

Fibroepithelial Hyperplasia: Case Report

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Abstract: ***Background:** Fibroepithelial hyperplasia or fibroma is reactive or inflammatory condition which presents variety of lesions named according to their clinical presentation. They are formed as a result of irritation and are not true neoplasm, rather considered as mere fibrous overgrowths. **Case report:** A case of 25 year-old female patient with gingival overgrowth in posterior mandible right side since 5 years. The lesion was excised using scalpel and uneventful healing noticed after a week. In this case report, the lesion was found in 25-year-old female patient. **Discussion:** The possible histopathologic variants of fibroepithelial hyperplasia includes pyogenic granuloma, peripheral giant cell granuloma and irritational fibroma. Conventional procedure was undertaken as recurrence rates are uncommon and are mostly caused by repetitive trauma at the same site.*

Keywords: Fibroepithelial hyperplasia, fibroma, surgical excision

1. Introduction

Fibroepithelial hyperplasia is a histological variant of fibroma and a proliferative fibrous lesion of the gingival tissue that causes esthetic and functional problems. They may be either generalized or localized and are found in 1.2% of adults.^(1,2)

Oral mucosa is constantly subjected to external and internal stimuli and therefore, manifests a spectrum of disease that range from developmental, reactive, and inflammatory to neoplastic⁽²⁾

Reactive lesions may arise anywhere in the oral cavity but more often is seen on gingiva, tongue and lip.^(3,4) Reactive lesions are clinically and histologically non-neoplastic nodular swellings that develop in response to chronic and recurrent tissue injury which stimulates an exuberant or excessive tissue response.⁽⁵⁾

2. Case Report

A 25 year old female patient reported to the Department of Periodontology with the chief complaint of swelling in the right back region of the lower jaw since 5 years which was unaesthetic and hindered the chewing from lower back teeth. The swelling started as a small painless growth 5 years back gradually increasing to the present size. Medical history was non-contributory. No abnormality was detected on extra-oral examination.

Intra-oral examination revealed good oral hygiene and moderate gingival inflammation present near mandibular posteriors. 46, 47 and 48 had a probing depth of 5mm. Enlargement was sessile, rectangular and pinkish, extending 2 X 0.8 cm (Figure 1). On palpation, the surface was smooth and the mass was firm, tender, in consistency and non-reducible and non-compressible with no bleeding on probing. On percussion, no tenderness was present in adjacent teeth. Angle's class I malocclusion with bimaxillary protrusion.

Blood investigations were done followed by full mouth disinfection. Patient was recalled after 1 week following scaling and root planing. Profound local anaesthesia was given after which the surgical excision was done in two sittings. The growth was removed with scalpel from the base of peduncle along with little healthy margin which was also excised. The excised lesion was preserved in 10% formalin and was sent to the histopathological department for sectioning and reporting.

On histopathological examination, the H & E studied section revealed presence of surface epithelium & underlying connective tissue. The overlying surface epithelium was parakeratinized, stratified squamous epithelium & appeared to be hyperplastic with arcading & forking ridges (Figure 5). The underlying connective tissue composed of dense collagen fiber bundles, interspersed with plump fibroblasts. Also seen were few endothelial lined capillaries, foci & hemorrhage &

mild chronic inflammatory cell infiltrate. Comprised of lymphocytes and plasma cells.



Figure 1: Intraoral pre-operative



Figure 2: 1st sitting surgical excision



Figure 3: 1st sitting excised tissue

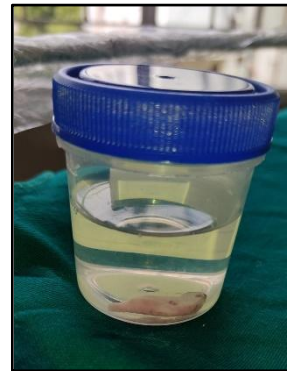


Figure 4: Excised tissue preserved in 10% formalin



Figure 5: Histological view



Figure 6: 2nd sitting after 15 days follow-up



Figure 7: 2nd sitting Distal wedge surgical excision

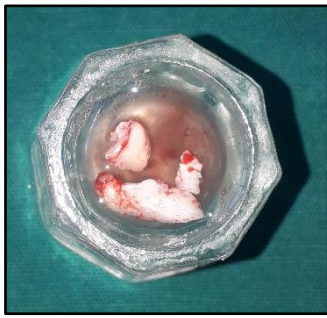


Figure 8: 2nd sitting excised tissue



Figure 9: Suture given

Patient was recalled after 1 month (Figure 10), 3 month (Figure 11) and 6 month (Figure 12) for follow-up, and there was no evidence of recurrence of the lesion.



Figure 10: 1 month follow-up



Figure 11: 3 month follow-up



Figure 12: 6 month follow-up

3. Discussion

Fibrous growths of the oral soft tissues are fairly common and include a diverse group of reactive and neoplastic conditions. Tissue enlargement of the oral cavity often presents a diagnostic challenge because a diverse group of pathologic processes can produce such lesions. Within these lesions a group of reactive hyperplasias which develop in response to a chronic, recurring tissue injury stimulates an exuberant or excessive tissue repair response.⁽⁶⁾

Cooke⁽⁷⁾ termed all the pedunculated swelling from a mucosal surface as “polyp” (fibro epithelial polyp), where maximum number of lesions occurred on the mucosa in the line of occlusion.

Fibro-epithelial hyperplasias are reactive/ inflammatory conditions and they give rise to variety of lesions named according to their clinical presentation. Most of these lesions arise on gingiva, reflecting universal presence of inflammation in the interdental papillae. Lesions are associated with local predisposing factor like mal-aligned teeth, ill-fitting restorations or calculus which prevent removal of bacterial plaque and indirectly induce inflammation.^(1,5,8)

They occur more frequently in females than in males between third and fourth decade of life, but in our case fibroepithelial hyperplasia occurred in a 25 year old female.

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.⁽¹⁾

The reported case was of 2 X 0.8 cm in diameter with a non-ulcerated surface.

Identification of any reactive hyperplastic gingival lesion requires the formulation of a differential diagnosis to enable accurate patient evaluation and management. These lesions must be separated clinically and histologically from precancerous, developmental and neoplastic lesions. Differential diagnoses include metastatic tumours in the oral cavity, angiosarcomas, gingival non-Hodgkin's lymphoma, Kaposi's sarcoma and haemangioma. Metastatic lesions in the oral cavity may be the first indication of an undiscovered malignancy at a distant site.⁽⁹⁾

Treatment of fibroepithelial hyperplasia consists of elimination of etiological factors, scaling and surgical excision in toto along with periodontal ligament and periosteum to minimize the possibility of recurrence.⁽¹⁰⁾ Any identifiable irritant such as an ill-fitting dental appliance and rough restoration should be removed. Long-term post-operative follow-up is extremely important because of high growth potential of incompletely removed lesion.

4. Conclusion

Reactive hyperplasia may be due to connective tissue response to varied intensities of gingival irritation. This response may be influenced by the serum levels of certain endocrine hormones and related systemic disorders and location and growth patterns of the lesion. A biopsy ensures a better and a more ideal treatment plan for the patient and prevent recurrence of these lesions. Treatment modalities commonly practiced include scalpel surgery, cryotherapy, laser, cauterization. Conventional procedure was undertaken as recurrence rates are uncommon and are mostly caused by repetitive trauma at the same site.

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