



Suboccipital Retrocondylar Approach for an Anterolateral Foramen Magnum Meningioma

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Abstract

Objectives This study was to demonstrate surgical technique for an anterolateral foramen magnum meningioma.

Design Present study is presented through an operative video.

Setting This study is conducted at the Department of Neurosurgery, Tîrgu Mureş, Romania.

Participants A 62-year-old female is the participant who was diagnosed with a foramen magnum meningioma.

Main Outcome Measures Complete surgical resection of the tumor with no postoperative deficits or complications.

Results A 62 years-old female was admitted for left hemilingual atrophy, dysphonia, right hemiparesis grade 2 of 5, right hemihypesthesia, and cervical pain. The magnetic resonance imaging (MRI) showed a right foramen magnum meningioma, sized approximately 2 cm in all planes (→ Fig. 1). This was classified with the Bernard system as an intradural foramen magnum meningioma with anterolateral insertion to the dura mater and below the vertebral artery. A suboccipital, retrocondylar, and c1 right hemilaminectomy approach was performed. Using microsurgical tumoral decompression techniques, ultrasonic aspiration, and following the natural cleavage planes, complete tumor removal was achieved (→ Fig. 2). The patient presented an uneventful postoperative course with no postoperative new neurological deficits and was discharged at home 7 days following surgery. Control MRI at 6 months (→ Fig. 1) and 2 years showed no tumor residue or recurrence. Neurologic status at 6 months was excellent, showing complete remission of symptoms.

Conclusion Retrocondylar suboccipital approach is a safe and feasible option for anterolateral foramen magnum meningiomas provided that natural corridors and dynamic retraction are used.

The link to the video can be found at: <https://youtu.be/jpxMcjCpN6E>.

Keywords

- ▶ foramen magnum meningioma
- ▶ retrocondylar approach
- ▶ skull base
- ▶ dynamic retraction



Conflict of Interest

None declared.

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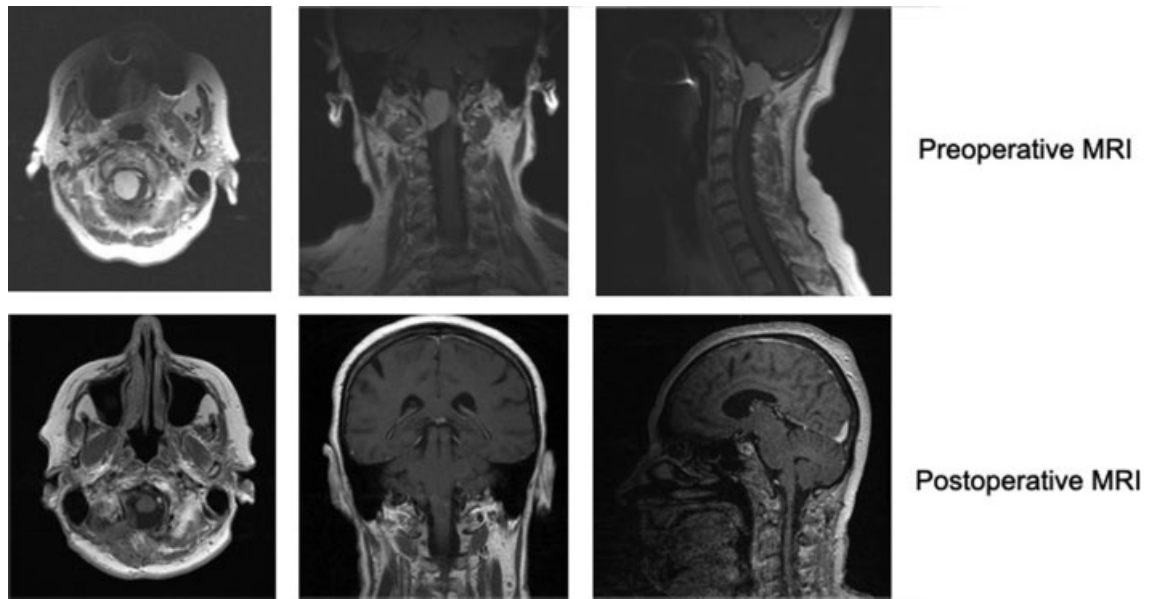


Fig. 1 Preoperative and postoperative imaging of the foramen magnum meningioma. MRI, magnetic resonance imaging.

