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CASE STUDY

A RARE CASE OF SCHWANOMMA OF PALATE

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ABSTRACT

Introduction: Schwanomma are benign tumours of neural crest origin which are slow growing, well encapsulated soft tissue or intrabony mass. It may originate from any of central, peripheral or autonomic nerves that have Schwann cells. Two types are distinguished, central or peripheral. Schwanomma is most commonly found in tongue followed by floor of mouth, palate, gingiva, vestibule and salivary glands. We present a rare case of palatal schwanomma in a young male.
Case report: We present a case of 25 year old male patient who presented with history swelling in the roof of the oral cavity since two months. The tumour was solitary with a smooth surface. A fine needle aspiration study was indeterminate. Histopathological study revealed palatal schwanomma.
Conclusion: Palatal schwanomma is a rare benign solitary tumour. We are presenting this case since it is a rare case and patient recovered without morbidity. A high index of suspicion is required and possibility of schwanomma should be considered while observing an intraoral swelling. CT scan and fine needle aspiration plays a role in diagnosis of schwannoma. Surgical excision of the lesion was carried out. The definitive diagnosis is confirmed by the histopathological examination

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INTRODUCTION

Schwanomma (neurilemoma, neuroma or Schwann cell tumour) (Artzi *et al*., 1991) are benign tumours of neural crest origin which are slow growing, well encapsulated soft tissue or intrabony mass. (Martins *et al*., 2009; Zachariades *et al*., 2001) It may originate from any of central, peripheral or autonomic nerves that have Schwann cells. (Lollar *et al*., 2010) It is usually found in relation to the nerve sheath but extrinsic to the nerve fascicles. The tumour is solitary with a smooth surface and slow and asymptomatic growth and the clinical features depend on the nerve of origin. It does not recur and malignant transformation is rare. Two types are distinguished, central or peripheral schwanomma. It can develop at any age, more commonly in the third and fourth decade; there is no predilection for sex. About 25-45% of schwanommas arise in head and neck region with just 1% in the oral cavity, where it is most commonly found in tongue followed by floor of mouth, palate, gingiva, vestibule and salivary glands. (Isildak *et al*., 2010; Baranovic *et al*., 2006; Pfeifle *et al*., 2001; Baliga *et al*., 2009) Clinically these resemble salivary gland tumour, fibroma, lymphoma, palatal abscess.

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(Martins *et al*., 2009; Zachariades *et al*., 2001; Pfeifle *et al*., 2001; Baliga *et al*., 2009) In the following case we present a rare case of palatal schwanomma in a young male.

Case Report

Here we present a case of 25 year old male patient who visited the department of ENT at KEM hospital with history swelling in the roof of the oral cavity since two months. He had only mild discomfort while swallowing and no other significant complaint. It was not associated with pain or sudden increase in size. On clinical examination there was a 2 X 2X 1.5 cm mass seen just anterior to the of hard and soft palate, more on the right side (Fig. 1). It was pink, smooth, mobile, and firm in consistency with regular margins, non - tender and the overlying mucosa was normal. There was no involvement of surrounding dentition, floor of nasal cavity or septum and no associated cervical lymphadenopathy. Computerised tomography scan revealed a soft tissue mass 12mm x 20mm, present on right side of hard palate posteroaterally with provisional diagnosis as minor salivary gland tumor and it eliminated the possibility of any periapical mass or impacted third maxillary molar. Possibility of benign salivary gland tumour and benign mesenchymal lesions were considered in the differential diagnosis. A fine needle aspiration study was performed but was indeterminate. A wide local excision was

performed. The specimen grossly was yellowish and encapsulated. (Fig.2) Histopathological study revealed presence of spindle shaped cells with palisade arrangement surrounding a central necrotic area.

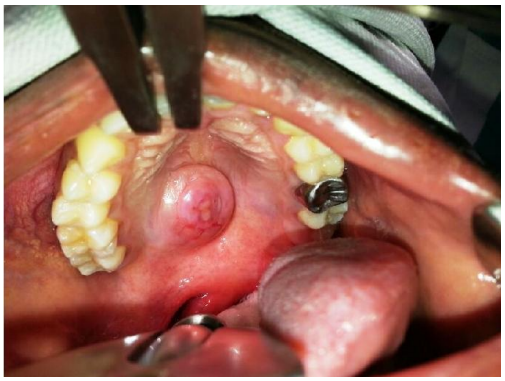

Fig. 1. Clinical photograph of patient showing right sided palatal swelling (Schwannoma)

