Intracranial vagal nerve schwannoma - Presentation, surgical options and outcomes

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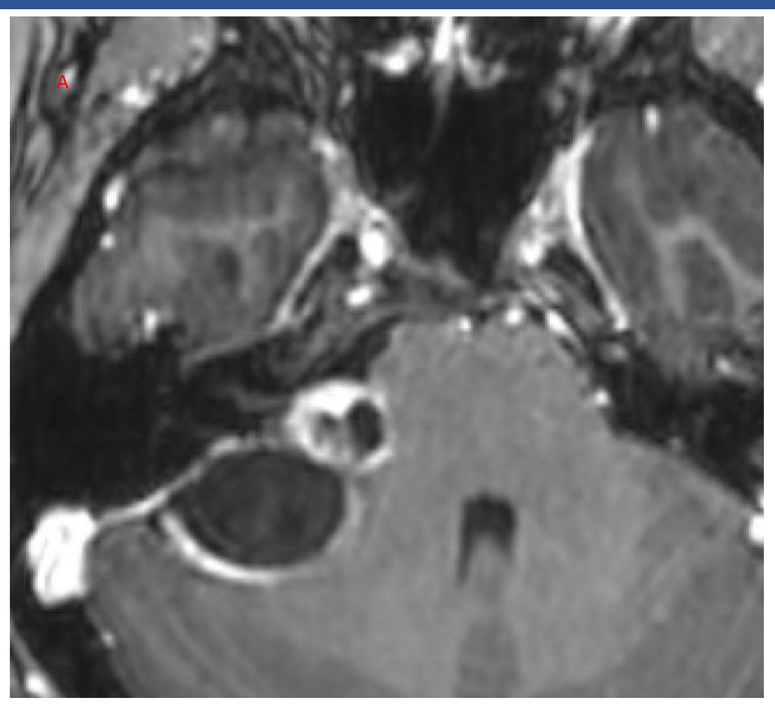

