



CASE REPORT

TRAUMATIC FIBROMA –A REVIEW AND REPORT OF TWO CASES

*Dr. Jinal Desai, Dr. Krishna Dave, Dr. Gaurav Bakutra, Dr. Dharmesh Vasavada

Manubhai Patel Dental College, Vadodara, Gujarat, India

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ABSTRACT

Traumatic or irritation fibroma is a benign exophytic oral lesion that develops secondary to tissue injury. It is the benign reactive lesion, and the treatment of choice is surgical excision. Here is the series of two cases of irritational fibromas in buccal mucosa and hard palate regions which were managed by excision biopsy and were diagnosed as irritation fibroma after histopathologic evaluation.

INTRODUCTION

Local reactive focal overgrowths are frequently encountered lesions in the oral cavity (Bagde *et al.*, 2013). Various types of localized reactive lesions such as focal fibrous hyperplasia, pyogenic granuloma, peripheral giant cell granuloma and peripheral ossifying fibroma may occur in the oral cavity (Bagde *et al.*, 2013; Al-Rawi, 2009; Kolte *et al.*, 2010; Mathur *et al.*, 2010). Most of these lesions are innocuous and rarely present with aggressive features, being local irritants like plaque, calculus, overhanging margins, trauma and dental appliances the main causative etiological factors (Bagde *et al.*, 2013; Mathur *et al.*, 2010). Oral fibroma is a benign scar-like reaction to persistent long-standing irritation or trauma in the mouth. It is also known as traumatic fibroma, focal fibrous hyperplasia, fibrous nodule or oral polyp. This case series comprises of two patients with a fibroma on different areas of the oral cavity - right buccal mucosa and hard palate; followed by excisional biopsy.

CASE REPORT

Case 1

A 43 year old male patient was reported in Department of Periodontology with chief complaint of growth in right cheek region of the mouth since last two years. There was no significant medical or dental history.

*Corresponding author: Jinal Desai,
M. P. Dental College, Vadodara, Gujarat, India.

The lesion was first noticed two years back and which was small initially and its size has increased gradually to the present size. The growth has interfered in the normal functioning of the mouth. On intraoral examination, a solitary painless well-defined mass was present on right buccal mucosa along the occlusal plane of maxillary & mandibular teeth. The lesion was whitish pink in color, measuring about 10x8 mm of size in longest diameter and extending from the buccal surfaces of 33 and 34 (Figure 1 a, b). The superficial surface of lesion was keratinized with well-defined margin. Growth was firm in consistency, did not bleed on pressure and was non-tender on palpation.

Surgical procedure

After haematological and general medical evaluation, excisional biopsy was performed intra orally under local anesthesia using scalpel blade no 15 and the wound was sutured (Figure 2 a, b). Post-operative healing was uneventful (Figure 3 a, b) and no pain or discomfort in chewing was reported on 15 days follow up (Figure 4).

Histological examination

Haematoxylin & Eosin stained section show parakeratinized stratified squamous epithelium. The connective tissue shows increased cellularity with numerous small and large endothelial cell lined blood vessels, diffuse chronic inflammatory infiltrate chiefly comprising of lymphocytes and plasma cells and dense collagen fibre bundles arranged haphazardly (figure 5). Based on this, a diagnosis of "Irritational /Traumatic fibroma" was made.

