



ORIGINAL RESEARCH PAPER

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SCHWANNOMA TONGUE: TWO CASE REPORTS

KEY WORDS: Schwannoma, Tongue, Intraoral

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ABSTRACT

Schwannoma of the tongue is a relatively rare tumor of the head and neck. Intraoral schwannoma accounts for 1% of head and neck region and are commonly seen at the base of tongue. In this article we report two cases of schwannoma in young adult presented with painless swelling of the tongue. Lesion was completely excised via an intraoral approach and confirmed as schwannoma tongue in histopathology.

INTRODUCTION

Schwannoma (neurilemmoma) is a benign tumor of nerve sheath origin. Approximately 25–45% of all schwannomas occur in the head and neck [1]. Intraoral schwannoma accounts for 1% of all head and neck region tumors with the tongue being the most common site [2]. Although several case reports of schwannomas of the tongue exist in the literature, comprehensive review of the literature has been done by Hatziotis et al (1967) [3]. Recently Cohen and Wang (2009) studied a total 126 cases of schwannoma tongue reported in English literature over the past 51 years and elucidated some of their characteristics [4]. We report two cases of schwannoma involving the tongue which were removed via transoral route.

CASE REPORT 1

A 11 year old female patient presented with complaint of small painless swelling over the dorsum of tongue of one month duration. Intraoral examination showed an exophytic growth on dorsal posterior third of tongue measuring 2 x 3 cm in size (Fig 1 A). The base of growth was ulcerated, firm, well defined and nontender. The growth was soft and friable. Tongue movement was normal. Biopsy taken and was confirmed as schwannoma tongue on histopathology report. Mass was excised via transoral route. After 8 months of follow up no recurrence was noted.

CASE REPORT 2

A 25 yr old male patient presented with complaint of progressively increasing painless globular swelling over the tongue of one year duration (Fig 1 B). Swelling was soft in consistency extending from the tip of tongue to just anterior to base of tongue and more towards left border of tongue with small ulceration over it. Fine needle aspiration cytology from the swelling revealed only blood aspirate. Punch biopsy was taken from the ulcer site and histopathological report confirmed as schwannoma tongue. Preoperative CECT was done to see the extent of tumour. It revealed a well defined homogenous soft tissue mass lesion measuring 3.8 x 3.6 x 4 cm with smooth margins in the oropharynx. The incision was given over lateral border of tongue on left side and whole mass was excised in toto with its capsule via transoral route (Fig 2). Wound was closed in single layer. The postoperative course was uneventful. The mobility of the tongue was good. Histopathology report again confirmed as schwannoma (Fig 3). After 6 months of follow up no recurrence was noted.

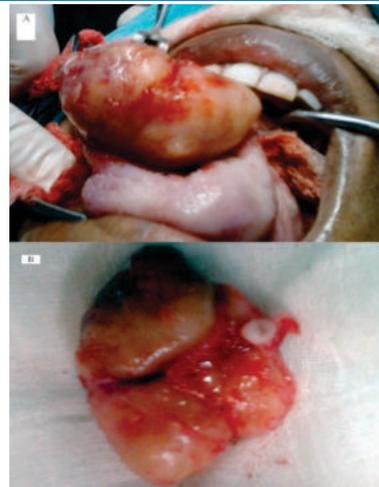


Fig 2: Excision Biopsy of tongue mass

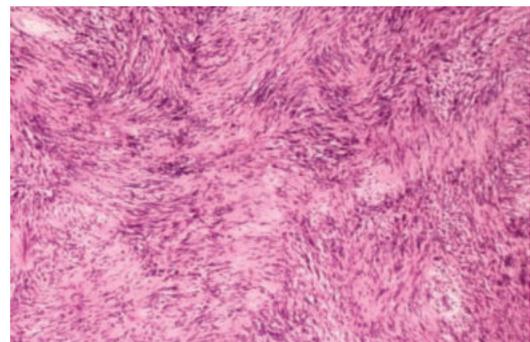


Fig 3: Histopathological Picture



Fig 1 (A & B): Swelling over tongue

DISCUSSION

Schwannoma is a benign, encapsulated perineural tumour of neuroectodermal derivation that originates from the Schwann cells of the neural sheath of motor and sensitive peripheral nerves. The tumour is normally solitary, smooth-surfaced, slow growing and generally asymptomatic. It may occasionally cause pain or discomfort. Etiology is still unknown and the disease is generally asymptomatic [5]. It may develop at any age but is more common during the 2nd and 3rd decades of life. There is no gender predilection [2].

Approximately 25 to 40% of all schwannomas are seen in the head and neck region with parapharyngeal space being the most common site [6]. Intraoral schwannoma accounts for 1% of all head and neck region tumors and commonly seen at the base region of tongue [2]. Identification of originating nerve may be difficult [7].

In this area in a decreasing order of frequency, the mobile

position of the tongue, the palate, the cheek mucosa, the lip and gingiva are the locations. In the tongue, the tip is the least affected part.

Cohen and Wang In their literature review of the past 51 years; they identified 126 cases of tongue schwannomas and elucidated some of their characteristics. Schwannomas of the tongue demonstrate an equal gender predilection. The majority of patient presented with painless mass. However, as they approach 3 cm in greatest dimension, they are more likely to produce symptoms such as throat discomfort, dysphagia, and voice changes. Moreover, if the schwannomas arises in the posterior two-thirds of the tongue, they are more likely to produce debilitating symptoms [4].

The imaging modality of choice for schwannomas of the tongue is Magnetic resonance imaging. MRI is superior to computed tomography in several aspects. The MRI image is not degraded by dental amalgam or the beam-hardening artifacts that plug CT scanning of the oral cavity. In addition, MRI allows an accurate measurement of tumor size and precise localization in relation to other structures. On MRI, tongue schwannomas appear isointense to muscle on T1-weighted images and homogeneously hyperintense on T2-weighted images [4,8]

All reported cases of schwannomas of the tongue have been treated by surgical excision. The most common approach was the transoral route. This is an obvious choice for approaching these tumors since most are easily accessible via this route [4] Several other approaches have also been reported to have success including submandibular, suprahyoid pharynxotomy, and transhyoid approaches. All of these approaches were used for base of tongue schwannomas that were deemed difficult to approach by the transoral route [4]. More recently, the use of CO2 laser for excision of a base of tongue schwannoma has also been reported [9]. The goal of surgical therapy is to complete resection. If this is accomplished, recurrence is rare.

The diagnosis of this tumour is usually straightforward but differential diagnosis may be difficult in some cases and immunohistochemistry and special stain can be useful in diagnosis. The differential diagnosis includes benign lesions such as granular cell tumours, leiomyoma, lymphangioma, lipoma, lingual thyroid and malignant lesion like squamous cell carcinoma, cancer of salivary glands and soft tissue sarcoma. The final diagnosis is always made after a definitive histological examination with the presence of alternating patterns of Antoni A and B areas, nuclear palisading, whorling of cells and Verocay bodies [10].

To conclude Schwannoma of the tongue is a relatively rare tumor of the head and neck. Transoral resection allows for removal of this tumor in a manner that precludes recurrence, avoids causing morbidity of tongue function, and remains the standard approach.

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