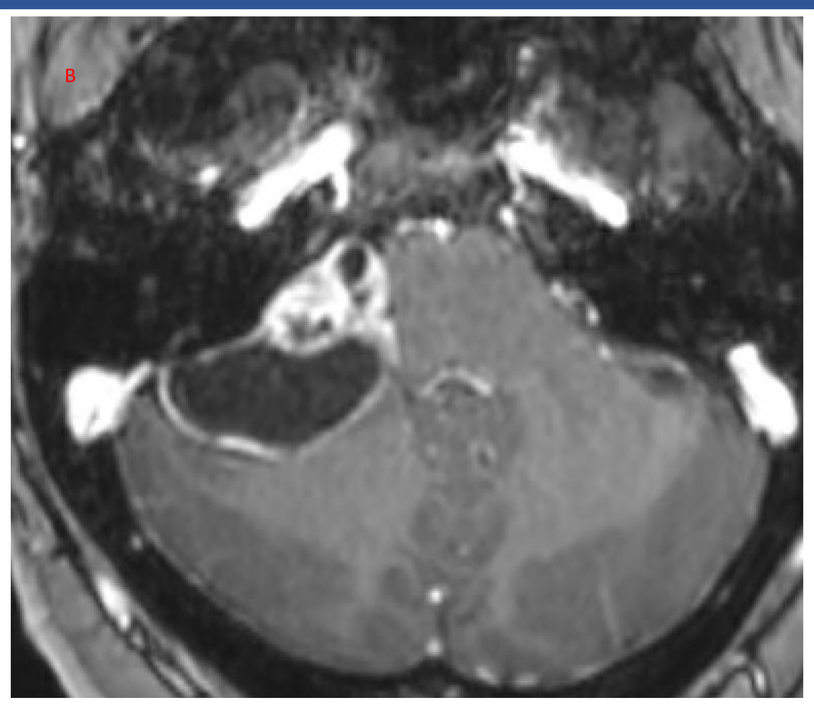

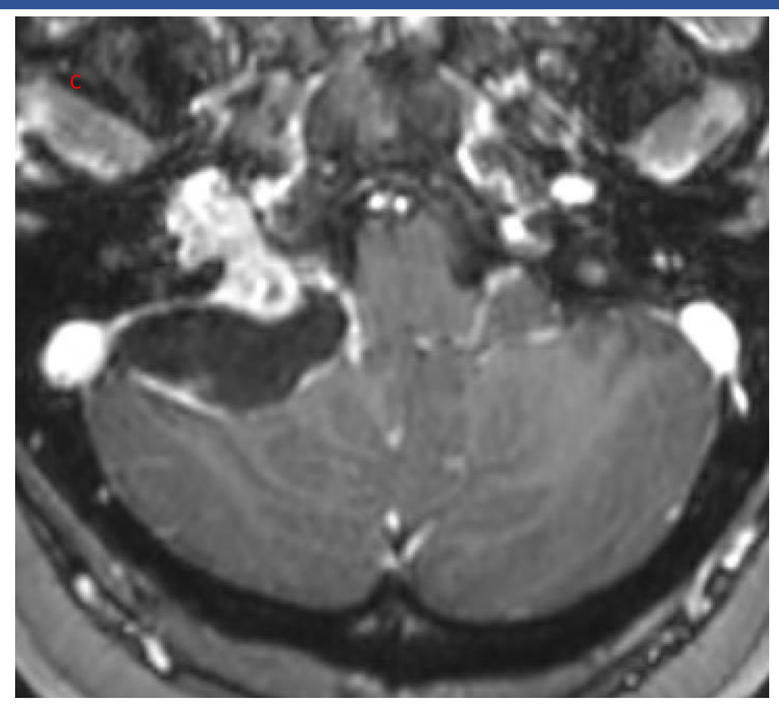

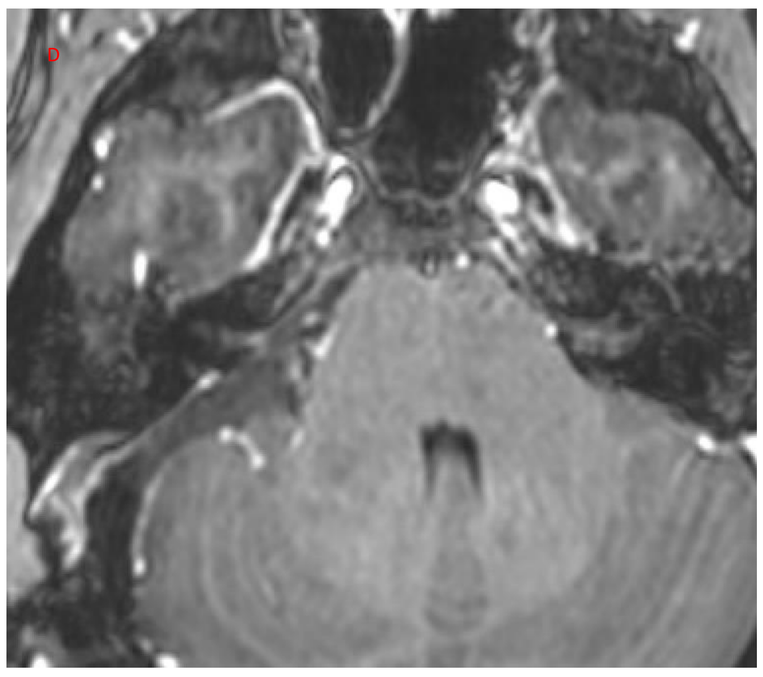

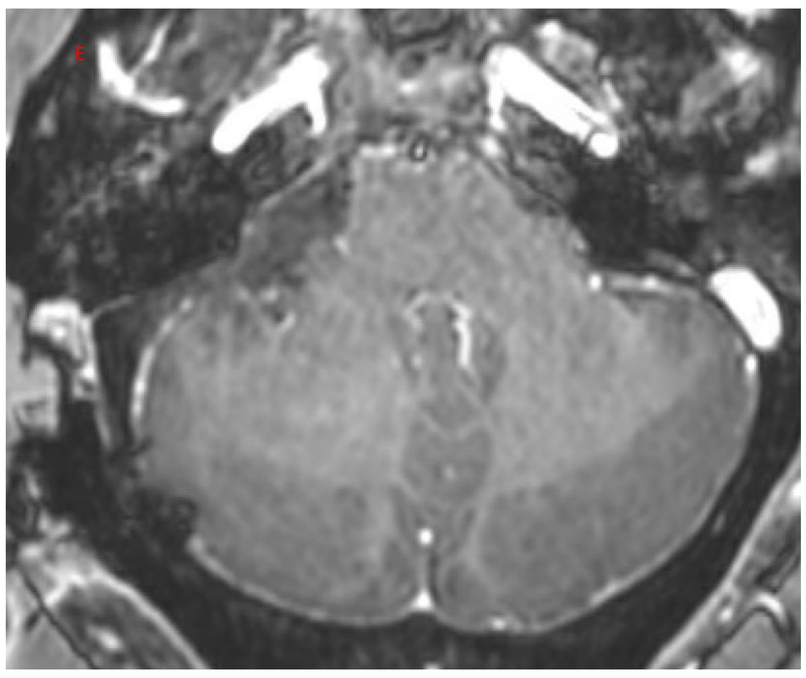

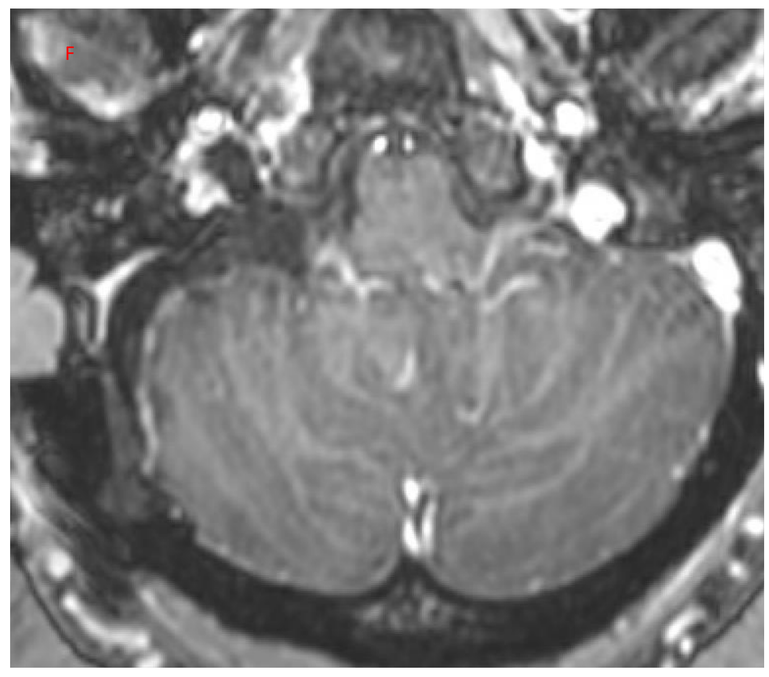

Introduction

Vagal nerve schwannomas are rare types of schwannomas. Majority of these tumors present as masses in the neck. Intracranial vagal nerve schwannomas are even rare.

Methods and Materials

A retrospective analysis was performed, and a single case of intracranial vagal nerve schwannoma was identified.

Case Presentation

Patient was a 33yr female, single mother of 5. She presented with dizziness and gait imbalance. She was diagnosed with a large posterior fossa mass extending into the jugular foramen displacing internal carotid artery and jugular vein, anteriorly and posteriorly, respectively. There was significant mass effect from posterior fossa mass.

Surgical Approach

Surgical options including retrosigmoid craniotomy alone with posterior mass resection versus more aggressive petro-occipital trans-sigmoid (POTS) approach to attempt gross total resection. Her vocal cord analysis and swallow study was normal. After lengthy discussion with the patient and her current social situation, it was decided to proceed with retrosigmoid craniotomy with endoscopic