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Schwannoma of soft palate

Sivasankari.L* and Selvam DK
Assistant Professor, Department of ENT, Thoothukudi Medical College Hospital, Thoothukudi

Case Report

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***For Correspondence**

Dr. L. Sivasankari, Department of ENT, Thoothukudi Medical College Hospital, Thoothukudi-628008, Tamilnadu, India.

E-mail: dr.sankariram@gmail.com

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ABSTRACT

Schwannomas are benign, slow growing neoplasm that mostly arises from myelinating cells of peripheral nervous system. Intra oral schwannomas itself is rare, tongue being the commonest, but involvement of palate is a rare presentation. This is a case report of 38 years old male who presented to us with mass inside the oral cavity, difficulty in swallowing and change in voice for 3 months. As it was a large mass almost occluding three fourths oral cavity, retrograde intubation done, mass excised in toto. At this location, the clinical diagnosis was confounded by other tumours such as minor salaivary gland tumour, fibroma, tense retension cyst of soft palate. But biopsy revealed Schwannoma which is so rare.

INTRODUCTION

Schwann cells are of two types, myelinated and nonmyelinated. Schwannomas are usually benign, slow growing, encapsulated, perineural tumour that originates from myelinating cells of peripheral nervous system composed entirely of Schwann cells. It develops from peripheral motor, sensory, sympathetic or cranial nerve sheaths. It does not arise from cranial nerve I and II because they lack Schwann cells. In the parapharyngeal space, it arises from vagus nerve and cervical sympathetic chain. About 25- 45 % of schwannomas occur in the head and neck regions , but only 1 % is intra-oral in origin [1,2,3]. When intra- oral, tongue is the most favoured site .Other sites include floor of mouth, gingiva, palate, vestibular mucosa and lips. It is also named as neurilemmoma, neurinoma, Schwann cell tumour. The etiology is unknown. The treatment of choice is surgical excision [4]. When the tumour is encapsulated, the excision is simple and the difficulty arises, in preserving the associated nerve. The prognosis is usually very good.

CASE REPORT

A 38 year old man presented with symptoms of mass inside the oral cavity, difficulty in swallowing and change in voice since three months. Patient was not a smoker or alcoholic. On examination of oral cavity a large globular mass approximately of 5 x 3 cm occupying the left side of palate noted which was occluding ¾ area of air and food passage. The mass was tense cystic to firm in consistency with minimal change in the surface of mucosa in the lower aspect which was due the irritation of the food particles. No regional lymph nodes were palpable. CT with contrast **(Figure 1)** revealed a hypodense mass lesion in the soft palate occluding the oropharynx. A provisional differential diagnosis of minor salaivary gland tumour, massive retension cyst of soft palate, fibroma was made. Patient was planned for excision biopsy. As we preferred a nasal intubation in view of good working space, and because of large size of the mass, retrograde nasal intubation was done by inserting a guide wire through the cricothyroid membrane and routing the endotracheal tube with the help of guide wire through the nose. Trial aspiration of the mass was done and found to be a dry tap. An incision made over the mass and blunt dissection of the mass was done and the mass was excised **(Figure 2)** and sent for biopsy. Post- operative period went uneventful and the patient was treated with antibiotics, anti- inflammatory drugs and advised to maintain good oral hygiene. Cut section of the mass revealed patchy haemorrhagic central and peripheral pallor regions. Histopathological examination of the excised specimen was reported as Schwannoma. Even after follow up of one year, there has been no recurrence and patient is under our follow up till date.

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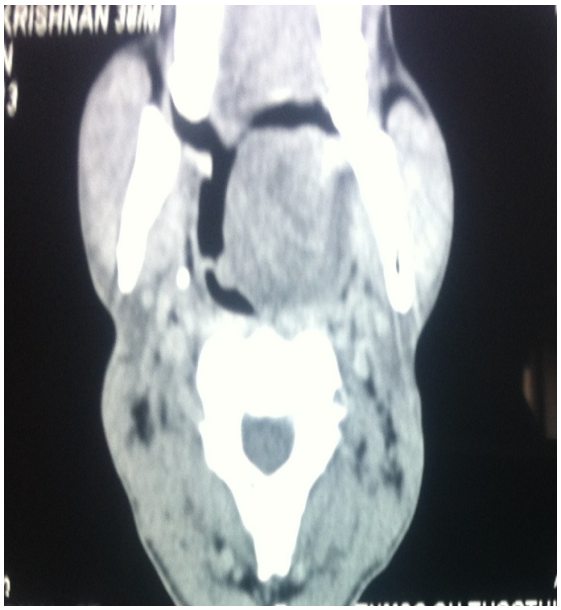

