Case Report

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# Nasal Septal Schwannoma: A Rare Tumour at an Atypical Site

Ear, Nose and Throat Section

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## ABSTRACT

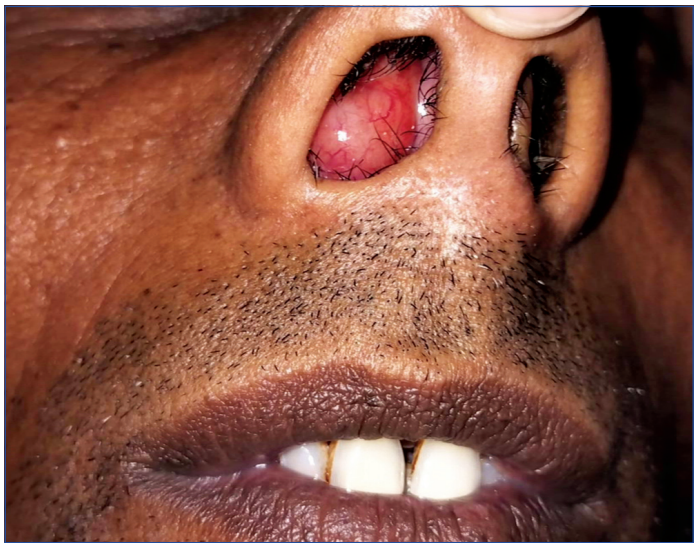
Schwannomas are benign tumours originating from Schwann cells of peripheral nerves. Although common in the head and neck region, their occurrence in the nasal cavity is rare, and involvement of the nasal septum is exceptionally uncommon. Due to their non-specific symptoms and rarity, nasal schwannomas often pose a diagnostic challenge. In this report, we present a case of a schwannoma arising from the right side of the nasal septum in a 50-year-old male, who presented with a slowly enlarging nasal mass and progressive nasal obstruction. The mass was excised surgically, and histopathological evaluation confirmed the diagnosis. This case highlights the diagnostic challenges and therapeutic considerations in managing nasal septal schwannomas, a seldom-seen entity.

**Keywords:** Benign nerve cell tumour, Nasal schwannomas, Schwann cell

## CASE REPORT

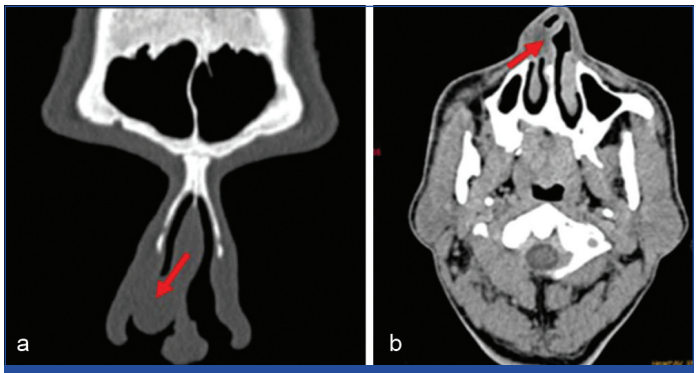
A 50-year-old male presented to the Otorhinolaryngology outpatient clinic with a one-year history of progressive nasal obstruction and a nasal mass on the right side. The onset of symptoms was insidious, and the patient experienced a gradual increase in nasal obstruction on the right side. The patient denied any history of epistaxis, blood-stained nasal discharge, facial pain, or anosmia. Systemic examination was within normal limits.

Anterior rhinoscopic examination revealed a well-defined, non-ulcerated, polypoid mass approximately 2×2 cm in size occupying the right anterior nasal cavity at the level of the nasal vestibule [Table/Fig-1]. On the probe test, the mass was non-friable and did not bleed on touch. The probe could be passed around the lesion on all sides except medially, prompting its origin from the nasal septum. Posterior rhinoscopic examination within standard limits, no mass visualised.



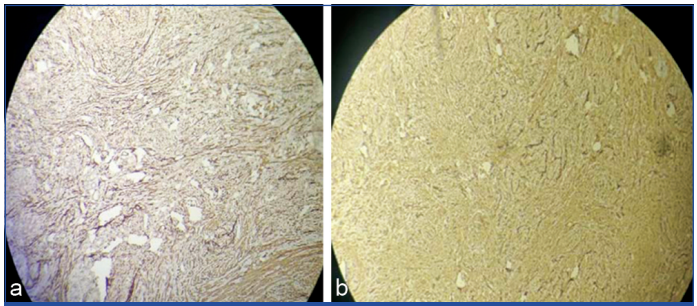
**[Table/Fig-1]:** Pinkish polypoidal nasal mass seen in the right nasal cavity.

