



Research Paper

Self Inflicted Injury of Oral Mucosa: A Case Report and Review of Fibro Epithelial Polyp

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ABSTRACT:

Benign focal fibrous reactive hyperplasia is frequently seen in the oral cavity. Majority of these overgrowths are representative of traumatic or inflammatory rather than neoplastic origin. This article reports a case of fibro-epithelial polyp in a 22year old female patient in relation to occlusal surface at right buccal mucosa. The article addresses the diagnosis, clinical, histological features and treatment for fibro epithelial polyp.

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I. INTRODUCTION:

Polyp and polypoidal lesions are common in oral cavity as it is exposed to external and internal stimuli. Fibro epithelial polyp arises from connective tissue mesodermal elements. According to Cooke any pedunculated lesion of the mucosal surface referred as a "polyp" (fibro-epithelial polyp) and any pedunculated or sessile lesion in the gingiva as "epulides¹." These lesions commonly seen at the buccal mucosa, tongue, labial mucosa and lips. Clinically these lesions are small knob like structures soft to spongy or firm in texture with varying size ranging with few millimeters. These lesions are Painless overgrowth of the mucosa which may be pedunculated or sometimes sessile.²As the oral cavity is exposed to wide array of stimuli which presents with myriad of disease ranging from developmental, reactive to neoplastic conditions. Most common etiology are sharp cusps, Ill fitting denture, fractured or sharp restoration and food impaction.

Although these lesions are small initially but may interfere with speech as its size increases. Treatment modalities range from conservative surgical excision. Electrocautery, laser, cryosurgery, intra-lesional injection of ethanol or corticosteroids, or sodium tetradecyl sulfate sclerotherapy are other modalities for the removal³

This report describes Fibro epithelial polyp of buccal mucosa, clinical characteristics and histopathological diagnosis is being emphasized in the present case report.

II. Case Report:

The patient's history revealed a habit of chronic cheek biting during mastication. The lesion started as a small nodule and grew, but no change in size was noted over the last eight months. Upon oral examination, smooth, well-defined swelling that was lobulated and sessile was noted. The colour of the swelling resembled normal mucosa. The swelling was located on the right buccal mucosa along the line of occlusion and the swelling was up to 5cm in diameter. On palpation, the growth had a firm consistency and it was attached to the surface below. The patient was clinically diagnosed with a fibro-epithelial polyp on the right buccal mucosa. (Fig:A)



Fig A: Fibro epithelial polyp at buccal mucosa at occlusal level

TREATMENT AND OUTCOME:

Under all aseptic conditions, the field to be operated was prepared with betadine. Local anaesthesia with epinephrine 1:80,000 dilutions were administered as an infiltration around the lesion. Using 15 no blade, Surgical excision of the lesions was done (Fig:B) and sent for histopathological examination (Fig:D). Two black beaded simple interrupted sutures were placed haemostasis was achieved (Fig:C). Post-operative instructions were given. Post-operative medication for three days were managed with tab Amoxicillin and clavulanic acid 625 mg and tab. Aceclofenac. Histopathological report revealed specimen showed hyperparakeratinized stratified squamous epithelium and subepithelial showed stroma with dense infiltration of acute and chronic inflammatory cells and mass composed of fibrous connective tissue with collagen bundles interspersed with scattered chronic inflammatory cells Histopathological diagnosis confirmed the clinical diagnosis

Sutures were removed on fifth post-operative day, healing was satisfactory. A follow up of 4 months was done. There were no signs of recurrence.



Fig B: Excision of the lesion **Fig C:** Sutured site **Fig D:** Excised lesion

III. DISCUSSION:

Fibrous growths of the oral soft tissues are common and include a various group of reactive and neoplastic conditions. Tissue overgrowth of the oral cavity often presents a diagnostic challenge because a different group of pathologic processes can produce such lesions. They can be classified into focal fibrous hyperplasia, peripheral ossifying fibroma, pyogenic granuloma, and peripheral giant cell granuloma.

The clinical features of a fibro-epithelial polyp are not limited and the lesion must be differentiated from a peripheral ossifying fibroma and a peripheral giant cell granuloma. A peripheral ossifying fibroma appears entirely on the gingiva, and it may be firmer because of calcified material in the stroma thus differentiated it from a fibro-epithelial polyp.

peripheral giant cell granuloma generally appears to be more vascular and may bleed when palpated thus, more difficult to achieve homeostasis.

A fibro-epithelial polyp is diagnosed based on the location of soft tissue swelling. If swelling is located on the tongue, the possibility of a neurofibroma, neurilemmoma, or granular cell tumor must be considered. Swelling on the lower lip or buccal mucosa may be a mucocele, lipoma, or salivary gland tumor.

Another important distinguishing feature from traumatic fibroma was Fibroma occurs as a result of a chronic repair process that includes granulation tissue and scar formation resulting in a fibrous submucosal mass⁵. Histopathological difference of fibroma exhibits two different patterns of collagen arrangement, a radiating pattern and a circular pattern, depending on the amount of irritation and the site of the lesion.

- An irritation fibroma with a radiating pattern occurs at the sites that are immobile in nature e.g. the hard palate and with more severe trauma

- An irritation fibroma with a circular pattern is associated with sites that are flexible in nature e.g. the buccal mucosa, cheek and with less severe trauma, but a true fibroma exhibits neither of those patterns.⁷

Lipoma might also be considered as a differential diagnosis, although it is rarely seen in the oral cavity. Further, its pale yellow color and slippage on palpation⁶

Fibro epithelial polyp must be differentiated from papillomas, which are considered to be benign neoplasm. Papillomas are composed of squamous epithelial cells that exhibit marked acanthosis, hyperkeratosis, and a papillary growth pattern, whereas Fibro epithelial polyp consists of fibrous stroma covered by a non-papillary layer of hyperplastic squamous epithelium.

A fibro epithelial polyp does not pose a risk of malignancy. Recurrence rates are low and recurrence is mostly by repetitive trauma at site of the lesion.

In the present case the lesion was located at the occlusal level on the buccal mucosa and the size of the lesion was less than 5cm which was in accordance with the other studies.^{3,4,5} However, the crucial step is to examine the tissue histopathologically in order to distinguish a fibro epithelial polyp from a malignant tumor since those polyps mimic the clinical features of a true fibroma. The histopathological report in this case revealed fibro epithelial poly not showing any evidences of malignancy.

IV. CONCLUSION:

Oral lesions are general detected first by dental practitioners. Knowledge of the frequency and presentation of the most common oral lesions with its differential diagnosis is beneficial in developing an early clinical impression of such lesions. Benign soft tissue fibrous lesion should always be considered in cases of reactive hyperplastic lesions of oral cavity. As it causes difficulty during normal activities like eating and chewing, prompt surgical intervention along with removal of irritating source should be done to prevent recurrence.

CONFLICT OF INTEREST: Nil

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