

## Peripheral Ossifying Fibroma :A Case Report

### Abstract

Peripheral ossifying fibroma, a reactive gingival disorder known under the generic term of epulis, is widely considered to originate from the cells of periodontal ligament. A 12 year old female patient presented with the chief complaint of growth in left maxillary tuberosity area measuring 1.5mm×1mm intra orally. According to the patient this growth had been present for the past 3 months but it had recently become uncomfortable and interfered with mastication. No radiological signs of involvement were seen. The histological study of the specimen confirmed the diagnosis of peripheral ossifying fibroma. The main objective of this article was to present a clinical case of excisional biopsy of POF. The defect was repaired and the lesion had not recurred after 2 years of follow up.

### Key Words

Fibroma, Calcifications, histopathological examination

### Case Report

A 12 year old female patient presented to the department of Pedodontics DAV Dental college Yamunanagar complaining of growth in her buccal mucosa in her upper teeth. According to the patient this growth had been present for the past 3 months but it had recently become uncomfortable and interfered with mastication. Occasionally bleeding occurred when she brushed her teeth and it was painless. Clinical examination revealed a nodular mass with a sessile base on the left maxillary tuberosity area. The color appeared slightly darker than normal mucosa. It measured 1.5mm×1mm intra orally. The lesion was non fluctuant nor did it blanch with pressure but had a rubbery consistency. The mass was not fixed to the underlying bone. It was tender to firm pressure but not to light palpation. The radiographic examination was within normal limits with no findings pertaining to the maxillary exophytic lesion.

### Histological Features

The lesions surface exhibited an ulcerated layer of stratified squamous epithelium and fibropurulent material lining (Figure 1). There was intense acute and chronic inflammatory infiltrate throughout the tissue (Figure 2). Many foci of dystrophic calcifications were seen (Figure 3). FIBROUS TISSUE (Fig 1) CELLULAR INFLAMMATORY INFILTRATE (Fig 2) Calcifications (Fig 3)

### Treatment

The irritating factors (plaque & calculus) were eliminated by scaling and root planning. Under local anesthesia complete surgical excision of the gingival growth was performed along with base of the lesion to prevent further recurrence. The excised mass was sent for histopathological examination. Patient was motivated to maintain his oral hygiene. On recall after 15 days healing was uneventful. The patient was on regular follow up and till 2 years after excision the lesion had not recurred.

### Pre-Operative Post Operative Discussion

Peripheral ossifying fibroma is a common gingival disorder that is thought to be either reactive or neoplastic in nature<sup>[2]</sup>. There has been confusion regarding the nomenclature. The commonly used synonyms for POF include peripheral cementifying fibroma, peripheral fibroma with cementogenesis, peripheral fibroma with osteogenesis, peripheral fibroma with calcification, calcifying or ossifying fibrous epulis and calcifying fibroblastic granuloma<sup>[3],[4]</sup>. The definitive diagnosis of POF is made by histopathologic evaluation of biopsy specimens. The following features are usually observed during microscopic evaluation. 1 Benign fibroblasts with varying contents of fibroblasts, myoblasts and collagen 2 profuse endothelial proliferation 3 mineralised material which may represent mature, lamellar or woven osteoid, cementum

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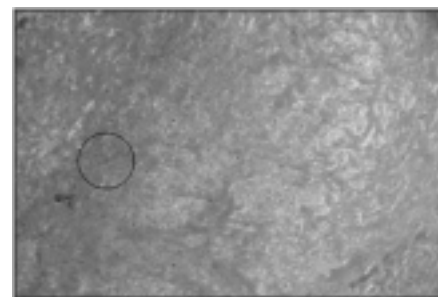


Figure : 1

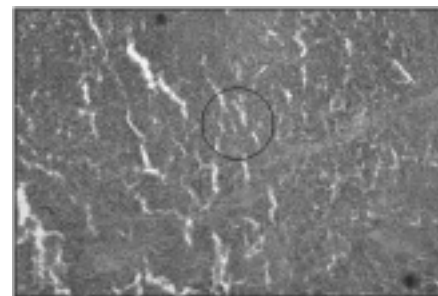


Figure : 2

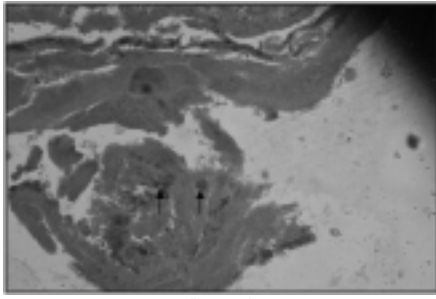
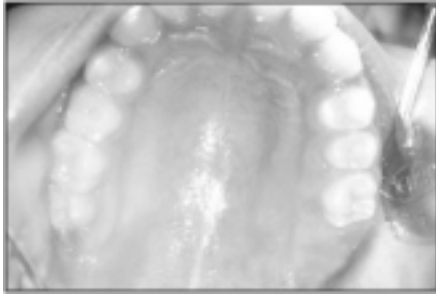
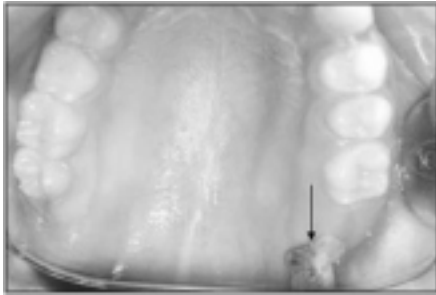


Figure : 3



Post Operative



Pre Operative

third decade<sup>[4]</sup>. In only 2% of cases, neoplasm was considered in its differential diagnosis<sup>[6]</sup> The recurrence rate of peripheral ossifying fibroma has been considered high for reactive lesions. The rate of recurrence has been reported to vary from 8.9% to 20%<sup>[4],[7],[8]</sup>. It probably occurs due to incomplete initial removal, repeated injury or persistence of local irritants.

### Conclusion

Peripheral ossifying fibroma is a slowly progressing lesion, the growth of which is generally limited. Many cases will progress for long periods before patient seeks treatment because of the lack of symptoms associated with the lesion. Treatment consists of surgical excision and scaling of adjacent teeth. Without treatment they can increase in size and interfere with normal chewing and swallowing. Hence, early diagnosis and prompt treatment is required.

### References

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like material or dystrophic calcifications  
 2 Though, the etiopathogenesis of peripheral ossifying fibroma is uncertain, an origin from the cells of the periodontal ligament has been suggested by Kumar et al<sup>[2]</sup> Their reasons for such hypothesis include occurrence of the peripheral ossifying fibroma in the gingiva (interdental papilla), the proximity of the gingiva to the periodontal ligament and the presence of oxytalan fibers within the mineralized matrix of some lesions. Excessive proliferation of mature fibrous connective tissue is a response to gingival injury, gingival irritation, subgingival calculus or foreign body in the gingival sulcus. Chronic irritation of the periosteal and periodontal membrane causes metaplasia of the connective tissue which initiates formation of bone or dystrophic calcification. It has, therefore, been suggested that lesion may be caused by fibrosis of granulation tissue<sup>[5]</sup> Hormonal influences may play a role, as it has higher incidence among females, increasing occurrence in the second decade and declining incidence after the

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