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Fibroepithelial Hyperplasia: A Case Report

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Reactive hyperplastic exophytic growth are seen in the oral mucosa due to chronic irritation by plaque, calculus, overhanging margins, trauma and dental appliances. Traumatic fibroma represents a focal benign hyperplasia of fibrous connective tissue origin. Here we are reporting a case of traumatic fibroma in relation to upper right posterior teeth on right buccal mucosa in a 34 year old male.

KEYWORDS: Traumatic fibroma, Reactive Fibrous Hyperplasia, Fibrous Nodule

INTRODUCTION

Traumatic fibroma is a common submucosal response to trauma from teeth or dental prostheses and was first reported in 1846 as fibrous polyp and polypus.^{1,2} It is also known as “Irritation fibroma, Focal fibrous hyperplasia, Inflammatory fibrous hyperplasia, Fibrous nodule or Fibroepithelial polyp”.³ Commonly localized soft tissue growths of the oral mucosa are considered to be reactive inflammatory hyperplasia than neoplastic in nature.⁴ Traumatic fibroma is the healed end product of inflammatory hyperplastic lesions.⁵ This paper reports a case of traumatic fibroma in a 34 year old male in relation to the upper right posterior teeth on right buccal mucosa.

CASE REPORT

A 34 year old male patient reported to the outpatient department with a chief complaint of pain and swelling in upper right region of jaw on inner side of cheek since 2-3 weeks. The medical history was non-contributory. The lesion started as a small nodule which gradually increased in size. Lesion was not associated with any fever, heaviness or burning sensation but was painful. The pain was gradual in onset, moderate, intermittent, localized and aggravated on mastication which lasted for 1-2 hours and then subsided on its own. Patient did not take any medication for the same. Intra-oral clinical examination revealed an exophytic growth on buccal mucosa of right side opposite to 17, which

was spherical in shape measuring approximately 1 X 1 cm in size (Figure 1). The mass had well defined borders with central erythematous area. The overlying mucosa was white in colour. On palpation, the surface of overlying mucosa was smooth and the mass was firm and elastic in consistency. The mass was tender on palpation and did not bleed on touch. On percussion, no tenderness was present in adjacent teeth.

On the basis of history and clinical findings, a provisional diagnosis of traumatic fibroma was given. The list of differential diagnosis included chronic fibrous epulis, peripheral giant cell granuloma, peripheral ossifying fibroma, capillary hemangioma and lipoma. The investigations included complete hemogram, intraoral radiographs and excisional biopsy of the lesion (Figure 2).

Routine haematological investigation values were also found to be within normal limits. No radiographical changes related to bone were seen. The excisional biopsy was performed under local anaesthesia followed by suturing and H & E stained slide section revealed hyperplastic Parakeratinized Stratified squamous epithelium with underlying connective tissue stroma. (Figure 3 a&b). The Connective tissue showed haphazard bands of collagen fibres with proliferating fibroblast. Few blood vessels were seen

interspersed with in the connective tissue. These all features are suggestive of Fibro-Epithelial hyperplasia.

DISCUSSION

Traumatic fibromas are the most common benign soft tissue tumours seen in the oral cavity.⁶ It is also known as Focal Fibrous hyperplasia, oral fibroma or as fibromatosis fibroma.⁷ Although the term focal fibrous hyperplasia much more describes the clinical appearance and pathogenesis of such growth, it is not commonly used.⁷ These are not true neoplasms, but merely fibrous overgrowths. The trauma or irritation can be due to calculi, overhanging margins & restorations, foreign bodies, chronic sharp tooth cusp biting, and sharp spicules of bones and over extended borders of appliances.⁶ They occur more frequently in females than in males between third and fourth decade of life, but in our case traumatic fibroma occurred in a 34 year old male.

Clinically, it appears as an elevated pedunculated or sessile growth with nodular form of normal color with a smooth surface. The tumor may be small or, in rare instances, may range upto several centimeters in diameter. Projecting above the surface, the tumor sometimes becomes irritated and inflamed and may even show superficial ulceration or hyperkeratosis.⁷ The reported case was of 1 X 1 cm in diameter with a non-ulcerated surface.

