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FOCAL FIBROUS HYPERPLASIA -A CASE REPORT

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ABSTRACT

Focal fibrous hyperplasia (FFH), also known as irritation fibroma, is a common benign reactive lesion of the oral cavity caused by chronic irritation such as cheek biting, sharp teeth, or ill-fitting dental appliances. It typically presents as a painless, slow-growing mass and is most commonly seen on the buccal mucosa, tongue, or gingiva. These lesions are non-neoplastic in nature and arise as a response to repeated trauma. This case report describes a patient with a gradually enlarging, asymptomatic gingival growth. The lesion was surgically excised, and histopathological examination confirmed the diagnosis of focal fibrous hyperplasia. The patient showed good healing with no recurrence on follow-up. This case highlights the importance of early diagnosis, removal of the source of irritation, and simple surgical management for successful treatment.

KEYWORDS: Focal fibrous hyperplasia, irritational fibroma, gingival enlargement, exophytic growth.

INTRODUCTION

Focal Fibrous Hyperplasia (FFH) is recognized as the most common benign soft-tissue tumor or reactive lesion encountered within the oral cavity [1][2]. It is characterized as a localized, reactive, and progressively proliferative lesion of the oral mucosa that arises as a direct response to chronic injury or local irritation [3][4]. Although frequently termed an "irritation fibroma" or "traumatic fibroma," many clinicians prefer the name "focal fibrous hyperplasia" because it correctly implies a reactive tissue response rather than a true neoplastic growth [5]. These lesions are commonly triggered by local factors such as dental plaque, calculus, overhanging restoration margins, fractured teeth, or ill-fitting dental prostheses. While FFH can occur at any age, research indicates a significant gender predilection, with females being twice as likely to develop the condition compared to males. Clinically, the lesion typically presents as a smooth-surfaced, firm, asymptomatic nodule that may be sessile or pedunculated. The most frequent anatomical site is the buccal mucosa along the line of occlusion, though it is also frequently observed on the tongue, gingiva, and palate [6][7]. In this case report, we present a clinically and histopathologically confirmed case of focal fibrous hyperplasia, highlighting its etiology, diagnostic features, and management approach.

CASE REPORT

A 41-year-old female patient presented with a chief complaint of a swelling in the upper left anterior tooth region of one-month duration. The patient reported that the swelling was initially small and gradually increased to its present size, with no associated pain, bleeding, or other symptoms. The patient’s medical history was non-contributory, with no known systemic illnesses or relevant past history. Intraoral examination revealed a solitary, well-defined, pinkish growth located on the maxillary anterior gingiva in relation to teeth 22 and 23 (Fig 1). The lesion appeared dome-shaped with a smooth surface and was sessile in nature, measuring approximately 0.5 × 1 cm. The color of the lesion was similar to the adjacent normal mucosa, with no evidence of ulceration, discharge, or spontaneous bleeding, although mild inflammation of the surrounding gingiva was noted. The presence of supragingival calculus was observed in relation to the adjacent teeth, suggesting a possible source of chronic irritation. On palpation, the growth was firm in consistency, non-tender, non-fluctuant, and non-compressible. No regional lymphadenopathy was detected. Based on the clinical presentation, a provisional diagnosis of a benign reactive gingival lesion was considered. The differential diagnosis included irritation fibroma, peripheral ossifying fibroma, and pyogenic granuloma. Surgical excision was planned for definitive diagnosis and management.

Under aseptic conditions, profound local anaesthesia was administered at the surgical site. A sulcular incision was placed extending from tooth 22 to 23, followed by elevation of a labial flap. Complete excision of the gingival overgrowth was performed, along with meticulous debridement of the underlying area (Fig2). The excised gingival tissue was immediately preserved in 20% formalin for

histopathological evaluation. The surgical site was then approximated using simple interrupted sutures to reposition the flap. A periodontal dressing was placed to protect and secure the surgical site. Microscopic examination of hematoxylin and eosin-stained sections of the soft tissue specimen revealed non-keratinized to parakeratinized stratified squamous epithelium exhibiting mild hyperplasia in certain areas. In a focal region, the epithelium showed mild ulceration. The underlying connective tissue was fibrocellular in nature, composed of dense bundles of collagen fibers with fibroblasts and scattered blood vessels. A chronic inflammatory infiltrate, predominantly consisting of lymphocytes and plasma cells, was evident beneath the ulcerated epithelium. Numerous capillaries of varying sizes along with extravasated red blood cells were observed within the connective tissue. Additionally, two small basophilic structures suggestive of calcifications were noted. Based on these histopathological features, a final diagnosis of fibroepithelial hyperplasia was established.

