

PERIPHERAL OSSIFYING FIBROMA- A RARE CASE REPORT

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ABSTRACT

The gingiva is often the site of localized growths that are considered to be reactive rather than neoplastic in nature. Many of these lesions can only be identified as specific entity only on the basis of typical and consistent histo-morphology. Peripheral ossifying fibroma is one such reactive lesion. The size of the lesion is usually small, located mainly in the anterior maxilla with a higher predilection for females, and it is more common in the second decade of life. An interesting case of unusually large Peripheral Ossifying Fibroma associated with pain is reported here.

INTRODUCTION

Peripheral ossifying fibroma (POF) is a reactive soft tissue growth that is usually seen on the interdental papilla. It may be pedunculated or broad based; usually smooth surfaced and varies from pale pink to cherry red in color. It is believed to comprise about 9% of all gingival growths and to arise from the gingival corium, periosteum, and the periodontal membrane. It has also been reported that it represents a maturation of a pre-existing pyogenic granuloma or a peripheral giant cell granuloma.^{1,2}

CASE REPORT: Patient was asymptomatic 01 year back when he noticed a growth in upper front region of jaw. Initially growth was small in size and was not associated with any discomfort.

Patient visited a local physician for the same, for which he was prescribed medication for 2 weeks but the growth did not regress in size. It increased gradually over a period of 1 year to attain the present size.

EXAMINATION: Inspection: A solitary, pale pink, round growth was present in the anterior maxillary region of the jaw. It extends antero-posteriorly from mesial aspect of 22 to distal aspect of 25 and Superior- inferiorly

from gingival to labial vestibular region. Size is approx 3.5x 2 cm. Mucosa over swelling is stretched.

Palpation: Growth is non tender. Base of growth pedunculated. Consistency is hard. Surface of growth is smooth.

Provisional Diagnosis: Pyogenic granuloma in relation to 22 and 25.

Differential Diagnosis: Peripheral ossifying fibroma, Peripheral giant cell granuloma and Irritation fibroma.

INVESTIGATIONS: IOPAR with, 22, 23, 24, 25 region were taken which showed no pathological findings. Tooth with maximum pathology/Tooth of interest- 22, 23.

Histopathology Report: Excisional biopsy was performed and suture was given and the histopathological picture showed parakeratinized stratified squamous epithelium proliferating into connective tissue with thin rete ridges. Connective tissue showed trabeculae of forming bone with an osteoid collar with osteoblastic rimming.

Final Diagnosis: Peripheral ossifying fibroma

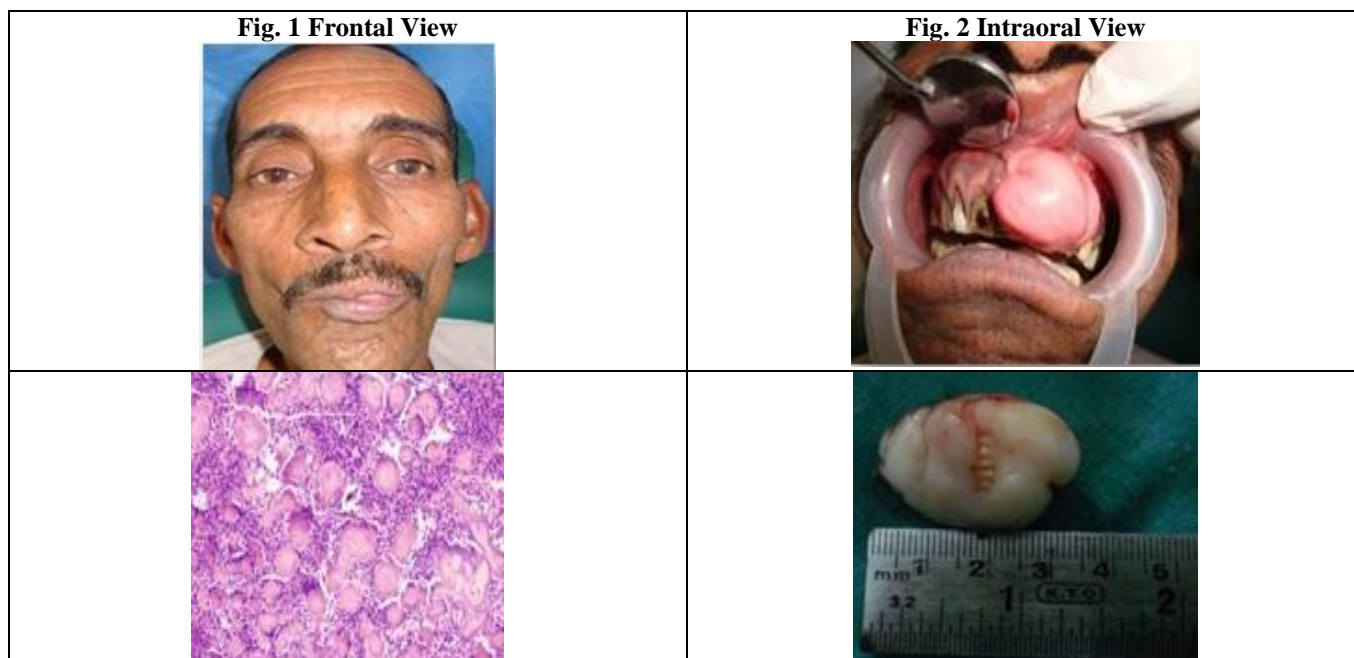
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Treatment Plan: Excision was done under LA and suture was given. Patient was recalled after seven days.

