

Inflammatory fibrous hyperplasia: a rare case in a child

Hiperplasia fibrosa inflamatória: um caso raro em Odontopediatria

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ABSTRACT

This paper aims to describe an inflammatory fibrous hyperplasia case caused by chronic irritation due to poor dental positioning after trauma. An 11-year-old female patient was sent to a dental specialty center with the complaint of a soft tissue growth in the place of an unerupted maxillary central incisor, causing her behavioral changes becoming more timid. After anamnesis and clinical examination it was noted that tooth 11 was in a vestibular position, covered with a hyperplastic lesion. Surgical treatment was performed and the histopathological exam revealed inflammatory fibrous hyperplasia. Over the course of the follow-up appointments, it was possible to observe improvement on the mentioned tooth and the patient's satisfaction. In face of the low prevalence of inflammatory fibrous hyperplasia, it is worth mentioning that the tooth positioning, outside its correct alignment in the arch, can cause repeated trauma to the mucosa, and then turning into etiological factor to inflammatory fibrous hyperplasia, affecting even children and adolescents. Thus, the dentistry must be alert to establish a diagnosis and clinical treatment, in addition to monitoring these cases.

Indexing terms: hyperplasia. Oral pathology. Pediatric dentistry.

RESUMO

Objetivo deste trabalho é apresentar um caso de hiperplasia fibrosa inflamatória provocada por irritação crônica decorrente do mau posicionamento dental após trauma. Uma adolescente, 11 anos, foi encaminhada ao Centro de Especialidades Odontológicas, com queixa de que o incisivo central superior não havia erupcionado e em seu lugar havia surgido uma lesão de tecido mole, acarretando mudanças no comportamento da mesma que se tornou mais tímida. Após anamnese e exame clínico, constatou-se a presença do dente 11 em posição bastante vestibularizada, coberto por lesão hiperplásica. Foi realizado o tratamento cirúrgico e o resultado do exame histopatológico revelou que se tratava de hiperplasia fibrosa inflamatória. Durante as consultas para acompanhamento, foi possível observar a melhora no posicionamento do dente em questão e a satisfação da adolescente. Diante da baixa prevalência de hiperplasia fibrosa inflamatória na população infantil, vale ressaltar que o posicionamento do dente, fora do seu alinhamento correto no arco, pode provocar traumas repetidos em mucosa e, com isso, tornar-se fator etiológico para hiperplasia fibrosa inflamatória, acometendo, inclusive, crianças e adolescentes. Assim, o cirurgião dentista deve estar atento para estabelecer um diagnóstico e tratamento clínico oportunos, além do acompanhamento destes casos.

Termos de indexação: Hiperplasia. Patologia bucal. Odontopediatria.

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INTRODUCTION

Fibrous hyperplasia is an inflammatory reaction of the connective tissue that is considered to be a benign soft-tissue tumor commonly found in the oral cavity due to irritation or chronic local trauma [1-4]. This condition is often related to the use of poorly adapted dentures or other etiological factors, such as chronic irritation caused by diastemata, the sharp edges of teeth, treatment procedures (iatrogenic etiology), roots fragments or other trauma [3,4].

Inflammatory fibrous hyperplasia is rare in children and adolescents, ranging from 5,6% [5] to 8% [6] of specimens in the paediatric population. Thus, biopsies in the pediatric population are rare [1,5,6]. The treatment of choice is surgical excision and reoccurrence is uncommon [1,2]. A biopsy is important to confirm the diagnosis [6,7] and it is essential for hyperplastic tumors, considering the clinical similarity of the different pathologies of this nature [8-10]. In the pediatric population, the most commonly studied conditions are related to dental caries [6,11].

Few studies in the literature have specifically addressed inflammatory fibrous hyperplasia. Most publications describe this condition together with other reactive tumors [1,2] or associated with the use of poorly adapted dentures in adults [3]. This paper describes a rare case of inflammatory fibrous hyperplasia in a child caused by chronic irritation due to poor dental positioning.

CASE REPORT

An 11-year-old, dark-skinned female was sent to the Dental Specialty Center in Estância, a city in the state of Sergipe, Brazil, by a dentist from primary care, with complaint an unerupted maxillary central incisor. The clinical treatment started after the signature of the informed consent term.

