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Schwannoma of the tonsil: A case report

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Abstract
The incidence of schwannoma of head and neck region is between 25 to 45%, Vestibular nerve followed by a parapharyngeal space is involved in most cases. Schwannoma also known as neurilemmoma is a benign neoplasm that originates from the Schwann cells, these cells forms myelin sheath around myelinated peripheral axons. Schwannoma arising in tonsil is extremely uncommon. Here we report a case of tonsilar schwannoma in 35 year old woman.

Keywords: Schwannoma, neurilemmoma, Schwann cell, Tonsil

1. Introduction
Schwannomas are relatively uncommon, slowly growing benign lesion which originates from the peripheral neural sheath of any myelinated nerve [1]. Schwannomas can arise throughout the body; Between 25 and 45 % Schwannoma have been reported to occur in the head and neck region. Only 1% of the schwannomas are intraoral in location [2, 3] with tongue being the commonest site [4, 5] while tonsilar Schwannoma is extremely uncommon. On physical examination sometimes it is very difficult to differentiate a schwannoma from other reactive and neoplastic swelling which can sometimes mislead treating surgeon. A case of schwannoma which was clinically diagnosed as unilateral tonsilar hyperplasia suspected to be lymphoma, caused obstructive symptoms in middle aged lady has been reported here.

2. Case report
A 35 year old woman presented to the ENT outpatient department with a 6 month history of a slowly growing mass in right palatine tonsil with difficulty and pain on swallowing, on ENT examination, we found that the right side palatine tonsil was unusually large, it was round smooth bulging anterior pillar anteriorly, extending below up to supraglotis, non tender, almost of size 4x4 cm (fig1). Computed tomography of skull base to root neck revealed the lesion was well circumscribed and heterogeneous (fig 2) all laboratory tests were within normal limit. Entire tonsil removed in general anesthesia via trans-oral route which was well circumscribed and encapsulated. Histopathology evaluation of the specimen was suggestive of Schwannoma.

Fig 1: Right side tonsilar mass

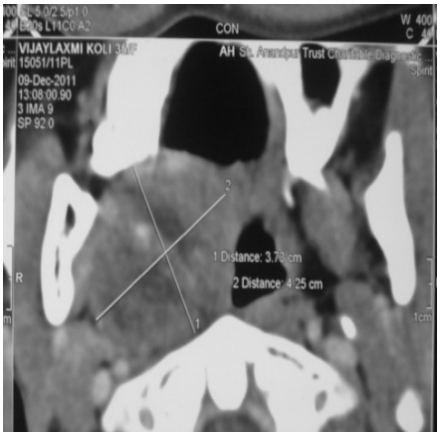

Fig 2: Rt side tonsilar mass of size4.25x3.78

Fig 3: removal of tumor via trans-oral route

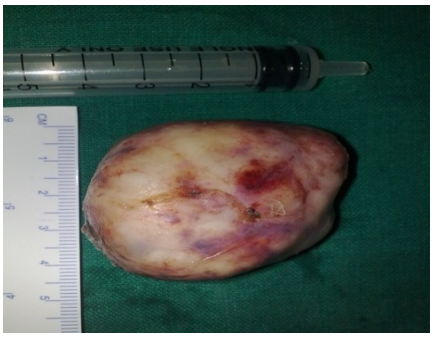

Fig 4: excised rt tonsilar mass well circumscribed and encapsulated

3. Discussion

The nerve sheath tumours which originate from peripheral nerves are of two types Neurofibroma and Schwannoma. It can originate in any peripheral, autonomic or cranial nerve, except the olfactory and optic nerves [6]. Neurofibroma is benign neoplasm which composed of neurites, Schwann cells and fibroblasts with collagenous & myxoid matrix where as schwannoma originate from Schwann cells of nerve sheath which cover myelinated nerve fibre. Histologically, schwannomas are well circumscribed and encapsulated may show cystic degeneration. Antoni A areas are solid with Schwann cell lying in rows resulting in palisading of nuclei, Antoni B areas do not show any architectural pattern as their arrangement of cell and fibre is disorderly [7].

Schwannomas can occur at any age seen equally in both sexes, often seen in 2nd & 3rd decades of life and very rare in below 10 years of age [8]. They can reach upto considerable size, although they usually remain small. After vestibular schwannoma, parapharyngeal space is the most common site of nerve sheath tumour in parapharyngeal space it can arise from IX, X, XI, XII and 3rd division of the trigeminal nerve. Most arise in poststyloid compartment arising from sympathetic chain or vagus nerve, but also from X, XI, XII nerve. Schwannoma arising from prestyloid compartment may arise from lingual nerve, inferior alveolar nerve, auriculotemporal nerve [9]. They account for only 1% of all benign tumours in the oropharynx and oral cavity with tongue, palate, cheek mucosa, lip, gingiva being most common. It is possible that schwannoma of tonsil might be mistaken for chronic tonsilar hyperplasia, malignant neoplasia, lymphoma, sarcoma, benign lesion such as leiomyoma, lymphangioma, dermoid cyst, lipoma. A detailed clinical history, physical examination, cytology and radiological assessment help in differentiating schwannomas in such cases.

Prognosis is excellent as schwannomas are usually encapsulated. They yield simple excision, incomplete removal result in recurrence which should be treated with repeat excision, it's malignant transformation is rare. Radiation therapy is never indicated because schwannomas exhibit radioresistance. In our case tonsilar schwannoma may have originated from branch of glassopharyngeal nerve, however we did not observe any referred pain in ipsilateral ear or sign that could be attributable to damage of glassopharyngeal nerve.

Author	age/sex	dur^{n}	location
Naik & Agrawal *et al.* (1975)[10]	40/?	2 yrs	right
Lall *et al.* (1999)[11]	13/f	3wk	left
Bildirici *et al.* (2002)[12]	69/f	4 yrs	right
Anil *et al.* (2005)[13]	38/m	1 yr	left
Lee *et al.* (2007) [14]	23/f	3 yrs	left
Piplani *et al.* (2011)[15]	14/m	5yrs	right

In our case as there was dilemma of diagnosis on basis of computer tomographic finding of well circumscribed and encapsulated mass, we tried to find surgical plane between mass and tonsilar capsule and as we got good plane between it, decision of complete removal of mass was taken. In such case possibility of invasion of superior constrictor muscle and involvement of vascular bundle of parapharyngeal space, then such attempt of intraoral complete excision may lead to vascular catastrophe in such case one has to take biopsy only and further management is tailored on the basis of definite diagnosis. Up till now only six cases of tonsilar schwannoma have been reported in a review of the literature. So it is a very rare entity makes interesting reading for everyone.

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