

## Schwannoma of Tonsil

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### Abstract

In head and neck region the incidence rate of schwannoma is between 25 to 45%. In most of the case vestibular nerve followed by a parapharyngeal space is involved. It is also known as neurilemmoma, which is mostly benign lesion that originates from the schwann cells that cover the myelinated nerve fibers. Schwannoma arising from the tonsil are very rare. Here we report a case of tonsillar schwannoma in a 42-year-old male.

**Keywords:** Schwannoma, Neurilemmoma, Schwann cell, Tonsil.

### Introduction

Schwannoma, also known as neurilemmoma, mostly benign lesion which originate in the ectodermal Schwann's cell of the nerve fibers.<sup>1,2</sup> These are relatively uncommon, slowly growing lesions and can arise throughout the body. 25 to 45% schwannoma have been reported to occur in head and neck region. In intraoral region its only 1%<sup>3,4</sup>, where tongue is the most commonest site<sup>5,6</sup>. But tonsillar schwannoma is very uncommon. It is very difficult to differentiate a schwannoma from other lesions of oral cavity by physical examination. A case of schwannoma which was clinically diagnosed as unilateral tonsillar hyperplasia suspected to be lymphoma, which caused obstructive symptoms with occasional sore throat in a middle-aged male, has been reported here.

### Case Report

A 42-year-old man presented in outpatients department of the Otolaryngology unit of a private hospital with chief complaints of repeated sore throat for last 6 years. For last 5 months he experienced difficulty and pain during swallowing. On ENT examination we found unilateral enlargement of left palatine tonsil with congested pharyngeal mucosa. On inspection there was an oval shape mass with a smooth surface and pushing the left tonsil anteromedially with an extension up to supra-tonsillar region. It was measuring about (5X4) cm in size. On palpation the surface was smooth, firm in consistency and non-tender. Other ENT examinations were unremarkable including neck palpation.

Computed tomography (CT) of the head neck region revealed a well-circumscribed and heterogeneous lesion in left oropharyngeal area (figure 1).



**Figure 1:** CT scan showing well-circumscribed and heterogeneous lesion in left oropharyngeal area.

### HISTOPATHOLOGY REPORT

|                    |   |                 |            |                 |          |
|--------------------|---|-----------------|------------|-----------------|----------|
| Lab No             | H-671/1217500   | Receiving Date: | 13/04/17   | Delivery Date : | 17/04/17 |
| Name               | MR. MAZNU   | Age:            | 42 Year(s) | Sex:            | Male     |
| Refd. By           | PROF. DR. PRAN GOPAL DATTA, MBBS, MCPS, FCPS, FRCS (GLASGOW). |                 |            |                 |          |
| Nature of Specimen | Tissue from supra-tonsillar region, left.                     |                 |            |                 |          |

✦ With Compliments for kind referral.

#### GROSS DESCRIPTION:

Specimen received in formalin with proper lab number consisting of a nodular piece of tissue measuring 6 x 4 x 2.5 cm. The cut surface is grayish yellow. Embedded five blocks.

#### MICROSCOPIC APPEARANCE:

Sections made from the submitted specimen show a benign neoplasm composed of spindle cells with wavy nuclei arranged in interlacing bundles. Some of these tumour cells are forming Verocay body. Focal areas show congested blood vessels.

No evidence of malignancy is seen.

**Dx: Schwannoma.**

**Figure 2:** Histopathological examination reveals Schwannoma of left tonsil.

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All relevant investigations were done and found within normal limit. After proper counselling and explanation we performed excision of the entire left tonsil under general anesthesia via trans-oral approach and specimen was sent for histopathological evaluation. Histopathology was suggestive of schwannoma (figure-2).

The patient's postoperative course was uneventful and no evidence of recurrence was seen on follow-up (figure-3).



**Figure 3:** No sign of residual tissue during follow-up



**Figure 4:** Excised Tumor and the operative field-left tonsillar fossa.

## Discussion

In 1908, Verocay first described schwannoma or neurilemmona. They are mostly benign tumor which arises from schwann cell of nerve sheath which cover myelinated nerve fiber. The nerve sheath tumors 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 nerve<sup>7</sup>. About 25 to 45% of all schwannomas occur in the head and neck region<sup>8</sup>. Only 1% cases it may arise in oral cavity where tongue is the most common site but very rare in tonsil. Most of the case it may be mistaken for chronic tonsillar hyperplasia, malignant neoplasia, lymphoma, sarcoma or benign lesion like leiomyoma, lymphangioma, lipoma<sup>9</sup>. To avoid such mistake, a detailed clinical history, physical examination, radiological and cytological assessment is essential.

Occurrence of schwannoma seen equal in both sexes at any age. Most often found in 2<sup>nd</sup> and 3<sup>rd</sup> decades of life and unlikely below 10 years of age<sup>10</sup>. Parapharyngeal space is the most common site for schwannoma after vestibular schwannoma. A parapharyngeal space schwannoma may arise from IX, X, XI, XII and 3<sup>rd</sup> division of trigeminal nerve. Schwannoma arising from sympathetic chain or X, XI, XII nerve found in post styloid compartment and schwannoma of pre-styloid compartment mostly arise from lingual nerve, inferior alveolar nerve and auricular temporal nerve<sup>11</sup>.

Usually schwannomas are well encapsulated. For this reason it may possible to excise it with simple excision but recurrence may happen if the dissection is incomplete. In case of recurrence repeat excision is indicated. As schwannoma is radioresistance, radiotherapy is not indicated. During excision surgeon should do careful dissection to strip the nerve bundle from the tumor surface in order to preserve the nerve function.

In our case, computer tomographic findings of the mass was well circumscribed and encapsulated. We excised the left tonsil and found a good surgical plane, that's why complete removal of the tumor was done without any injury to tonsillar bed or vascular bundle of parapharyngeal space (figure-4). We believe that tonsillar schwannoma arise from glossopharyngeal nerve. However, in our case we didn't observe any sign or symptom that could be attributable to damaged glossopharyngeal nerve.

## Conclusion

Tonsillar schwannoma is a very rare condition. Till now only few cases of tonsillar schwannoma reported worldwide. Clinical examination along with imaging plays key role to make diagnosis of this rare condition accurately.

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