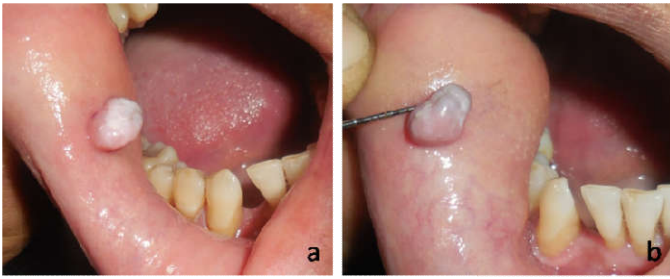


Figure 1a, b. Preoperative view

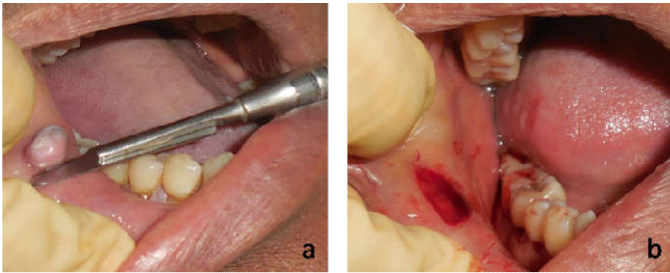


Figure 2a, b. Intraoperative view of excisional biopsy

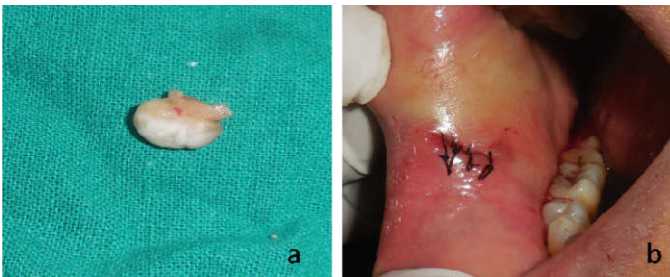


Figure 3a, b. Postoperative view



Figure 4. Postoperative view of healing after 15 days

Case 2

A 62-year-old female patient was referred to the Department of Periodontics with a chief complaint of a lesion in midpalatal region of the upper jaw since 1 year. The lesion was not painful and has not increased in the size since then. Clinical examination revealed an exophytic lesion that measured 5x7 mm in diameter, seen in midpalatal region extending from the mesial aspect of the first premolar to the distal aspect of the second premolar (figure 6 a, b). Lesion was pedunculated, margins were well-defined and regular. It was non-tender on palpation and did not bleed. Consistency of growth was soft to firm and colour was reddish pink.

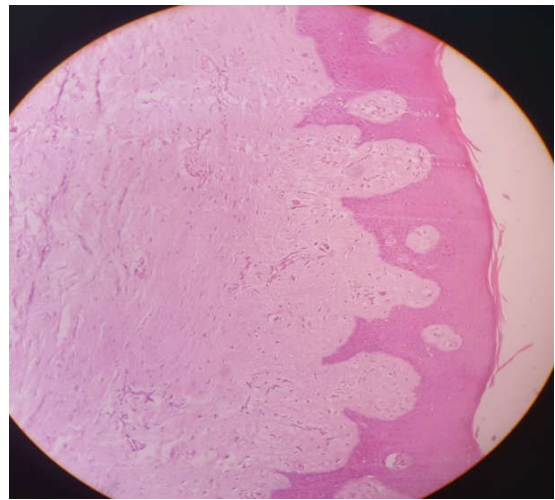


Figure 5. Histopathologic View

Surgical procedure

Excisional biopsy was performed after haematological and general medical evaluation, under local anaesthesia using scalpel blade no 15 (figure 7 a, b). On three months follow up the healing is uneventful. No pain or discomfort and no difficulty in eating were reported (Figure 8).

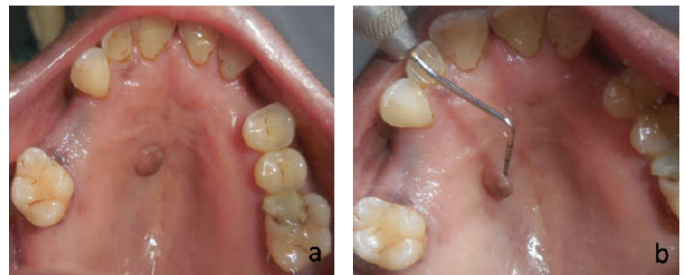


Figure 6a, b. Preoperative view

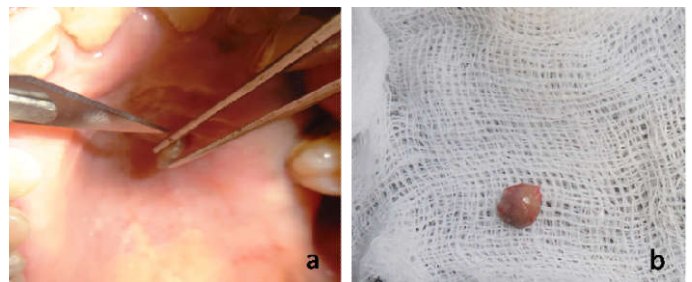


Figure 7a, b. Intraoperative view of excisional biopsy



Figure 8. Post operative view of healing after 3 months

Histological examination: Haematoxylin & Eosin stained sections show parakeratinized stratified epithelium with underlying epithelium with underlying connective tissue. The connective tissue shows dense collagen fibre bundles arranged haphazardly, constricted blood vessels of varying sizes and dense inflammatory infiltrate chiefly comprising of lymphocytes and plasma cells. (Figure 9) A diagnosis of "Traumatic Fibroma" was made, based on this.

