Clinical Case Report

INFLAMMATORY FIBROUS HYPERPLASIA IN A PATIENT WITH NEUROLOGIC DISTURBANCE

HIPERPLASIA FIBROSA INFLAMATÓRIA EM PACIENTE COM DISTÚRBIOS NEUROLÓGICOS

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ABSTRACT

Introduction: Inflammatory Fibrous Hyperplasia (IFH) is a pathology characterized by a reactive lesion, in response to a chronic irritant of the oral mucosa. IFH presents itself as a high, slow-growing, asymptomatic lesion. It can vary from flaccid or firm to palpation, with a sessile or pediculate base. The purpose of this article is to report a case of inflammatory fibrous hyperplasia and a discussion based on a literature review **Case Report:** Male, 53 years old, ex-alcoholic and smoker, bedridden after a stroke, without a definite cause for five years, resided in a Hospital and Maternity in the region. A nodular vegetating lesion was found throughout the palatal rim, with fibrous consistency on palpation, non-bleeding and non-painful. 7 by 8 cm. Treated with excisional surgical procedure and biopsy of pathologic tissue. **Discussion:** The clinical case described here presents inflammatory fibrous hyperplasia similar to those described in the literature, diagnosed as an exophytic process, well defined, mucosa-like in color, pedicled, asymptomatic, slow growing and without bone involvement. There is a consensus in the literature that the etiopathogenesis of inflammatory fibrous hyperplasia has a close relationship with low-grade chronic trauma intensity **Conclusion:** The hyperplasia inflammatory lesions are common and have, in the majority of cases, little dimensions without symptomatology and associated with persistent local trauma, the treatment consists in excisional surgical procedure and a good prognostic is expected.

Keywords: *oral pathology, oral Surgical procedures, hyperplasia.*

RESUMO

Introdução: A Hiperplasia Fibrosa Inflamatória (HFI) é uma patologia caracterizada como lesão reativa, em resposta a um irritante crônico da mucosa oral. HFI se apresenta como uma lesão espessa, de crescimento lento e assintomática.

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Pode variar de flácido ou dura à palpação, com base séssil ou pediculada. O objetivo deste artigo é relatar um caso de hiperplasia fibrosa inflamatória e uma discussão baseada em revisão de literatura. **Relato de caso:** Paciente masculino, 53 anos, ex-alcoólatra e tabagista, acamado após acidente vascular cerebral, sem causa definida há cinco anos. Residia em Hospital e Maternidade da região. Ao exame objectivo, encontrava-se lesão nodular vegetante em toda a borda palatina, de consistência fibrosa à palpação, não sangrante e não dolorosa, medindo 7 por 8 cm. Tratado com procedimento cirúrgico excisional e biópsia de tecido patológico. **Discussão:** O caso clínico descrito apresenta quadros de hiperplasia fibrosa inflamatória semelhante aos descritos na literatura, diagnosticado como um processo exofítico, bem delimitado, de cor semelhante à mucosa, pediculada, assintomática, de crescimento lento e sem envolvimento ósseo. Há um consenso na literatura de que a etiopatogenia da hiperplasia fibrosa inflamatória possui estreita relação com trauma crônico de baixa intensidade. **Conclusão:** As lesões inflamatórias hiperplásicas são comuns e apresentam, na maioria das vezes, pequenas dimensões, sem sintomatologia e associadas a traumas locais persistentes, o tratamento consiste em procedimento cirúrgico excisional e espera-se bom prognóstico.

Palavras chave: *patologia oral, procedimentos maxilofaciais, hiperplasia.*

INTRODUCTION

Inflammatory Fibrous Hyperplasia (IFH) is a pathology characterized as a reactive lesion in response to a chronic irritant of the oral mucosa by the use of total or partial removable prostheses with bad adaptation[1]. It can also be associated with other etiological factors such as friction of chewing, poor hygiene, residual roots, sharp teeth, poorly adapted restorations, diastemas, and other traumas.[2,3]

The lesion primarily affects maturer individuals, in the sixth decade of life and has a predilection for females. It is frequently observed in the anterior region of the maxilla and mandible[2]. It can also affect the alveolar ridge and the jugal mucosa[4]. It is considered one of the most prevalent reactive hyperplastic lesions according to some studies. It can represent up to 72% of diagnosed cases.[4, 5]

