

# 50-year-old female presenting with severe headache and CN III palsy with pupillary involvement

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# MRA Axial



# MRI 3D Angiogram



# MR 3D Angiogram



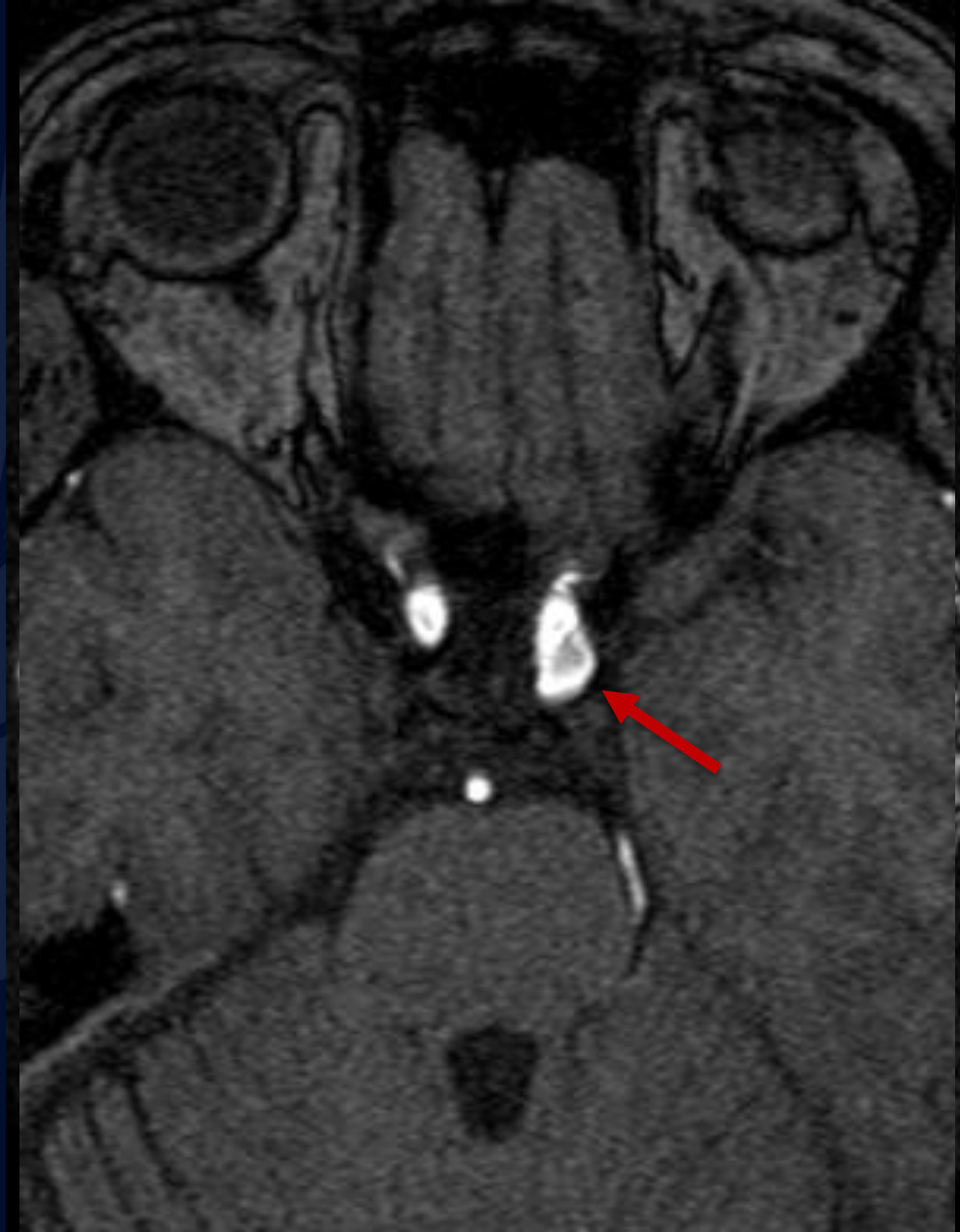
A large, stylized oak leaf graphic in a dark blue color, positioned on the left side of the slide. It features detailed vein patterns and a lobed edge.

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# Posterior Communicating (PCom) Artery Aneurysm

# MRA

Saccular  
aneurysm of the  
left posterior  
communicating  
artery



# MR 3D Angiogram

Saccular  
aneurysm of the  
left posterior  
communicating  
artery





# MRI 3D Angiogram

Saccular  
aneurysm of  
Left Posterior  
Communicat-  
ing Artery



# PCom Aneurysm

90% of all cerebral aneurysms occur within the anterior circulation, with ~33% of those involving the posterior communicating artery

- Can be "saccular" (involving only a portion of the vessel wall) or "fusiform" (involving the entire vessel wall circumferentially)
- Can be related with connective tissue disorders such as Marfan and Ehlers-Danlos syndrome
- Often asymptomatic unless rupture occurs

## Differential

- Mycotic aneurysm
- Infundibulum
- Dissecting aneurysm
- Variant of normal anatomy

# References

D'Souza D, Saber M, Sharma R, et al. Saccular cerebral aneurysm. Reference article, Radiopaedia.org (Accessed on 17 Oct 2023) <https://doi.org/10.53347/rID-986>

Jones J, Gaillard F, Chan B, et al. Posterior communicating artery. Reference article, Radiopaedia.org (Accessed on 17 Oct 2023) <https://doi.org/10.53347/rID-5937>

Takahashi S. Neurovascular Imaging, MRI & Microangiography. Springer Verlag. (2010) ISBN:1848821336.

Wiebers DO, Whisnant JP, Huston J et-al. Unruptured intracranial aneurysms: natural history, clinical outcome, and risks of surgical and endovascular treatment. Lancet. 2003;362 (9378): 103-10.