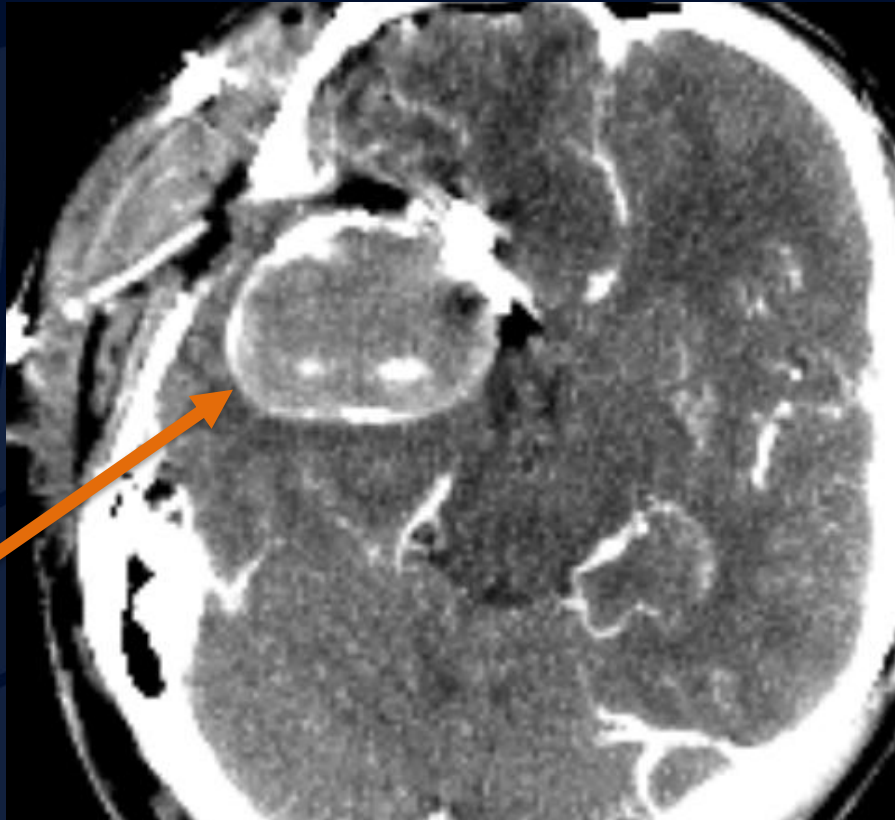
A large, stylized oak leaf graphic in a dark blue color, positioned on the left side of the slide. The leaf has a prominent central vein and several smaller veins branching out, with a serrated edge.

Giant Aneurysm



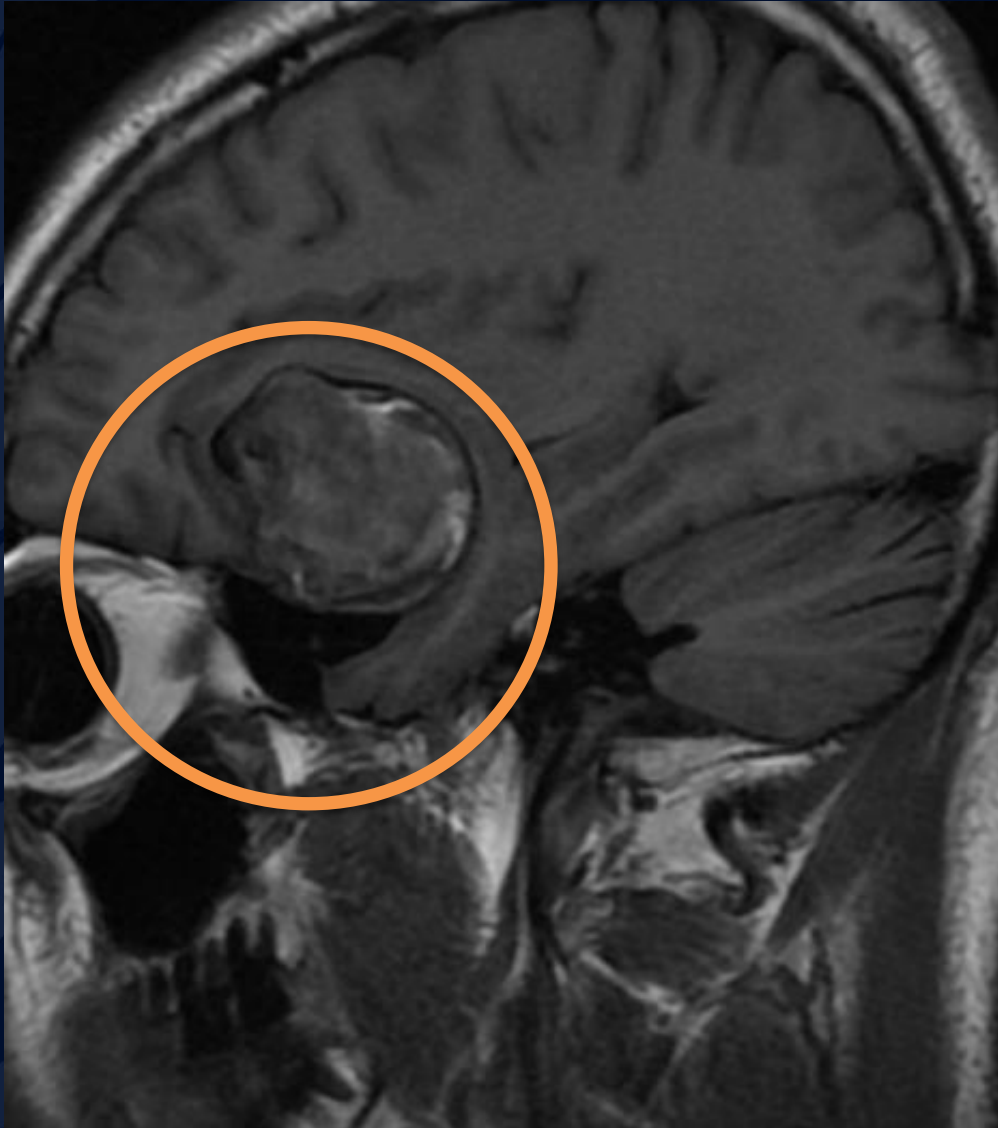
CT with IV contrast:

