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Schwannoma of dorsum of nose: A rare case report

Ruta Shanmugam[1] , Balaji Swaminathan[2], V. U. Shanmugam[3], R. G. Mariappan[4], Mohammed Shiros*[5]
[1]Professor & HOD, [2]Reader, [3], [4]Professor, [5]Post Graduate, Department of ENT, Rajah Muthiah Medical College, Annamalai university, Annamalai nagar, Chidambaram, Tamil nadu-608002, India

***Corresponding Author:**
Name: Dr. Mohammed Shiros
Email: mohammed.shiros@gmail.com

Abstract: Schwannomas are benign tumors of the nerve sheath. Schwannomas of the nose and paranasal sinuses is very rare. We present a case of Schwannoma presenting on the nasal dorsum. We could not find another reported case of Schwannoma of the dorsum of nose in the English literature and report for its rarity.
Keywords: Schwannoma, Dorsum of nose, Nerve sheath Tumor, neurilemmoma

INTRODUCTION

Schwannomas are benign encapsulated nerve sheath neoplasms composed of Schwann cells first described by Verocay in 1908[3]. Stout coined the term Neurilemmoma believing that this tumor arose from cells of sheath of Schwann which may also develop in any part of the body.This tumor most frequently originating from the acoustic nerve and know as the acoustic neuroma . Extracranially 25% of all schwannomas are located in the head and neck region[1,2]. They have also been observed in the neck, pharynx, larynx, face, middle ear etc. They remain asymptomatic unless they attain appreciable size. Schwannomas may occur at any age, but peak incidence is usually seen between 20 and 50 years of age and affects the sexes in roughly equal number [4]. The treatment of choice is surgical excision of the tumor. Schwannomas very rarely show recurrence if completely excised [5]. We report a case of schwannoma of the dorsum of nose.

CASE REPORT

44 year old male patient presented with a progressively increasing swelling on the nose of 6 months duration. There was no history of pain, discharge, nasal obstruction, headache, recent trauma or any other constitutional symptoms.

Local examination revealed a 2X2 cm firm, non tender, freely mobile, non-pulsatile, non-transilluminant swelling with healthy overlying skin on the left side of the dorsum of nose. CT scan showed a extranasal homogenous mass, without intracranial extension or bony destruction. The lesion was well defined with smooth margins and without calcification.

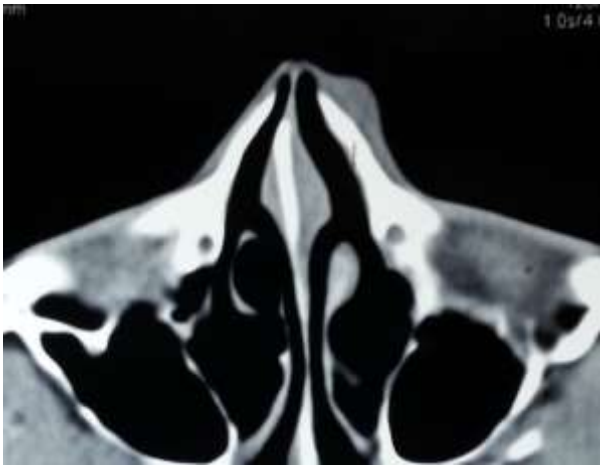

Fig-1: An axial CT scan image showing a homogenous mass over the left nasal bone. There is no evidence of bone erosion.

A provisional diagnosis of chondroma/fibroma was arrived at. The patient agreed and consented to undergo excision biopsy under general anesthesia. Removal was done with a horizontal skin incision and the grayish white mass of 0.5x0.75cm was then dissected from the underlying tissue carefully. The underlying cartilage appeared indented. The specimen was subjected to histopathological examination.

Histopathological examination showed both spindle shaped schwann cell rich area with nuclear palisading(Antoni A) and schwann cell poor loose myxoid areas(Antoni B). Verocay Bodies were present without any evidence of ancient or malignant changes. The histopathological diagnosis was benign schwannoma.

