

CASE REPORT

Palatal Schwannoma: A Rare Case Report

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ABSTRACT

Schwannoma is a benign tumor that originates from perineural Schwann cells of nerve sheath. They are solitary, well-encapsulated, slow-growing adjacent to the parental nerve but extrinsic to the nerve fascicles. Approximately 25 to 45% of all schwannomas are seen in the head and neck region and are found rarely in the oral cavity. Most of the intraoral schwannomas are located in the tongue. Palatal schwannoma is very rare as till date and only 16 cases have been reported; one such rare case we came across is reported here.

Keywords: Benign tumour, Neurilemmoma, Oral cavity, Palate neoplasm, Palatal schwannoma.

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INTRODUCTION

Schwannoma, also known as neurilemmoma, neurinoma, and Schwann cell tumor, is a benign tumor that originates from perineural Schwann cells of the nerve sheath. Approximately, 25 to 45% of the lesions occur in the head and neck region. However, intraoral lesions are only 1% of it, the most common site being the tongue, followed by the floor of the mouth, palate, gingiva, vestibular mucosa, lips, and mental nerve area.¹ Till date, only 16 cases have been reported as arising from palate.² Hence, the involvement of the palate is a rare presentation. Its rare location brings other entities, such as minor salivary gland tumors and pyogenic granuloma into the clinical differential diagnoses. Here, we report a case of palatal schwannoma at an uncommon location, i.e., at the junction of hard palate and soft palate.

CASE REPORT

An 18-year-old female was referred to the outpatients department of our hospital, with a 2-month history of an

asymptomatic mass in her palate (Fig. 1). She had no past history of any significant disease. There was no similar illness among family members. General examination revealed no significant signs. There were no palpable cervical lymph nodes. Intraoral examinations revealed a 3 × 2 cm ulcerated mass in the midline of the palate involving the junction of hard palate and soft palate. The lesion was nontender and firm in consistency. Surface was smooth and borders were well-defined. It did not bleed on touch. There were no bony involvement on orthopantomograph. Salivary gland tumors and benign mesenchymal lesions were included in the differential diagnosis. The patient's routine investigations were normal. Contrast-enhanced computed tomography scan showed a well-defined heterogeneously enhancing mass



Fig. 1: 3 × 2 cm ulcerated mass in the midline of the palate involving the junction of hard palate and soft palate

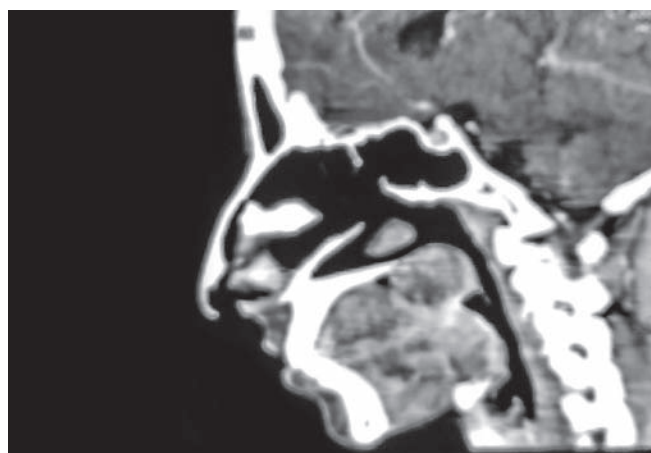


Fig. 2: Contrast-enhanced computed tomography scan of head (sagittal section) showing a well-defined heterogeneously enhancing mass lesion of soft palate without bony involvement

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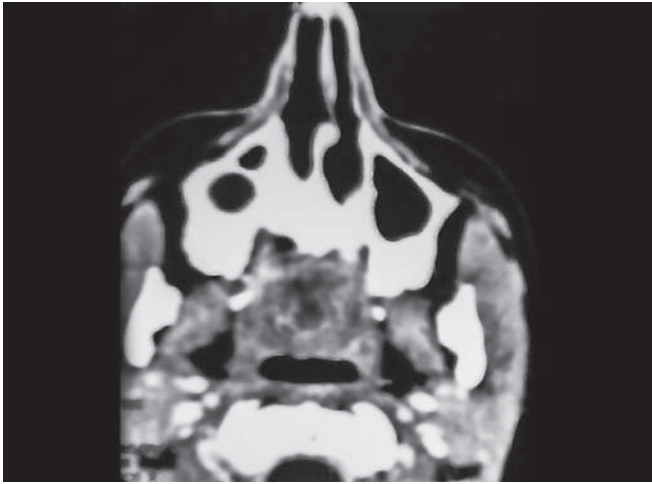


Fig. 3: Contrast-enhanced computed tomography scan of head (axial section) showing the heterogeneously enhancing mass in the junction of hard and soft palate

