Unusual large fibroma in an adolescent: A case report

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KEYWORDS

Fibroma; Mouth mucosa; Adolescent; Oral medicine

ABSTRACT

Aim: *The purpose of this article is to report an uncommon case of a large fibroma in an adolescent.*
Materials and methods: *Due to facial deformity and chewing impairment, a 16-year-old patient sought medical assistance upon the development of an approximately 30mm asymptomatic pedunculated tumor mass on the buccal mucosa. The lesion was excised and the histopathological examination confirmed the diagnosis of fibroma.*
Results: *The wound repaired satisfactorily, showing no signs of recurrence in a 30-month follow-up.*
Conclusion: *Fibroma, a reactional hyperplasia of fibrous connective tissue in response to local irritation or chronic trauma, may affect a broad age range; however, it is more commonly found between the 4th and 6th decades of life. In children and adolescents it is not usual, with prevalence rates ranging from 0 to 9.32%.*

Introduction

Epidemiological studies have estimated the occurrence of maxillofacial lesions in children and adolescents, presenting a total range of 5.2 to 24.8% (1-8). Fibroma, also known as traumatic fibroma, irritation fibroma, focal fibrous hyperplasia, and hyperplasic scar, is a frequent oral finding worldwide. However, the incidence among children and adolescents is low (0 to 9.32%) (1-11).

Despite its name, fibroma is not considered a true neoplasm: it is a reactional hyperplasia of fibrous connective tissue in response to local irritation or chronic trauma (3). The treatment is generally surgical, besides eliminating local irritation factors. The prognosis is good and recurrence rates are low, normally associated with persistence of local irritation factors (3,11,12).

The aim of the present paper is to report a case of a large-sized fibroma in an adolescent patient.

Case report

A 16-year-old female patient, African-descendent, came to a dental visit complaining of an oral lesion. The patient's guardian signed the permission for publication at that time.

The clinical examination showed an asymptomatic pedunculated tumor mass on the buccal mucosa, measuring approximately 30mm in diameter and generating a slight facial asymmetry. The lesion presented an erythematous color similar to normal mucosa (Figure 1). As she reported, the lesion had been increasing for 2 years, a period during which an unconscious habit of sucking and biting the mucosa had been developed. The patient presented a satisfactory oral status and dental biofilm control, without any missing teeth. She did not report any systemic health problems.

Excisional biopsy was then recommended. Under infiltrative local anesthesia (2% lidocaine with

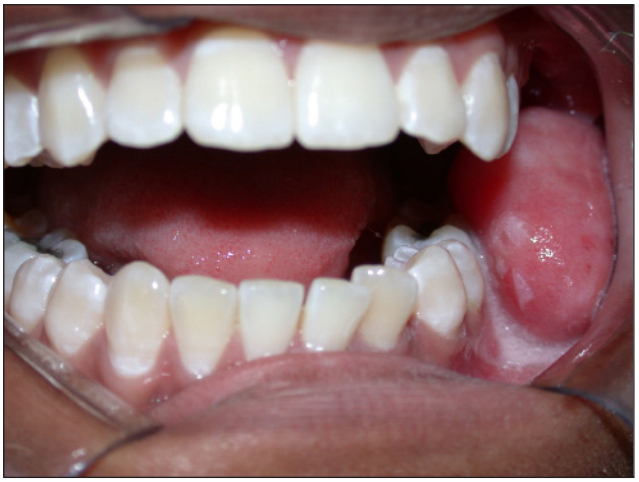

Figure 1 Tumor mass located on the left buccal mucosa

Figure 2 Clipping pedicle for the incision

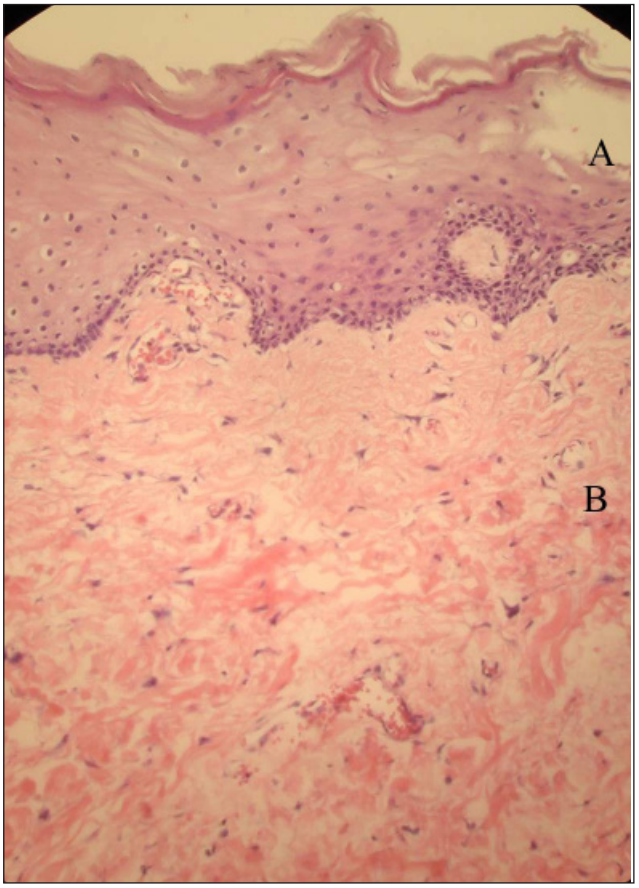

Figure 3 Histopathology analysis (hematoxylin and eosin staining, 40x magnification): hyperparakeratinization of epithelial tissue (A) and increased deposition of short and large fibers irregularly placed amidst connective tissue (B)

