

Case Report

Clinical Representation, Diagnosis and Management of Intraoral Schwannoma: A Case Report

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ABSTRACT:

Schwannoma is relatively uncommon slow growing lesion that is most commonly encountered in the nerve sheath. The tongue is the most common site followed by palate, floor of mouth, buccal mucosa, lips and jaws. It is usually occurring as asymptomatic, solitary, smooth surfaced and slow growing lesion, emerging at any age with no gender predilection. Occurring as a common tumour in the head and neck region, its intraoral presentation is very rare. Here, we are reporting a rare case of intraoral schwannoma in the region of lower labial mucosa. This occurred in a 29-year old male patient who had chief complaint of a painless, slow growing swelling on lower labial mucosa.

Keywords: Antoni type, Lesion, Neoplasms, Schwannoma, Swelling, Tongue

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INTRODUCTION

Schwannomas are benign, slow-growing, epineurium-encapsulated neoplasms arising from Schwann cells that comprise the myelin sheaths surrounding peripheral nerves. Schwannomas show 2 histologic patterns: Antoni type A and Antoni type B. Although these tumors may affect any site of the body, 25% to 48% of these lesions are found in the head and neck region. Schwannomas of the head and neck occur both intracranially, mainly at the cerebellar pontine angle, and in peripheral soft tissues, mainly the tongue followed by the palate, floor of mouth, oral mucosa, and mandible. Schwannomas involving soft tissues appear as a smooth submucosal swelling, resembling other lesions such as mucocele, fibroepithelial polyp, fibroma, lipoma, and benign salivary gland tumors. Normally, schwannomas are slow-growing tumors that might be present for some years before becoming symptomatic. Swelling is the most common symptom, followed by paraesthesia. Over time, schwannomas may grow to large proportions, with their increase in size probably being associated with intra-lesional haemorrhage. Conservative surgical removal is the

treatment of choice, with wide excision not being recommended. If complete enucleation is achieved, no recurrence should be expected.

CASE REPORT

A 29 years old male patient came to the department of oral medicine and radiology of ST. Joseph dental college with a chief complaint of swelling at the left corner of mouth in the last 1 year .PT gives history of swelling in the past 1 year which is smaller in size and gradually increased to attain the present size. The patient gives history of cheek biting habits in the last 3 years .NO history of drug or food allergy. No history of pain and fever on intraoral examination, solitary dome shaped swelling is seen on the left corner of the lip of size approximately extending anterior – posterior from the left corner of lip 2cm away from the left retromolar area and Superio - inferiorly at the level of occlusion. The swelling is non tender palpable, soft to firm in consistency, smooth in texture movable, compressible, Fluctuation positive andnon-reducible and no discharge is evident. Clinical diagnosis given as Mucocele involving the lower

labial mucosa. Differential diagnosis given as Traumatic fibroma, fibro-lipoma. Investigations performed are Diascopy, blood investigations which include complete blood picture, bleeding and clotting

time, HbsAg, Tridot. After the investigations, we have performed the excisional biopsy under local anaesthesia. Post operative instructions were given to the patient.



Figure 1: Lesion involving lower labial mucosa



Figure 2: Diascopy

Test Name	Result	Units	Reference Range
DEPARTMENT OF HAEMATOLOGY			
COMPLETE BLOOD PICTURE			
Hemoglobin	14.4	gm%	Male : 12.0 – 18.0 gm % Female: 11.0 – 16.0 gm %
RBC count	6.18	mill/cumm	3.5 - 5.5 mill/cumm
PCV	43.5	PERCENTAGE	40-50%
MCV	70.4	FENTO/LITERS	80-100FL
MCH	23.4	PICO/GRAMS	27-32Pg
MCHC	33.2	GRAM/DESI LITERS	32-34g/dl
RDW	13.8	PERCENTAGE	11.6-14.0%
Platelet Count	3.10	Laks /cumm	1.5–4.5Lakh/cumm
Total WBC count	8.30	cumm	4,000 – 11,000/cumm
DIFFERENTIAL COUNT			
Neutrophils	51	%	55 – 70%
Lymphocytes	44	%	25 – 40%
Eosinophils	02	%	01 - 08%
Monocytes	03	%	02 – 06%
Basophils	00	%	00 – 01%
BT CT			
Bleeding Time	1 MIN 10 SEC		1 - 3 minutes
Clotting Time	3 MIN 45 SEC		3 - 7 minutes
DEPARTMENT OF IMMUNOLOGY			
HIV			
HIV I	NON REACTIVE		
HIV II	NON REactive		
HBs Ag			
HBs Ag	negative		

