

Ophthalmic artery aneurysm surgery

J.Sales-Llopis

Neurosurgery Service, Alicante University General Hospital, Alicante Institute for Health and Biomedical Research (ISABIAL - FISABIO Foundation), Alicante, Spain.

The key features of successful surgical treatment of these lesions include establishing control of the proximal artery, adequate exposure of the [aneurysm neck](#), and successful obliteration of the aneurysm with minimal manipulation of the optic nerve ¹⁾.

The [ophthalmic artery aneurysms](#) can be treated safely and effectively through a [frontolateral approach](#) ²⁾.

Microsurgical clipping of large ophthalmic-carotid artery (OA) aneurysms is technically challenging. Among the reported approaches, pterional combined epidural and subdural approach is one of the efficient choices ³⁾.

The most important risk associated with [clipping ophthalmic artery aneurysms](#) is a new [visual deficit](#). Meticulous microsurgical technique is necessary during [anterior clinoidectomy](#), aneurysm dissection, and [clip](#) application to optimize visual outcomes, and aggressive medical management postoperatively might potentially decrease the incidence of delayed visual deficits. As the results of endovascular therapy and specifically [flow diverters](#) become known, they warrant comparison with these surgical benchmarks to determine best practices ⁴⁾.

For [ophthalmic artery aneurysm treatment](#) if necessary, the [ophthalmic artery](#) may be sacrificed without worsening of vision in the vast majority.

Surgery is technically demanding because these aneurysms are often large and may extend into the [cavernous sinus](#) ^{5) 6) 7) 8) 9) 10)}.

The anterior clinoid process (ACP) interferes with clipping. It is necessary to remove the ACP followed by optic canal unroofing to expose the ophthalmic segment aneurysm. The ACP resection can be performed intradurally or extradurally. The proponents of extradural clinoidectomy maintain that the dural layer protects the brain and cortical vessels during the drilling, and prevents bone dust and bleeding into the subarachnoid space ¹¹⁾.

By contrast, intradural clinoidectomy provides a clear view of the ACP, ICA, and optic nerve, which are protected during clinoidectomy ¹²⁾.

For [unruptured intracranial aneurysm](#), drill off [anterior clinoid process](#) via an extradural approach before opening dura to approach aneurysm neck may be safe. Not for ruptured.

Care must be taken to avoid [optic nerve injury](#) caused by the retraction and/or the heat of the [drill](#) ¹³⁾.

Cutting the [falciform ligament](#) early decompresses the [optic nerve](#), and helps minimize worsening of [visual impairment](#) from surgical manipulation.

In most cases, a side angled clip can be placed parallel to the parent artery along the neck of the aneurysm ¹⁴⁾.

Contralateral approach

see [Ophthalmic artery aneurysm contralateral approach](#).

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