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Unusual Lingual Swelling –A Case of Schwannoma

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ABSTRACT

Schwannoma is benign neurogenic neoplasm consisting of Schwann cells which is slow growing and usually found single. Approximately 1-12 % occur intraorally. We report a case of 42 year old male with lingual schwannoma at the tip of tongue, its symptoms. Immunohistochemistry was diagnostic and definitive management was complete surgical removal with tip reconstruction.

Keywords: Schwannoma, Benign Lesions of Tongue, Neurilemmoma

*See End Note for complete author details

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INTRODUCTION

Schwannoma is a benign nerve sheath tumour which is encapsulated. It occur alone or as a part of genetic disorder like neurofibromatosis type I (NF1) and type II (NF2) owing to the mutation of NF2 gene on chromosome 22q12.2. This function as a tumour suppressor gene. The tumour can affect the peripheral, cranial and autonomic nerves. Incidence in head and neck is 25-45 % with intraoral being 1-12%. In the oral cavity tongue is the most common site of occurrence, followed by palate, floor of mouth, buccal mucosa, gingiva, lips.[1] They are usually asymptomatic unless they attain appreciable size causing impingement on the affected nerve causing development of paresthesia and difficulty in phonation, pain, loss of taste sensation, motor and sensory loss. If base of tongue is affected it causes dysphagia, dysarthria, airway compromise. Peak incidence is in 20 -50 years with no sex predilection. The treatment approach is surgical excision. Recurrence rate is low. Malignant change is rare.

CASE REPORT

A 42 year old male presented with painless reddish lesion of slow increase in size over the tip of the tongue of 6 months duration. He complaints of difficulty in speech & increased sensitivity to spicy food. On examination of oral cavity shows a 3X2X3 cm globular swelling involving the tip of tongue slightly extending to right lateral border **(figure 1)** which was non tender, not bleeding on touch, firm in consistency, no nodes palpable over neck.

Contrast enhanced MRI of neck **(figure 2)** shows T2 hyperintense & T1 hypointense heterogeneously enhancing lesion (2x1.8x1.3 cm) involving midline & right side of tongue-possibility of mesenchymal lesion. FNAC of the lesion suggestive of spindle cell lesion. Proceeded with wide local excision of lesion