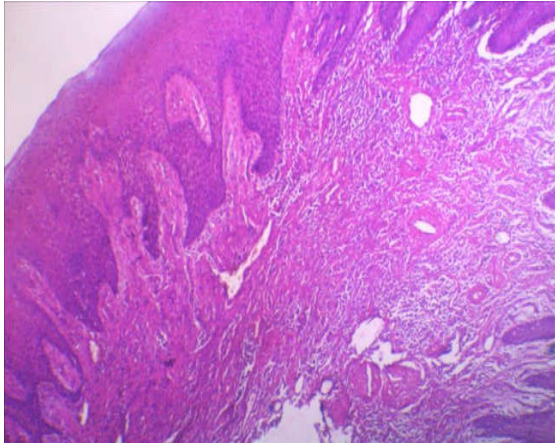


Figure 9. Histopathologic image

DISCUSSION

Traumatic fibroma, also known as irritation fibroma, is a benign exophytic oral lesion that develops secondary to tissue injury. Fibroma is a result of a chronic repair process that includes granulation tissue and scar formation resulting in a fibrous submucosal mass (Pedrona *et al.*, 2009). Recurrences are rare and may be caused by repetitive trauma at the same site. This lesion does not have a risk for malignancy (Esmeili *et al.* 2005). Clinically, they appear as broad-based lesions, lighter in color than the surrounding normal tissue, with the surface often appearing white because of hyperkeratosis or with surface ulceration caused by secondary trauma. The growth potential of fibroma does not exceed 10-20 mm in diameter and seldom does it exceed 1.5 cm in size (Regezi *et al.*, 2003). Oral fibroma can occur at any age but is most commonly seen in older adults. It affects 1-2% of adults and extremely rare during the 1st decade of life. 66% of irritation fibromas are found in females. Patients with multiple fibromas may represent cases of familial fibromatosis, fibrotic papillary hyperplasia of the palate, tuberous sclerosis, or multiple hamartoma syndromes (Cowden syndrome). Those with a generalized fibrous overgrowth of the gingival tissues are said to have fibrous gingival hyperplasia or gingival fibromatosis (Bouquot *et al.*, 1988). In the oral cavity, buccal, labial, and lateral tongue sites account for 71% of all fibromas (Filhoa *et al.*, 2005). The mass may be sessile or pedunculated and usually reaches its maximum size within a few months. Usually it is an asymptomatic, moderately firm, immovable mass with a surface coloration that is most often normal, but may show pallor due to decreased vascularity, thickened surface keratin, or ulceration from recurring trauma. Giant cell fibroma, myofibroma and myofibromatosis and peripheral ossifying fibroma are differential diagnoses of oral fibroma (López-Labady *et al.*, 2000). Giant cells below the epithelium are suggestive of giant cell fibroma. Myofibromas and myofibromatosis are characterized by myofibroblasts in the stroma. Bony trabeculae and foci of calcification are seen in peripheral ossifying fibroma. Clinically when it presents with

the usual history and examination findings, the diagnosis of oral fibroma is suspected. Further, a biopsy is taken to exclude other conditions or to remove the lesion. Typical dense fibrous tissue with relatively few cells seen in histologic examination confirms the diagnosis of fibroma. The overlying epithelium may be ulcerated, thinned or thickened. Usually, irritation fibroma is treated by surgical excision and does not recur, provided the source of irritation and trauma is eliminated. Conservative excisional biopsy is curative and its findings are diagnostic; however, recurrence is possible if the exposure to the offending irritant persist (Madhusudan *et al.*, 2011).

Conclusion

Irritation fibromas are innocuous lesions of the oral cavity which can be easily managed by means of detailed clinical history, surgical excisional biopsy and histological evaluation. Although it's a common entity, can cause diagnostic dilemma for an inexperienced clinician. Identification of any reactive hyperplastic lesion requires the devising of a differential diagnosis to enable precise patient evaluation and there on its management. A correlation of clinical and histopathological findings is required to treat these patients. Removal of source of trauma or irritation remains important to avoid the recurrence of the lesions and close post-operative follow up is required considering the chances of recurrence.

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