

Palatal Schwannoma: A Rare Case Report

Chandni P. Egnoor¹, D. Sridhara Narayanan², M.K. Rajasekar³

ABSTRACT

Introduction: Schwannomas are benign encapsulated perineural tumors. The head and neck region is the most common site. Intraoral origin is seen in only 1% of cases, tongue being the most common site; its location in the palate is rare.

Case report: One such rare case we came across is reported here. The tumor was excised completely intraorally. After two months of follow-up, the defect was found to be completely covered with palatal mucosa.

Conclusion: We conclude that the possibility of schwannoma should be kept in mind when dealing with an intraoral, well-circumscribed, soft-tissue lesion

Keywords: Benign Tumour, Palatal Tumour

INTRODUCTION

Schwannomas, also known as neuinoma, neurilemoma, Schwann cell tumour, are infrequent benign neoplasms arising from cranial, peripheral or autonomic nerves that contain Schwann cells.¹ They are slow-growing, solitary and encapsulated.² The prognosis is very good since they do not usually recur, and malignant transformation is rare.^{3,4} About 25-45% of schwannoma occur in the head and neck; only 1% have an intra-oral origin.³ The tongue is the most common site; followed by floor of mouth, palate, gingival, vestibular mucosa, lips, and mental nerve area. Its location in the palate is rare. Its rare location brings minor salivary gland tumour, pyogenic granuloma into the clinical differential diagnosis. We report a case of schwannoma of the hard palate, which was excised intra-orally and after two months the defect was completely covered with palatal mucosa.

CASE REPORT

A 46 year old male was presented with 2 month history of an asymptomatic mass in hard palate. Intraoral examination revealed a 3 x 3 cm mass at the junction of hard palate (fig 1). The lesion was non tender and firm in consistency. Surface was smooth and borders were well defined. It did not bleed on touch. There were no palpable cervical lymph nodes. There was no medical history of interest.

Incisional biopsy was performed under local anesthesia. Histopathological evaluation showed evidence of schwannoma. Contrast enhanced computed tomography scan showed a well defined heterogeneously enhancing mass lesion over hard palate with no bony involvement (fig 2). Thus the diagnosis of schwannoma was confirmed. Total excision of mass lesion (fig 3) was done under general anaesthesia by cauterisation. Mass lesion was excised in toto (fig 5) and sent for histopathological examination.

Histopathology (fig 4) showed the tumour mass consists of

neural tissue arranged in predominantly Antoni A pattern with prominent nuclear palisading and formation of characteristic Verocay bodies. Myxoid areas with Antoni B pattern are also seen. The diagnosis was schwannoma of the hard palate. Postoperative period was uneventful. After two months the defect was completely covered with palatal mucosa. There was no tumor recurrence till ten months of follow-up.

DISCUSSION

Schwannomas are benign encapsulated perineural tumors. The term Schwannoma was originally suggested because of its origin from Schwann cells of peripheral nerve sheaths. These cells were named after German anatomist, physiologist, and cofounder of the cell theory, Theodor Schwann (1810-82). In 1908, Jose Verocay provided the first microscopic description of this tumor and suggested the designation 'Neurinoma'. In 1935, Arthur Stout coined the term 'Neurilemmoma'. In 1940, on the basis of light microscopic studies, Isadore Max Tarlov proposed this tumor to be of fibroblastic origin and coined the term 'perineural fibroblastoma'. Schwannomas, also known as neuinoma, neurilemoma, Schwann cell tumour, are infrequent benign neoplasms arising from cranial, peripheral or autonomic nerves that contain Schwann cells. According to Erlandson (1985), schwannomas may be: Classical (Verocay), cellular, plexiform, cranial nerve, melanotic, degenerated (ancient), and granular cell types.

About 25-45% of schwannoma occur in the head and neck; only 1% have an intra-oral origin.³ The tongue is the most common site; followed by floor of mouth, palate, gingival, vestibular mucosa, lips, and mental nerve area. Its location in the palate is rare.

There was a wide range of age distribution, second to sixth decade of life (mean age, 36.2 years). Schwannomas of the head and neck region can occur at any age, and are most commonly found during the second and third decades of life. Schwannomas has no gender predisposition.

Clinically, two forms of oral schwannomas can occur: The most frequent is the encapsulated type, in which the tumor is surrounded by dense fibrous connective tissue; the other is the pedunculate type, resembling a fibroma.

¹Junior Resident, ²Professor, ³Professor and HOD, Sree Balaji Medical College and Hospital Chennai, India

Corresponding author: Dr. D. Sridhara Narayanan, Sree Balaji Medical College and Hospital Chennai, India

How to cite this article: Chandni P. Egnoor, D. Sridhara Narayanan, M.K. Rajasekar. Palatal schwannoma: a rare case report. International Journal of Contemporary Medical Research 2018;5(3):C4-C5.



