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Original Research Article

Neurilemmoma Nose: Nasal Polyp, Always Needs a Histopathological Evaluation

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Abstract

Background: Neurilemmoma also known as Schwannoma, is one of the most common benign peripheral nerve sheath tumors. The Head and Neck region is the fare common site for the occurrence of schwannoma. The tumors arising from the nasal septum are extremely rare to be reported as Schwannoma. Incidence is 1 in 3000 schwannomas.

Case Report: We report a case of a 62-year-old male who presented in ENT OPD with the complaint of a painless mass in the left side of the nose, obstructing the airway and causing difficulty in breathing. On clinical and radiological evaluation, a diagnosis of the nasal polyp was made. On histopathological examination, the diagnosis of neurilemmoma was confirmed.

Discussion and Conclusion: We reported a 68-year-old male patient with nasal polypoidal lesion as shwannoma. Schwannoma of the nose is a rare entity, which should be evaluated histologically, and other differential diagnosis must be excluded. Although it's a benign tumor, it's the extent and bony erosion should be determined radiologically, and any malignant transformation changes should be kept in mind. In our case, the lesion was surgically excised completely, and recurrence was not seen after that.

Keywords: Neurilemmoma, Peripheral Nerve, Radiological Evaluation, Nasal Polyp, Malignant

Case History

A 62-year-old male presented in ENT OPD with the complaint of a painless mass in the left sided nose, obstructing the airway and causing difficulty in breathing.1 and half year back, it appeared as a small papule like lesion and was progressively increasing in size. In between, the patient had episodes of spontaneous bleeding also with rhinorrhea. There was no complaint of headache or facial pain by the patient. No systemic illness was there. There was no trauma history or family history.

On clinical examination, a large, pinkish polypoidal mass was seen. The mass was almost completely filling the left nasal cavity and slightly displacing the septum to the opposite side. The mass was covered by nasal mucosa, firm in consistency and bleeding on touch. The attachments of mass were not seen clearly. To determine the extent and nature of the mass, with any bony erosion, CECT Nose and Paranasal sinus were advised. [Figure 1] This showed a 35x19x32 mm sized, well-defined

heterogeneously enhancing soft tissue density mass lesion in the left nasal cavity, abutting the lateral nasal wall, causing its scalloping and thinning. Medially the lesion is abutting and scalloping the nasal septum. Soft tissue density mucosal thickening is also seen in the maxillary sinus. The scan results favored a benign process.

The lesion was removed and given for histological evaluation. The microscopy showed the presence of respiratory epithelium, beneath which, soft tissue was found forming spindle cell neoplasm, showing two types of vaguely identifiable areas, hypocellular and hypercellular. [Figure 2] In the hypercellular or Antoni area, nuclei of Schwann cells are found arranged in palisading manner known as Verrocay bodies. The nuclei of Schwann cells were narrow, elongated, and wavy with tapered ends interspersed with collagen fibers. The hypocellular or Antoni B areas are seen at some places in form of loose myxoid tissue. Finally, the diagnosis was made as Neurilemmoma. The patient is under follow up and there is no recurrence at the time of writing this report.

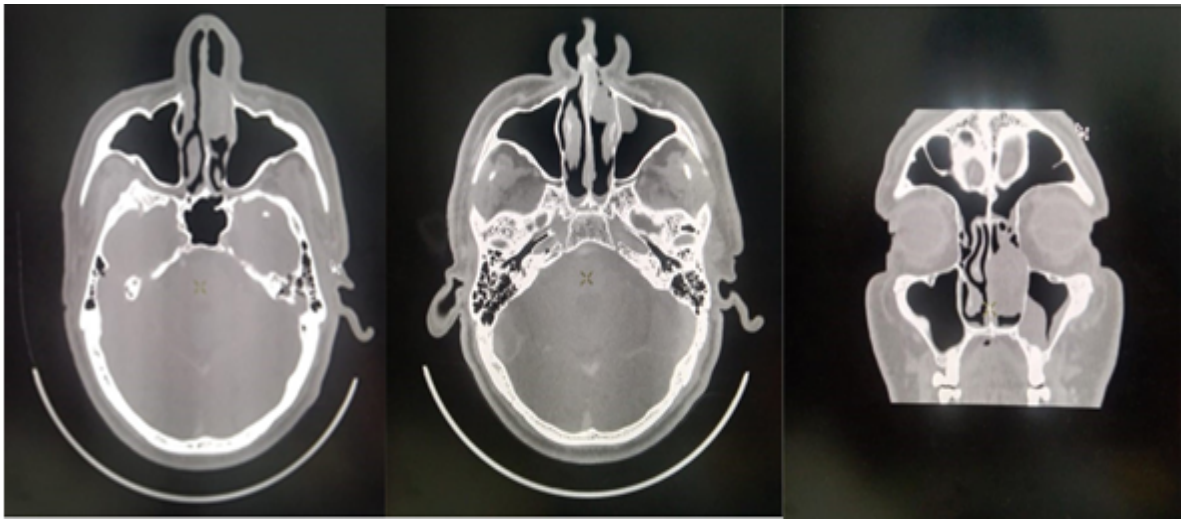

Figure 1: Axial CT sections clearly showing paranasal sinuses and benign looking mass in the left sided nose, abutting and scalloping the lateral and medial walls of the nose.

