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Schwannoma of Tongue in a Young Patient: A Rare Case Report

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Abstract: ***Schwannomas are rare peripheral benign nerve sheath tumour. Intra oral location is very uncommon (only 1%of head and neck schwannomas) and in it tongue is the most common intra oralsite. It is a well circumscribed encapsulated lesion which rarely infiltrate and metastasize. We report a case of 15-year-old male patient with an asymptomatic swelling in left lateral and upper part of tongue. Histopathology & Immunohistochemisrty examination confirmed the diagnosis complete surgical excision was performed and no recurrence was noted on follow up.***

1. Introduction

Schwannomas also known as neurilemmoma is rare, slow growing, solitary, encapsulated, benign neoplasm arising from any nerve covered with schwann cell which include peripheral autonomic nerves, cranial except (optic and olfactory) spinal nerve[1].

Schwann cells form an outline around each extra cranial nerve fiber which leaves brain and spinal cord to enhance nerve conduction. Schwannomas arises when proliferating schwann cells form tumour mass comprising of motor and sensory peripheral nerves.

Schwannomas mostly occur in 2nd-4th decade of life, there is no gender and race predilection with unknown etiology. Approx. 25-48 % arise in head & neck of which only 1-12% occur intra orally.

In this intra oral location tongue is the most common site followed by Palate -floor of mouth -buccal mucosa and mandible[2].

We present a case report of 15yr old male patient.

We have Completed surgical excision for the above case and removed it withthestandard approach.Recurrence and malignant transformation are very rare in Schwannoma.

2. Case Report

We report a case of 15 years old Male patient came to the department of oral and maxillofacial surgery with complaint of mass on the tongue (Left lateral side). On examination mass noted on left lateral upper border of tongue measuring 1 cm X 2 cm.

It was well circumscribed nodule pain less, solitary lesion. It was smooth and rubbery in consistency. It was slow growing since 1year.

On examination patient was asymptomatic with other clinical examination of oral cavity appears normal. The personal history was not significant and cervical lymph nodes were not palpable.

FNAC was performed and was inconclusive. An excision biopsy under LA (local anesthesia) was performed total mass was removed using blunt dissection.

D/D (Differential diagnosis) included salivary gland tumour, haemiangioma, neurofibroma, Leiomyoma, Rhabdomyoma etc.
Tissue was sent for H&E examination and revealed schwannomas comprising of Antoni A&B areas with verruca bodies. The procedure went uneventful during surgery and postoperatively. No Recurrence was noted during the follow-up.

Figure 1: Pre-operative profile picture of the patient

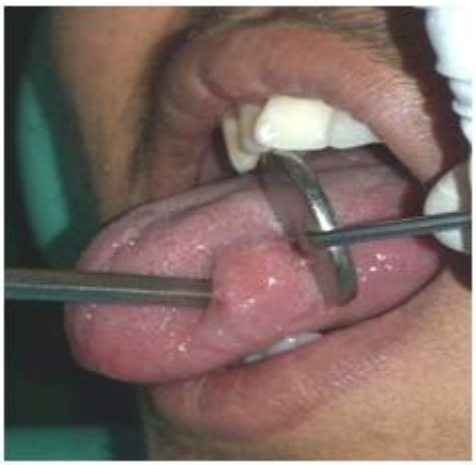

Figure 2: Pre-operative profile picture of a well circumscribed nodular mass on tongue

