

Rare Presentation of an Intracranial Arteriovenous Malformation with Orbital Venous Congestion

Dale Ding MD; Kenneth C. Liu MD

University of Virginia, Department of Neurological Surgery, Charlottesville, VA



Introduction

Intracranial arteriovenous malformations (AVMs) are uncommon vascular lesions which typically present with hemorrhage or, in the case of unruptured lesions, with seizure, headache, or focal neurological deficit. The importance of venous drainage pattern in AVM natural history and treatment outcomes is well documented. It is exceptionally rare for AVMs to drain into the orbital venous system.

Results

The patient was referred for treatment with radiosurgery. The resolution of orbital venous congestion symptoms accompanies AVM obliteration. An attempt to relieve orbital venous congestion by endovascular obliteration or surgical location without successful and complete cure of the AVM will most likely destabilize the nidus and predispose it to rupture.

Learning Objectives

By the conclusion of this session, participants should be able to 1)
Describe the importance of venous drainage patterns of intracranial arteriovenous malformations (AVM),
2) Discuss, in small groups the potential for AVM presentation with orbital venous congestion, and 3)
Identify an effective treatment for complex AVMs.

References

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- 4. Kano H, Kondziolka D, Flickinger JC, et al. Stereotactic radiosurgery for arteriovenous malformations, Part 6: multistaged volumetric management of large arteriovenous malformations. J Neurosurg. 2012 Jan;116(1):54-65.

Methods

We present a case of a 42 year-old male with a, large, complex AVM of the midbrain, basal ganglia, and thalamus which partially drained into the superior ophthalmic vein.

Conclusions

Serial ophthalmologic monitoring by an experience neuro-ophthalmologist is crucial to monitoring the ophthalmologic effects of AVM progression and treatment.