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## Case Report

### PERIPHERAL OSSIFYING FIBROMA: A CASE REPORT

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#### ABSTRACT

Many types of localized lesions may occur on the gingiva that account to be reactive rather than neoplastic in nature. These lesions may arise from various sources like trauma, microorganisms, plaque, calculus, restorations and ill-fitting dental appliances. Such a gingival lesion is Peripheral ossifying fibroma. The lesion is usually small in size, sited mainly in the anterior maxilla with a higher predilection in the second decade of life. A clinical report of a 21-year-old patient with peripheral ossifying fibroma in the anterior maxilla is presented.

##### Key Words:

Gingival Hyperplasia, Ossifying Fibroma,  
Gingival Growth

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#### INTRODUCTION

Many types of localized reactive lesions may occur on the gingiva, including focal fibrous hyperplasia, pyogenic granuloma, peripheral giant cell granuloma (PGCG), and peripheral ossifying fibroma (POF). These lesions may arise as a result of such irritants as trauma, microorganisms, plaque, calculus, restorations, and dental appliances<sup>1,2,3</sup> which is usually seen on the interdental papilla of the incisors and canine areas. It may be pedunculated or sessile, usually smooth surfaced and varies from pale pink to cherry red in color.

##### Case Report

A 21-year-old male patient reported to Department of Periodontology, Subharti Dental College & Hospital with the complaint of slowly growing, painless, gingival growth in maxillary right incisor region since 6 months. He had a history of previous swelling in the oral cavity in the same region for which he was treated at a local clinic. Past medical and family history was non-contributory.

##### Clinical Examination

Intra oral examination revealed a solitary mass involving labial interdental papilla in relation to 11 and 12. (Fig.1) Mass was reddish-pink in color with nodular and irregular surface, measuring approximately 5 mm × 8 mm. (Fig.2) on palpation, the growth was non-tender, hard in consistency, sessile and not easily movable.

##### Radiographic Examination

Intra oral periapical radiograph were obtained. The radiographic examination was within normal limits with no significant bony changes.

##### Differential Diagnosis

1. Irritation fibroma
2. Pyogenic granuloma
3. Peripheral giant cell granuloma (PGCG)

##### Management

After routine blood examinations, Phase 1 periodontal treatment was carried out and consent for the surgical procedure was obtained from the patient.

Under local anesthesia, the whole growth was excised and thorough curettage of the adjacent periosteum was carried out to prevent recurrence. (Fig.3) Periodontal dressing was applied after controlling the bleeding and the patient was prescribed with pain killer and chlorhexidine mouth wash. Follow-up visits were arranged after 1 week, followed by 1 month, 3 months. (Fig.4)

The tissue was submitted to the oral pathology department for histopathologic diagnosis. Microscopic examination showed parakeratinised stratified squamous epithelium with a fibro cellular connective tissue stroma. Some areas showed irregular trabeculae representing new bone formation. Bone tissue

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showed entrapped osteocytes and peripheral lining of osteoblasts. Stroma showed mild to moderate distribution of chronic inflammatory cell infiltrate. The histopathological features were diagnostic of peripheral ossifying fibroma.



Fig 1 Pre-operative view



Fig 2 Dimensions of growth



Fig 3 Immediate post-operative



Fig 4 Intra-operative view after 3 months

## DISCUSSION

One of the common lesions encountered in day to day practice are gingival overgrowths. POF is one such gingival lesion described by various synonyms such as peripheral cemento ossifying fibroma, peripheral odontogenic fibroma (PODF) with cementogenesis, peripheral fibroma with osteogenesis, peripheral fibroma with calcification, fibrous epulis, calcifying fibroblastic granuloma, etc.<sup>1,2</sup>

It is characterized by a high degree of cellularity usually exhibiting bone formation, although, cementum-like material or dystrophic calcification may also be found. As the lesion occurs only on gingiva and is supposed to be derived from periodontal ligaments, some authorities believed the lesion to be odontogenic in origin.<sup>4</sup> The POF has a peak incidence in young and teenaged females<sup>5</sup> and site of occurrence is usually anterior to molars in both maxilla and mandible<sup>4</sup> with more than 50% of cases in the incisor, and cuspid regions.<sup>6</sup>

Clinically, the growth appears as a nodular mass which may be pedunculated or sessile, pink to red in color. In the present case also, the lesion occurred in a middle-aged female in maxillary anterior region and appeared as a nodular pale to pink growth without ulceration.

Proper surgical intervention is required that ensures deep excision of the lesion including periosteum and affected periodontal ligament with thorough root scaling of adjacent teeth and/or removal of other sources of irritants. Early recognition and definitive surgical intervention result in less risk of tooth and bone loss.<sup>7</sup>

## CONCLUSION

POF is a slow reactive lesion which is generally limited. The rate of recurrence reported vary from 8.9% to 20%. Initial removal, repeated injury or persistence of local irritants are the probable causes of the lesion. Therefore, surgical excision of the lesion is considered therapeutic with regular follow-up.

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