DISCUSSION

Oral soft tissue lesions are commonly encountered in clinical practice, with reactive hyperplastic lesions forming a significant group due to chronic irritation or trauma. Among these, focal fibrous hyperplasia or fibroepithelial hyperplasia (traumatic fibroma) is considered a reactive lesion rather than a true neoplasm, arising due to persistent low-grade mechanical stimulation. The etiological factors responsible for such lesions include plaque, calculus, sharp cusps, faulty restorations, and dental or orthodontic appliances. Continuous irritation from these sources leads to an exaggerated reparative response resulting in fibrous tissue overgrowth. In particular, orthodontic appliances such as Hyrax expanders have been reported to induce reactive lesions on the tongue due to repeated frictional trauma. Clinically, fibrous hyperplasia usually presents as a well-defined, smooth-surfaced, sessile or pedunculated growth that is similar in color to the surrounding mucosa and typically painless [8,9]. However, larger lesions may cause functional disturbances such as difficulty in mastication or speech.

Although most cases are solitary, rare presentations of bilateral fibrous hyperplasia of the tongue have been reported in the literature, especially associated with chronic irritation from appliances. A case described by Oliveira Cavezzi et al. reported bilateral lesions on the lateral borders of the tongue in a young patient, highlighting the role of continuous mechanical trauma in symmetrical lesion development [10]. This finding is important, as bilateral occurrence is uncommon and may mimic other pathological conditions, thereby increasing diagnostic complexity.

Similar cases have been documented in the literature where clinically benign-appearing lesions were later diagnosed as malignant upon histopathological examination. These reports reinforce the concept that clinical diagnosis alone may not always be reliable, particularly in lesions associated with chronic irritation, where a reactive lesion is often the first consideration [7,8]. Several authors have reported unusual presentations of focal fibrous hyperplasia. For instance, cases have been documented where the lesion reached an unusually large size due to prolonged neglect, causing functional and esthetic

disturbances [8,9]. In another reported case, focal fibrous hyperplasia presented as a pedunculated mass on the tongue, an uncommon site, highlighting the variability in clinical presentation. Additionally, multiple lesions have been rarely reported in patients with persistent traumatic habits, which can complicate diagnosis and management [9,10]

Therefore, this case emphasizes the critical importance of histopathological evaluation in all excised oral lesions, irrespective of their clinical presentation. Any persistent lesion in the oral cavity, even if asymptomatic and benign in appearance, should be viewed with suspicion and subjected to biopsy. Early diagnosis through such measures plays a vital role in prompt treatment and significantly improves the prognosis of patients with oral malignancies [10]

Histopathological examination is essential for definitive diagnosis, as clinical features alone are not sufficient to distinguish fibrous hyperplasia from other lesions such as pyogenic granuloma, peripheral ossifying fibroma, or neoplastic conditions. Microscopically, the lesion typically shows hyperplastic stratified squamous epithelium with underlying dense collagenous connective tissue, fibroblasts, and chronic inflammatory infiltrate, confirming its reactive nature. The differential diagnosis becomes particularly important in tongue lesions, where conditions such as neurofibroma, lipoma, fibrolipoma, and salivary gland tumors must be ruled out. For instance, fibrolipoma differs histologically by the presence of mature adipose tissue within a fibrous stroma, emphasizing the importance of biopsy for accurate diagnosis. Management involves complete surgical excision along with elimination of the causative irritant, which is crucial to prevent recurrence [8]. Although recurrence is rare, it may occur if the lesion is incompletely excised or if the source of irritation persists [9][10]. Therefore, periodic follow-up is necessary to ensure proper healing and to monitor for recurrence.

CONCLUSION

Focal fibrous hyperplasia is a common benign reactive lesion of the oral cavity caused by chronic irritation. Early diagnosis and proper management are important to prevent further enlargement and recurrence. Surgical excision combined with removal of the traumatic factor provides excellent prognosis and minimal chances of recurrence.

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FIGURES:

Fig 1: Preoperative intraoral view showing a localized gingival overgrowth

Fig 2: Postoperative intraoral view following surgical excision