Isodense, well-defined extra-axial mass with focal density, likely to represent a giant aneurysm of the right middle cerebral artery (M1 segment). Majority of the aneurysm is thrombosed and calcifications are present within and on the margin of the aneurysm.



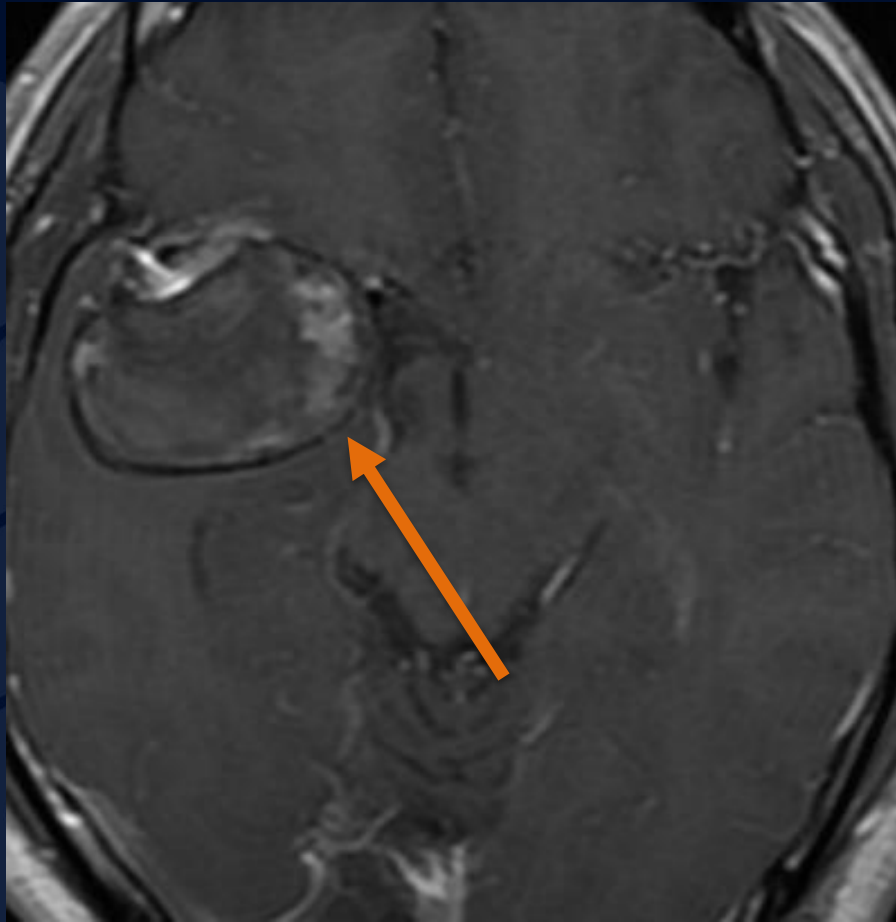
CT with IV contrast:

Extra-axial mass with focal density, likely to represent a giant aneurysm of the right middle cerebral artery (M1 segment).