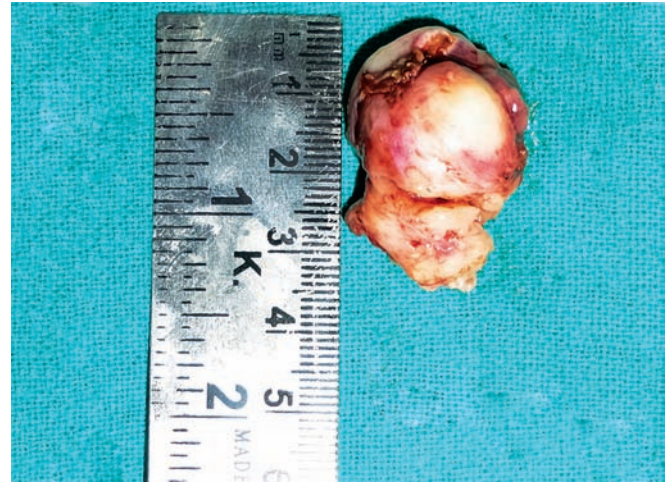


Fig. 4: Gross specimen after excision



Fig. 5: Two weeks after surgery, the surgical site has healed by secondary intention.

lesion of soft palate without bony involvement (Figs 2 and 3). Possibility of postremoval velopharyngeal insufficiency was explained to the patient and informed consent was taken. Complete excision of the lesion was carried out under general anesthesia using cold dissection method. The tumor was excised in toto (Fig. 4) and the specimen was sent for histopathological examination. Histopathological evaluation showed proliferation of spindle-shaped cells with palisaded arrangements around the central acellular area in most parts. Areas of less cellularity and less organized portions were also observed. The overlying epithelium had been replaced by a fibrinopurulent membrane. The results of immunohistochemical staining for S-100 protein were positive. According to histopathological and immunohistochemical findings, the diagnosis was schwannoma. The patient was discharged on the first postoperative day and kept on oral antibiotics, analgesics, and dilute peroxide 1:10 dilution gargles for a week. Then the patient was kept

on regular follow-up (at least once a month). After 2 weeks, the wound had healed by secondary intention (Fig. 5). After 2 years of follow-up, there was no recurrence of the lesion.

DISCUSSION

Schwannoma is a benign, slow-growing encapsulated tumor which is usually solitary and originates from Schwann cells of the peripheral nerve sheath. It is more prevalent in head, neck, and surface flexors of the upper and lower extremities.³ They are composed of Schwann cells in a poorly collagenized stroma. They were first described by Verocay in 1908. In 1935, it was proposed that these tumors arose from nerve sheath elements and they were termed neurilemmomas.⁴ They present between the ages of 10 and 40 years but cases during the first year of life are reported⁵ and are equally distributed between the two sexes. Extracranially, 25 to 45% of all schwannomas are located in the head and neck region. However, the intraoral lesions are very rare. They are usually of long duration at the time of presentation. An occasional one does show a relatively rapid course. The primary involvement of cranial nerve being the 8th nerve (acoustic schwannoma)^{6,7} and the spinal nerve root within the cranial canal^{8,9} and much less often in the 5th nerve, usually in the region of gasserian ganglion.

Despite neural origin, they usually are painless, causing pressure on adjacent nerves rather than nerve of origin and may present with paraesthesia of the region of trigeminal sensory distribution.

It is usually asymptomatic, commonly appears as a single, slow-growing encapsulated nodule, but sometimes can cause displacement and compression of the surrounding normal nerve tissue. Clinically, two forms of oral Schwannoma can occur: The most frequent

encapsulated and the other pediculate resembling a fibroma.¹⁰ The lesion may have clinical features similar to other benign lesions like fibromas, lipomas, mucocele, epithelial hyperplasia, and benign salivary gland tumors. Immunostaining analysis is critical in the diagnosis of these neoplasms. Histologically, schwannoma has two different components: Antoni type A and Antoni type B tissue. Antoni type A consists of spindle cells organized in palisaded swirls and waves. The palisading nuclei are arranged in rows, surrounding a central acellular eosinophilic zone known as Verocay body. Antoni type B tissue consists of spindle cells haphazardly distributed in a light fibrillar matrix.¹¹ The tumoral cells with Antoni type A show greater intensity scores compared to Antoni type B tumor pattern.¹²

Malignant changes in untreated neurilemmomas have been reported only rarely.⁸ Surgical excision using cold dissection is the treatment of choice. Boyles-Davis mouth gag is very helpful in approaching the tumor intraorally. The tumor is always excised piecemeal during surgery. The postoperative defect if small can be let to heal by secondary intention as in our case. If large, it can cause complications like velopharyngeal insufficiency, difficulty in swallowing, alteration in speech.

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