Figure 3: Blood Investigations



Figure 4: Excisional Biopsy and Suturing Done (From Left to Right)

<u>HISTOPATHOLOGY REPORT</u>	
PATIENT NAME: A. ANIL KUMAR	REFERENCE: Dr. MRUDULA
AGE:30 YEARS	DEPARTMENT: OMR
SEX: MALE	SPECIMEN RECEIVED ON:02/05/23
BIOPSY NO:67/23	REPORT DISPATCHED ON:06/05/23
MACROSCOPIC FEATURES:	
Received soft tissue bit of size 1.6x0.8x0.4 cm, irregular in shape, cremish brown in color. soft in consistency with irregular borders.	
HISTOPATHOLOGIC FEATURES:	
The given H&E stained section shows an encapsulated lesion with overlying parakeratotic stratified squamous epithelium. The lesional tissue shows Antoni type A & type B areas. Antoni type A areas have central acellular, eosinophilic verocay bodies with peripheral palisading nuclei. Antoni type B are less cellular with more haphazardly arranged spindle shaped cells. Endothelial lined blood capillaries & minor salivary glands are also evident. These features are suggestive of schwannoma.	
HISTOPATHOLOGICAL DIAGNOSIS: SCHWANNOMA.	

Figure 5: Histopathology Report

DISCUSSION

Along with neurofibromas, perineurium’s, granular cell tumours, and malignant peripheral nerve sheath tumours, schwannomas are among the most prevalent types of peripheral nerve sheath tumours. Schwannomas are well-circumscribed, benign tumours that are typically associated with peripheral nerves. They are made up of clonal populations of Schwann cells, which frequently experience degenerative and cystic changes. Schwannomas are often isolated tumours that frequently affect the flexor surfaces of the limbs as well as the tiny peripheral nerves in the head and neck. The vestibular branch of the eighth nerve is a common intracranial source for central lesions, but they can also originate from the trigeminal nerve and, in the case of NF2, other lower cranial nerves. Central lesions are most frequently caused by sensory nerve roots. Schwannomas are smooth nodules with a yellow or brown appearance on the punctured surface. They frequently feature

regions of bleeding and cystic transformation. Occasionally, the nerve of origin is apparent. Under the microscope, schwannomas are well-defined, with a capsule encircling them. They have regions made up of fascicles of Schwann cells with the spindle cell morphology (Antoni A pattern), which can abruptly transition to other areas that are more loosely textured and microcystic (Antoni B pattern) or merge with them.¹⁻⁵ In our case we have clinically found that a solitary swelling on the left corner of the mouth which is non tender, movable, with a history of cheek biting habit in the last 3 years. Excisional biopsy was performed under local anaesthesia, Histopathological features shows an encapsulated lesion with overlined parakeratotic stratified squamous epithelium. The lesional tissue shows Antoni type A and type B areas. Antoni type A areas have central a cellular, eosinophilic verocay bodies with peripheral palisading nuclei. Antoni type B is less cellular with more haphazardly arranged spindle shaped cells.

Endothelial lined blood capillaries and minor salivary glands are also evident. These features are suggestive of Schwannoma.

CONCLUSION

Schwannomas are benign tumours of the peripheral nerves that are rather common. They can arise occasionally or in conjunction with certain inherited tumours syndromes. Treatment for deep-seated and numerous tumours (especially when associated with a hereditary condition) may be more challenging, even though the majority of peripheral tumours are easily removed surgically and many may be asymptomatic. Recent advances in our knowledge of the pathophysiology of these tumours have shown that merlin abnormalities account for both genetically acquired and spontaneous schwannomas, and the pathways via which merlin loss initiates tumours formation are being uncovered.

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