Case Report

An unexpected and rare outcome of a common nodular mass on upper lip in a pediatric patient with a history of trauma – Schwannoma

ABSTRACT

Schwannoma is usually a solitary, slow-growing, encapsulated benign tumor derived from the Schwann cells with no pathognomic features. Schwannomas are commonly seen in the fourth decade of life. They have a propensity for head-and-neck region. Schwannomas of the oral cavity, more particularly of the upper lip, are very rare. We present an interesting case of schwannoma of upper lip in a pediatric age group associated with a presenting history of trauma, making the diagnosis unexpected. The case is one of the very few reported cases of schwannoma of upper lip and probably one of its kinds associated with a presenting history of trauma. The patient is under clinical control with no signs of recurrence.

Keywords: Benign tumor, pediatric age group, schwannoma, trauma, upper lip, Verocay bodies

INTRODUCTION

The schwannoma, also known as neurilemmoma, neurinoma, or perineural fibroblastoma, is a benign neural tumor, derived from Schwann cells. It is postulated that the lesion arises by proliferation of Schwann cells at one point inside the perineurium.[1] The tumor has a predilection for head-and-neck region with half of the extracranial schwannomas presenting in the head-and-neck region. Intraoral neurilemmoma is a rare entity, with only 1% of documented presentation of all extracranial schwannoma. The presence of schwannoma on lips is further an uncommon presentation. The author presents a rare and unexpected diagnosis of schwannoma of lower lip for a common intraoral lip swelling associated with trauma.

CASE REPORT

A 14-year-old male patient reported to the department of oral and maxillofacial surgery with complaints of a painless swelling over the upper lip for a period of 8 months. On detailed evaluation, a history of accidental lip bite 8 months back was elicited following which the patient noticed the swelling which very slowly enlarged to the presenting condition. On examination, the swelling was present on the left side over the upper lip [Figure 1]. The lesion was a moderately hard mass of 1 cm × 1.3 cm in size with overlying mucosa normal in color, contour, and consistency. Sharp cusp of the maxillary left canine was evident. There were neither associated medical findings nor family history about any other concomitant diseases such as neurofibromatosis. Based on the history and clinical evaluation, a differential diagnosis of traumatic fibroma, labial minor salivary gland tumor, or swelling secondary to trauma was derived at. The condition was managed with complete surgical excision of the lesion under local anesthesia and primary closure. The lesion was encapsulated which assisted in total and meticulous excision.

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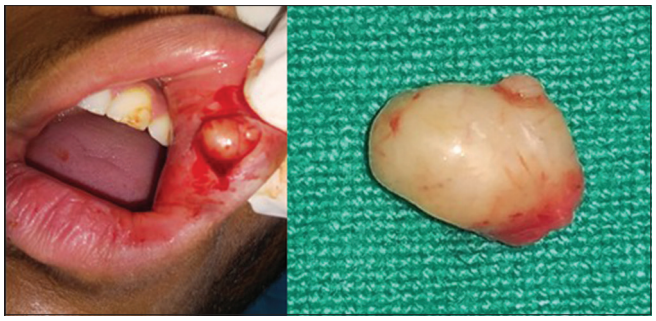

Figure 1: Intraoperative appearance of nodular lesion over the upper lip and excised lesion

The patient was discharged with a prescription of routine analgesics and the specimen was sent for histopathological evaluation. The gross specimen was yellowish in color with a smooth and shiny surface [Figure 1].

Histological presentation

The histopathological examination of the excisional biopsy showed an encapsulated cellular mesenchymal tumor that is composed of cells arranged in diffuse sheets and fascicles and in storiform pattern. There were uniform hypercellular areas (Antoni A pattern) and hypocellular areas (Antoni B pattern) with palisaded patterns of nuclei (Verocay bodies) [Figure 2]. Foamy macrophages and moderate inflammatory infiltrate were present with no areas of hemorrhage/necrosis. The postoperative period was uneventful, and the patient is disease free and on follow-up.