Figure-1: lesion over hard palate

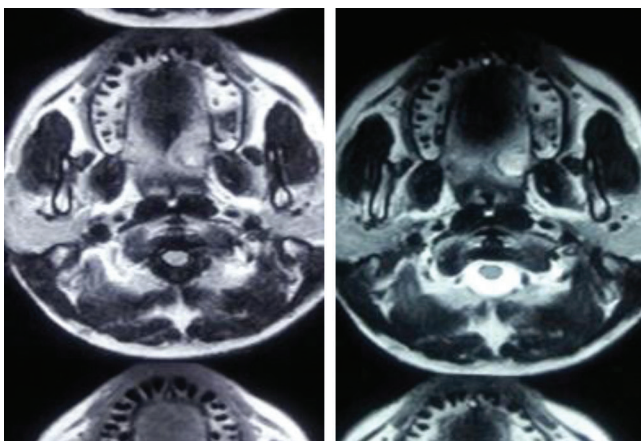


Figure-2: CECT showing heterogeneously enhancing mass lesion over hard palate



Figure-3: Intraoperative pictures

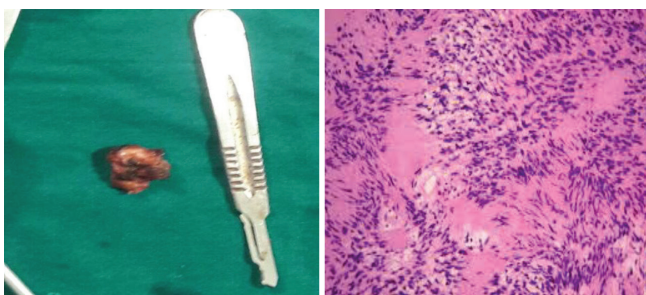


Figure-4: Gross specimen after excision; **Figure-5:** Histopathology of schwannoma

The origin of schwannoma is unknown. It is believed to originate from proliferation of Schwann cells in the perineurium causing displacement and compression of adjacent nerve. It does not arise from cranial nerve I and II because they lack Schwann cells.

The preoperative diagnosis is quite difficult, among other reasons because this is an infrequent tumor and is not

usually suspected in the oral cavity. Computed tomographic or magnetic resonance imaging scans can be useful in the initial workup to determine the extent of the lesion and assist with delineating a differential diagnosis.

Histologically, neurilemmomas are composed of two distinct areas termed as Antoni A and Antoni B regions. Antoni A regions consist of palisading trabeculae of spindle-shaped Schwann cells. The structure as a whole, including a central stromal region, is known as a Verocay body. By comparison, the Antoni B regions are loose and hypocellular, and the Schwann cells appear polymorphic. On IHC, S-100 protein shows strong positivity for neurilemmomas, reflecting their propensity of Schwann cells. They also show positivity for vimentin, Leu-7 antigen and glial fibrillary acidic protein. Malignant transformation in untreated lesions have been reportedly very rare. Surgical excision is the treatment of choice. Post operative defect if small can let to heal by secondary intention. If defect is large, it may lead to velopharyngeal insufficiency, difficulty in swallowing, alteration in speech. Recurrence of palatal schwannomas are very rare and hence has got a good prognosis.

CONCLUSION

We can conclude that the possibility of schwannoma should be kept in mind when dealing with an intraoral, well-circumscribed, soft-tissue lesion. It has an excellent prognosis and wide local excision is almost curative.

REFERENCE

1. Lollar KW, Pollak N, Liess BD, Miick R, Zitsch RP, 3rd Schwannoma of the hard palate. *Am J Otolaryngol.* 2010;31:139–40.
2. Murthy VA, Ramaswamy S, Sunita M. Schwannoma of the hard palate. *Indian J Otolaryngol Head Neck Surg.* 2009;61(Suppl 1):52–4.
3. López-Carriches C, Baca-Pérez-Bryan R, Montalvo-Montero S. Schwannoma located in the palate: Clinical case and literature review. *Med Oral Patol Oral Cir Bucal.* 2009;14:e465–8.
4. DiCerbo M, Sciubba JJ, Sordill WC, DeLuke DM. Malignant schwannoma of the palate: A case report and review of the literature. *J Oral Maxillofac Surg.* 1992;50:1217–21.
5. Santos PP, Freitas VS, Pinto LP, Freitas Rde A, de Souza LB. Clinicopathologic analysis of 7 cases of oral schwannoma and review of the literature. *Ann Diagn Pathol.* 2010;14:235–9.
6. Huseyin I, Mehmet Y, Metin I, Mehmet A, Emin K, Ozgun E. Schwannoma of the hard palate. *J Craniofac Surg.* 2010;21:276–8.
7. Neelampari RP, Nimisha D. Intraoral schwannoma (neurilemmoma): An unusual anterior palatal swelling: A case report. *J Int Oral Health.* 2010;2:87–92.
8. Amir R, Altman KW, Zaheer S. Neurilemmoma of the hard palate. *J Oral Maxillofac Surg.* 2002;60:1069–71.

Source of Support: Nil; **Conflict of Interest:** None

Submitted: 03-03-2018; **Accepted:** 06-04-2018; **Published:** 15-04-2018