

CASE REPORT

Nasal Septal Schwannoma: A Rare Case and Review of Literature

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ABSTRACT

Introduction: Nasal septal schwannoma is not so common, presenting with unilateral nasal blockage, breathing difficulty, and bleeding nose. Nasal schwannoma is a rare diagnosis accounting for 4% of schwannomas. The diagnosis is made by histopathological examination of specimens and is S100 positive on immunohistochemistry (IHC).

Case description: We report a 19-year-old female who presented with unilateral nasal blockage, bleeding from the same side, and pain. On clinical examination, a polypoidal mass was seen filling the right nasal cavity and deviated nasal septum (DNS) to the left. Contrast-enhanced computed tomography showed soft tissue density in the right nasal cavity pushing the septum. The patient was taken for endoscopic excision of the mass. Histopathology report confirmed nasal schwannoma, S100 positive.

Conclusion: Complete surgical excision is the treatment of choice.

Keywords: Case report, Epistaxis, Endoscopy, Nasal schwannoma, Nose block.

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INTRODUCTION

Schwannomas are neoplasms arising from peripheral nerve sheaths. These schwannomas arise from the differentiated neoplastic Schwann cells and are usually not malignant. Polypoidal lesions are commonly noted in the nasal cavity but usually, they are inflammatory polyps. Nerve sheath tumors are not common in the nasal cavity, and most of them arise from the trigeminal nerve branches.¹ Many reports showed 25–50% of these neoplasms arise in the head and neck region, but cases of these neoplasms arising in the nasal cavity are rare, having a prevalence of approximately 4%.^{2,3} Most of these are seen in middle-aged adults with equal gender predispositions.⁴ The symptoms of sinonasal schwannomas are like any other nasal mass and present with nasal obstruction, epistaxis, rhinorrhea, anosmia, headache, facial swelling, and many others.⁵

CASE DESCRIPTION

A 19-year-old college student presented to the outpatient department (OPD) with complaints of bilateral nasal obstruction (on the right side more than the left) for 1.5 years. The patient also complains of rhinorrhea, intermittent episodes of a nosebleed, and hyposmia. There were no complaints of headache or facial pain. On clinical examination, the external osseocartilaginous framework of the nose was normal. On anterior rhinoscopy, polypoidal mass was present on the right side filling the nasal cavity, with deviated nasal septum (DNS) to the left side. Polypoidal mass was covered with mucopurulent discharge, it appeared single, non-tender, sensitive to touch, and started bleeding on manipulation. There was reduced fogging on the right side as compared with the left on doing a cold spatula test. Posterior rhinoscopy did not reveal any mass in the nasopharynx. On nasal endoscopy, a smooth polypoidal mass was seen in the right nasal cavity, pushing the lateral wall and the septum (Fig. 1). Probing around the mass suggested a superior attachment.

A contrast-enhanced computed tomography was done, with findings of soft tissue density completely filling the right

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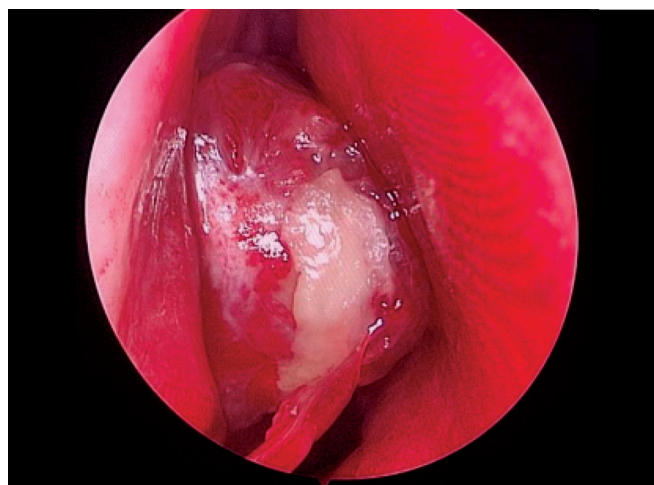


