



Video Abstract

Endoscopic transsphenoidal resection of parasellar abducens nerve schwannoma: A video demonstration

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Quick Response Code:



ABSTRACT

Background: The abducens nerve schwannoma (ANS) in the sellar and parasellar region are extremely rare. Only around two dozen of ANS have been described in the world literature. These cases were, however, operated through the transcranial approach. We demonstrate, with the help of an edited video, that ANS located in the sellar and parasellar region can be safely and effectively operated through a transsphenoidal approach under endoscopic visualization.

Case Description: Here, we present a case of a 30-year-old male who presented with a nine-month history of diplopia, weight gain, and loss of sexual functions. On neuro-ophthalmological examination, a mild abducens palsy on the left side. Other cranial nerves were intact. On endocrinological testing, mild hypopituitarism on gonadal and thyroid axes. Magnetic resonance imaging (MRI) scan showed a contrast-enhanced cystic lesion in the sellar and parasellar region extending into the left temporal fossa. The patient underwent endonasal transsphenoidal endoscopic resection. A binostril standard approach was used, the left middle concha resected, and the nasoseptal flap was raised [Video 1]. The tumor was relatively soft and avascular yet invasive and could be removed with straight and curved suctions and gentle curettage. Subcapsular dissection was the key to saving the sixth nerve. Only minimal remnant posterior to the left internal carotid artery was assumed to be left behind. No cerebrospinal fluid (CSF) leakage was noted during the surgery. The skull base defect was reconstructed with the left-sided nasoseptal flap [Video 1]. Postoperatively, no new cranial nerve deficits. Diplopia is preoperative. Endocrine functions were unchanged. No CSF leak was observed. Postoperative MRI scan showed a near total resection. There was no operation-relevant complication. Diplopia resolved completely in a follow-up period of 6 months.

Conclusion: The endoscopic transsphenoidal route is safe and effective for the resection of parasellar ANS. Subcapsular dissection is key to keep the sixth nerve intact.

Keywords: Abducens nerve schwannoma, Endoscopic, Transsphenoidal surgery

[Video 1]-Available on:

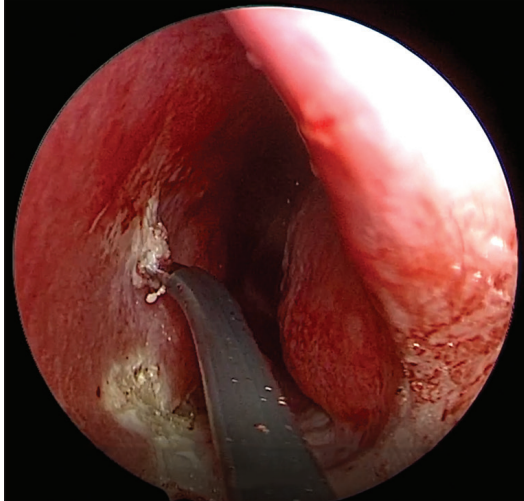
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ANNOTATIONS

Case Presentation: 0-10 Seconds
Approach to Tumor: 11-60 Second
Tumor removal: 1:15-2:50
Closure: 3:00-3:39.

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Video 1: Endoscopic transsphenoidal resection of parasellar abducens nerve schwannoma: A video demonstration.

Ethical approval

The Institutional Review Board approval is not required.

Declaration of patient consent

Patient's consent is not required as patients identity is not disclosed or compromised.

Financial support and sponsorship

Nil.

Conflicts of interest

There are no conflicts of interest.

Use of artificial intelligence (AI)-assisted technology for manuscript preparation

The authors confirm that there was no use of artificial intelligence (AI)-assisted technology for assisting in the writing or editing of the manuscript and no images were manipulated using AI.

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