

## Nasal Septal Schwannoma – A Rare Cause for Unilateral Nasal Obstruction

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**Abstract:** Very few cases of Schwannoma arising from nasal septum have been reported in the literature. We present a 36 year old male who came with history of unilateral nasal obstruction since 3 years. After investigations excision biopsy was done and diagnosis of Schwannoma was made based on histological findings. We briefly discuss regarding clinical presentation and therapeutic approach for the same.

**Keywords:** Schwannoma, nasal septum, excision biopsy

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### INTRODUCTION

Schwannoma is a benign, slow-growing nerve sheath tumor that can arise in any peripheral nerve covered with supporting Schwann cells [1]. The most common region for schwannoma is the head and neck with the internal acoustic meatus being the most common site for presentation of schwannoma in the form of vestibular schwannoma (previously known as acoustic neuroma) [1,2]. Within the head and neck, sinonasal origin of schwannomas makes up only 4% of schwannoma presentations [5]. Nasal septal schwannoma is rarer, with only few cases reported previously in the literature.

### CASE REPORT

A 36 year old male patient came with the complaints of right sided nasal obstruction which started 3 years back and gradually progressed with complete right nasal block since 2 years. Anterior rhinoscopy revealed a pale pink mass which almost completely occupied the right nostril and pushing the septum towards opposite side (Fig.1). Left nostril was otherwise normal. The remainder of his otolaryngologic and physical examinations was unremarkable.

Complete blood count, biochemistry profile and coagulation studies were all within normal limits. Plain CT PNS showed a well-defined mass occupying most of the right nostril arising from the nasal septum and septum was pushed to other side. Paranasal sinuses were normal.

Patient was taken up for endoscopic excision biopsy of mass as an elective procedure under general anesthesia. Intra-operatively mass found to be attached to right side of septum at the level of middle turbinate

and tumor was well encapsulated. Mass was completely excised (Fig.2) endoscopically and the area of attachment was cauterized.

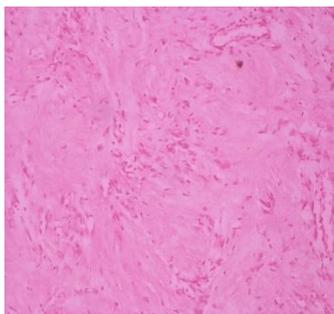
Histopathological examination revealed hypercellular area showing spindle shaped cells with Verocay body, hypocellular area with loose stroma and few stromal cells and scattered atypical cells with hyperchromatic nuclei and occasional multilobated nuclei (Fig.3).



**Fig-1: Endoscopic appearance of the tumor**



**Fig-2: gross appearance of the tumor after excision**



**Fig-3: histopathological appearance of the tumor**

## DISCUSSION

Schwann cells are present along the peripheral nerves and are responsible for the myelination of the peripheral nerves. Schwannoma is a tumor arising from Schwann cells and was first described as a distinct pathological entity by Verocay[1]. Most common site of origin of schwannomas in head and neck is vestibular nerve. The incidence of sino-nasal schwannoma is about only 4% and septal schwannoma is a rarer presentation with few cases reported in the literature [5].

The clinical symptom of sinonasal schwannoma is usually varied and non-specific. Patients' chief complaint may include nasal obstruction, epistaxis, rhinorrhoea, anosmia, or facial swelling and pain [4]. The clinical presentation of a schwannoma can also be hypoesthesia or paresthesia that is caused by the compression of the involved nerve by tumor [4]. Although specific diagnosis from imaging study is difficult, CT scan is helpful in evaluating the origin, localization of the tumor and involvement of vital structures (i.e., carotid artery, skull base, orbit,) around the lesion [3, 4], thus help to choose the approach for surgical resection. Histopathologically, schwannomas representatively are well circumscribed and composed of spindle cells organized as cellular areas with nuclear palisading (Antoni A) and paucicellular areas (Antoni B). If a schwannoma does not show the characteristic histology findings, immunohistochemical S-100 protein staining may be helpful for the diagnosis of schwannoma. The treatment for nasal schwannoma is a complete surgical resection of the mass through approach that allows adequate exposure. There are no cases of recurrence by surgical therapy in the literatures.

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