

Resection of a Petroclival Meningioma via the Endoscope-Assisted Retrosigmoid Approach: 2-D Operative Video

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Abstract

We present a case of a petroclival meningioma that was resected through an endoscope-assisted retrosigmoid approach via corridors above and below the facial-vestibulocochlear nerve complex. The patient is a 61-year-old female with complaints of left-sided hypesthesia and neuralgia of the infraorbital and zygomatic region, intermittent periorbital myokymia, and a slight facial palsy (HB II). This 2D video demonstrates the operative technique, anatomical and surgical nuances of the skull base approach and microdissection of the tumor from the critical neurovascular structures. A gross total resection was achieved. The patient's facial and trigeminal symptoms resolved completely within a few weeks. At 2 year follow up there was no indication of residual or recurrence.

In summary, the retrosigmoid approach with endoscopic assistance is an important and powerful tool in the armamentarium for the microsurgical management of meningiomas of the lateroventral skullbase of the posterior fossa.

The link to the video can be found at: <https://youtu.be/Px4XIRDoALc>.

Keywords

- ▶ petroclival meningioma
- ▶ retrosigmoid approach
- ▶ suprameatal tubercle
- ▶ endoscope-assisted approach

Disclosures

None; the authors have no personal, institutional, or financial interest in any of the materials, drugs, or devices described in this article.

Conflict of Interest

None.



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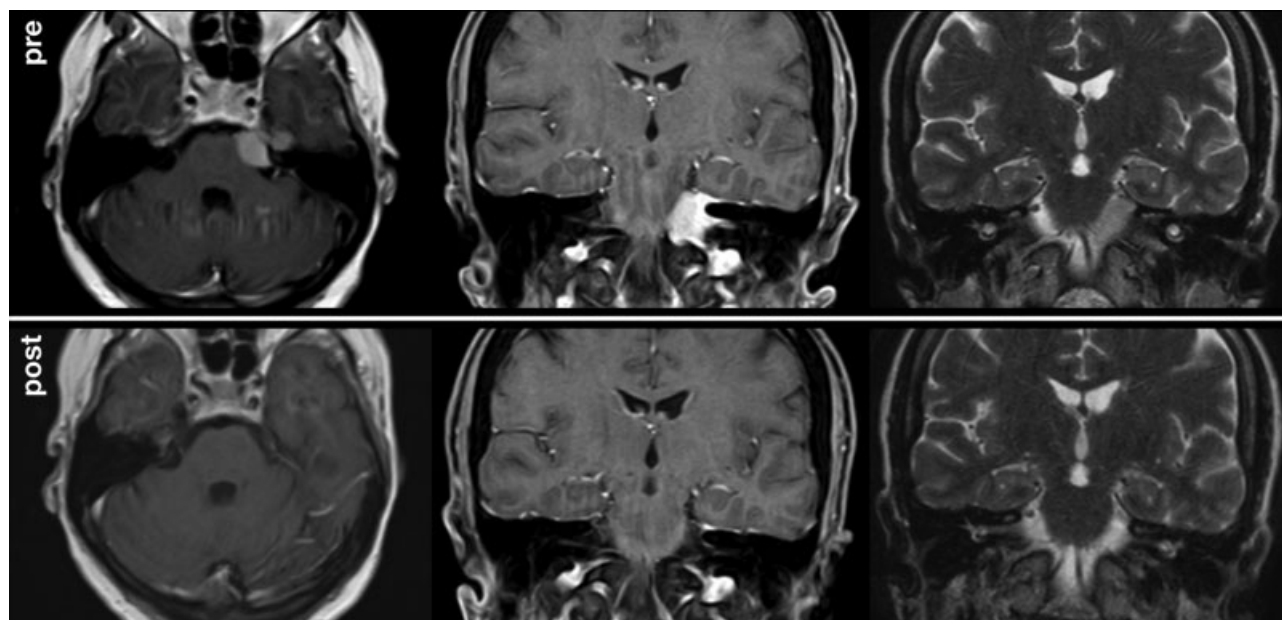


Fig. 1 Pre and postoperative MRI of the left-sided petroclival meningioma, extending from the pontomedullary junction to the tentorial incisura.

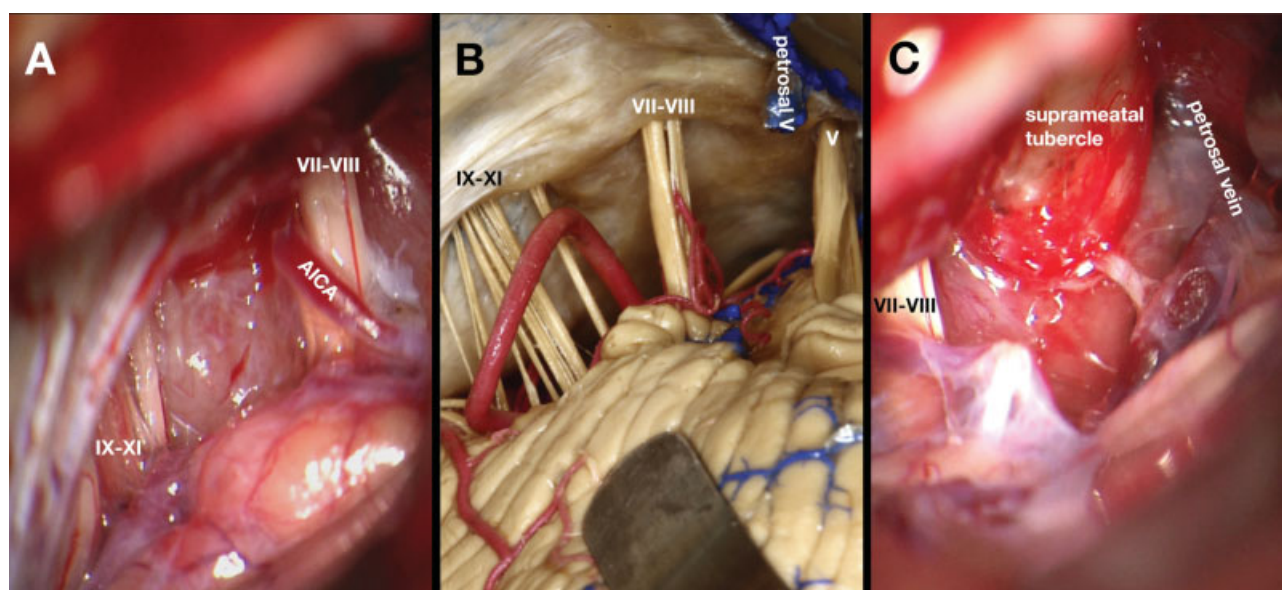


Fig. 2 Illustration of the corridors used for microsurgical resection of this petroclival meningioma: (A) the corridor between the lower cranial nerves and the facial-vestibulocochlear nerve complex, (C) the corridor between the facial-vestibulocochlear nerve complex and the trigeminal nerve, (B) dissection in a human specimen for anatomical correlation.