

## **A RARE CASE OF SEPTAL SCHWANNOMA PRESENTING AS UNILATERAL NASAL MASS.**

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### **ABSTRACT-**

A schwannoma, also known as neurilemmoma is a tumor of the nerve sheath, occurring in myelinated nerve cells. They arise from the Schwann cells of the peripheral nervous system and are almost always benign. Schwannomas constitute 25-45% of tumors of the head and neck. About 4% of head and neck schwannomas present as a sinonasal schwannoma.<sup>[1]</sup> Schwannomas almost always occur as solitary lesions.<sup>[2]</sup> A case of schwannomas arising from the membranous part of the nasal septum presenting as a cystic swelling is reported.

### **CASE PRESENTATION –**

A female patient, 26-years of age, presented with a left sided nasal obstruction since 2 years. It was gradual in onset and progressive in nature over 2 years. There was occasional history of mucoid discharge from the nasal cavity. She had no complaints of epistaxis, anosmia, trauma, facial numbness or pain. Past and family history was not contributory.

External examination of the nose was normal. On anterior rhinoscopy, the left nasal cavity revealed a single, pale mass arising from the membranous septum. The surface was smooth, and it was non-tender. On probe test, the probe could be passed in all directions except medially, owing to its attachment to the nasal septum. On performing cold spatula test, there was absence of fogging on the left side. Posterior rhinoscopy was normal. The rest of otorhinolaryngological, head and neck and general examination was normal.

All routine radiological and blood investigations were done and were within normal limits. After obtaining fitness for surgery by anesthesiologist and written informed consent by the patient, the patient was taken up for excision of the nasal mass under local anaesthesia.

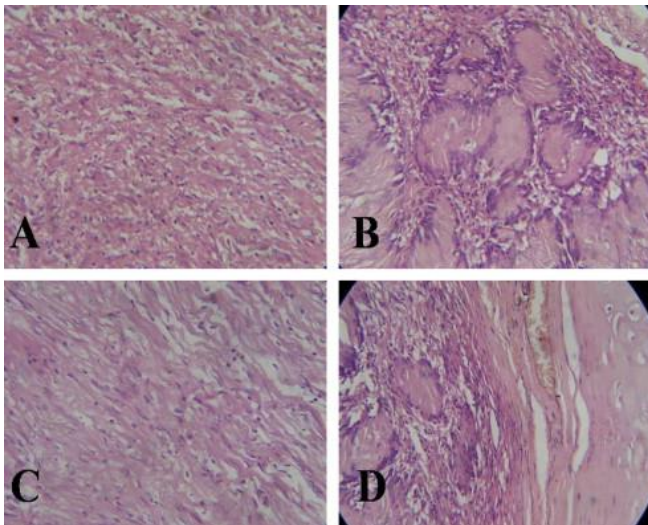
Figure 1 shows the septal mass intraoperatively. An elliptical incision was taken over the swelling and dissection was done in a uniform plane. The swelling, measuring approximately 2 x 1 cm was excised and was sent for histopathological testing. Hemostasis was achieved and the post-operative period was uneventful.

**Figure 1**



On HPE, a well-circumscribed neoplasm composed of benign spindle shaped cells arranged in follicles, exhibiting hypo and hypercellular areas was reported. Verrucae bodies were also seen, with no evidence of malignancy or atypia, suggestive of schwannoma (Figure 2).

**Figure 2**



## **DISCUSSION –**

Any nerve with schwann cells can develop schwannoma, with the exception of ocular and olfactory cells, which lack Schwann cell sheaths. It is typically challenging to pinpoint the neural origin of nasal schwannoma because they can occasionally be surgically removed without impairing the original nerve function.<sup>[3]</sup> Schwannomas are thought to have peripheral motor, sensory, sympathetic, and cranial nerve sheath as their neural sources.

The literature mentions approximately only 70 cases of nose and paranasal sinus schwannomas that are mostly seen in adults aged 40–60 years and without gender or racial predilection.<sup>[4]</sup>

Nasal schwannomas remain asymptomatic for quite a long time as they are slow growing in nature. The most common presenting feature is nasal obstruction. Preferential locations have been reported as being the ethmoid sinuses, followed by the maxillary sinus, the nasal pits, and the sphenoid sinus. Localization to the membranous part of the nasal septum is rare.<sup>[5]</sup> Septal schwannomas arise from the autonomic or sensory nerves within the nasal septum. There is no apparent site predilection on the septum.

Differential diagnosis for unilateral tumors includes nasal polyps (22.2%), antrochoanal polyps (19%), chronic rhinosinusitis (12.7%), concha bullosa (11.1%), retention cysts (6.3%), mucocele (3.2%), and schwannomas in 1.6% of the cases.<sup>[6]</sup>

Microscopically, schwannomas can exhibit two architectural patterns, Antoni type A and Antoni type B, in different proportions. Antoni type A area is composed of an organized compact cellular stroma with elongated spindle cells. Parallel rows of palisading nuclei can be seen in this highly differentiated tissue. Antoni type B area is composed of disorganized loose myxoid stroma with few spindle cells. Groups of compact parallel nuclei are also seen and are known as “verocay bodies”.<sup>[7]</sup>

Using a method that allows for optimal exposure, extensive local excision is the mainstay of treatment for schwannoma. Considerations for functionality and appearance should be made in addition to schwannoma treatment. Over external techniques like lateral rhinotomy, the endoscopic procedure has become more popular.

In our case, the swelling, being localized to the anterior part of the nasal septum, was easily accessible, and could be excised en bloc without compromising the functionality of the nose. Recurrence in a single schwannoma is rare, if completely excised.<sup>[8]</sup>

## **CONCLUSION-**

We report a case of a 24-year-old female who presented with a nasal mass in the left nasal cavity, histopathologically diagnosed as schwannoma, which was treated by complete excision of the swelling through transnasal approach. Patient has not had any recurrence on follow up. Schwannomas of the head and neck region constitute about 25-45% of all tumors, septal schwannomas being only about 4%. Therefore, even though their occurrence is rare, the possibility of a swelling being a schwannoma must always be taken into consideration and included in the differential diagnosis of any nasal mass case.

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