assistance. Posterior fossa tumor was resected which was extending up to tentorium(Pre-op: A, B, C. Post-op: D, E, F). Using 30-degree endoscope tumor was chased into the jugular foramen up to carotid artery (G). She tolerated the procedure well with mild facial nerve weakness (HB II). She was evaluated by physical therapy and discharged home on post-operative day 2. On follow-up appointment in 6 weeks, her facial weakness had improved to HB I. She is being closely monitored for tumor progression.

Discussion

Patients with intact cranial nerves present a challenge in decision making. Patient's young age puts her at greater risk for tumor recurrence. At the same time, a single mother of 5 kids, youngest being 5yrs old, presents another challenge. Aggressive resection carries a significant complication risk which could prevent the patient from taking care of her young kids. Our plan is to proceed with radiation and closely monitor cranial nerve function. If the tumor progresses after radiation treatment, considering her young, we will proceed with more aggressive surgical resection. As for now, she remains asymptomatic.

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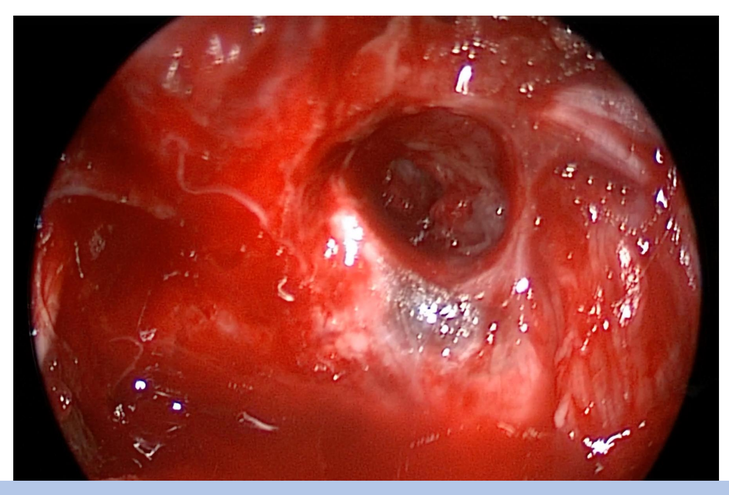

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