In a clinical aspect, IFH presents itself as a high, slow-growing, and asymptomatic lesion. It can vary from flaccid or firm to palpation, with a sessile or pediculated base. The color varies from erythematous to similar to the adjacent mucosa, in some cases, there is ulceration on the surface1. Its size historically ranges from less than 0.5 cm to 1.9 cm.[4]

Histologically, the lesion is characterized by presenting a hyperparaceratinized stratified pavement epithelium, with irregular hyperplasia of the epithelial ridges. Connective tissue is characterized by fibrous connective tissue with variable chronic inflammatory infiltrate. Eosinophils or lymphoid follicles may be present.[6]

The primary treatment of choice is excisional surgical removal and the terminal diagnosis must be through histopathological examination[1,7]. In case of association with the use of a prosthesis, it must be redone or corrected to prevent recurrence of the injury.[6]

This work contemplates a rare clinical case of IFH not associated with the use of prostheses, with emphasis on its etiological factors, clinical and histopathological characteristics of the lesion, and its treatment.

CASE REPORT

Male patient, 53 years old, ex-alcoholic and smoker, bedridden after a stroke without a specific cause for five years, given in right hemiplegia, does not communicate verbally, never used a prosthesis, ate through gastrostomy and resided in a Hospital and Maternity in the region.

He attended the University Hospital of Santa Catarina's Federal University – BR (HU / UFSC),

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accompanied by a nursing professional to evaluate the volume increase in the palate region about five years ago, being attended in the Stomatology discipline and referred for an incisional biopsy on the palate together with the Maxillofacial team.

Upon general physical examination, the patient found himself flushed, hydrated, anicteric, acyanotic, afebrile and eupneic, non-contact due to stroke, not lucid and not oriented in time and space. The caregiver reported snoring with no sign of vital obstruction/apnea. On intra-oral physical examination, a nodular vegetating nodular lesion was found throughout the palatal rim, from the incisive papilla to the oropharynx, with a reddish color interspersed with whitish areas, an irregular surface, fibrous consistency on palpation, non-bleeding and non-painful. Measuring approximately 7 by 8 cm. (Figure 1)

When taking into account the history of incisional biopsies on the palate with a presumptive diagnosis of IFH, the extent of the lesion and the risk of bleeding during the procedure, we finally opted for the excisional biopsy of the lesion. Under general anesthesia with nasotracheal intubation, extraoral antisepsis was performed with 2% chlorhexidine digluconate, local anesthesia with 2% lidocaine with a vasoconstrictor (adrenaline 1:100.000) and apposition of sterile fields (Figure 1). An attempt was established to locate the insertion point of the lesion in the oral mucosa; however, it was extremely adapted to the oral space, not allowing its complete visualization. Subsequently, the section of the lesion started with an electric scalpel, in its medial portion in the direction of the sagittal plane. (Figure 2)

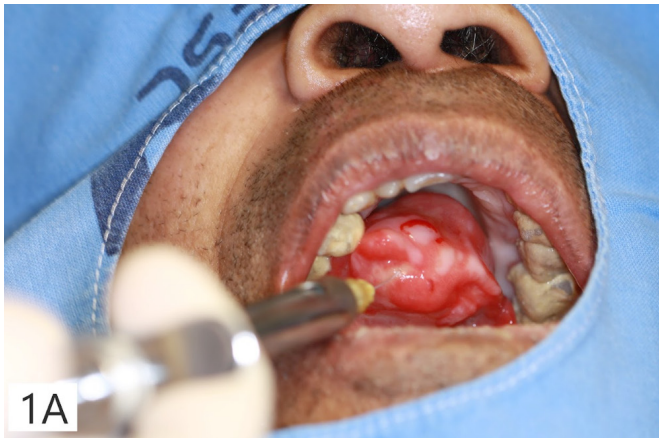

Figure 1 – A) **Initial aspect of intra-oral lesion during the biopsy.**

Figure 2 – A) **The section of the lesion started with an electric scalpel in medial portion of the sagittal plane;** B) **Remotion of a tissue piece for a new histophatological exam.**