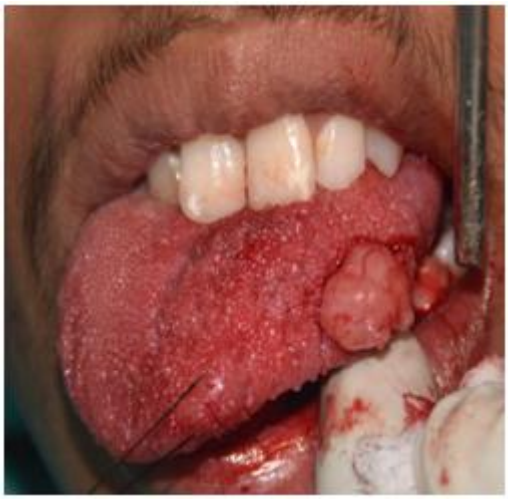

Figure 3: Encapsulated lesion

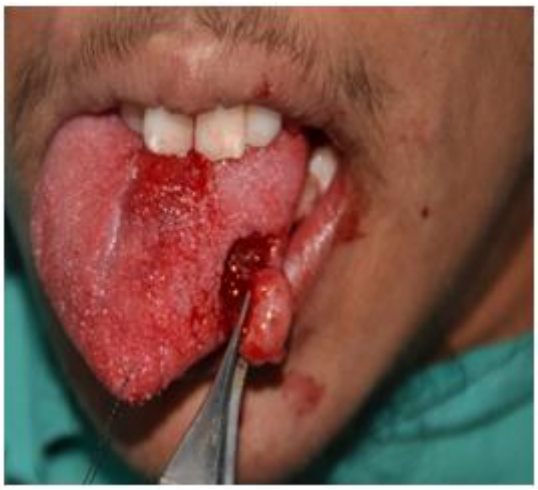

Figure 4: Excision of the lesion

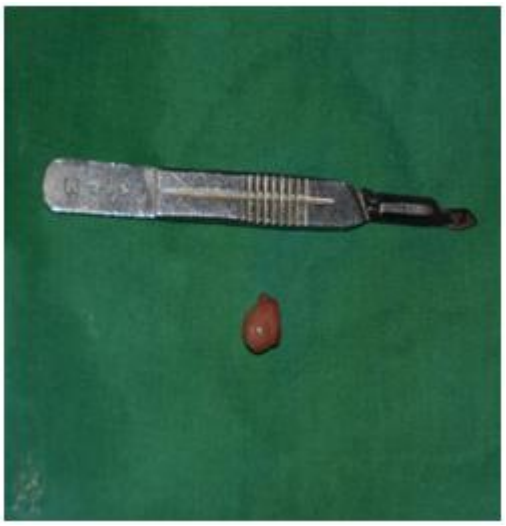

Figure 4: Excised mass

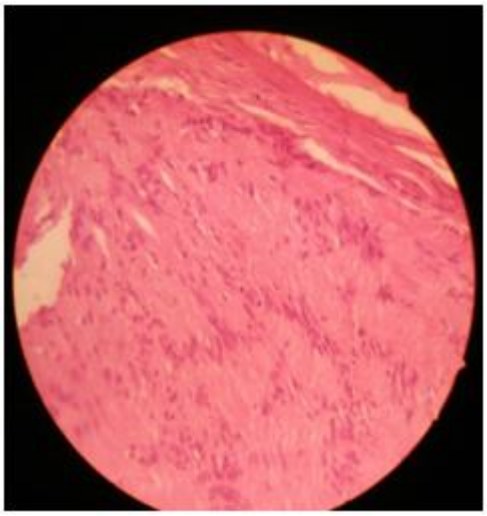

Figure 5: Histopathological picture showing Antoni A an Antoni B cells, palisading nuclei and verruca bodies

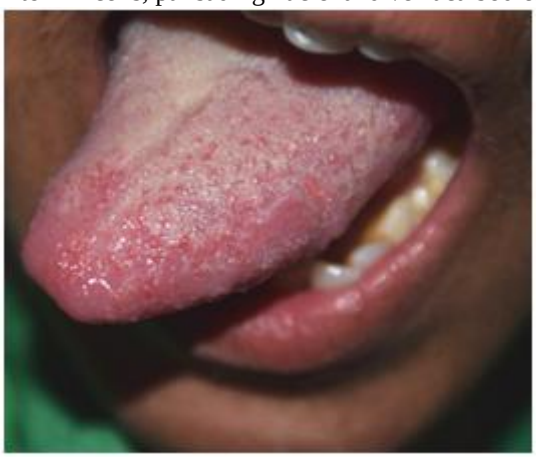

Figure 5: Post-operative picture showing no signs of recurrence

3. Discussion

Schwannomas are rare, benign neoplasm occurring in head and Neck region about 25-45%. however only 1% Schwannomas occur intra orally[3.]

Schwannomas are mostly small, well circumscribed, slow growing nodular lesion. Most of the cases are asymptomatic and many have long duration and large size because they lack symptoms. The presence of pain dysphagia or neurological alteration due to compression of peripheral nerves is observed with large sized tumour but sometimes also depends upon the anatomy of the affected areas.

Schwannomas are usually solitary lesion but at times are multiple or occur in setting with neurofibromatosis. Intra osseous localization is rare in jaw bones and represent less than 1% of benign primary tumours. Ulceration of the overlying mucosa is rare however it may occur as a result of trauma.

The Histological lesion reported a thin fibrous capsule and a tumour like proliferation formed by 2 types of tissue arrangements i.e. Antoni type - A and Antoni type -B.

Antoni type - A tissue consisted of densely packed tissue forming bundles having elongated, palisade nuclei, and the amorphous substance seen between the nuclei constitute the verruca bodies[4].

Verruca bodies which viewed under electron microscope showed thin cytoplasmic process.

Small amount of collagen and basal laminar material showing frequent redoubling.

Antoni type - B tissue consisted of reduced number of fusiform cells which are widely separated randomly having a network of delicate reticularfibers.

Multiple angiomatous Clusters are frequently seen representing vascular nature of the tumours.

Preoperatively imaging like CT and MRI was not done as it is not supported by literature.

Kun. et. al could correctly diagnose only 4 cases out of 49 cases studied with the help of imaging modalities and concluded that diagnosis is difficult based on imaging. However, it is important to rule out any malignancy [2,5].

Immunohistochemical staining with anti S-100 proteins antibody was not performed. Because of its morphological appearance they are clinically indistinguishable and can be confused easily with a variety of benign and malignant neoplasm. Histopathological examination can determine an appropriate diagnosis[7.]

Since the lesion was small, well defined and encapsulated the standard treatment of complete surgical resection was chosen through transoral approach.[8]

Recurrence and malignant transformation are rare and mostly not noticed. However, the risk of malignant transformation of Head and Neck Schwannomas varies from 8-10%only.[9]

4. Conclusion

Because of the rarity of schwannomas, a careful clinical distinction should be done from fibroma, Rhabdomyoma, benign tumour of the salivary gland, Leiomyoma, Lymphangioma, Haemangioma. Definitive diagnosis is established only after histopathological evaluation and treatment include complete surgical excision. Recurrence and Malignant transformation are unlikely to occur.

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