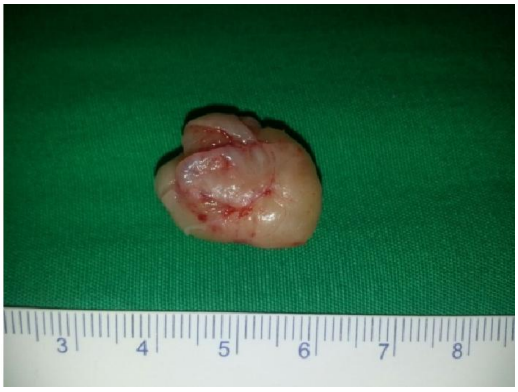

Fig. 2. Photograph showing excision of Schwannoma

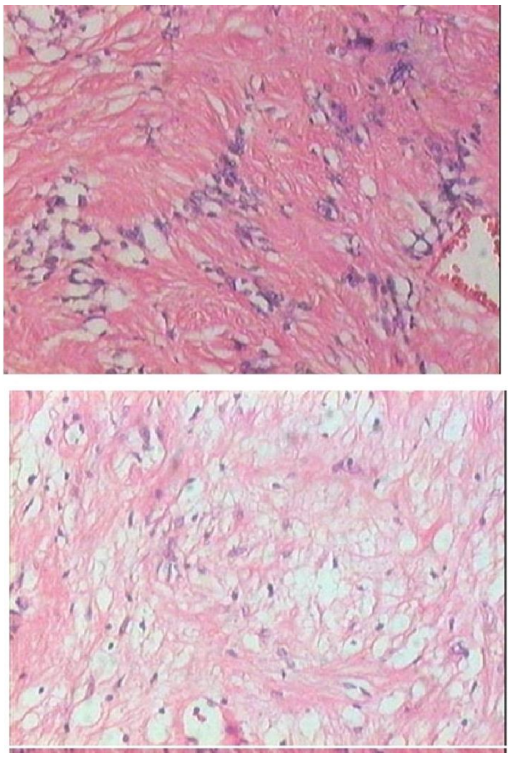

Fig. 3 (a&b). Histopathological examination typically of Schwannoma (Antoni type A & type B tissue)

Histologically, it exhibits two main patterns – Antoni A and Antoni B. Antony a tissue is represented by verocay bodies. There is palisading of the nuclei about a central mass of cytoplasm. In contrast Antoni B tissue is a loosely arranged stroma in which the fibers and cells from no distinctive pattern. A mixed picture of both types can exist. The final diagnosis was schwanomma (Fig. 3 a and B). Post operative period was uneventful.

DISCUSSION

Schwanomma or neurilemoma is a solitary, encapsulated, slow growing benign tumour arising from Schwann cells of peripheral nerve sheath. (López-Carriches *et al*., 2009; Rahpeyma *et al*., 2012; Prasanna Kumar and Meghashri, 2012; Shetty *et al*., 2012) Most commonly present in the head and neck, less frequently in the oral cavity, palatal schwanomma being a rare location. (López-Carriches *et al*., 2009) First case report of schwanomma in the hard palate was by Jones in 1987 and as of now 16 cases of palatal schwanomma has been reported , amongst which females have been more commonly affected compared to males. (Hribernik *et al*., 1992) Various studies differ in gender predilection. In a study by Lucas *et al* females are more frequently involved compared to males, where as William *et al* reported greater male predilection and a study by Weiss showed equal tendency in both males and females. (Martins *et al*., 2009; Isildak *et al*., 2010)

There are of two types, most common being the encapsulated one where it is surrounded by dense fibrous connective tissue and the other one is pedunculated, similar to a fibroma. (DasGupta *et al*., 1969) Diagnosing the tumour preoperatively is a challenge as fine needle aspiration cytology most if the times is indeterminate. (Hribernik *et al*., 1992; Kun *et al*., 1993; Colreavy *et al*., 2000) But computerised tomography and magnetic resonance imaging may be if help where it looks like a well defined tumour and the associated cystic changes may be present on account of haemorrhage or necrosis or mucinous degeneration within the tumour. (Ku and Yeh, 2000) The differential diagnosis includes benign salivary gland tumour most common being pleomorphic adenoma, malignant salivary gland tumour like mucoepidermoid carcinoma and other tumours of mesenchymal origin. (Muniz Santana *et al*., 2008)

Das Gupta *et al*. (1969) reported on 136 cases of schwannoma in the head and neck that consisted of 60 cases in the neck, 10 cases in the parotid gland, 9 cases in the cheek, 8 cases in the tongue, and 8 cases in the pharynx. Kun *et al*. (1993) reported in their study 49 cases, 18 cases in the neck, 11 cases were in the tongue. Wakoh *et al*. (2005) reported 22 cases of schwannomas among these, tumours located in palate 7 cases, tongue 4 cases, submandibular region or oral floor 3, buccal mucosa 2, mental skin 2, lip 2, gingival 1, temporal region 1.

The histological appearance consists of two types of tissues, Antoni A and Antoni B. Antoni A represents spindle cells organised in pallisaded sworls surrounding a central acellular eosinophilic zone called as verocay bodies. Antoni B comprises of spindle cells haphazardly distributed in light fibrillar matrix. (Artzi *et al*., 1991; Martins *et al*., 2009; Zachariades *et al*., 2001; Lollar *et al*., 2010; Isildak *et al*., 2010; Baranovic

et al., 2006; Pfeifle *et al*., 2001; Baliga *et al*., 2009; López-Carriches *et al*., 2009; Rahpeyma *et al*., 2012; Prasanna Kumar and Meghashri, 2012; Shetty *et al*., 2012; Hribernik *et al*., 1992; Kun *et al*., 1993; Colreavy *et al*., 2000; Ku *et al*., Yeh *et al*., 2000; Muniz Santana *et al*., 2008; DasGupta *et al*., 1969; Kun *et al*., 1993; Wakoh *et al*., 2005) Treatment of choice is surgical excision. Malignant transformation being rare. (Dicerbo *et al*., 1992)

Conclusion

Palatal schwanomma is a rare benign solitary tumour. A high index of suspicion is required and possibility of schwanomma should be considered while observing an intraoral swelling. CT scan and fine needle aspiration plays a role in diagnosis of schwannoma. The definitive diagnosis is confirmed by the histopathological examination. It is possible to do the complete surgical excision of Schwannoma with complete cure and without complication.

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