



Middle Fossa Approach for Resection of an Intracanalicular Vestibular Schwannoma

Walter C. Jean¹ Kyle Mueller² H. Jeffrey Kim³

¹Department of Neurosurgery, George Washington University, Washington, District of Columbia, United States

²Department of Neurosurgery, Georgetown University, Washington, District of Columbia, United States

³Department of Otolaryngology, Georgetown University, Washington, District of Columbia, United States

Address for correspondence Walter C. Jean, MD, Department of Neurosurgery, George Washington University, 2150 Pennsylvania Avenue, Northwest 7th Floor, Washington, DC 20037, United States (e-mail: wjean@mfa.gwu.edu).

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Abstract

Objective This video was aimed to demonstrate the middle fossa approach for the resection of an intracanalicular vestibular schwannoma.

Design Present study is a video case report.

Setting The operative video is showing a microsurgical resection.

Participant The patient was a 59-year-old man who presented with worsening headache and right-side hearing loss. He was found to have a right intracanalicular vestibular schwannoma. After weighing risks and benefits, he chose surgery to remove his tumor. Since his hearing remained “serviceable,” a middle fossa approach was chosen.

Main Outcome Measures Pre- and postoperative patient photographs evaluated the muscles of facial expression as a marker for facial nerve preservation.

Results A right middle fossa craniotomy was performed which allowed access to the floor of the middle cranial fossa. The greater superficial petrosal nerve (GSPN) and arcuate eminence were identified. Using these two landmarks, the internal acoustic canal (IAC) was localized. After drilling the petrous bone, the IAC was unroofed. The facial nerve was identified by stimulation and visual inspection and the tumor was separated from it with microsurgical dissection. In the end, the tumor was fully resected. Both the facial and cochlear nerves were preserved. Postoperatively, the patient experienced no facial palsy and his hearing is at baseline.

Conclusion With radiosurgery gaining increasing popularity, patients with intracanalicular vestibular schwannomas are frequently treated with it, or are managed with observation. The middle fossa approach is therefore becoming a “lost art,” but as demonstrated in this video, remains an effective technique for tumor removal and nerve preservation. The link to the video can be found at: <https://youtu.be/MD6o3DF6jYg>.

Keywords

- middle fossa
- vestibular schwannoma
- facial nerve
- vestibulocochlear nerve

Conflict of Interest
None declared.



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