

Suboccipital Lateral Approach for Resection of Cerebellopontine Angle Meningioma: Operative Video and Technical Nuances

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Abstract

We present the case of a 34-year-old woman, who presented to our department with a 4 months history of dizziness, hearing loss, and tinnitus on the right side. MRI (magnetic resonance imaging) scan demonstrated a large extra-axial lesion, suggestive of a meningioma, with dural attachments to the petrosal bone surface and tentorium, closely related with the trigeminal, abducens, facial, vestibulocochlear, and lower cranial nerves in the right side. Treatment options were discussed with the patient, and surgical resection was selected to remove the lesion, and decompress the cranial nerves and brainstem. The surgery was performed with a patient in a semi-seated position with head placed in a flexed, nonrotated position. A right lateral suboccipital approach was performed, exposing the right transverse and sigmoid sinuses. After dura opening, microsurgical dissection was used to open the cisterna magna, and obtain cerebellum relaxation. That was followed by identification of cranial nerves VII-XII and then identification of the tumor itself. Tumor debulking was then performed with use of suction and ultrasonic aspirator. After extensive resection, the tumor margins were dissected away from brainstem, cerebellum, and cranial nerves. Finally, the tumor attachment to the tentorium was coagulated and cut and the tumor was completely removed. Postoperative MRI confirmed complete resection of the tumor. The patient was discharged on the 1st week after surgery, with no additional postoperative deficits or complications. The link to the video can be found at: https://youtu.be/aZ3jhZTAeAA.

Keywords

- skull base
- meningioma
- cerebellopontine angle
- suboccipital lateral approach
- operative video

Conflict of Interest None.



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Fig. 1 MRI (magnetic resonance imaging) images–Preoperative and Postoperative.



Fig. 2 Intraoperative image.