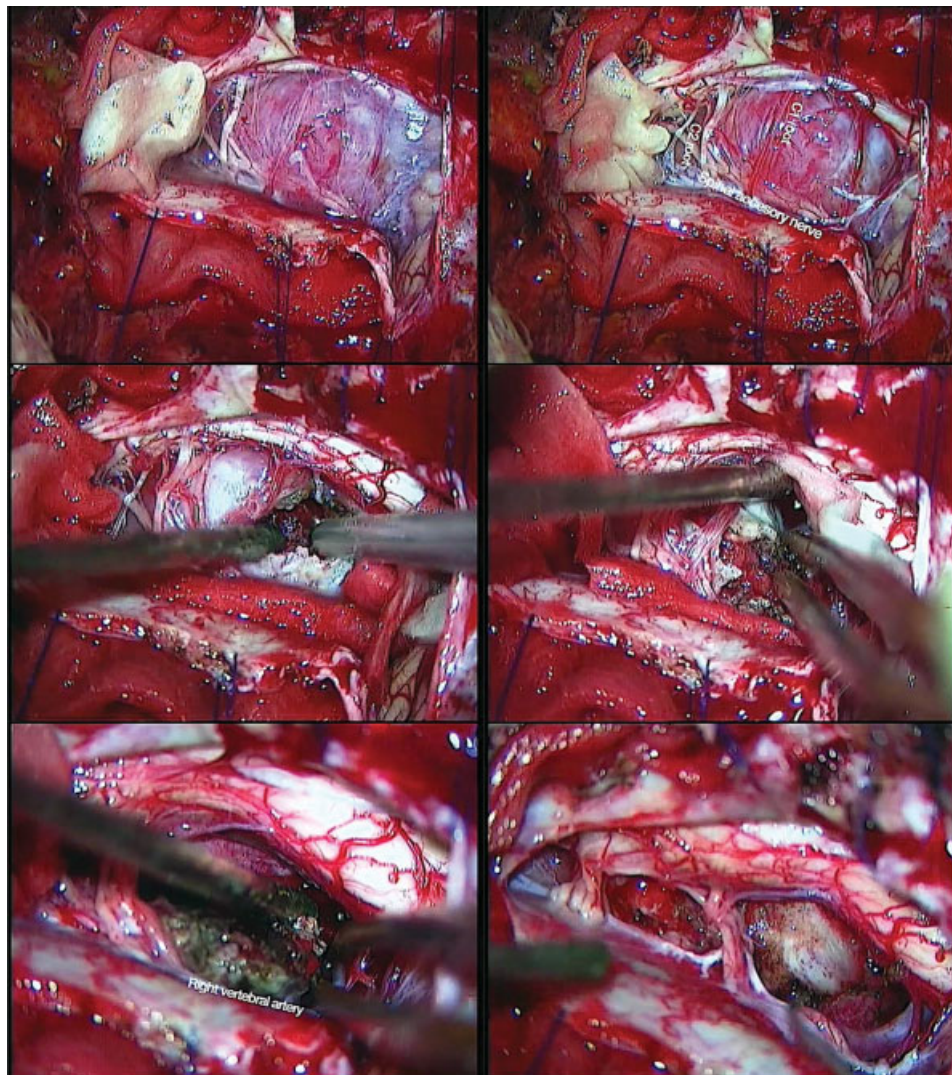


Fig. 2 Various intraoperative aspects showing: initial aspect of tumor and local anatomy, spinal accessory nerve, right c1 and c2 roots, tumor resection using natural corridors, identification of right vertebral artery, and final postoperative aspect showing complete resection.