

Fibrous hyperplasia associated with childhood trauma: case report

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ABSTRACT: This paper describes a case of inflammatory fibrous hyperplasia in an 11-year-old child caused by chronic mucosal irritation due to abnormal positioning of the central incisor. A male child, together with his guardian, sought specialized dental care in the municipality of Jarú, Rondônia, referred by a public service dentist, complaining of gingival enlargement in the region of the upper right central incisor. The patient reported having suffered dental trauma in the region, which resulted in the palatoversion of the element 11, which had two thirds of the crown covered by a rounded growth with firm consistency and smooth surface. The treatment performed was surgical excision of the lesion, later referred for histopathological analysis that confirmed the diagnostic hypothesis of inflammatory fibrous hyperplasia. Thus, it is possible to acknowledge that the tooth outside its normal position can cause gingival irritation and cause inflammatory fibrous hyperplasia even in young people.

Keywords: hyperplasia; tooth Injuries; pediatric dentistry.

Hiperplasia fibrosa associada a trauma em criança: relato de caso

RESUMO: Este trabalho descreve um caso de hiperplasia fibrosa inflamatória em uma criança de 11 anos causado por uma irritação crônica na mucosa devido ao posicionamento anormal do incisivo central. Criança do sexo masculino, juntamente com seu responsável procurou atendimento odontológico especializado no município de Jarú, Rondônia, encaminhado por um dentista do serviço público, queixando-se de aumento gengival na região de incisivo central superior direito. O paciente relatou ter sofrido trauma dentário na região, o que resultou na palatoversão do elemento 11, que possuía dois terços da coroa cobertos por um crescimento arredondado com consistência firme e superfície lisa. O tratamento realizado foi a excisão cirúrgica da lesão, posteriormente encaminhada para análise histopatológica que confirmou a hipótese diagnóstica de hiperplasia fibrosa inflamatória. Dessa forma, pode-se constatar que o dente fora do seu posicionamento normal pode provocar irritação gengival e ocasionar hiperplasia fibrosa inflamatória até mesmo no público jovem.

Palavras-chave: hiperplasia; traumatismo dentário; odontopediatria.

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INTRODUCTION

Inflammatory fibrous hyperplasia is a lesion that affects the oral cavity appearing as an inflammatory reaction resulting from a local chronic trauma. This condition, more common in middle-aged adults and in women is mainly related to the use of ill-adapted dental prosthesis. However, the local irritation can be caused by other factors such as root fragments, dental fractures, iatrogenic conditions such as inappropriate dental restoration, trauma and others (1-2-3).

The clinical characteristics of inflammatory fibrous hyperplasia are of an exophytic lesion of sessile or pedunculated base with variable consistency, smooth surface, coloring similar to the mucosa or erythema and of slow and usually asymptomatic development. Histologically it presents stratified squamous keratinized epithelium, dense and fibrous connective tissue with a chronic inflammatory infiltrate (4).

The treatment consists in a surgical excision of the lesion, which needs to be referred to a posterior histopathological analysis in order to confirm the diagnosis as its aspect is similar to other lesions of this kind. Recurrences are not common (5-1).

There is a scarcity of accounts in the literature of clinical manifestation of this lesion in children, this being considered a rarity in this group (1-3). The main approaches of this pathology describe it as a proliferative benign lesion common among adults using dental prosthesis (4-6).

The aim of this paper is to describe a clinical case of inflammatory fibrous hyperplasia associated with dental trauma in an 11-year-old child and its treatment.

CASE REPORT

A male child of 11 years of age sought specialized dental care in the municipality of Jaru, Rondônia. Referred by a public health dentist, he complained about gingival increase in the region of the upper right central incisor.

The anamnesis and clinical evaluation were performed after signing the Informed Consent Form (ICF) and the Informed Consent of the patient (in Brazil all minor patients above 6 years of age). It was observed that the patient was in good general health and when asked the guardian informed that there had been no trauma or other situation during the process of exfoliation of the upper right central incisor. However after the eruption of the permanent tooth there was a mild trauma in the region of the upper central incisors. The clinical exam of the region of the gingiva and the gingival mucosa showed round growth with firm consistency, smooth surface and tecture and coloring similar to the surrounding tissues. The upper right central incisor was palatinized with two thirds of the crown covered by the hyperplasia.



Figure 1 - The clinical aspect of the gingival growth.



Figure 2 - The clinical aspect of the palatinized upper right central incisor.