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The lesion's density was shown to be exceptionally high due to the tissue being excessively fibrous, interrupting the anterior conduit and proceeding manually to feel the lesion. With this maneuver, the pedicle from the palatal region of tooth first upper molar was noticed. The pedicle was incised with an electric scalpel, allowing the lesion to be completely removed (Figure 3), resulting in significant bleeding in the region, which was contained with cauterization and a macerated acid tablet – tranexamic acid impregnated in local anesthetic. In sequence, extraction of dental unit first upper molar was performed, with wide curettage, ending with the suture of the socket. (Figure 4) Hemostasis was consistently achieved, the procedure was uneventful. The patient's oral mucosa was unchanged, the oral buffer was removed and the procedure was closed, releasing the patient to medical staff for extubation.

The surgical specimen was sent for histopathological analysis, in a vial containing 10% buffered formaldehyde for preservation. Microscopic examination revealed a lesion composed of extensive deposition of collagen fibers parallel to each other and permeated by a predominantly chronic inflammatory infiltrate. The lesion was covered by stratified paraceratinized squamous epithelium showing acanthosis and exocytosis. Given the microscopic characteristics, the diagnosis of inflammatory fibrous hyperplasia was obtained. (Figure 5)

Our patient evolved without recurrences, with a follow-up after of 11 moths. The patient passed away because of his comorbidities sometime after his last clinical consult.

