



Case Reports & Case Series

Clipping of a giant partially thrombosed ophthalmic segment aneurysm

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ABSTRACT

Ophthalmic segment aneurysms (OSA) originate from the paraclinoid portion of the internal carotid artery (ICA) usually at the origin of the ophthalmic artery. OSAs represent 1.5–10% of intracranial aneurysms, and although often asymptomatic, may lead to optic nerve (ON) compression and/or subarachnoid hemorrhage. When the dome is partially or completely thrombosed, microsurgical clipping can provide vascular exclusion and ON decompression through thrombectomy. Nevertheless, high expertise and knowledge of the regional anatomy are required to manage this complex surgical field.

In this operative video, we show the management of a giant thrombosed OSA. The 52-year-old male patient presented with a recent history of worsening headache and progressive right visual loss. Neuroimaging revealed a 3 cm partially thrombosed right OSA, with mass effect on the ON and surrounding edema. An incidental 5 mm right middle cerebral artery (MCA) bifurcation aneurysm was also identified. Endovascular occlusion was not feasible, and the patient agreed to microsurgical treatment. A right pterional craniotomy was performed and the sylvian fissure was split, exposing both lesions. Parent vessel control was achieved with temporary clipping of the cervical ICA, and distal to the origin of the aneurysm. After debulking of the thrombosed and calcified dome with ultrasonic aspiration, the aneurysm was secured with combined clipping inside and outside the dome. The MCA aneurysm was subsequently exposed and clipped. Indocyanine green video-angiography confirmed exclusion of both aneurysms and flow patency of the rest of the circulation. The patient was discharged without complications and post-operative angiography showed complete occlusion of both aneurysms.

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Conflict of interest

The authors declare no conflicts of any kind related to the materials or instruments shown in this video.

Abbreviations: OSA, ophthalmic segment aneurysms; ICA, internal carotid artery; MCA, middle cerebral artery

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None.

Appendix A. Supplementary data

Supplementary data to this article can be found online at <https://doi.org/10.1016/j.inat.2019.03.006>.

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