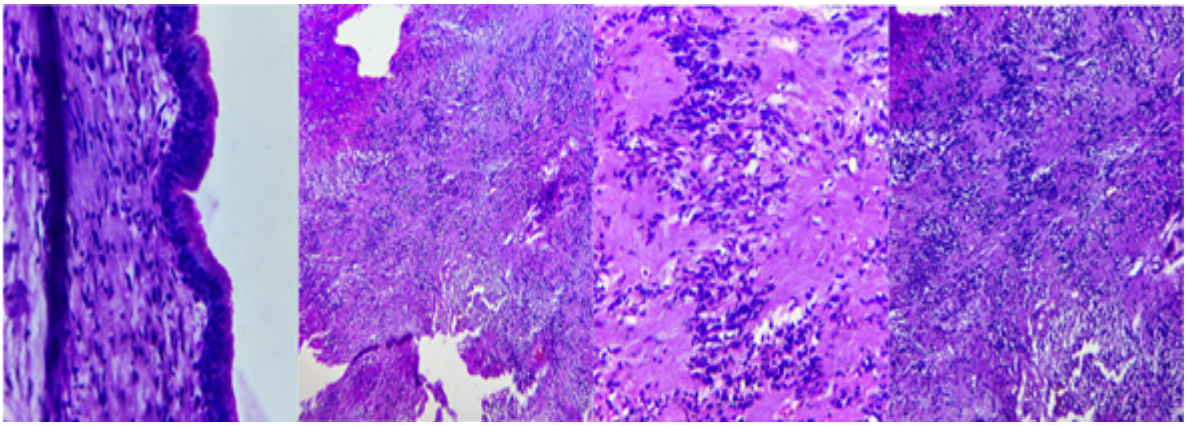

Figure 2: A- showing respiratory epithelium. B - Verrocay bodies seen at scanner view. C - showing Verrocay bodies at high power. D - showing alternating hypercellular and hypocellular areas at 10x.

Discussion

Schwannomas are benign peripheral nerve sheath tumor arising from the sheath forming Schwann cells. So, they are seen only in myelinated nerve fibers of peripheral motor, sensory, cranial and sympathetic neurons. Frequently they are found on the limbs (more in the upper limbs) followed by the head and neck area including the oral cavity, orbit and salivary glands. They may be found in the posterior mediastinum and retroperitoneum-like deep-seated areas. They can manifest as familial tumor syndromes such as Neurofibromatosis type 2 or Carney complex.

Scwannomas occurring in the head and neck accounted for 25-45% of cases of which only 4% involved the sinonasal tract [1,2]. Nasal schwannomas are presumed to be arising from the sheath of ophthalmic and maxillary branches of the Trigeminal nerve and autonomic ganglia [3,4]. The ethmoidal sinus is most commonly involved followed by the maxillary sinus, nasal fossa and sphenoid sinus [5].

Symptoms in schwannoma of the nose are seen mostly due to mass obstructing the airway, which causes breathing difficulty. Patients may also present with complaints of rhinorrhea, recurrent epistaxis and headache. Facial swelling and pain are seen in paranasal sinus involvement.

Here in our case, the patient was more disturbed because of progressively increasing breathing difficulty due to the large size of the polypoidal lesion. To rule out any malignant transformation, extent and bone erosion, CECT Nose and Paranasal sinus were done. Without any bone erosion but abutting the lateral and medial wall of the nose, the scan showed the possibility of a Benign lesion and histopathological evaluation was advised.

Microscopically spindle cells were seen forming two architecturally different areas of patterns, Antoni area A and B in different proportions. Antoni A areas were hypercellular, showing spindle cells in the compact stroma with palisaded arrangement of nuclei called Verrocay bodies. Antoni B areas were composed of loose, disorganized myxoid stroma with a paucity of spindle cells.

The differential diagnosis needs to be excluded such as Neurofibroma, ectopic meningiomas, Angiofibroma, Glomangiopericytoma and leiomyomas. Due to these possible pathologies and similar symptoms of patients, needs to do a histological examination and confirm the diagnosis. Clinical and radiological findings are not sufficient for confirming a diagnosis, but they help in determining the site of origin and extent of tumor. As in our case, the patient presented with painless polypoidal mass clinically and the possibility of benign lesion reported in CT scan, but the excisional biopsy gave the final diagnosis of Schwannoma and was curative too. A single schwannoma does not recur when excised completely, but an intracranial extension of a nasal schwannoma has been reported [6].

We reported a 68-year-old male patient with a nasal polypoidal lesion which was clinically and radiologically reported as a nasal polyp, as schwannoma on histopathological examination. Schwannoma of the nose is a rare entity, which should be evaluated histologically, and other differential diagnosis must be excluded. Although it's a benign tumor, its extent and bony erosion should be determined radiologically, and any malignant transformation changes should be kept in mind. In our case, the lesion was surgically excised completely, and recurrence was not seen after that. This report suggests the importance of histopathological examination of all nasal polys to exclude rare

malignancies like schwannoma of nose to detect early and treatment can be given at right time and prevent malignant transformation and further extension into the cranial cavity.

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