



Video Abstract

Surgical excision of trigeminal (V3) schwannoma through endoscopic transpterygoid approach

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ABSTRACT

Background: Endoscopic endonasal transpterygoid (EET) approach is well suited for trigeminal schwannomas.

Case Description: A 25-year-old female presented with the right hemifacial pain for 1 month. Examination revealed mild sensory loss to both touch and pain in the right V2 and V3 dermatomal distribution. On magnetic resonance imaging, a well-defined extra-axial lesion was seen in the right infratemporal fossa extending intracranially, widening the foramen ovale. Erosion of the lateral pterygoid plate was evident on computed tomography. Diagnosis of a trigeminal schwannoma was made and excision through endoscopic transnasal transpterygoid approach was planned. After adequate nasal decongestion, lateralization of the inferior turbinate followed by medialization of middle turbinate done to expose the posterior part of the lateral nasal wall. Sphenopalatine foramen was visualized and the branches of the sphenopalatine artery to turbinate were coagulated followed by partial inferior and middle turbinectomy. Next, antegrade uncinectomy, bullectomy, and middle meatal anastomy performed. Anterior and posterior ethmoidectomy was done to gain access to the sphenoid sinus. Medial maxillectomy done, posterior maxillary sinus wall exposed and drilled to reach infratemporal fossa harboring the tumor. The lateral recess was further exposed to visualize the vidian and maxillary nerves. Palatine bone and pterygoid body along with the medial pterygoid plate were completely drilled to expose the tumor capsule, which was gently dissected off. Complete tumor excision was performed uneventfully.

Conclusion: EET provides a good oncological and functional outcome. With a lesser risk of surgical morbidities, it is an excellent alternative to conventional skull base approaches to trigeminal schwannomas in the modern era.

Keywords: Endoscopic, Transpterygoid approach, Trigeminal schwannoma

Videos available on: <https://vimeo.com/381344833/6561a26401>.

Declaration of patient consent

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

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Conflicts of interest

There are no conflicts of interest.

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