An Uncommon and Rare Soft Tissue Tumor of the Cheek (Schwannoma): A Case Report

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ABSTRACT

Schwannoma is usually an uncommon, benign, encapsulated, very slow-growing, usually solitary tumor that originates from Schwann cells of the nerve sheath derived from the neuroectoderm. Only 1% of schwannomas was intraoral of which the most common site is always the tongue after which the palate, floor of the mouth, buccal mucosa, lips, and jaws can be affected. Schwannoma is an uncommon benign tumor that originates from the Schwann cell of the peripheral nerves. It is difficult to diagnose clinically. In our case, the patient reported a solitary swelling present on the left cheek. The swelling was warmth, tender, and consistency is soft. Inflamed buccal mucosa was also noted and the patient had restricted mouth opening. Then, surgical excision was done under general anesthesia.

Keywords: Excisional biopsy, Schwannoma, Spindle cell tumor.

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INTRODUCTION

Schwannoma is an encapsulated, slow-growing, relatively uncommon benign solitary tumor that originates from Schwann cells of the nerve sheath derived from the neuroectoderm.¹⁻³ Commonly seen in younger and middle-aged groups without showing any sex prediction. There are no reported cases showing nerve involvement as the tumor grows. Almost head and neck comprise 25–45% of all schwannomas out of that intraoral location is very rare.^{4,5} Intraoral lesions can occur in the bone as well as soft tissue. An intraosseous lesion usually occurs in the posterior mandible. Schwannoma of the cheek is an asymptomatic slow-growing tumor, pain and paresthesia may occur. It is soft and firm in consistency. Clinically, the lesion appears like resembling mucocele as it is a smooth submucosal swelling, fibroma, lipoma, benign, salivary gland tumor.

The treatment of choice is usually surgical excision with a good prognosis. The recurrence rate is very low when the lesion is completely excised. Malignant transformation is very rare. Here, we see a case report on schwannoma of the cheek that had been reported in our department of oral and maxillofacial surgery at IGIDS.

CASE DESCRIPTION

A 51-year-old male named Mr Ravi reported to the department of oral and maxillofacial surgery, Indira Gandhi Institute of Dental Sciences, Sri Balaji Vidyapeeth (Deemed-to-be-university), Puducherry with the chief complaint of a swelling on his left cheek for the past 6 months (Fig. 1).

The patient gave a history of extraction of a tooth in his left upper back tooth region before 6 months and a history of weight loss. Personal history has revealed smoking for the past 30 years. The patient does not have any other systemic conditions.

On inspection, a solitary swelling that approximately measures about 7 × 2 cm was present on the left cheek. The boundaries are as follows: superiorly—3 cm below the infraorbital rim, inferiorly—4 cm above the inferior border of the mandible, anteriorly—3 cm

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from the ala of the nose, and posteriorly—4 cm from the tragus of the ear (Fig. 2A).

On palpation, the inspection findings were confirmed. The surface of the lesion was normal and pinchable. The swelling was warmth, tender, and soft in consistency. Inflamed buccal nodes

Fig. 1: Profile picture showing left cheek swelling

were noted (Fig. 2B). Intraorally vestibular tenderness presents with 26 regions, grade I mobility with 25, grade II mobility with 26, 31, and 42. The patient had poor oral hygiene with restricted mouth opening.

Ultrasonography showed a well-defined hyperechoic lesion measuring $1.9 \times 3 \times 5.6$ cm inferior to zygoma in the left cheek.

Ultrasonography examination gave an impression of metastatic lesion in the left cheek with a normal parotid gland. Incisional biopsy was done intraorally under local anesthesia with the swelling in the left buccal mucosa. Histopathological examination showed predominant spindle cells in the lesion which is suggestive of a spindle cell tumor. Pus culture was sterile, surgical excision of the

lesion under general anesthesia was performed (Fig. 3). Excision biopsy report revealed schwannoma of the cheek (Fig. 4). The patient 6-month follow-up showed a good prognosis (Fig. 5).

DISCUSSION

Spindle cell lesions are mostly benign tumor that occurs in all parts of the body. Intraoral lesions account for <1% of all the tumors.⁶

Although the term “spindle cell tumor” includes various variants, the final diagnosis was made by the histopathological examination of the excision biopsy specimen.

Schwannoma is most commonly associated with neurofibromatosis type II. While treating the above-mentioned case of schwannoma of the cheek which probably arises from the infraorbital nerve, the expected postoperative complications were facial nerve injury, Stenson’s duct injury, parotid gland injury, and infraorbital nerve injury.

Jeffrey presented a case with reduced auditory hearing and magnetic resonance imaging (MRI) showed Eustachian tube obstruction due to the bony expansion and cortical thinning of the ramus of the mandible, with pathological fracture was expected with noted recurrence after 2 years, and the case was concluded as a pharyngeal schwannoma of the mandible nerve that extended intraosseously into the mandible.⁷

Larry et al. presented a case of schwannoma of the vagus nerve that was presented near the neck over the angle of the mandible on the right side.⁸ The ear lobe was elevated as the swelling was very large. Computed tomography (CT) showed $5 \times 4 \times 6$ cm deep mass to the sternocleidomastoid muscle and parotid gland, whereas

Figs 2A and B: (A) Lateral view; (B) Submental view

Figs 3A to C: Surgical excision under general anesthesia

Figs 4A and B: Excised mass

in our case, ultrasonography showed a well-defined hyperechoic lesion measuring $1.9 \times 3 \times 5.6$ cm inferior to zygoma in the left cheek and metastatic lesion with a normal parotid gland.

The deep lobe parotidectomy was done to the patient, which reveals that it is a mass encapsulated deep to the mandible which does not arise from the parotid parenchyma and this mass appears to be arising from the vagus nerve. Without injuring the vagus nerve the mass was removed, whereas in our case, surgical excision of the lesion was done under general anesthesia.

Kim reported that schwannoma is a long cystic encapsulated or unencapsulated mass with a cystic degeneration or benign peripheral nerve sheath tumor.²

Wright and Jackson reported 146 cases of soft tissue oral cavity schwannoma. Of which, 19.24% were in the gingiva and lip, 8.9% the soft palate, 19.86% the buccal or vestibular mucosa, and the remaining 52% involved the tongue.⁹

Lambade reported the rate of reoccurrences is very less as the prognosis is good and only 8–13.9% malignant transformation cases were mentioned because malignant transformation is very rare. The malignant type differs from the benign type histologically in the presence of necrosis, higher mitotic rate, and infiltrative appearance irregular form of S-100 protein. It usually develops in the extremities and oral cavity malignant schwannoma is very rare.¹⁰

CONCLUSION

Soft tissue schwannoma that too intraorally cheek is usually a very rare entity. The correct diagnosis between the neurofibroma and schwannoma is essential, because an apparently solitary neurofibroma may be a manifestation of neurofibromatosis.

It should not be taken very lightly while appearing as a small soft tissue swelling intraorally as it happens in our present case

Figs 5A and B: Six months postoperative

and necessary treatment should be followed. The final diagnosis should always be made only after histopathological examination and in some cases by doing immunohistochemical analysis. The definitive treatment is the always total surgical excision of the lesion.

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