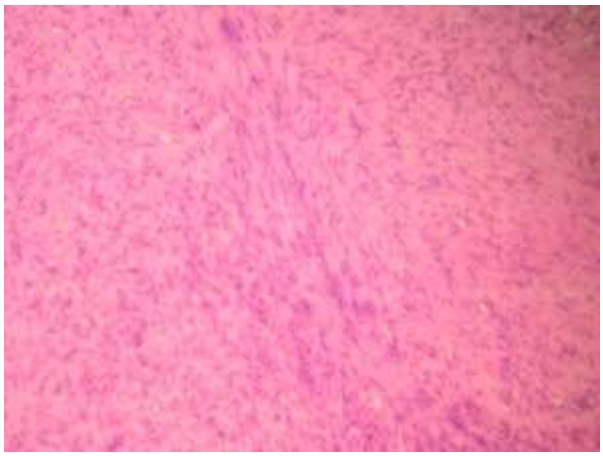

Fig-2: Picture shows spindle shape cells with Antoni A and Antoni B areas.

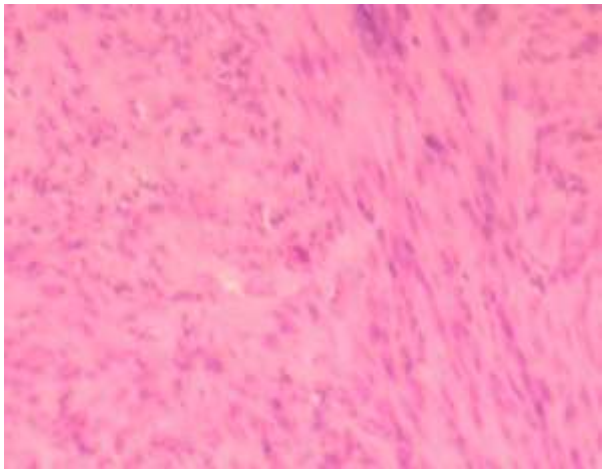

Fig-3:Picture showing Verocay Body.

DISCUSSION

Schwannoma (neurilemmomas or neurinomas or perineural fibroblastoma) is a benign neoplasm arising from Schwann cells in the peripheral nerve sheath . The neural origin of the schwannomas is considered to be from peripheral motor, sensory, sympathetic and cranial nerve sheath [5] . It can arise throughout the body, but is most commonly observed in the head and neck. This region accounts for 25–45% of all schwannoma [9,10]. Most schwannomas are sporadic, but about 10% are associated with familial inherited disorders such as neurofibromatosis type 2. Malignant transformation in schwannoma is very rare [10,11].

Schwannoma is one of the most infrequent benign tumors of the nose and paranasal sinuses. It is not mentioned in most of the texts on Rhinology. This is partly due to the fact that, in gross, the tumor shows resemblance to a fibroma, which is of more frequent incidence in the nasal cavity. The tumor therefore may be removed without being suspected of being a special case. The tumor may also not be examined histologically henceforth [11]. Macroscopically, schwannomas appear as well encapsulated masses. Cystic degeneration, necrosis, lipidization and formation of angiomatous clusters of blood vessels with focal thrombi are degenerative processes that can occur. Microscopically, schwannomas are traditionally classified into two major histological types- Antoni A areas and Antoni B areas. They are comprised of a uniform proliferation of neoplastic Schwann cells. In the dense Antoni A areas, bland spindle cells with buckled nuclei are arranged into intersecting fascicles. These cells often align to produce nuclear palisading, resulting in alternating bands of nuclear and anuclear areas called Verocay bodies. Antoni B is typified by loose myxoid stroma with spindle cells running in a haphazard manner. The distinction isconsidered to have only academic interest [7,8,9].

Securing the diagnosis on the basis of CT imaging is difficult. In general, the appearances on CT are not specific enough to enable it to be distinguished confidently from other tumors in this region. There is usually mild enhancement on contrast CT. Bone remodeling may be appreciated if present.MR imaging shows intermediate T1 and variable T2 signal intensity [8].

The treatment of choice is complete surgical excision, which can range from a simple excision under local anesthesia to a more extensive facial degloving approach and endoscopic approaches for sinonasal schwannomas.

CONCLUSION

Solitary nasal mass have a wide array of differential diagnosis including inflammatory lesions, traumatic deformities, congenital masses, benign and malignant neoplasms. Schwannomas may lie towards the lower end of the differential diagnosis. However, they should be always kept in mind as they may occur in any age group and location.

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