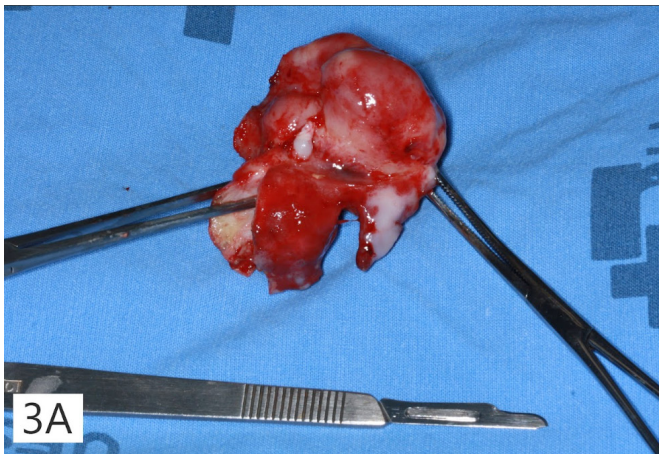

Figure 3 – A) **Completely remotion of intra-oral lesion.**

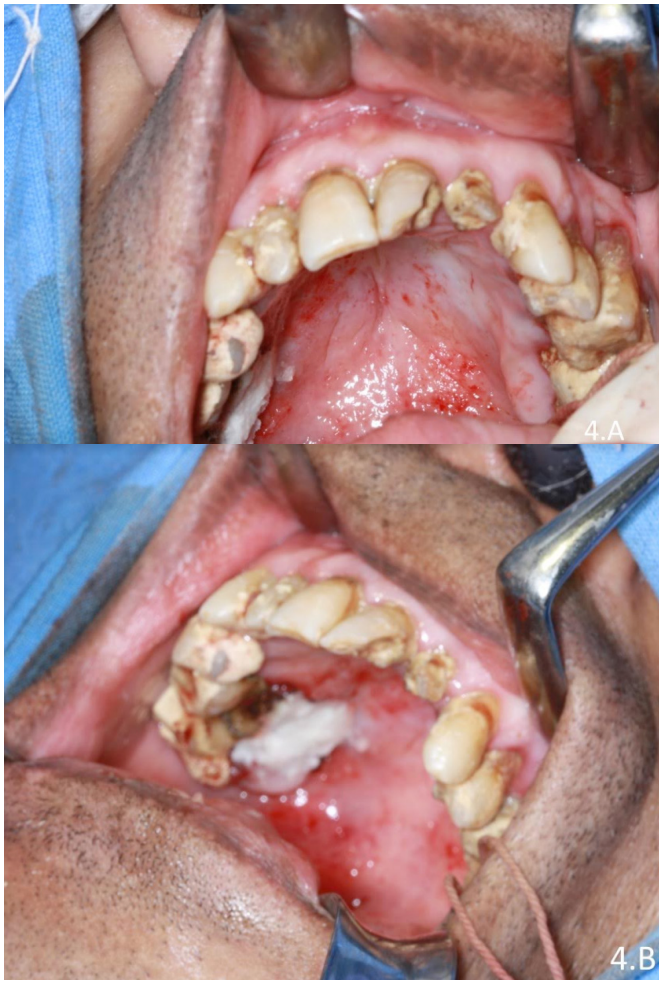

Figure 4 – A) **Final aspect of intra-oral cavity with the remotion of lesion;** B) **Final aspect with macerated acid tablet – tranexamic acid soaked in local anesthetic.**

DISCUSSION

The present evidence suggests that the etiopathogenesis of IFH is related to chronic trauma, predominantly with the use of unsatisfactory dental prostheses[6,8,9]. One study showed that two-thirds of IFH cases were due to the use of poorly adapted

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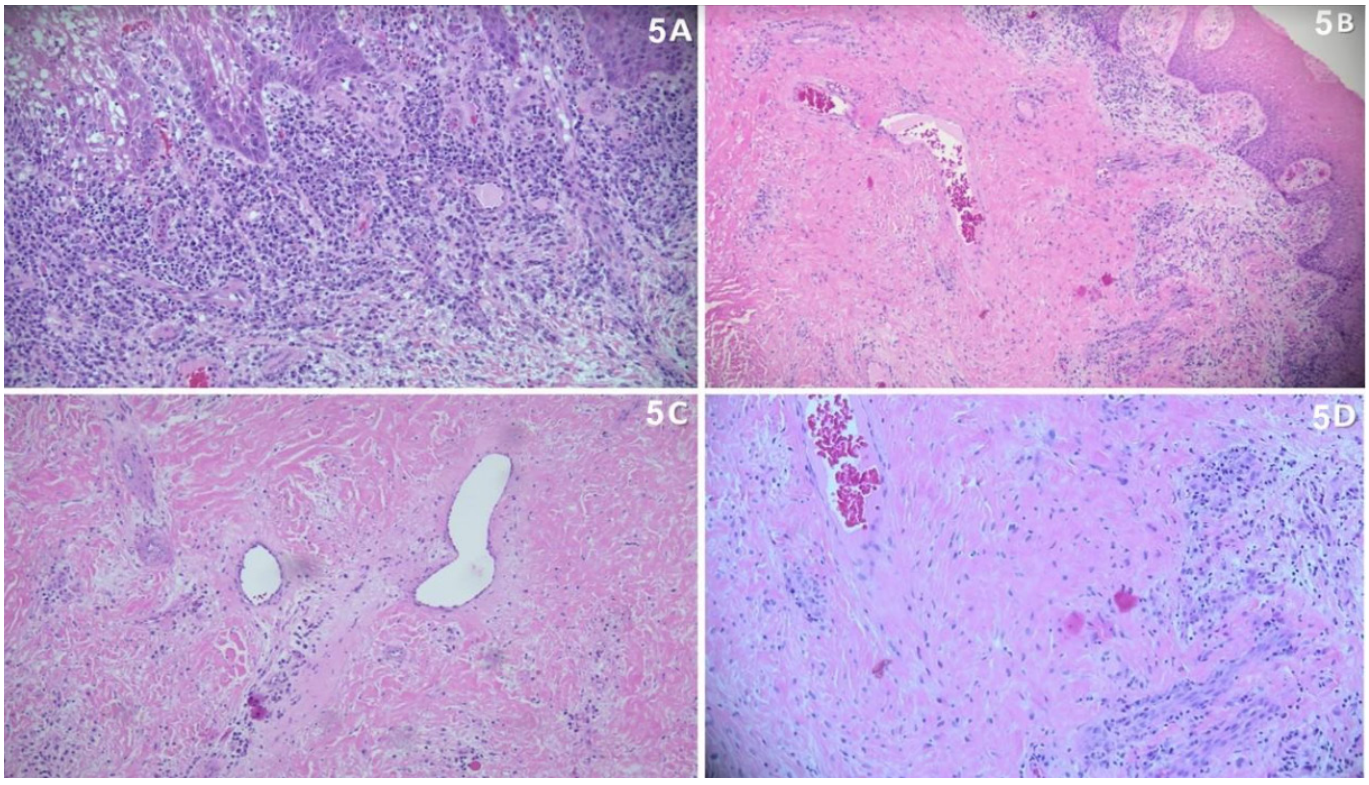

