



Video Abstract

Surgical management of atypical trigeminal neuralgia secondary to tentorial meningioma: 2D video

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ABSTRACT

Background: Tentorial meningiomas (TM) are complex entities with distinguished clinical, radiological and surgical considerations. They comprise approximately 3 - 6% of all intracranial meningiomas¹. TM have been classified in 5 subgroups according to the modified Yasargil's classification, based on their location 2 and 3. Those located at the free margin of the tentorium are still challenging for neurosurgeons, with high morbidity and mortality. Atypical trigeminal neuralgia (ATN) is a type of trigeminal neuralgia that is identified by the constancy of symptoms. They experience less intense pain, but a constant dull aching or burning pain, and it is frequently misdiagnosed. Although it is well known that typical trigeminal (TN) neuralgia responds very well to medical treatment and are related with posterior fossa tumors, ATN is less likely. In this video we demonstrate the microsurgical resection of group 1 tentorial meningioma in the treatment of atypical trigeminal neuralgia.

Case Description: A previously healthy 63-year-old female came to our service complaining of long lasting, intermittent, right facial pain for two years. On neurological examination, the patient had hypoesthesia in the territory of maxillae (V2) branch of the right trigeminal nerve. She had no other complaints on the physical examination. Initial treatment with carbamazepine and pregabalin was performed, however, it could not be further increased because of the maximal doses and side effects. Radiological investigation was carried out with cranial computed tomography (CT) and magnetic resonance image (MRI), which showed a high signal density mass lesion in the free margin of the tentorium, with extension to the right cerebello pontine angle (CPA), compressing the trigeminal nerve, that exhibited homogeneous contrast enhancement, suggestive of tentorial meningioma. Given the size, the location of the mass, and no response to the medical treatment, microsurgical resection was performed.

Conclusion: The postoperative period was excellent, without any neurological deficit. The patient consented with publication of her images and videos.

Keywords: Microsurgical resection, Skull base, Tentorium meningioma, Trigeminal neuralgia

Videos available on:

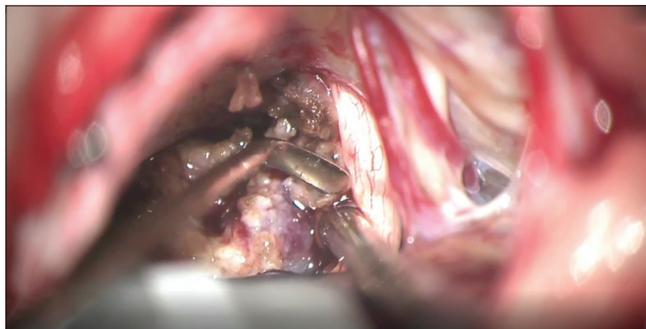
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Annotations^[1-5]

- 1) 0:07 – Clinical presentation and Neurological examination.
- 2) 0:28 – Neuroimaging findings.

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Video 1: Surgical video.

- 3) 0:49 – Rationale for the procedure, risks of the procedure and potential benefits, and alternatives and why they were not chosen.
- 4) 1:44 – Description of the setup.
- 5) 1:59 – Positioning.
- 6) 2:09 – Key surgical steps.
- 7) 3:39 – Surgical video.
- 8) 6:46 – Brief review of clinical and imaging background.
- 9) 7:45 – Post-operative course.

Declaration of patient consent

The authors certify that they have obtained all appropriate patient consent.

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Conflicts of interest

There are no conflicts of interest.

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