

Tuberculum Meningioma: Orbitopterional Approach

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Abstract

This is a case of an extensive tuberculum sella meningioma involving the circle of Willis down to the basilar artery that presented with bilateral visual loss worse on the right than left side. A one-piece right orbitopterional approach along the worse eye was used to gain access to the three cranial fossae. The orbitotomy facilitates access to the midline structures and contralateral base of the tumor with minimal brain retraction. Tumor resection is initiated by first identifying the tumor capsule, followed by piecemeal debulking via ultrasonic aspiration. Early decompression of the ipsilateral optic nerve was performed. Gross total resection of the tumor was achieved through multiple windows as follows: prechiasmatic, opticocarotid, and carotid oculomotor. Sharp dissection is performed around critical neurovascular structures to reduce strain and vascular injury. The circle of Willis including the small perforators was completely preserved. Postoperative examination at follow-up demonstrated improvement in vision less on the right side and resolution of postoperative partial third nerve palsy. The link to the video can be found at: <https://youtu.be/XfEh8CjkvA0>.

Keywords

- ▶ orbitopterional
- ▶ meningioma
- ▶ vision
- ▶ preservation
- ▶ tuberculum sella
- ▶ tuberculum
- ▶ sella

Conflict of Interest

None.



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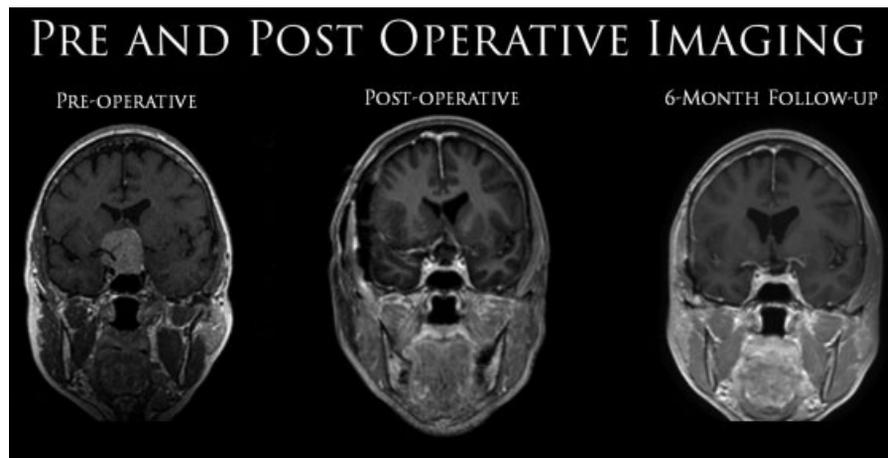


Fig. 1 Preoperative, postoperative, and 6-month follow-up imaging.



Fig. 2 Anterior communicating artery (ACoA) complex demonstrating vascular segments of the Left A1, Left A2, Right A1, and Right A2 vessels, as well as perforating vessels.