A Contrast-Enhanced Computed Tomography (CECT) scan of the paranasal sinuses demonstrated a well-circumscribed, minimally enhancing, mixed-density ovoid mass measuring 18×13×15 mm within the right anterior nasal cavity. The lesion appeared to arise from the mucosa of the anterior portion of the nasal septum. There was no evidence of bony erosion or intracranial extension [Table/Fig-2].




**[Table/Fig-2]:** Computed Tomography of Paranasal Sinuses (CT PNS) showing mass in right anterior nasal cavity (red arrow); a) coronal view; b) axial view.

The patient underwent complete endonasal endoscopic excision of the mass under general anaesthesia. The resected specimen was submitted for histopathological examination, which revealed features consistent with a benign schwannoma, characterised by spindle-shaped cells arranged in Antoni A and B areas. Subsequent immunohistochemical staining showed strong positivity for S-100 protein and vimentin, confirming the diagnosis of a benign peripheral nerve sheath tumour (schwannoma) [Table/Fig-3].




**[Table/Fig-3]:** Immunohistochemical staining showed strong positivity for S-100 protein and vimentin, suggestive of schwannoma (10x).

The postoperative period was uneventful. At six months of follow-up, the patient remained asymptomatic with no clinical or radiological evidence of recurrence.

## DISCUSSION

Schwannomas are benign tumours arising from Schwann cells of the peripheral nerve sheath. They were first recognised as a distinct entity by Verocay J in 1910, and later described in detail by

Stout in 1935, who differentiated them from neurofibromas based on their encapsulated nature and lack of axonal involvement [1,2]. Within the head and neck region, they comprise roughly one-quarter to nearly half of all schwannomas; however, the sinonasal tract accounts for only a small fraction, estimated at less than 4% of reported cases [3]. In earlier reports, the size of nasal septum schwannomas has varied widely, from small lesions to masses exceeding 4 cm [4-8]. Our patient's lesion, measuring 18×13×15 mm, falls in the smaller-to-moderate range. The most frequent symptom in nasal septum schwannomas is unilateral nasal obstruction, sometimes accompanied by epistaxis, rhinorrhoea, or facial discomfort [7]. Interestingly, our patient presented with only progressive right-sided nasal blockage, without any bleeding, pain, or swelling.

Radiological imaging is vital in assessing tumour characteristics and extent. On CT, schwannomas usually appear as well-circumscribed soft-tissue masses, sometimes causing pressure-induced bony remodeling but rarely frank destruction [5,6]. Magnetic Resonance Imaging (MRI), when performed, can demonstrate isointense-to-hypointense signals on T1, hyperintense signals on T2, and occasionally the "target sign" representing mixed Antoni A and Antoni B areas [9].

From a histopathological standpoint, sinonasal schwannomas may pose a diagnostic challenge because their spindle cell morphology can mimic other benign or low-grade spindle cell tumours such as neurofibromas or solitary fibrous tumours [10]. Overall, our case aligns with the literature in terms of size, radiologic appearance, and histological profile, yet differs in two crucial aspects: it is a purely obstructive presentation and located in the anterior septum. The relatively modest size at the time of diagnosis likely reflects early presentation and facilitated complete surgical excision. Total removal remains the definitive treatment, and recurrence is exceptionally rare when excision is complete.

## CONCLUSION(S)

Nasal septal schwannomas are exceedingly rare benign tumours of neural origin, often presenting with non-specific symptoms that mimic more common intranasal pathologies. This case highlights the importance of considering schwannoma in the differential diagnosis of unilateral nasal masses. Imaging modalities, such as CT, play a pivotal role in preoperative assessment, while definitive diagnosis relies on histopathological examination and immunohistochemical confirmation, with S-100 protein positivity. Complete surgical excision remains the treatment of choice, offering excellent outcomes with minimal risk of recurrence. Early recognition and accurate diagnosis are crucial for ensuring appropriate management and avoiding unnecessary interventions.

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