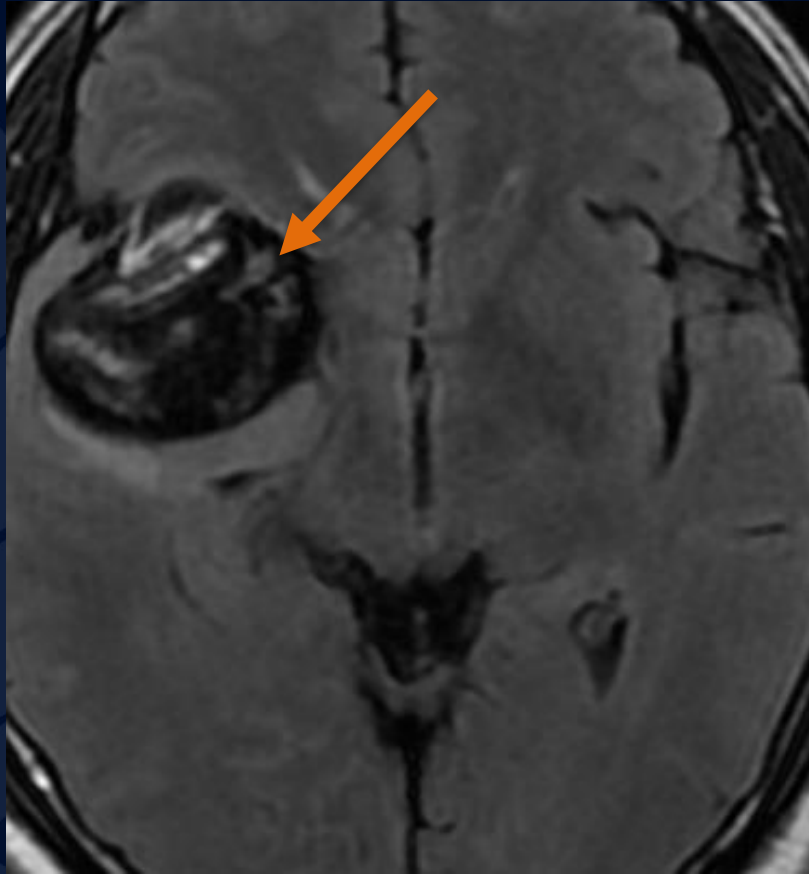
MRI sagittal:

Giant fusiform aneurysm of the right middle cerebral artery. Majority of the aneurysm is thrombosed and calcifications are present within and on the margin of the aneurysm.



Gd-T1 Axial:

Large, oval, lobulated mass consistent with calcified right MCA aneurysm.



T2 Axial:

Giant fusiform aneurysm of the right middle cerebral artery. Majority of the aneurysm is thrombosed and calcifications are present within and on the margin of the aneurysm.

Giant Aneurysm

- > 25mm in greatest dimension.
- Clinical Presentation:
 - ✓ Headaches
 - ✓ Stroke
 - ✓ Seizures
 - ✓ Cranial nerve palsy
 - ✓ TIA or stroke
- Compressed adjacent intra-parenchymal structures usually correlate with patients' presenting symptoms and neurological deficits.

Dubey, P., et al. Radiology, a core review. Philadelphia, Wolters Kluwer. 2018.
Little, J.R., St. Louis, P., Weinstein, M., Dohn, D.F. (1981). Giant Fusiform Aneurysm of the Cerebral Arteries. Stroke, 12(2), 183-188.

Giant Fusiform Aneurysm

- Associated causes:
 - Connective tissue diseases.
 - Disturbed cerebral circulation.
 - Inflammation, smoking, and alcohol.
 - A positive family history.
- Bleeding from fusiform aneurysms occurs in less frequency as compared to intracranial hemorrhage caused by saccular aneurysms.
- Characteristic features of a giant aneurysm:
 - Presence of mural thrombus.
 - Episodes of intracranial hemorrhage.
 - Symptoms of expansion.

References

- Dubey, P., et al. Radiology, a core review. Philadelphia: Wolters Kluwer. 2018.
- Harbaugh, R.E., Shaffrey, C., Couldwell, W.T., Berger, M.S. Neurosurgery Knowledge Update, a comprehensive review. New York, Thieme, 2015.
- Little, J.R., St. Louis, P., Weinstein, M., Dohn, D.F. (1981). Giant Fusiform Aneurysm of the Cerebral Arteries. Stroke, 12(2), 183-188.
- Sarica FB, Cekinmez M, Tufan K, et al. A non-bleeding complex intracerebral giant aneurysm case: case report. Turk Neurosurg. 2008; 18(3): 236–40.
- Yasumi T, Komiyama M, Iwai Y, et al. Evolution of incidentally-discovered fusiform aneurysms of the vertebrobasilar arteria system: neuroimaging features suggesting progressive aneurysm growth. Neurol Med Chir (Tokyo) 2002; 41(11): 523–27.
- <https://radiopaedia.org>
- Shen, E., Bulsara, K., Gershon, A., Wolansky, L. Giant Aneurysm. Radiology Online, 2021.