During the anamnesis, good general health was determined and the permanent tooth remained in the early stage of eruption long after the primary incisor exfoliation. The patient reported to have dental trauma, resulting the permanent incisor getting covered with soft tissue. Resulting in change in patient behavior, became angry, introverted and ashamed to smile

The clinical exam revealed a round growth on the mucosa of the upper lip with a soft consistency, smooth surface, pediculate insertion as well as color and texture similar to the surrounding tissues. The maxillary right central incisor demonstrated ectopic eruption and was in a vestibular position, completely covered by the growth (figure 1, 2). The radiographic findings were not altered and compatible with the clinical examination.

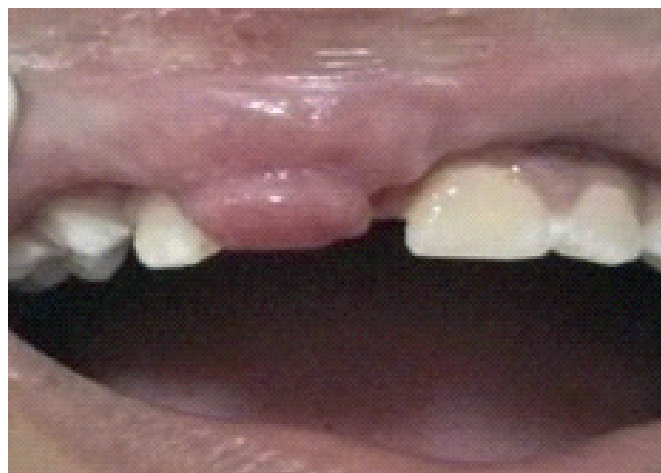


Figure 1. Clinical aspect of soft tissue growth.

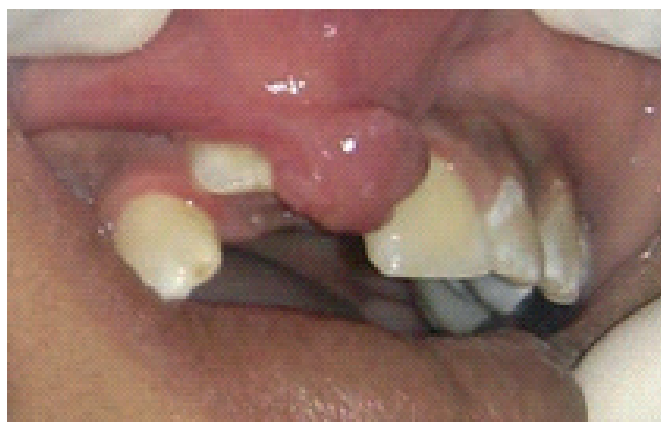


Figure 2. Clinical aspect of central incisor covered by the growth.

Treatment involved the surgical excision of the growth, vestibuloplasty and follow up to determine the correct tooth repositioning. The removed tissue was sent for histopathological analysis and the patient was released after receiving instructions regarding postoperative care.

The patient was evaluated one week after surgery and the suture was removed. There were neither reports of discomfort nor complications. The patient seemed satisfied with the treatment, which was confirmed by her mother. The histopathological analysis revealed inflammatory fibrous hyperplasia, with keratinized squamous epithelial tissue, dense fibrous underlying connective tissue and blood vessels congested with chronic inflammatory infiltrate (figure 3).



Figure 3. Histological aspect of growth.

The return visits at 4 and 12 months demonstrated improvements in the positioning of the tooth, which approached its physiological position without an orthodontic appliance assistance (figures 4-6).

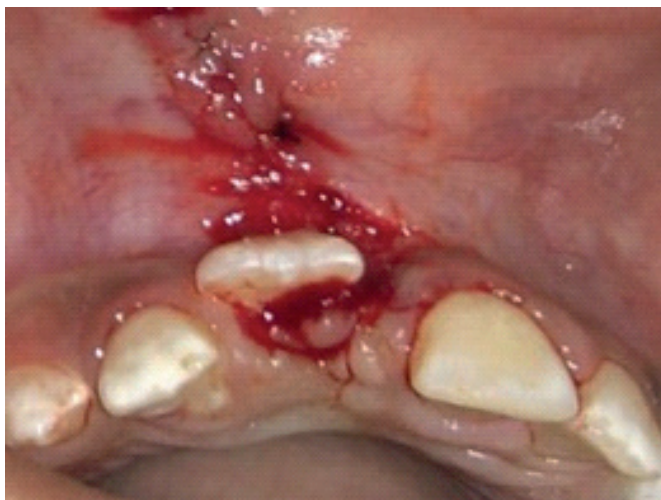


Figure 4. Immediate postoperative phase.



