



## Excision Of Peripheral Ossifying Fibroma: A Case Report

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**ABSTRACT**

Gingival enlargements are one of the most common entities encountered in oral cavity. Most of these enlargements are non-neoplastic by nature. These lesions occur as a result of any irritant, plaque, calculus, trauma. However, differentiating a specific gingival enlargement from other clinically often poses a problem and histopathological examination is required in these cases. Peripheral ossifying fibroma (POF) is one such benign neoplasm that usually develops from reactive gingival overgrowth. Here we report a case of peripheral ossifying fibroma in a 40 year old male. Treatment included excision of the lesion using electrocautery.

**KEYWORDS :** peripheral ossifying fibroma, gingival, excision, enlargement

**Introduction**

Localized gingival enlargements are a common finding and represent reactive proliferative lesions, rather than true neoplasms of oral cavity.<sup>1</sup> These lesions include peripheral ossifying fibroma (POF), peripheral giant cell granuloma (PGCG), pyogenic granuloma, and focal fibrous hyperplasia. Such lesions of oral cavity are occur due to plaque, calculus, microorganisms, restorations, and dental appliances.<sup>2,3</sup> The POF is commonly seen in the maxillary anterior region.<sup>4</sup> The purpose of this article is to present a case of POF in an 40 year old male.

**Case report**

A healthy 40year old male patient reported to the department of periodontology in Rajarajeswari Dental College and Hospital with a chief complaint of swelling in the left upper back teeth region. Patient gave a history of swelling since 6 months. The swelling was small initially which had increased to the present size. There was associated bleeding from the lesion while brushing. The patient didn't have any significant medical history. On clinical examination there was a gingival enlargement present on the attached gingiva and interdental papilla wrt maxillary left 1<sup>st</sup> and 2<sup>nd</sup> premolar region (figure 1). The lesion appeared as a round, sessile, reddish pink lesion with an irregular surface. On measurement, it was 1.5 × 2 cm. The lesion was neither fluctuant nor did it blanch on pressure, and had a rubbery consistency. Intraoral periapical radiograph in relation to 24, 25 indicated the presence of vertical bone loss wrt 24. The differential diagnoses for the lesion were irritational fibroma, pyogenic granuloma.

The enlarged tissue was excised using electrocautery under (2% lignocaine with 1:80,000 adrenaline) local anesthesia.( figure 2). Gingivoplasty was performed in the adjacent areas of lesion for contouring of gingiva (figure 3). Scaling was performed in the adjacent tooth to remove any underlying local irritants. The excised tissue was sent for histopathological analysis.

The excised tissue revealed parakeratinized stratified squamous epithelium with elongated rete ridges. Underlying connective tissue stroma was cellular with fibroblasts with foci of osteoid, like calcification, and globular calcified area resembling cementum. Large number of chronic inflammatory cells were also seen. Histopathological diagnosis of POF was given.

There was uneventful healing at 10 days postoperatively (figure 4).

There was no evidence of recurrence of the lesion at 1-year follow-up. The patient was followed for a year at regular intervals. Oral hygiene instructions were given to the patient on the follow-up visit at every 3 months.

**Discussion**

There are two types of ossifying fibromas: the central type and the peripheral type. The central type arises from the endosteum or the periodontal ligament adjacent to the root apex and causes the expansion of the medullary cavity. The peripheral type occurs solely on the soft tissues covering the tooth-bearing areas of the jaws.<sup>5</sup> POF is defined as a well demarcated and occasionally encapsulated lesion consisting of fibrous tissue containing variable amounts of mineralized material resembling bone.<sup>6</sup>

POF are believed to originate from gingival fibers of the periodontal ligament as hyperplastic growth of gingiva.<sup>7</sup> This hypothesis is based on the fact that POFs originate exclusively on the gingiva, the close proximity of the gingiva with periodontal ligament and the inverse correlation between age distribution of patients with POF and the number of missing teeth.<sup>8</sup>

A POF may occur at any age but exhibits a peak incidence between the second and third decades. Almost 60% of the lesions occur in the maxilla and mostly occur anterior to the molars<sup>9</sup> which is consistent with the presented case. The lesion affects females more often than males (5:1 respectively). But in the case report, the patient was a male in his 4<sup>th</sup> decade.

Buchner and hansen hypothesized that early POF is present with ulcerated nodules having little calcification, which may allow a misdiagnosis as pyogenic granuloma.<sup>9</sup> The POF, as observed in this case, is a non-neoplastic, reactive tumor-like growth of soft tissue that often arises from the interdental papilla.

POF may present as a pedunculated enlargement with irregular surface and may have broad attachment base. These lesions may vary in color from red to pink with areas of ulceration, and they may have smooth or irregular surface.

Histologically, the POF presents to be a non-encapsulated mass of cellular fibroblastic connective tissue of mesenchymal origin, which is covered with stratified squamous epithelium and is reported to be ulcerated in 23- 66% of cases.<sup>9</sup>

A variation of rate of recurrence has been observed ranging from 7% to 20%.<sup>10</sup> To avoid recurrence, treatment requires proper surgical intervention that ensures deep excision of the lesion including periosteum. Thorough scaling and root planing of adjacent teeth and removal of other sources of irritants should be accomplished.

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### Conclusion

POF is very common lesion of oral cavity with limited growth potential. It represents a reactive non-neoplastic lesion of connective tissue. Treatment of such lesions consists of surgical excision and removal of any irritant which might be the causative factor of the lesion. Regular postoperative follow-up is a necessity in such cases to avoid the high rates of recurrence associated with such lesions.



pre-operative view (figure 1)



excised lesion (figure 2)



gingivoplasty wrt 24,25 (figure 3)



post operative view at 10 days follow up (figure 4)

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