On the basis of only the clinical features, it is difficult to differentiate traumatic fibroma from peripheral ossifying fibroma, pyogenic granuloma or peripheral giant cell granuloma due to lack of unique clinical appearance. The traumatic fibroma and peripheral ossifying fibroma both appear pale, firm and non-tender. However, peripheral ossifying fibroma appears exclusively on gingiva and because of calcified material in the stroma it may appear firm on palpation. Furthermore, they have the tendency to displace the adjacent teeth. The Peripheral Giant Cell Granuloma and Pyogenic Granuloma generally appear more vascular and may bleed on probing or palpation. Lipoma can also be considered in differential diagnosis but it is rarely seen in the oral cavity which has a pale yellow colour, soft and has slip sign positive on palpation.⁶ No history of

trauma is associated with capillary hemangioma unlike traumatic fibroma.

Histopathologically, traumatic fibroma can exhibit as an intact or ulcerated stratified squamous epithelium along with shortening and flattening of rete pegs.⁸ Traumatic fibroma exhibit two patterns (a) Radiating pattern that has been found to be associated with sites, which are immobile in nature (eg. palate) and have a greater degree of trauma and (b) circular pattern is found to be associated with sites that are flexible in nature and have lesser degree of trauma (eg. cheek) based on collagen arrangement at the site of the lesion and depending on degree of irritation. Contrary in true fibroma, no such kind of patterns are present. They present as capsulated and sharp demarcation can be made from the surrounding normal tissue.

Histopathological examination is required to confirm that an epulis is fibrous and not a giant-cell lesion, pyogenic granuloma or a malignant tumour, which can very rarely form on the gingival margin and simulate a non - neoplastic epulis.⁹ Traumatic fibroma does not hold a risk for malignancy. Treatment of traumatic fibroma consists of elimination of etiological factors, scaling of teeth and surgical excision in toto along with periodontal ligament and periosteum to minimize the possibility of recurrence.⁸ Any identifiable irritant such as an ill - fitting dental appliance and rough restoration should be removed. Long- term postoperative follow - up (Figure 5) is extremely important because of high growth potential of incompletely removed lesion.

CONCLUSION

Oral cavity is an ideal niche for manifestation of various reactive soft tissue overgrowths which poses a diagnostic dilemma due to their similar clinical presentations. Continuous trauma and irritation are the main etiological factors associated with this, therefore it is also important to manage the source of the irritation and then is treated by conservative surgical excision. If the lesion is treated without removing the irritation source, the lesion will recur. Traumatic fibroma clinically resembles as pyogenic granuloma, peripheral giant cell granuloma or odontogenic tumors therefore radiographic and histopathological examination is essential for

accurate diagnosis.

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LEGENDS



Figure 1. Preoperative Intraoral View

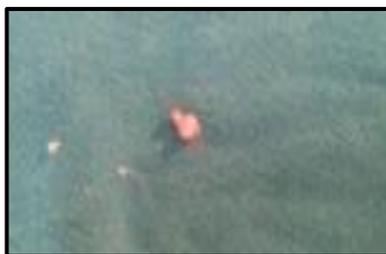


Figure 2. Biopsy Specimen

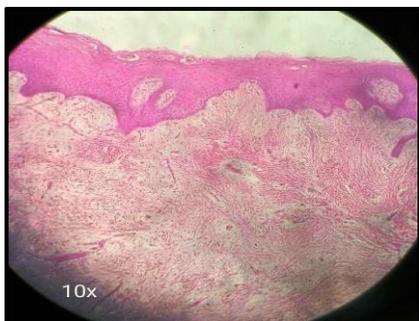


Figure 3(a). Histopathological Image (10X)

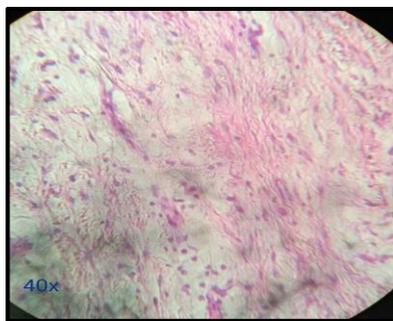


Figure 3(b). Histopathological Image (40X)



Figure 4. Post-operative Intraoral View



Figure 5. Lesion after Healing