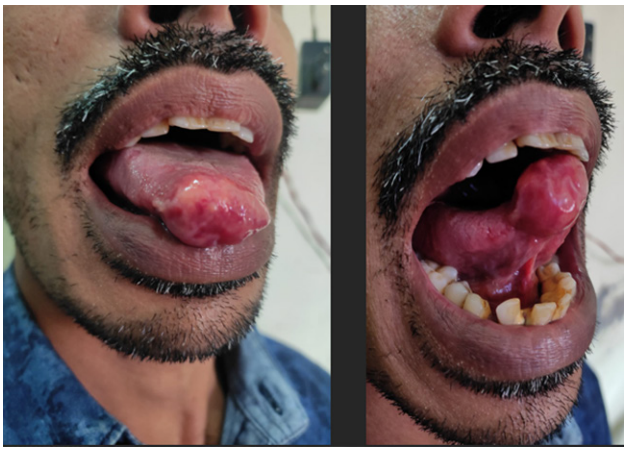

Figure 1. Clinical manifestation of lesion over the tip of the tongue

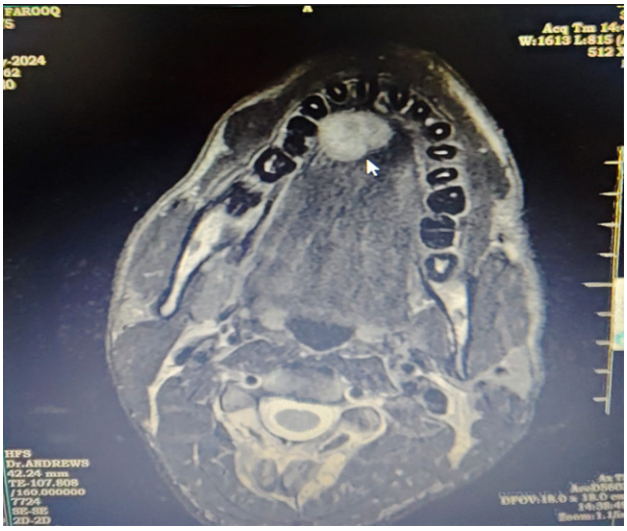

Figure 2. Contrast enhanced MRI of tongue

with primary closure **(figure 3).** Histopathological examination was found to be spindle cell neoplasm and immunohistochemical examination showed vimentin,s 100,CD 34 positive and low Ki 67 which was suggestive of benign neural neoplasm – epitheloid schwannoma. Patient underwent wide local excision of the lesion and tip reconstruction by primary closure. Postoperative period was uneventful. There was no recurrence till 1year of followup. Postoperative speech articulation evaluation was done and was fairly good.

DISCUSSION

Schwannoma also known as neurilemmoma is a rare, benign, encapsulated perineural tumour of neuroectodermal origin that is derived from the Schwann cells of the neural sheath.[2] Clinically it is a slow growing tumor. It was first described by Verocay in 1908.

Commonly arise from spinal roots and cervical, sympathetic, vagus, peroneal and ulnar nerves. The most common nerve to be affected in head and neck is vestibulocochlear nerve. Incidence of extracranial head & neck schwannoma is 25-45% of which intra oral schwannoma constitute 1 %.Most common site of occurrence is tongue>palate>floor of mouth>buccal mucosa>mandible. Within the tongue neurilemmoma arise from the hypoglossal nerve. Erlandson classified it into classical, cellular, plexiform, cranial nerve, melanotic, degenerated, granular cell.[3]

In tongue it occur in two parts around two thirds in anterior part of tongue. When affecting base of tongue patient present with pain, dysphagia, dysphonia, sleep apneas, bleeding and infection. Well-formed fibrous capsule is a characteristic feature of soft tissue schwannomas but tumours that arise from nose and paranasal sinus are not encapsulated. On histopathological examination it is characterized by 2 pattern of tissue. Antoni A in which schwann cells arranged in a cellular palisading pattern with Verocay bodies and Antoni B in which cells are much more loosely arranged. The diagnosis confirmed with immunohistochemistry and the markers are s-100 and SOX 10.The diagnosis is suggested by FNAC. The imaging modality preferred is MRI for detailing extent of tumor. T1 weighted image show iso/hypointense and T2 weighted image shows heterogeneously hyperintense Ultrasonography and CT also used.[4]

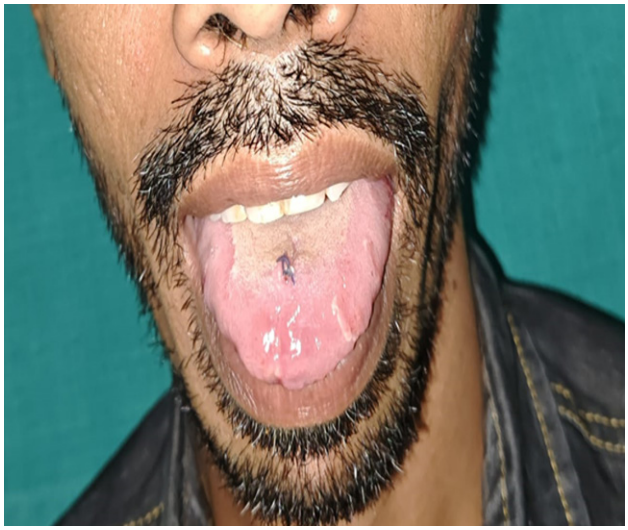

Figure 3. Intraoperative picture of the excised lesion & post-operative well healed wound with well-maintained contour of tongue.

Differential diagnosis includes Mucocele, fibroma, lipoma, benign salivary gland tumour, traumatic neuroma, mucosal neuroma, ganglioneuroma, solitary circumscribed neuroma, spindle cell melanoma. Recurrence of schwannoma is rare and if do recur due to incomplete removal.[1]

In our case since the tip of the tongue was involved which is affecting articulation of speech management needs addressing the need for tip reconstruction for the fair postoperative speech and we had a clinical and cosmetic favourable outcome **(figure3).**

END NOTE

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