Peripheral Ossifying Fibroma : A Case Report

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Abstract

A typical single gingival overgrowth known as a peripheral ossifying fibroma is hypothesised to develop from the gingival corium, periosteum, or periodontal ligament. The cranial bones are where osseous fibromas are most likely to develop, however the peripheral kind exhibits a close association with the periodontal ligament and nearby alveolar bone. It typically occurs in young girls and women (predilection of 3:1). In this study, a female presentation is described, along with a methodical approach to identifying and treating peripheral ossifying fibroma.

Keywords: Fibroma, gingiva, gingival growth

Introduction

A non-neoplastic expansion of the gingiva known as a peripheral ossifying fibroma (POF) is thought to make up roughly 9% of all gingival growths. [1] Since the late 1940s, intraoral ossifying fibromas have been documented in the literature. Similar lesions have been known by a variety of names, including epulis, POF, peripheral cementifying fibroma, and peripheral fibroma with cementogenesis. [2] Eversole and Rovin are the ones who first used the term POF. [3] Precipitating variables including local irritability and mild trauma are among the etiological causes of POF. [4] It is more frequently observed in the first and second decades of life and predominately affects women. Additionally, there has been seen to be a modest preference for the maxillary arch and the cusps of the incisors. [5]

Case Report

A 37-year-old women reported to the Department of Oral Medicine and Radiology with a 1 year history of a painless growth in the upper front tooth region .The lesion started as a small painless peanut-sized nodule of the maxillary region of the incisors and canine but suddenly increased in size (Figure 1). The patient was anxious about this enlarging mass, so she reported to our department for treatment. On further questioning there was no history of bleeding. The medical history was unremarkable.

Intraoral examination revealed a solitary round exophytic nodular soft tissue growth in the teeth region 21 21 23 and 24 extending from distal aspect of the 21 to mesial aspect of the 24 tooth region. The growth was bright red in colour with surface measuring 0.8×0.5cm irregular in shape, soft to firm in consistency. On palpation, the growth was slightly tender with a pedunculated base and slightly movable. There was severe calculus build-up and signs of severe periodontitis. Lymph node examination was unremarkable

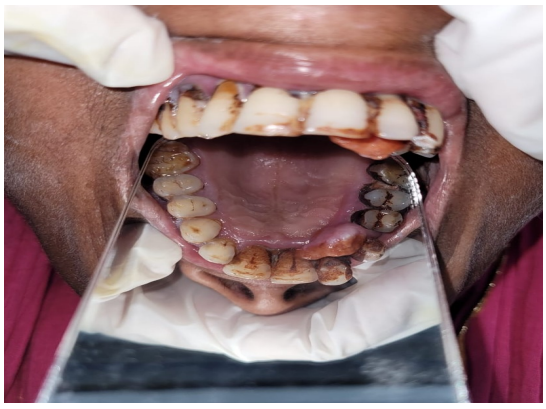

Figure (1)

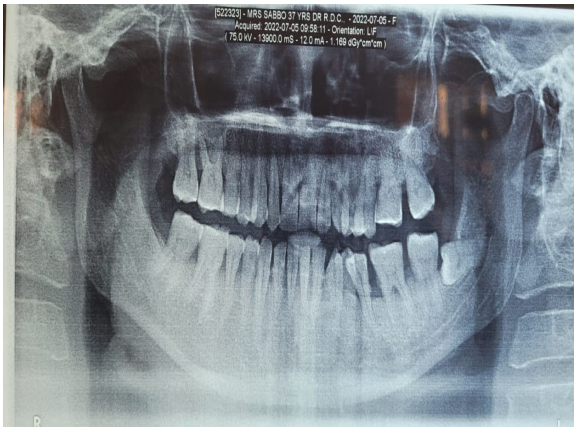

Figure (2)

Provisional diagnosis

A preliminary diagnosis of Pyogenic Granuloma was made based on the aforementioned findings.

Differential diagnosis

The differential diagnosis included POF, inflammatory gingival enlargement, peripheral giant cell granuloma, and metastatic malignant development.

Treatment

The proposed treatment was excisional biopsy with deep scaling and curettage.

The patient was evaluated for fitness to undergo a surgical procedure. Scaling and other oral prophylactic procedures were completed before initiating surgery. Surgery was performed under local anesthesia. The lesion to enable the growth to be grasped, allowing proper access to the pedunculated stalk. This maneuver permitted proper performs- acne of excisional biopsy. (Fig 3).The excision was planned so that the whole growth was removed in total with good margins to avoid future recurrence and the excised tissue was sent for histopathological investigations.

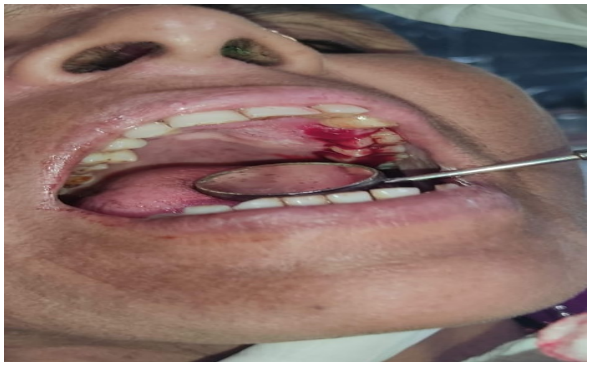

Figure (3)

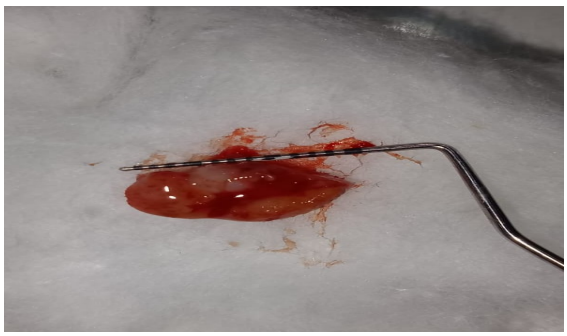

Figure (4)

Histopathological Examination

on microscope it revealed, the connective tissue stroma shows both fibrous and mineralized component with abundant endothelial edematous proliferating blood vessels of varying shapes and sizes with perivascular inflammation, few areas of dystrophic calcifications and abundance of lymphoplasmacytic inflammatory infiltrate.(Fig 4)

Final Diagnosis

Based on all the findings, a final diagnosis of Peripheral Ossifying Fibroma was made.

Discussion

The etiopathogenesis of POF is uncertain, although an origin from the cells of the periodontal ligament has been suggested. [6] POF occurs more commonly in women and in the second decade, hence the role of hormones has also been questioned. Multicentric POF can also occur in the oral and maxillofacial region and have been observed in Conditions associated with known genetic mutations such as nevoid basal cell carcinoma syndrome, multiple endocrine neoplasia type II, neurofibromatosis and Gardner syndrome. [7]

Although there have been a few recorded cases of recurrence, the prognosis for POF is good. The suggested course of treatment is local surgical excision extending to the periosteum with sub-mission for histomorphology investigation and scaling of the adjacent teeth. The excision's inclusion of the periosteum reduces the likelihood that this lesion may return. [8]

Conclusion

POF is a slowly progressing lesion. Many cases will progress for long periods before the patient seeks treatment because of the lack of symptoms associated with the lesion. [9] Without treatment the lesion can increase in size and interfere with normal mastication thereby necessitating early diagnosis and initiation of effective treatment. Close postoperative follow-up is required because of the growth potential of incompletely removed lesions and a high recurrence rate. [10]

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