Tonsil Schwanomma presenting as a Tonsillar cyst: a rare case

Saurabh Varshney 1, Ravi Meher 2
1Department of E.N.T. & Head Neck Surgery, All India Institute of Medical Sciences, Rishikesh, Uttarakhand, India
2Department of E.N.T. & Head Neck Surgery, Maulana Azad Medical College, New Delhi, India

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Case Report

Abstract

Schwannomas can originate in any peripheral, autonomic, or cranial nerve except the olfactory and optic nerves. Between 25 and 48% of all schwannomas have been reported to arise in the head and neck, with the acoustic nerve being the most common site of origin. Schwannomas arising in the tonsil are extremely uncommon, and there are only 10 such cases have been previously reported in the literature. We report a case of schwanomma of the tonsil, which first appeared to be a tonsillar cyst arising from one of the crypts of tonsil. It was diagnosed on histopathological examination, which showed characteristic Antoni A and B areas with areas of nuclear palisading and verocay bodies.

Keywords: Schwanomma; Tonsil; Cyst

Introduction

Schwanomma is usually solitary, benign, well-encapsulated, slow growing tumour derived from schwann cells of the sheaths of peripheral, cranial or autonomic nerves. In the head and neck region it occurs most commonly in association with acoustic nerve within the skull and is rarely found in the oral cavity. In oral cavity the most common site is tongue and tonsil is one of the rare sites. Schwannomas arising in the tonsil are extremely uncommon, and there are only 10 such cases have been previously reported in the literature.1, 2, 3

Case Presentation

A 24-year-old male presented to Ear, Nose and Throat (ENT) outpatient department with complaints of foreign body sensation in throat for 3 months. There was no history of dysphagia or odynophagia. On examination of the throat a smooth, globular, firm swelling of approximate 3 × 2 cm size was seen in left upper pole of tonsillar fossa (Figure 1).

Rest of the ear, nose and throat as well as neurological examination were normal. There were no other swellings in head and neck region. All routine laboratory tests were also within the normal limits. A provisional diagnosis of tonsillar cyst was made. The swelling was seen to arise from upper pole of left tonsillar fossa with a pedicle (Figure 2). It was removed intact using sharp dissection over the cyst pedicle, with bipolar cautery and scissors.

FIG. 1: Clinical photograph of the patient showing lesion in left tonsillar fossa.

FIG. 2: Clinical photograph of the patient showing lesion in left tonsillar fossa.
Histopathological examination of the swelling showed it to be schwannoma. It was a globular soft to firm grey white swelling with smooth outer surface (Figure 3).

The cut surface was grey white with no cyst. Microscopic examination showed a tumor that was circumscribed with fibrous capsule of variable thickness. One area outside the capsule showed a nerve. The tissue was composed of cells with oval to elongated nuclei, which were arranged in parallel bundles showing a characteristic Verocay bodies.

Discussion

Schwannoma was first reported by Verocay in 1910. The term schwannoma is used to describe tumors originating from Schwann cells. Various names, such as perineural fibroblastoma, neurilemmoma (sometimes spelled neurolemoma), neurolemoma and peripheral glioma, have also been used since Verocay initially reported this benign neurogenic tumour as “neurinoma”. In all the soft tissue locations schwannomas have been only occasionally associated with oral structures. Extracranially they are found in 25 percent of cases (head and neck) but only one percent have an intra-oral origin. When present in the oral cavity, tongue is reported to be the favoured site followed by the buccal mucosa, floor of mouth, palate, lip and gingiva.

All cranial nerves in the head and neck region can give rise to schwannoma, except the optic and olfactory nerves, which are not considered true cranial nerves because of the absence of Schwann cells. However, nerve origin remains unidentified in approximately 10–40% of schwannomas.

Most schwannomas identified intraoperatively in the oral region appear to originate in the hypoglossal and vagal nerve. In the above case, it was probably originating from glossohyrgeal nerve which supplies the tonsillar fossa. The patient did not complaint of any pain or tenderness. Pain, tenderness and paraesthesia may occur in 50 percent of schwannoma cases but will be characteristically absent in cases of tonsillar cyst. The tumor varies from a few millimeters to several centimeters when it may interfere with speech or swallowing. Tonsillar cyst can also have similar picture and may feel firm like schwannoma when the cyst is tense. Ulceration is seen occasionally and is probably due to trauma during mastication. This was not present in the above case probably because of the small size of the tumor. When there is pain and ulceration along with rapid increase in size one should keep a possibility of malignancy though malignant transformation in untreated schwannoma has been rarely reported. In the above case, the excised swelling was well circumscribed covered with keratinizing stratified squamous epithelium. The bulk of the lesion was made up of Antoni A tissue in which numerous Verocay bodies typical of schwannoma were readily identified. The surgical margins were free of tumour. The histological picture resembled classical appearance of a schwannoma.

Thus the diagnosis of schwannoma is based on classic histologic appearance with presence of Antoni A and B areas with areas of nuclear palisading and Verocay bodies. A positive staining with S-100 using immunohistochemical techniques is for differentiation from other tumors.

The presence of a well-defined mass lesion with heterogenous density on computed tomography (CT) may aid in differentiation from other tonsillar tumours. The schwannoma is treated by conservative surgical excision, with minimal risk of recurrence. Patients with multiple neural tumors should be evaluated for von Recklinghausen neurofibromatosis or MEN syndrome.

Conclusion

Schwannoma of the tonsil is an extremely rare tumour. They usually have a history of slow growing tonsillar swelling without much symptoms and mimic a tonsillar cyst. Large tumors may present with dysphagia and ulceration over the swelling which might give them a malignant look. Diagnosis of Schwannoma can be made easily on histological appearance and complete surgical excision is the treatment of choice with minimal risk of recurrence.

Conflict of interest

The authors declare that they have no conflicts of interest. The authors alone are responsible for the content and writing of the paper.

References


FIG. 3: Excised specimen.