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Nasal Vestibular Schwannoma – A Rare Case Report

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Abstract **Case Report**

Schwannomas are benign peripheral nerve sheath tumor that may occur in soft tissues, internal organs or spinal nerve roots. Nasal schwannoma accounts for only 4 % of head and neck nerve sheath tumors. Here we report a case of nasal schwannoma in 45-year-old female who presented with a history of nasal obstruction for 2 years. The mass was removed successfully without any postoperative complications.

Keywords: Nasal Vestibular Schwannoma.

INTRODUCTION

Peripheral Nerve Sheath tumors arise from cells of the peripheral nerve, including Schwann cells, perineural cells and fibroblasts. Schwannoma arise from the neural crest derived Schwann cells. They may be associated with Neurofibromatosis Type 2[1]. Schwannoma of the head and neck are uncommon and accounts for 25-45% of the extracranial schwannomas. Schwannoma of the nose or paranasal sinuses are even rarer and accounts for less than 4 % of the cases [2].

CASE REPORT

A 45-year female of the north India (Punjab) was referred to our institute with history of unilateral nasal discharge along with nasal obstruction for 2 years. Associated history of left ear pain and headache was present. There was no history of facial pain, epistaxis or any chronic illness. Her family history was otherwise unremarkable.

Anterior Rhinoscopy examination of the nose showed left sides mass with a smooth overlying mucosa that occluded the nasal cavity. Nasal septum deviation noted. Ear, nose, throat, head and neck examination was normal. No palpable lymphadenopathy noted.

NCCT PNS view reported hypertrophy left inferior nasal turbinate along with small size 6x5 mm size soft tissue density polypoidal lesion in left nasal cavity attached to lateral nasal wall ? Polyp/granuloma. Minimal frontal, ethmoidal sinusitis. Mild deviation of Nasal Septum towards right. No Bony erosions/ sclerosis seen.

Endonasal endoscopic excision of the left nasal cavity mass with FESS and Bilateral Inferior Turbinectomy was performed under General Anesthesia. The mass was excised completely from its attachment and was sent to the pathology department.

Grossly, a soft to firm grey brown to hemorrhagic tissue piece measuring 1 x 0.8 x 0.4 cm was received. Microscopic examination shows a tumor composed of spindle cells. Individual cells were having elongated to wavy nuclei. Areas of fibrosis and pseudopalisading pattern was also noted. Few small sized blood vessels were also discernable. No abnormal mitosis or necrosis was observed.

DISCUSSION

Benign peripheral nerve sheath tumors of the sinonasal tract are quite uncommon. Only few isolated articles case reports of sinonasal tract Schwannoma have been reported in the English literature. There is no gender predilection. Patients usually presents with symptoms of 2-3 years duration that is often associated with obstruction, bleeding or pain. They are slow growing tumors, mostly unilateral, although occasional bilateral tumors can be seen [3].

Usually schwannomas arise from the large peripheral nerve fibers such as vestibulocochlear nerve, vagal nerve and cervical sympathetic trunk. However, in our case due to localization of tumor, it may consider to be derived from small nerve fibers of nasal septum. Slowly increasing nasal obstruction and also related

symptoms along with duration of symptoms are of primary importance in patient history. In our case nasal obstruction associated with nasal discharge were the main symptoms. These tumors are generally misdiagnosed clinically and histopathology remains one of the main resorts of the diagnosis .The small size of the nerves of origin would explain the reason for the rarity observed during surgical resection [4]. Microscopically we observed that in the reported case of schwannoma there was mixed cellularity, with Antoni A and B areas intermingled.

The differential diagnosis of the case includes Malignant Nerve sheath tumors which are characterized by cytonuclear atypia, necrosis, and high proliferation index with abnormal mitosis [5]. Other differential to be kept in mind is Sinonasal Malignant Melanoma which has cytonuclear atypia and high mitotic index in the microscopic examination [6].

Sarcomatoid carcinomas are other group of malignant spindle cell tumors of the sinonasal region. They are typically seen associated with differentiated carcinomatous areas which show immunopositivity with epithelial markers.

Leiomyoma are closely related to Schwannoma microscopically as they have been described in the nasal pits. However, the cells have more eosinophilic cytoplasm and have elongated nucleus. Also, the muscle cells are arranged in bundles and fascicles stained by muscle markers [7].

In our reported case no neighboring tissue erosion or pressure necrosis was observed. Also complete excision of the lesion is usually associated with rare recurrence and hence, good prognosis of the tumor.

CONCLUSION

Schwannoma of nasal cavity is a rare tumor. Histopathological examination is required for the correct diagnosis of the tumor. Possibility of schwannoma should always be kept in mind whenever dealing with soft tissue tumors of nasal cavity.

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