Figure 1

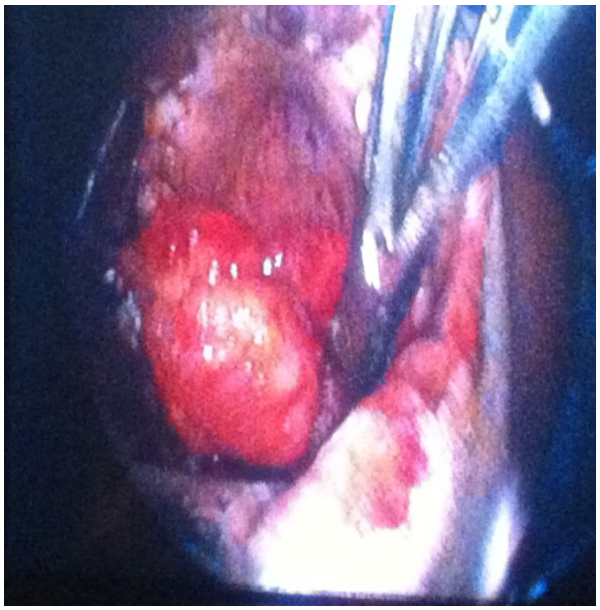

Figure 2

DISCUSSION

Schwannomas are benign encapsulated nerve sheath neoplasms composed of Schwann cells, first described by Verocay in 1908 [5]. They can arise from any cranial, peripheral or autonomic nerve. Schwannomas which affect the vestibular branch of VIII Nerve or the dorsal root of spinal cord is common. A bilateral schwannoma of vestibular nerve is a characteristic feature of Neurofibromatosis type II and patients with multiple schwannomas should be evaluated for Von Recklinghausen's disease [6]. NF 2 gene encodes Merlin (i.e schwannomin) a tumour suppressor protein, which is typically lost in most of schwannomas. This neural tumour can occur at any age; however it is more common in the second and third decades. There is no sex predilection. Other names include neurinoma, neurilemmoma, perineural fibroblastoma.

In 1920, Nils Ragnar Eugene Antoni, a Swedish neurologist described two distinct patterns of cellular architecture in schwannoma. Antoni type A – hypercellular, shows increased number of spindle shaped cells with verocay bodies and bizarre looking nuclei and Antoni type B – hypocellular areas with spindle shaped cells, elongated nuclei, scanty cytoplasm, odematous stroma with few dilated blood vessels [7]. The immunohistochemical test reveal Schwannomas are positive for S – 100 protein a marker for Nervous system.

The clinical differential diagnosis should include traumatic neuroma, neurofibroma, mucosal neuroma, haemangioma, fibroma, lipoma and salaivary gland tumours [8]. CT scan of the oral cavity and oropharynx aids in locating the extent of lesion and the treatment of choice is excision [4]. The tumour is excised easily if encapsulated, whereas the non-encapsulated masses require normal tissue margin to avoid relapse. In our present case, the tumour was easily excised in toto with ease probably because of the encapsulation. If the nerve origin is visualized, every attempt should be made to preserve the nerve function. In our case the underlying nerve was not visualized and the patient does not have any paresthesia after the surgery. Until 2010, among intra-oral schwannomas, only few cases of lingual schwannomas have been reported [5]. Very few paediatric cases required correction of the palatal defects using buucinator myomucosal pedicle flap after excision [5]. Even though the size of the mass was big in our case, there was no palatal mucosal defect. Our patient has been followed up for one year, and there was no recurrence during follow-up. Immuno-histochemical study for s-100 protein was not done, in our patient as it was not available.

The prognosis is usually good, since it does not usually recur and chances of malignant transformation is rare. Malignant change in untreated schwannomas has been reported very rarely [3].

CONCLUSION

Schwannomas of soft palate are relatively very rare. Only very few cases have been reported so far. Surgical excision is the treatment of choice and typical histology will help in the confirmation of diagnosis [4]. The prognosis is good as they usually do not recur and chances of malignant transformation are rare.

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