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# Intrigue Below the Tongue: Triumph Over Floor of Mouth Schwannoma

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**Abstract**
*Schwannomas are benign tumors arising solely from schwann cells, usually presenting as asymptomatic painless mass. They are rare in the oral cavity, where the most commonly affected site is the tongue. We are presenting a case report of a middle-aged male patient with a four-year history of painless mass in the floor of mouth diagnosed as schwannoma post operatively.*

***KEYWORDS****: Schwannoma, Floor Of Mouth Tumor, Trans Oral Excision*

## I. Introduction

Schwannomas are benign tumors arising from epineural schwann cells, most affecting people in their third to fifth decade. Over a quarter of these schwannomas occur in the head and neck regions. Floor of mouth is a rare site for occurrence of schwannoma and have been reported in the literature since the last decade. We are presenting an intra oral schwannoma arising from the floor of the mouth in a middle-aged male patient.

## II. Case Report

34 years male patient hailing from the southern part of India, presented with swelling over the left side floor of the mouth for four years which was insidious in onset, gradually progressing in size. Patient noticed a rapid increase in the size of the lesion for past two months for which medical attention was sought. Patient denies any history of associated pain or swallowing or breathing difficulty. There is no history of swellings elsewhere in the body. There is no significant family history suggestive of any such lesions in the oral cavity or elsewhere in the body. Past medical history was unremarkable. Clinical examination revealed a single firm swelling of size 6* 4 cm arising from the floor of mouth on the left side, anteriorly extending till the frenulum and posteriorly reaching till the level of the third molar tooth (Fig 1). Rest of the oral cavity examination is within normal. Examination of the rest of the head and neck region was within normal.
Magnetic resonance imaging of the neck with contrast revealed a lobulated mass of size 2.2x4.5x4 cm which was T1 isointense and T2 hyperintense in the floor of the mouth. Contrast enhanced computed tomography revealed a heterogeneously enhancing lesion with few internal calcifications. Fine needle aspiration cytology was done from the lesion and possibility of mesenchymal neoplasm was revealed

Patient was advised surgical excision of the mass and transoral excision of the mass was carried out. Intra operatively 6x4 cm firm swelling was identified and delineated from the surrounding attachments and removed intoto (Fig 2 ,3,4). Post-operative period in the hospital was uneventful and patient is being followed up in our otorhinolaryngology outpatient basis.

Histopathological examination of the intra operative sample showed encapsulated tumor of short intersecting fascicles of spindle cells in predominantly myxoid background with thin walled to hyalinized vascular channels. The spindle areas show focal areas of palisading nuclei. Ill-defined verocay bodies are seen. Spindle cells shows wavy elongated and oval nuclei, fine chromatin, conspicuous nucleoli, ill-defined fibrillary cytoplasm. Immunohistochemical analysis reveals S 100 expression, in favor of schwannoma.

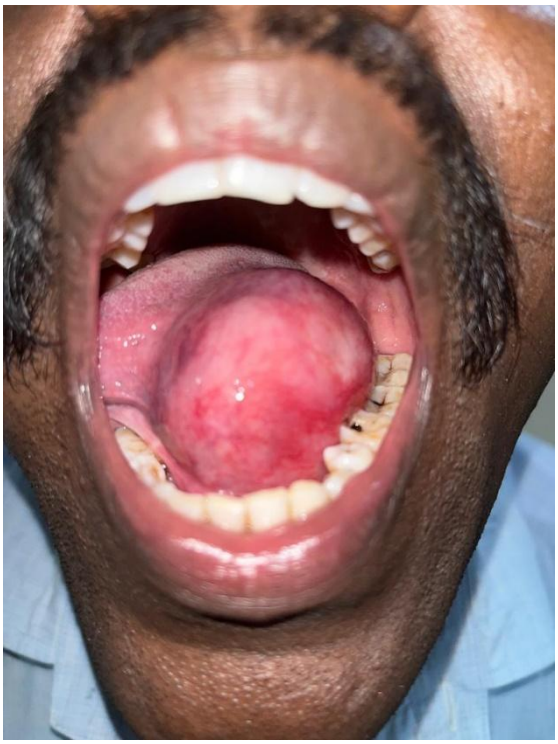

Fig.1 – clinical examination showing a single firm swelling of size 6x4 cm arising from the floor of mouth

