Rad to Rad Learning: Carotid Cavernous Fistula

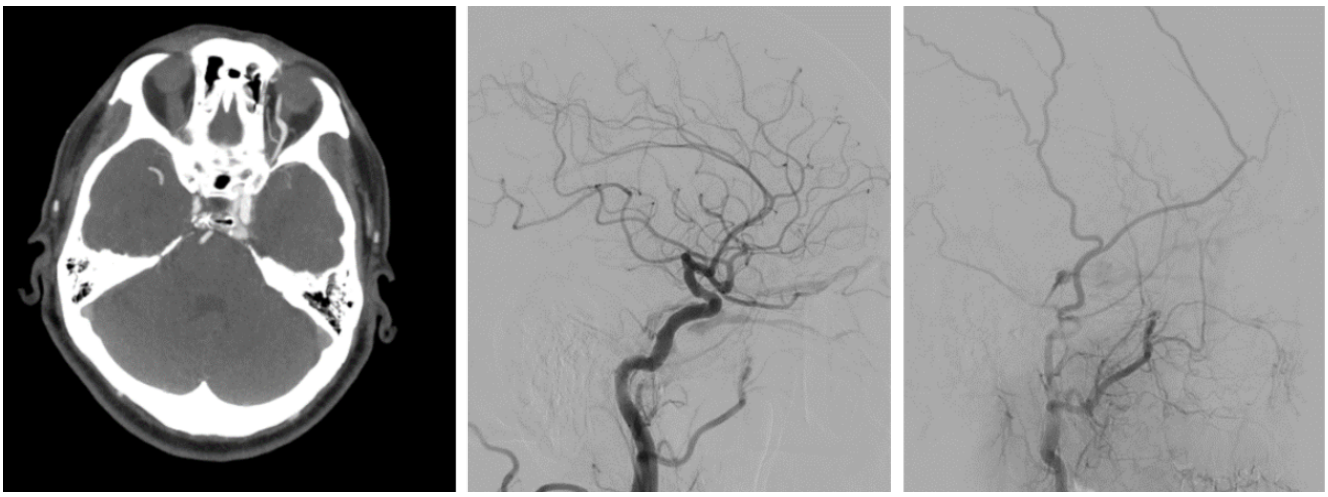
The Radiology Partners (RP) Neuroradiology National Subspecialty Division (NSD) presents our newest Rad to Rad Learning case.

Peer Learning Opportunity

Permanent vision loss is seen in 10-20% of untreated cases. Intracranial hemorrhages or venous infarctions are seen in 5-10% of cases.

Carotid Cavernous Fistula

- **Asymmetric enhancement of left cavernous sinus and dilated left superior and inferior ophthalmic veins in arterial phase.**
- **Type D Fistula is supplied from branches of external carotid arteries**



Shared to improve patient safety and healthcare delivery in the provision of radiology services. The circumstances and facts are changed, altered, or deidentified to preserve confidentiality. Privileges have not been waived.

Practical Insights

- **Classic clinical triad of pulsatile proptosis, orbital bruit and conjunctival chemosis is often incomplete.**
- **Cortical venous reflux indicates high risk of hemorrhage.**
- **High-flow (Type A) CCF are often traumatic, develop abruptly and have worse prognosis.**
- **Up to 70% of low-flow (Types B, C, D) may resolve spontaneously.**

Cranial Nerva palsies II, IV, and VI are often reported.

Dynamic MRA or CTA initially, DSA for confirmation and treatment planning.

The Neuroradiology National Subspecialty Division (NSD) is part of RP's Clinical Value Team, which works to elevate patient care and enhance value through innovation, collaboration and education. To advance this goal, our radiologists and advanced practice providers are committed to sharing peer learning as valuable reminders and insights about what we encounter in our day-to-day practice. Check back here and on X, LinkedIn and Instagram to see these common cases and our findings.

Visit the Clinical Resources page for more cases and to see what we've developed to enhance best practice recommendations, elevate image quality and patient care and update current standards throughout RP's network of practices, all to deliver excellent radiology services to patients, referring clinicians and client partners.



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