epinephrine), the pedicle was excised (scalpel blade 15) after clipping it using two Allis clamps (Figure 2). Finally, simple interrupted sutures were performed with 4-0 silk.

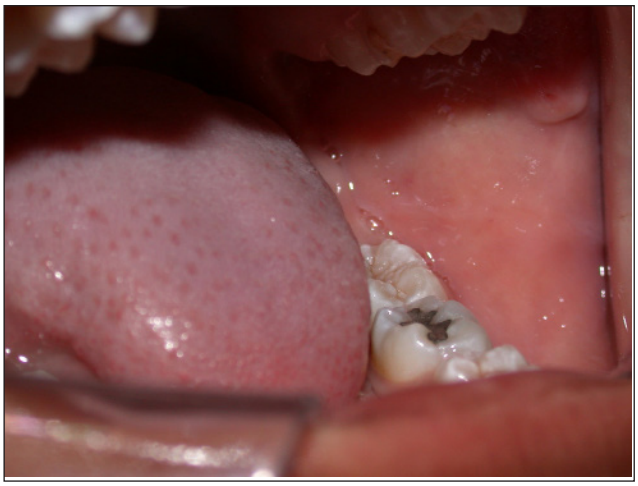

Figure 4 Satisfactory postoperative wound repair (30 days)

The tumor mass was fixed in 10% formalin and sent to a clinical pathology laboratory. Histopathological examination revealed a fragment of mucosa recovered by stratified squamous hyperkeratinized epithelium with signs of spongiosis and hydropic degeneration. The dense connective tissue of lamina propria showed an increased deposition of irregularly arranged short and large collagen fibers. There were vascular spaces, which were occasionally congested and had mild mononuclear diffuse inflammatory infiltrate. In deeper layers, skeletal striated muscle fibers, in addition to fatty cells, complemented the histopathological presentation (Figure 3). The final diagnosis was fibroma.

There were no post-surgical complications and sutures were removed 10 days later. Within 30 days, satisfactory healing was seen (Figure 4). The patient was instructed to avoid biting the region to prevent

lesion recurrence. In a 30-month follow-up period, no sign of recurrence was present.

Discussion and conclusion

Fibroma is clinically characterized as sessile or pediculated nodular lesions or tumor masses that show either similar color to the normal mucosa or a slightly whitish appearance due to traumatic hyperkeratosis. The surface is bright and there is a smooth texture, which may be slightly ulcerated because of trauma. Normally, the lesion is asymptomatic, except when subject to trauma. It generally presents a maximum size of 15mm and rarely reaches 20mm or more, such as in the case reported here (9-15).

It is considered one of the most common oral tumors, with peak prevalence between the fourth and sixth decades of life and affecting preferably female patients (2:1 ratio). The lesion may develop in any oral region, but it is more frequent in the buccal mucosa (parallel to the occlusion line, related to biting trauma), labial mucosa, tongue, and gums (9-15).

Among the histopathological characteristics, it is noted the presence of dense fibrous and collagenized connective tissue recovered by stratified squamous epithelium with hyperkeratosis resulting from trauma or ulceration. Disperse inflammatory cells (lymphocytes and plasmocytes), usually of chronic nature, are generally seen as well (9-15).

Fibroma itself is not a lesion of extremely clinical importance, but it should be excised to exclude other pathologies (9,13). Diagnosis is performed considering clinical characteristics and patient history but diagnostic confirmation depends on histopathological characteristics (13). Differential diagnosis is made based on neurofibroma, schwannoma, granular cell tumor, lipoma, peripheral ossifying cement fibroma, mucoceles, neurilemoma, and salivary gland tumors (9-11).

Concerning the etiopathogenesis, chronic irritation factors such as dental tips, mastication trauma (biting), and parafunctional habits are paramount to the development (9,10,13-15). In the present case report, the etiological factor was the habit of sucking and biting the local mucosa. Recommendations to discontinue these habits were highly required to prevent lesion recurrence, although it is uncommon (10,11,14).

The most suggested treatment is surgical removal (9-17), which can be performed with different scalpels or high-level lasers, according to the clinician's preference and ability. Prognosis is satisfactory and the lesion is not likely to suffer malignant transformation (10,14,16).

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