Figure 5 – A) **Inflammatory fibrous hyperplasia showing chronic inflammatory infiltrate rich in plasma cells and lymphocytes concentrated mainly in the subepithelial region (H&E, 400x);** B) **Lesion composed of wide deposition of collagen fibers and covered by stratified paraceratinized acanthotic squamous epithelium (H&E, 50x);** C) **Dense collagen fibers and dilated blood vessels (H&E, 100x);** D) **And ovoid and fusiform fibroblasts in close association with collagen fibers and active vascular hyperemia (H&E, 100x).**

prostheses, and no case related to plaque[4]. However, the present clinical case differs from what's seen in literature, as the patient did not use prostheses, favoring our case report.

As he is bedridden, there are suspicions that inadequate hygiene may be the causative factor, highlighting the fact that the lesion comes from the dental element 16, which was in a stage of chronic inflammation. In addition, in relation to the patient's form of feeding, since it is not oral, little attention was paid to the oral cavity, emphasizing on the importance of the dental surgeon in hospitals and nursing homes, to prevent the appearance of injuries and other diseases. Babu and Hallikeri[10] demonstrated in their study that the oral hygiene of patients with HFI was deficient, suggesting an association. Barros et al[2] reported a similar clinical case, where the etiopathogenesis of the lesion was not defined.

Several epidemiological survey studies show that IFH is the most prevalent reaction oral lesion, ranging from 19.1% to 82.6%[11,12]. In addition, the fifth and sixth decades of life are the ones with the highest incidence of injury, probably related to the use of dental prostheses due to age[2,3,12,13,14]. There is a predilection in IFH for the female gender as demonstrated in different studies[4,12,15,16], not meeting the reported clinical case, where our patient was male.

The clinical characteristics of the lesion described corroborate other cases of IFH reported in the literature, presenting as a vegetative, pediculated, asymptomatic nodule, with slow growth and without bone involvement[2,6]. However, the lesion was located on the palate, an unusual anatomical site, six studies showed that the alveolar / gingival margin and jugal mucosa are the places with the most elevated incidence of HFI[4,12,16].

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The development of the lesion in this case was not associated with the use of a prosthesis, similar to the cases reported by Barros et al.[2] and Figueiredo et al[7]. However, their locations differed. Chronic trauma was the prevalent factor for the injury, reaffirming what the literature presents.[4,11]

The clinical conduct most used in the literature regarding treatment, when associated with a local irritant, is the removal of the cause. Followed by complete surgical excision. In addition, hygiene instructions should be strongly reinforced[1,2,6].

In the present clinical case, the excisional biopsy was the surgical technique of choice, with the extraction of the dental element 16, to eliminate any possibility of recurrence. Since the lesion may be associated with the inflammatory process and the dental biofilm of this element, since the pedicle came from the palatal region. In addition, in order to rule out any associated malignancy, the specimen was sent for histopathological examination, as part of the protocol described in literature and in our service (HU/UFSC).

Whereas there is clinical similarity to other oral pathologies such as neurofibroma, lipofibroma, and tumors of minor salivary glands[1,7]. IFH is a lesion considered by the authors to have a good prognosis[1,2,6]. As long as the treatment steps described above are followed.

CONCLUSION

The inflammatory fibrous hyperplasia lesion endure a benign pathological condition, its diagnosis is made through clinical examination associated with histopathological examination, for its treatment a complete surgical exeresis is indicated, this lesion is not expected to recur as long as the causal factor is eliminated. Reactive hyperplastic lesions have a high incidence among oral pathologies. This isolated case reported highlights the possibility of an uncommon case of fibrous hyperplasia not associated with the use of protheses.

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