Fig. 1: Polypoidal mass seen on nasal endoscopy

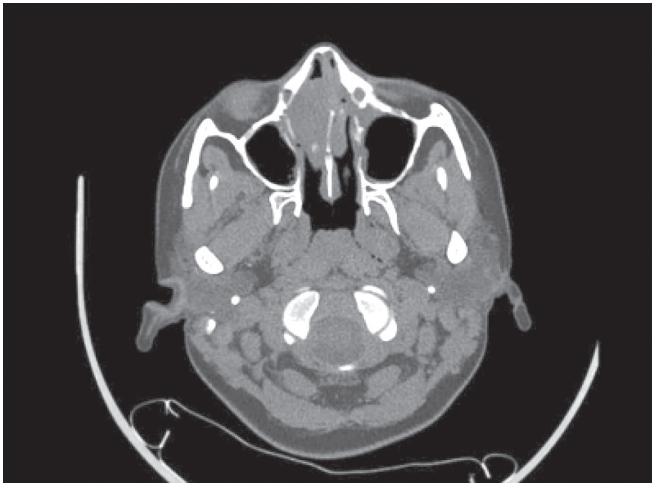


Fig. 2: Soft tissue lesion in the right nostril

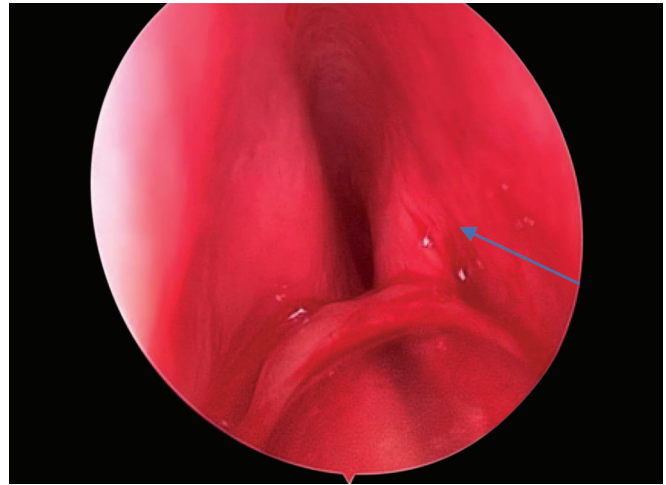


Fig. 4: Endoscopic view showing mass lesion



Fig. 3: Soft tissue lesion in the right nostril coronal cut



Fig. 5: Specimen after removal attached to the septum by a stalk

anterior nasal cavity and showing heterogeneous enhancement on postcontrast scans (Figs 2 and 3). The lateral wall of the nose and the septum was pushed by the mass, but there was no involvement of any sinuses or orbit, and there was no evidence of bony destruction.

All routine blood investigations were normal. The patient was planned for endoscopic excision under local anesthesia, and written and informed consent was taken. Intraoperatively, mass was found to be arising from the posterosuperior septum (Fig. 4).

The mass was excised along with the stalk in pieces (Fig. 5), and hemostasis was achieved by bipolar cautery. Nasal packing was done with medicated ribbon gauze in the right nasal cavity and was removed after 2 days. The patient had an uneventful postoperative period. The histopathological report was suggestive of schwannoma, and cells were positive for S-100 on immunohistochemistry (IHC).

DISCUSSION

Unilateral nasal masses causing symptoms like nasal obstruction, fullness, and epistaxis can be caused commonly by various conditions like polyps, cysts, and mucocles and tumors like esthesioneuroblastoma, olfactory groove meningioma, idiopathic midline granuloma, and schwannoma.⁶ Schwannomas are tumors

that arise from nerve sheath. Schwannomas of the head and neck can arise from various sites accounting for 25–45% of total cases. Based on the location, schwannoma is divided into nonvestibular, extracranial head and neck schwannomas, and less commonly, intracranial acoustic schwannomas.⁷ Sinonasal schwannomas are rare and account for 4% of all head and neck schwannomas.⁸ Sinonasal schwannomas appear to arise from ophthalmic or maxillary branches of the trigeminal nerve or from sympathetic or parasympathetic fibers from the carotid plexus or sphenopalatine ganglion.⁹

Differential diagnoses of sinonasal schwannoma are neurofibroma, meningiomas, angiofibroma, leiomyomas, inflammatory polyps, inverted papilloma, melanoma, and neuroblastoma.^{1,10} Schwannomas are strongly positive for S-100 on immunostaining that helps in differentiating it from malignant peripheral nerve sheath tumors.

CONCLUSION

Surgical excision is the treatment of choice, the endoscopic approach for surgery helps in locating the exact site of origin and in piecemeal excision of the mass. A close follow-up helps keep a check on recurrence.¹⁰

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