DISCUSSION

Schwannoma was first described by Verocay in 1910, who called it neurinoma, but the term neurilemmoma was first coined by Stout in 1935.[2] Schwannomas are single, encapsulated, benign tumors of the nerve sheath that arise from the perineural Schwann cells. Approximately 25%–45% of all schwannomas are seen in the head-and-neck region.[3] In the oral cavity, the tumor generally appears in the tongue. Tumor can be less frequently seen in the palate, floor of the mouth, gingiva, and buccal mucosa and parotid gland as well.[3] In the review of 26,792 histopathological records from the year 1946 to 2012, Marina *et al*. found 1195 biopsies of lip lesions.[4] Out of the 1195 biopsies of lip lesions, only four (0.33%) cases of schwannoma on the upper lip were found. The mean age of their patients was 45 years, and none of their reported cases were found in the pediatric age group.[3] Schwannoma of the upper lip is very rare. It is usually seen in the fourth decade of life.[5,6] In the literature, there are only few cases that reported upper lip schwannoma in the pediatric age group. Schwannomas are not usually associated with a history of trauma.

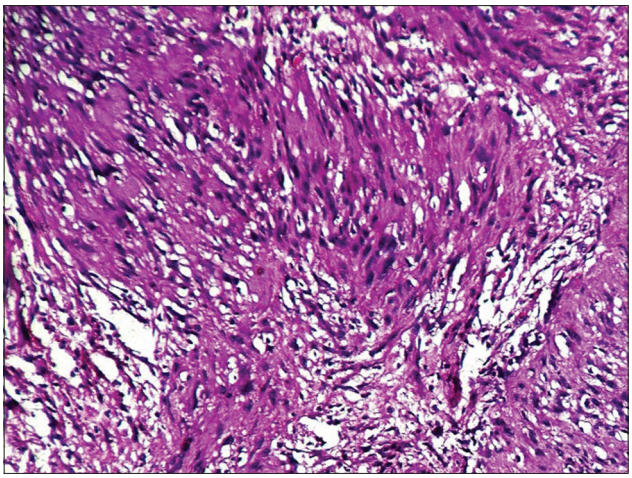

Figure 2: Histological picture of the lesion (hematoxylin and eosin stain)

In the present scenario, Schwannoma was not considered as a differential diagnosis due to the presence of factors such as pediatric age group, size and location of the lesion and a clear history of trauma. Although characteristic features of schwannomas of the upper lip on ultrasonographic examination and through advanced imaging have been reported earlier,[7] in this case, we did not perform any radiologic imaging, because the lesion was relatively small.

Histological appearance is characteristic and can seldom be confused with other lesions. The presence of tissue arrangements of Antoni A and Antoni B along with palisading pattern of Verocay bodies presents a characteristic appearance. In this case, both tissues were predominantly seen along with the presence of Verocay bodies.

The management of schwannomas includes total surgical excision, and recurrence is rare due to the tumor being encapsulated. There is no need to include margin of safety, while resection and malignant transformation are very rare.

The case presented here is one of the few cases of schwannoma of upper lip location and probably one of its kinds where the presenting history was trauma. Young age and a history of trauma made the clinical diagnosis of schwannoma more intriguing and a rarity.

In conclusion, the author would like to stress upon the inclusion of schwannoma in differential diagnosis of nodular lesions of the upper lip irrespective of the age group or history associated with presentation. Final diagnosis can only be confirmed posthistopahological examination. The use of imaging techniques can aid in better diagnosis of such

lesions. Prognosis of schwannomas is excellent following complete resection with little chances of recurrence and minimal malignant transformation.

Declaration of patient consent

The authors certify that they have obtained all appropriate patient consent forms. In the form the patient(s) has/have given his/her/their consent for his/her/their images and other clinical information to be reported in the journal. The patients understand that their names and initials will not be published and due efforts will be made to conceal their identity, but anonymity cannot be guaranteed.

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Conflicts of interest

There are no conflicts of interest.

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