Figure 5. Four-month follow up.

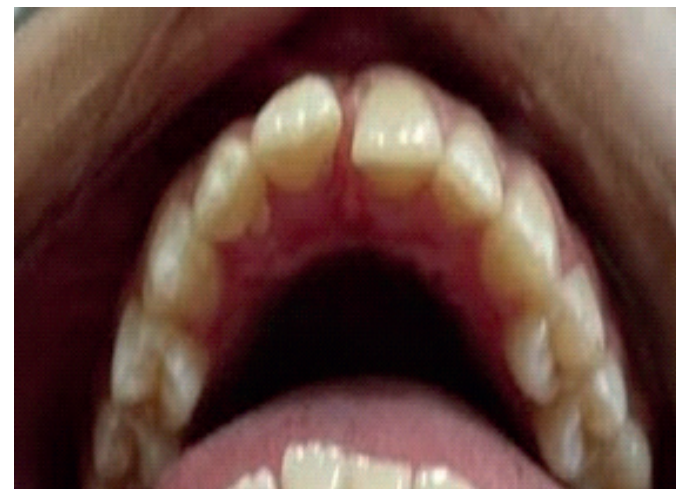


Figure 6. 12-month follow up.

DISCUSSION

Inflammatory fibrous hyperplasia is rare in children and adolescents and the literature reports a greater incidence in this population between the ages of 9 and 14 [6,9], which is in agreement with the case reported herein. This condition is the result of chronic low-intensity trauma, which is most often caused by poorly adapted dentures [3,4]. In the present case, however, chronic irritation resulting from the maxillary central incisor poor positioning, was the probable etiological agent.

The hyperplastic growth led to behavioral changes in the adolescent, such as irritability as well as social contact avoidance and smile embarrassment, which interfering negatively in quality of life. Similar behavior is reported

studies addressing the impact of oral-dental abnormalities on adolescents' quality of life [12]. Such changes were gradually reversed following the surgical removal of the growth and the return of the tooth to its physiological position.

This condition could have been minimized by a timely professional assessment and adequate case follow up, which did not occur due to a lack of information from the part of the patient's guardian as well as the absence of immediate signs and symptoms. According to Reddy et al. [10], the search for professional care only occurs when a lesion produces symptoms or compromises oral esthetics.

A biopsy is of considerable importance to a correct diagnosis [6,7]. However, the diagnosis in cases such as this one constitutes a challenge due to the similar clinical characteristics found among hyperplastic growths. For instance, giant cell granuloma and pyogenic granuloma are part of the differential diagnosis with inflammatory fibrous hyperplasia [1,4,8-11]. Despite the importance of a biopsy, between 7,4% and 17% of specimens were from a paediatric population [5,6]. The present case demonstrates the value of the anatomopathological examination, which was performed in the public health system.

The literature proposes excision as the treatment of choice in cases of inflammatory fibrous hyperplasia, with the complete removal of the growth, along with a safety margin [1,2]. This therapeutic approach was adopted in the present case and was combined with vestibuloplasty to establish the depth of the vestibule. The tissue removed was sent for histopathological analysis and the findings were compatible with data described in the literature for the inflammatory fibrous hyperplasia diagnosis [1-3]. Researchers consider the prognosis excellent provided that the etiological agent is removed [1,2], as demonstrated in the present case, in which no recurrence was observed during the 12 months of follow up.

CONCLUSION

The tooth position out of its correct alignment in the arch can cause repeated trauma to the mucosa, resulting in inflammatory fibrous hyperplasia, even in the young population.

Collaborators

CVOFIGUEIREDO clinical care, investigation, bibliographical survey and writing-original draft. AR MELO clinical supervision

and writing-review. AFBC CALVO formal analysis and writing-review & editing. JCP IMPARATO writing-review & editing.

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