No radiographic alteration that could be associated to the lesion was observed and the radiographic characteristics of the tooth were compatible with stage 9 of Nolla. The treatment included the surgical excision of the associated growth of the vestibuloplasty and the removed tissue was sent to a histopathological analysis. The patient received the post-operational orientations and was referred to follow-up and repositioning of the tooth.



Figure 3 - Surgical excision of the lesion.



Figura 4 - Immediate post-operation.

A week later the patient was reassessed and did not present any complaints about post-operational discomfort. The histopathological exam revealed a hyperplastic fibrous inflammation with squamous keratinized epithelium and the underlying connective tissue was dense and fibrous with a chronic inflammation.

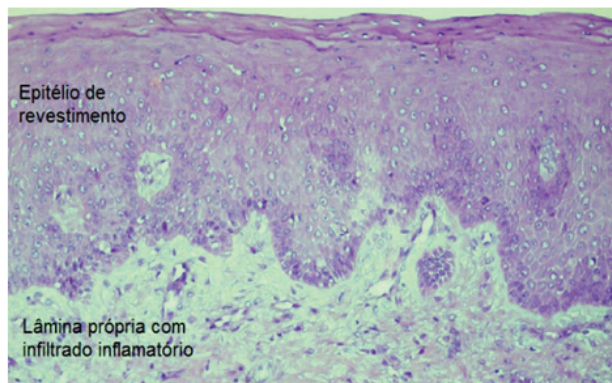


Figure 5 - Histological aspect of the lesion.

A reassessment was conducted at 6 and 12 months with no alterations present. The tooth continues ill-positioned as the guardian opted for not performing orthodontic correction.



Figure 6 - Aspect at 7 days of post-operation.



Figure 7 - Final smile.

DISCUSSION

Inflammatory fibrous hyperplasia is not considered a common lesion in children and adolescents. It is usually associated with chronic low intensity trauma frequently caused by ill-adapted dental prosthesis in adults (1-2). Data collection of pathological oral lesions in children show that the prevalence of an inflammatory fibrous hyperplasia was less than 10% (7-8-9-10-11-12). In a study carried out by Ataíde et al. (7) only 5,6% of oral lesions in pediatric patients correspond to inflammatory fibrous hyperplasia the predominant age group being 13 to 16 years.

Other studies show that this is not a common condition in children, whose number in diagnosed cases was approximately 5-8% of all oral lesions in these patients (9-10-11).

The clinical evidence observed in this case suggest a diagnostic hypothesis of inflammatory fibrous hyperplasia where the etiological factor was the chronic irritation caused by the bad dental positioning due to a trauma. A similar case was reported by Figueiredo (1), where a child, also of 11 years of age, presented a lesion after having suffered a dental trauma in the region of upper incisors.

The clinical characteristics of the lesion described in this case match the aspects presented in literature for inflammatory fibrous hyperplasia, this being an exophytic growth of smooth surface that can be of firm or soft consistency with coloring similar to the mucosa or erythematous coloring (2-3-4).

According to the American Academy of Pediatric Dentistry (13) regarding procedures of pediatric oral surgery and oral pathology it is preferable to carry out a biopsy in most parts of oral lesions in order to obtain a definite diagnosis. In this case, a surgical excision of the lesion was performed and sent to histopathological analysis in order to confirm the diagnostic hypothesis. The histopathological exam confirmed the diagnosis of inflammatory fibrous hyperplasia in coinciding with the microscopic characteristics described in the literature (2-4-14). The histopathological analysis is important not only to provide a confirmation of the diagnosis but also in order to concede data about the prognosis and clinical behavior as well as indicate the need for therapy and additional monitoring.

Most dental trauma affects the upper central incisors and can cause diverse alterations in occlusion such as dental migration (3-15-16). The palatoversion of the upper central incisor was in this case a result of trauma, which caused an irritation in the surrounding tissues.

The most indicated treatment for inflammatory fibrous hyperplasia is the surgical removal and the prognosis is excellent (2-3-4-5). In this report the surgical removal of the growth was preceded by a vestibuloplasty and 12 months after the procedure no abnormalities were reported.

CONCLUSION

The inflammatory fibrous hyperplasia can occur in children that have an ill-positioned tooth associated with a previous dental trauma. This condition results in a chronic inflammation and in an abnormal growth of the tissue in the location. In order to obtain therapeutic success a part from the surgery the bad positioning of the teeth also needs to be eliminated.

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