Recall Visit: Suture removal was done. Healing of the tissue was uneventful.



DISCUSSION

POFs are believed to arise from gingival fibres of the periodontal ligament as hyperplastic growth of tissue that is unique to the gingival mucosa [3]. This hypothesis is based on the fact that POFs arise exclusively on the gingiva, the subsequent proximity of the gingiva to the periodontal ligament and the inverse correlation between age distribution of patients presenting with POF and the number of missing teeth with associated periodontal ligament [4,5]. 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 [6]. In an isolated case of multicentric POF, Kumar and others noted the presence of a lesion at an edentulous site in a 49-year-old woman, which once again raises questions regarding the pathogenesis of this type of lesion [7]. POF has also been 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.

Almost 60% of the lesions occur in the maxilla and mostly occur anterior to molars. The lesion is most common in the second decade of life affecting mainly females [8]. Dental calculus, plaque, microorganisms, dental appliances, and restorations are considered to be the irritants triggering the lesion. The lesion though usually smaller than 1.5 cm in diameter can reach a much larger size and can cause separation of the adjacent teeth, resorption of the alveolar crest, destruction of the bony structure and cosmetic deformity [9]. The POF and

ossifying fibroma (OF) are the lesions that exhibit similar histo-morphologic features and both originate from periodontal ligament cells. But a POF is a reactive lesion whereas an OF is a benign neoplastic lesion included in the group of benign fibro-osseous lesions of the jaws and both POF and OF show different proliferative activities. The ulcerated lesions are more likely to be painful but in this case it was not painful. Gingival lesions that imitate POF are peripheral giant cell granuloma, pyogenic granuloma, fibroma, calcifying epithelial odontogenic cyst, calcifying odontogenic cyst, etc. Radiographically radiopaque foci within the soft tissue tumor mass are observed if the calcified element is significant, but in this case no radiopaque foci were seen but only shadow of the lesion was seen probably because the lesion was of short duration of time.

In a typical ulcerated lesion, three zones could be identified:

Zone I: The superficial ulcerated zone covered with the fibrinous exudate and enmeshed with polymorphonuclear neutrophils and debris.

Zone II: The zone beneath the surface epithelium composed almost exclusively of proliferating fibroblasts with diffuse infiltration of chronic inflammatory cells mostly lymphocytes and plasma cells.

Zone III: More collagenized connective tissue with less vascularity and high cellularity; osteogenesis consisting of osteoid and bone formation is a prominent feature, which can even reach the ulcerated surface in some cases.

CONCLUSION

POF is a slowly progressing lesion, the growth of which is generally limited. Many cases will progress for long periods before patients seek treatment because of the lack of symptoms associated with the lesion. A slowly growing pink soft tissue nodule in the anterior maxilla of

an adolescent should raise suspicion of a POF. Discussion of the differential diagnosis should be done tactfully to prevent unnecessary distress to the patient and family [10].

SOURCE OF SUPPORT: Nil

CONFLICT OF INTEREST: None

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