



Case Report

## Peripheral Ossifying Fibroma: A Case Report

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### ABSTRACT

Solitary gingival growths are fairly common oral finding. Among those Peripheral ossifying fibroma is relatively common benign lesion of gingiva. Etiology for occurrence of this lesion is inflammatory/reactive or neoplastic in nature. Here a case of recurrent peripheral ossifying fibroma in 34 year old lady is discussed which was treated with surgical excision.

**Keywords:** gingival overgrowth, peripheral ossifying fibroma, surgical excision.

### INTRODUCTION

Benign fibrous overgrowths arising from the mucous membrane are termed as fibromas and are frequent growths in the oral cavity. Many of the fibrous growths originate from underneath the periodontium, similar to peripheral ossifying fibroma (POF). POF is an occasional growth of the anterior region of mandible. It mostly associated with interdental papilla. Poor oral hygiene, local irritants are most common etiologic factors for this lesion. It varies in colour from pale pink to cherry red. It is either sessile or pedunculated. Peculiarly, it has very high recurrence rate.

### CASE REPORT

A 34 years systemically healthy female patient reported to the OPD of Department of Periodontics ACPM Dental College and hospital, Dhule with a chief complaint of slow growing gingival

overgrowth in the lower front teeth region since 6 months. Patient gives history of similar type of lesion with respect to same site 9 months back. Patient also gives history of occasional bleeding from lesion following mastication or brushing.

Clinical examination revealed gingival overgrowth that was exophytic and arising from interdental papilla of mandibular central incisors. It was approximately 1.5cm × 1 cm × 0.5 mm in size, lesion was pinkish red, smooth surfaced, oval and flattened in shape, firm in consistency, non-fluctuant and pedunculated. There was no fixidity to underlying bone and other tissues. Intra-oral periapical radiograph revealed no bony involvement.

### Histological Analysis

Histological examination revealed fibrous lesion covered with parakeratinized

stratified squamous epithelium. The underlying connective tissue stroma was moderately collagenous with clearly demarcated highly cellular zone seen in the deeper areas. This zone contains numerous blood vessels with endothelial cell proliferation. Bony trabeculae with osteoclasts and lined by osteoblast were seen. Plump fibroblasts along with fibers were also seen in this zone. Sub epithelial inflammatory cell infiltrate was noticed.

### **Diagnosis**

Differential diagnosis of irritational fibroma, pyogenic granuloma and peripheral giant cell granuloma was given for lesion. Final diagnosis of peripheral ossifying fibroma was given.

### **Treatment**

Phase I therapy was carried out for the patient including scaling and root planning. The lesion was excised completely along with Periosteum under local anesthesia. Scaling and root planning was carried out to remove local irritants. Periodontal pack was given. The pack was removed after 8 days and the patient was followed up for 6 months after surgical excision. Healing in area of excision occur uneventfully. No recurrence was reported within duration of 6 months.

## **DISCUSSION**

Peripheral ossifying fibroma has been described as separate lesion since 1872 by Menzel. It is benign, reactive lesion exclusive to gingiva and arises mostly from interdental papilla. [2] Various nomenclatures had been used for peripheral ossifying fibroma such as peripheral cementifying fibroma, ossifying fibro-epithelial polyp, peripheral fibroma with osteogenesis, peripheral fibroma with calcification, calcifying or ossifying fibrous epulis and calcifying fibroblastic granuloma. [5]

Peripheral ossifying fibroma may be sessile or pedunculated. [1] The lesion may be present for a number of months to years before excision, depending on the degree of ulceration, discomfort and interference with function. [1, 3] Histologically, POF consists of fibro-cellular tissue with areas of more delicate fibro-vascular tissue. Within the cellular areas, ossification is usually present, which vary both in quality and quantity. [3, 4] These lesions can be red to pink with areas of ulceration, and their surface may be smooth or irregular. These lesions may be > 2 cm in size; but their size may range from 0.3 cm –3 cm, [3] but some lesion of size 4 to 8 cm are also reported. [1] The female to male ratio reported in the literature varies from 1.7:1. [3] Most lesions are reported in or after second decade with decrease in its incidence at later age. Peripheral ossifying fibroma has predilection for maxilla and mostly affects anterior region. [2] But, its occurrence in mandible is not uncommon. [1]

Peripheral ossifying fibroma appears to occur from gingival fibers of periodontal ligament as a result of reactive hyperplasia. This correlates with its exclusive occurrence on gingiva. Also, hormonal influences may play a role, given the higher incidence of POF among females, increasing occurrence in the second decade and declining incidence after the third decade. [1, 2]

Histologically, the POF appears to be a non-encapsulated mass of cellular fibroblastic connective tissue [3] of mesenchymal origin, covered with stratified squamous epithelium which appear ulcerate in most cases. [2] Ulceration of epithelium is common in second decade cases. [1, 3] POFs contain areas of fibrous connective tissue, endothelial proliferation and mineralization. The mineralized component of POF varies and it appears as Cementum like material, bone or as dystrophic calcification. Treatment consists of surgical excision and scaling of adjacent teeth. [1, 2, 7, 8] Thorough

scaling and root planning of adjacent teeth and/or removal of other sources of irritants should be accomplished. [7] Recurrence rates have been reported from 7% to 45%. [1, 10] In the series of Cundiff 16% of cases recurred, while in a series of 50 cases reported by Eversole & Rovin, the recurrence rate was 20%. [11]

## CONCLUSION

POF is a relatively uncommon, solitary, non-neoplastic gingival growth. A confirmatory diagnosis is made based on histopathologic evaluation. POF has a high recurrence rate of about 8% to 16%; hence the mass should be excised deep into the periosteum with complete removal of all irritants.



Fig 1 – Pre-operative view.



Fig 2 – Intraoperative view (A) Surgical excision (B) Periodontal dressing given



Figure 3 (A) Figure 3 (B) Figure 3 (C)  
Fig 3 - (A) 1 week following excision (B) 3 months following excision (C) 6 months following excision

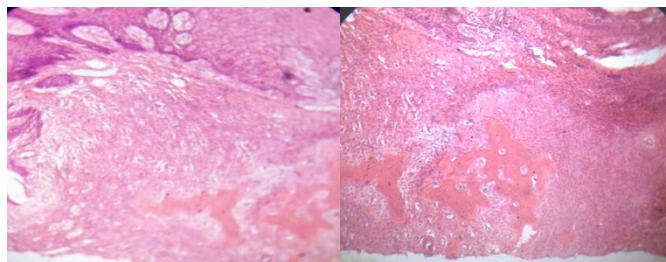


Fig 4 – Histologically (A)epithelial lining (B)connective tissue stroma with numerous blood vessels

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