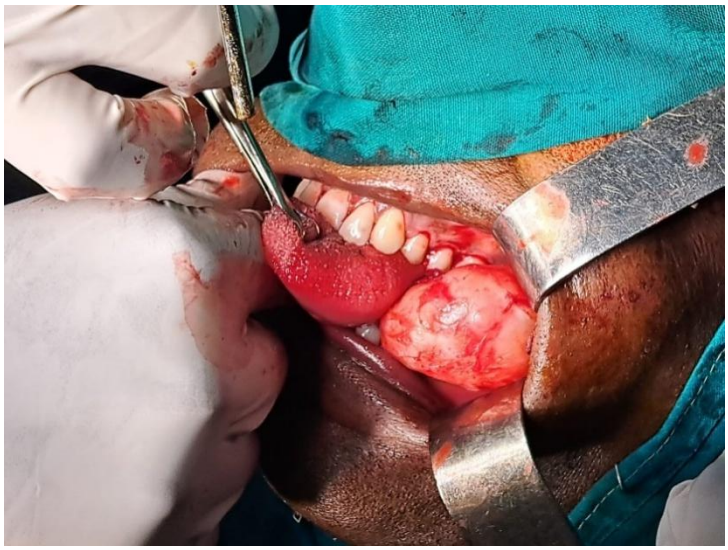

Fig.2- Intra operative picture depicting the mass

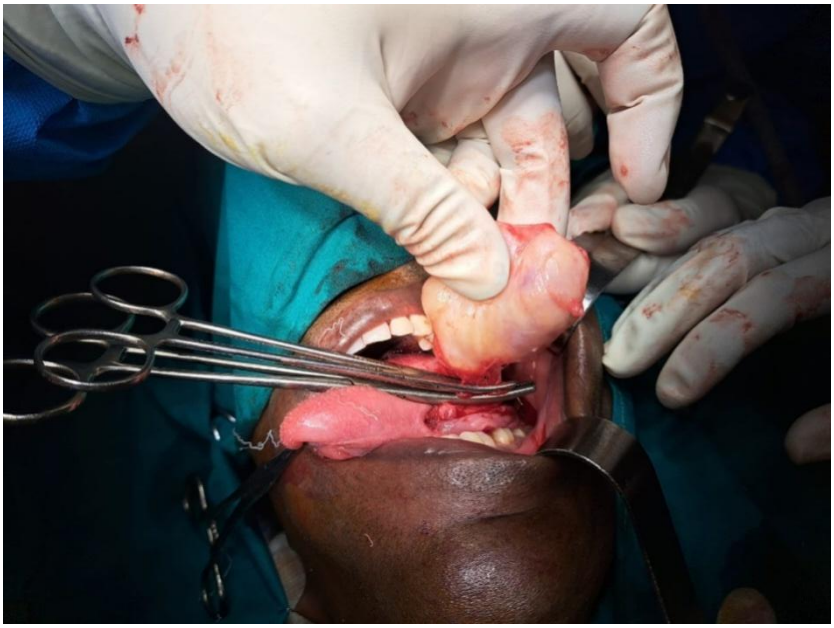

Fig.3 – Intra operative picture showing removal of the mass intoto

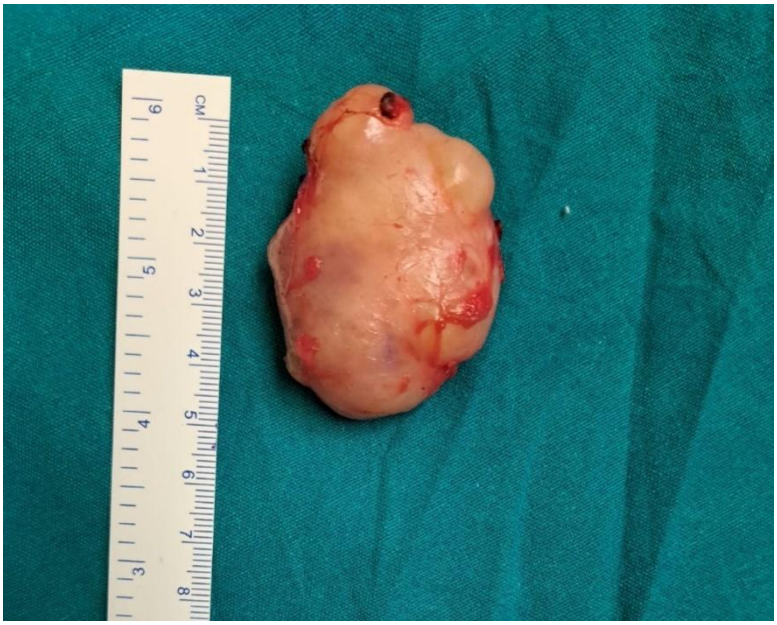

Fig.4 – Post operative specimen showing firm mass with bosselated surface

## III. Discussion

Schwannoma or neurilemmoma are benign tumors arising from epineural schwann cells of the extracranial schwannomas, quarter of them are present in the head and neck region. Schwannomas mostly present in the third to fifth decade, with no sex predeliction[1]. Most common site of intra oral schwannoma is the tongue followed by buccal mucosa. Involvement of the floor of mouth is rare and has been reported in the literature in the last decade. Schwannomas are usually solitary lesions but can also occur as multiple lesions associated with hereditary conditions such as neurofibromatosis type 1 [1]. Usually they present as asymptomatic lesions, but

rarely be associated with pain or tenderness. Schwannoma is characterized by a slow growing encapsulated tumor, associated with a nerve trunk, usually pushing it aside[1].Since the morphological and radiological picture of schwannoma are variable, histopathological examination provides the definitive diagnosis[2]. Histopathological examination reveals Antoni A areas composed of compact spindle cells with indistinct cytoplasmic borders arranged in bundles with the presence of nuclear palisading and Verocay bodies. Antoni B areas which are less orderly and cellular are also found [1]. These tumors can undergo degenerative changes including hyalinization, calcification, hemorrhage and nuclear atypism[1]. Immunohistochemical analysis shows S-100 being commonly expressed in all schwannomas.

These tumors rarely exceed 5 cm in size. Radiological evaluation is variable and mostly appears homogenous on computed tomography[2]. MRI shows an isointense lesion in T1 weighted imaging and hyperintense lesion in T2 weighted imaging.

The current modality of treatment for intra oral schwannoma is surgical excision of the tumor as these tumors are radioresistant. Trans oral approach is most commonly employed, based on the size and location external approaches may be needed[2].Complete excision of the tumor reduces the chance of recurrence. Chance of relapse is rare and have a good prognosis[5]. Malignant transformation of schwannoma is rare.

## IV. Conclusion

Schwannomas are benign painless tumors, rarely found as intra oral tumors usually not exceeding 5 cm in size. We present a case report of a rare site of occurrence of schwannoma, in the floor of mouth. Patient underwent transoral excision of tumor and definitive diagnosis was confirmed with histopathological examination of the specimen. Schwannomas being rare intra orally, can be misdiagnosed as a sublingual malignancy at times. Owing to the morphological and radiological variations, definitive diagnosis can be made from histopathological evaluation alone.

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