



A CASE REPORT OF SOLITARY GINGIVAL OVERGROWTH IN A YOUNG FEMALE PATIENT

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ABSTRACT

Gingiva is a common site of reactive lesions in the oral cavity. Peripheral ossifying fibroma is a relatively uncommon gingival overgrowth that is histopathologically characterized by discrete formation of osteoid tissue and dystrophic calcification within the connective tissue. This article presents a case report of a 33 year old female with a gingival hyperplastic growth in the maxillary anterior region, in which the consistent clinical and microscopic findings led to the diagnosis of the lesion as peripheral ossifying fibroma.

KEYWORDS : Reactive lesions, Gingival hyperplasia, Ossifying Fibroma, Pyogenic Granuloma

INTRODUCTION:

Gingival overgrowth of reactive origin is most commonly seen in gingiva. Some of the common reactive hyperplastic lesions of the gingiva are Pyogenic Granuloma, Peripheral Giant cell Granuloma, Peripheral Ossifying Fibroma and Traumatic fibroma. The present article highlights a case report of Peripheral Ossifying Fibroma (POF) in a young female patient, about the clinical presentation, diagnosis and management. Calcifying or Ossifying Fibroid Epulis, Calcifying Fibroblastic Granuloma, Peripheral Cementifying Fibroma are some of the synonyms of Peripheral Ossifying Fibroma(POF).

Case Report:

A 33 year old female patient reported to the Department of Periodontology, Karpaga Vinayaga Institute of Dental Sciences, with the complaint of swollen gums in relation to right upper front tooth region since one month. Patient had a mild discomfort during closure of mouth. No history of any pain or discharge was reported. Patient's Familial history, Past Medical and Dental history were insignificant. On General Examination, there were no significant findings and extraoral examination. On Clinical Examination, the lesion was present in the Interdental Papilla on the labial side in relation to 21 and 22 measuring about $3 \times 4 \times 5$ mm in size. The swelling was ovoid in shape, pinkish in colour, fibrotic in consistency with evidence of Bleeding on Probing (Fig 1). Owing to the clinical presentation, the hyperplastic gingival growth was provisionally diagnosed as Pyogenic Granuloma, with the differential diagnosis of Peripheral Ossifying Fibroma (POF). Patient was subjected to Intra Oral PeriApical Radiograph (IOPA) which revealed no significant changes except for mild crestal bone loss (Fig 2). This mild alveolar bone loss could be due to the chronic presence of local irritants or the pressure caused by the soft tissue growth. Hematological investigations revealed normal RBC, WBC counts and hemoglobin levels. After obtaining consent from the patient, an excisional biopsy of the gingival growth was done under Local Anaesthesia (LA)(Fig 3). Following excision, the patient was instructed to use 0.12% Chlorhexidine mouthrinse for about two weeks. The wound healing was eventful. The excised tissue was subjected to Histopathologic Examination. Haematoxylin and Eosin (H and E) section revealed squamous epithelium lined tissue where epithelium is ulcerated deeper to lining epithelium. The connective tissue

composed of spindle shaped cells with plump nuclei with moderate amount of eosinophilic cytoplasm, arranged in sheets and bundles (Fig 4). They were interspersed by mature lamellar bone which exhibited osteoblastic rimming. These findings in correlation with the clinical findings were consistent with the features of Peripheral Ossifying Fibroma. No recurrence was observed during the patient follow up of 3 month period (Fig 5). Few reasons for recurrence could be, difficulty to access the lesion resulting in incomplete removal or failure to eradicate the local irritants.



Fig 1: Pre operative view



Fig 2: IOPA in relation to 21,22 showing mild alveolar bone loss



Fig 3: Surgical Excision of Gingival Overgrowth

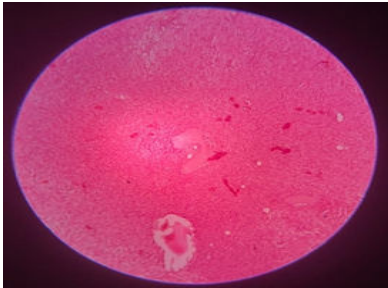


Fig 4: Histopathologic Picture showing ulcerated epithelium and osteoid tissue



Fig 5: 3 Month follow up

DISCUSSION:

Different types of gingival overgrowth occur in the oral cavity as a result of proliferation of various connective tissue components of the periodontium. The most common etiology could be minor trauma or irritation resulting in reactive inflammatory lesions. Among the localized hyperplastic reactive lesions, Peripheral Ossifying Fibroma (POF) is the third most common lesion, while pyogenic granuloma and giant cell granuloma are the first and second most common hyperplastic lesions respectively^{1,2}. Some of the synonyms of Peripheral Ossifying Fibroma (POF) are Peripheral Fibroma with calcification, Calcifying or Ossifying Fibroma Epulis, Calcifying Fibroblastic Granuloma

The occurrence of POF shows a predilection towards females.³The ratio between female to male in the incidence of POF is about 2:1. Fluctuations in the hormonal level might be a cause for increased predilection towards females, especially in the second decade.⁴

The occurrence of POF has a predilection towards maxilla, especially in the anterior region.⁵ The lesion might have its origin from inflammatory stimulus and hence this is called as a reactive lesion.⁶ Traumatic Fibroma, Pyogenic Granuloma, Peripheral Ossifying Fibroma are some of the proliferative lesions of gingiva. Eversole and Robin coined the term Peripheral Ossifying Fibroma.⁷ It is a non-neoplastic, reactive hyperplasia and the most common site of occurrence is the gingiva. Clinically, the POF is seen as a hard, fibrous growth, pedunculated or sessile, pinkish to erythematous in colour, occasionally with an ulcerated surface. The cells of the periodontal ligament or periosteum could be the reason for the formation of osteoid tissue in POF. When the lesion occurs within the bone, it is called as Central lesions, whereas when it occurs on the soft tissue like gingiva, it is called as Peripheral lesions. The possible route of origin of Peripheral Ossifying Fibroma could be 1) Due to the calcification of Pyogenic Granuloma 2) The Inflammatory hyperplasia of the cells of the Periodontal Ligament could lead to the formation of Peripheral Ossifying Fibroma. Plaque, calculus, improperly placed restorations can cause inflammatory reactions in POF.⁸ Constant irritation from the permanent tooth at the time of exfoliation of deciduous teeth results in increased incidence of POF.⁹ Presence of long-standing Pyogenic Granuloma may transform into Peripheral Ossifying Fibroma. Histopathologic examination is used as a confirmatory aid in which the lesion is characterized by discrete presentation of osteoid and

fibrous tissue in the connective tissue layer. Dystrophic calcified areas are seen, that ranges from tiny globules to large solid irregular masses.¹⁰ Some of the other lesions that mimics Peripheral Ossifying Fibroma (POF) are Pyogenic Granuloma, Osteoid osteoma, Chronic Osteomyelitis, Osteoid Osteoma, Peripheral Giant cell Granuloma.¹¹ Management includes surgical excision of the lesion. Prognosis is generally good following excision of the lesion. Recurrence rate is about 8-20% and may be usually due to incomplete removal of lesion.¹²

CONCLUSION:

POF is a slow growing reactive hyperplastic lesion, commonly occurring in the anterior segment of maxilla, with increased female predilection. Radiographs aid as additional diagnostic aid to clinical examination. The final diagnosis has to be confirmed with histopathological examination following surgical excision. Regular follow up of the patient is required as the lesion is prone for recurrence.

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