Ancient schwannoma of gingiva - A rare case report

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Abstract: Oral schwannomas (OSs) are rare benign tumors of oral cavity derived from peripheral nerve sheath, composed of proliferation of schwann cells in a characteristic pattern. AS are long-standing lesions which exhibit degenerative changes and atypia due to which they could be mistaken for malignancy. The mean age of occurrence of AS in oral cavity is 43 years, and no case of oral AS has been reported in a pediatric patient so far. Here, we present a rare case of AS of oral cavity in a 10-year-old male child.

Key words: Ancient schwannoma, pediatric patient, peripheral nerve sheath tumor, schwannoma

INTRODUCTION

Oral schwannomas (OSs) are uncommon tumors comprising of 1% of all schwannomas; they may arise both in soft tissue and bone.[1] Those arise in soft tissues may mimic other lesions such as mucocele, neurofibroma, fibroma, lipoma, peripheral ossifying fibroma, peripheral giant cell granuloma, and pyogenic granuloma.[2] Ancient schwannomas (ASs) are considered as long-standing variants of schwannoma, histologically characterized by hemorrhage, hemosiderin pigmentation, and pleomorphism of cells.[3] AS arising in oral cavity is exceedingly rare and only 18 cases have been reported in the literature as per our best knowledge.[4] An exhaustive review of literature could not reveal a single case of oral AS in a pediatric patient. A case of oral AS in a pediatric patient arising in palatal mucosa is presented here.

CASE REPORT

A 10-year-old male child presented to a private clinic in Jaipur (India) by his parents for the evaluation of an asymptomatic swelling on his upper, front region of the jaw for 10 months. Past medical and family history of the patient was not relevant to the present swelling. Past dental history revealed a scaling of teeth 2 years back in government hospital. Intraoral examination revealed a soft and fluctuant swelling on the palatal surface of maxillary gingiva between #11 and #21 measuring about 2 cm × 2 cm in diameter. The color of the swelling was reddish; no discharge was observed [Figure 1]. An intraoral periapical radiograph was taken that showed no relation of swelling with the bone. A provisional diagnosis of pyogenic granuloma was made. The lesion was surgically excised, and tissue was sent to the Department of Oral and Maxillofacial Pathology, NIMS Dental College, Jaipur (India), for expert opinion. The follow-up period of 6 months was uneventful.

Histopathological evaluation of the specimen revealed a well-circumscribed mass comprised of spindle-shaped cells arranged in Antoni A configuration surrounding eosinophilic structures looks like verocay bodies [Figure 2a]. Other cellular pattern showed an irregular arrangement of spindle cells without palisading, suggestive of Antoni B configuration. Stroma was vascular and made up of numerous dilated blood vessels; a large thrombus was noted in the center with hemosiderin pigmentation [Figure 2b]; focal area of myxoid degeneration was seen and few areas showed hemorrhage with the collection of numerous extravasated red blood cells. Spindle cells showed some atypical features such as cellular pleomorphism and nuclear hyperchromatism. The spindle-shaped cells exhibited a diffuse positive expression for S-100 [Figure 3].

Based on all the features, final diagnosis of oral AS was rendered.
Eversole and Howell. Only 18 cases of oral AS have been reported in the English language medical literature till date. All the cases reported in the patients with the fourth decade of life except one case in 2013 reported by Muruganandhan et al., in a 22-year-old patient; hence, the youngest patient of oral AS was 22 year old; no case of oral AS has been reported in a pediatric patient so far. This case will probably be the first presentation of oral AS in a pediatric age group patient. The average duration is 10 years; however, few cases showed 2–5 months’ duration; in the present case, the duration of 10 months was noted. Oral AS is seen mostly in the tongue followed by buccal mucosa, labial mucosa, and palate; the present case was reported in the palatal surface of anterior maxillary gingiva.

Histopathologically, AS shows degenerative features such as hemorrhage, hemosiderin pigmentation, cellular atypia, and areas of myxoid degeneration. In the present case also, all the histological features were noted accompanied by Antoni A and B cellular configuration with verocay bodies. Immunohistochemically, they are positive for S-100, Leu-7, and Myelin basic protein confirming their neural origin. Surgical excision is the treatment of choice, and no recurrence and malignant transformation have been reported. In the present case also, 6-month follow-up period was uneventful.

CONCLUSION

Oral AS is a rare tumor and this is the first presentation of oral AS in a pediatric age group patient. They may be mistaken as malignancy owing to the cellular atypia and other degenerative changes. A proper communication of the surgeon and oral pathologist is mandatory to avoid aggressive mode of treatment; furthermore, there is a paucity of literature regarding oral AS in a pediatric patient. The aim of this case report is to discuss this unusual tumor in a 10-year-old child.

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Conflicts of interest
There are no conflicts of interest.

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