PERIPHERAL OSSIFYING FIBROMA: A CASE REPORT

A Case Report

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ABSTRACT

Peripheral ossifying fibroma (POF) is one of the inflammatory reactive hyperplasia of gingiva. It represents a separate clinical entity rather than a transitional form of pyogenic granuloma and shares unique clinical characteristics and diverse histopathological features. We present a case of POF in a 21-year-old male patient in the lower left premolar region gingiva, the clinical presentation of which differs from the usual presentation. Differential diagnosis and some interesting facts of POF are discussed.

Keywords: Calcifications, gingival hyperplasia, ossifying fibroma

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INTRODUCTION:

Many types of localized reactive lesions may occur on the gingiva including focal fibrous hyperplasia, pyogenic granuloma and peripheral ossifying fibroma (POF).1-3 These lesions arise as result of local irritants, trauma, plaque, calculus, restoration and dental appliances.2-3 The purpose of this study is to present a case report of POF and to emphasize on the treatment modality.

CASE REPORT

A 21-year-old male reported to C.S.M.S.S. DENTAL COLLEGE AND HOSPITAL, Aurangabad, Maharashtra, India, with his slow growing, painless growth that had been present in lower left canine to premolar region. Lesion started as a small papule approximately 1 year earlier (fig. 1,2,3). According to the patient, there was no bleeding and pain except difficulty in mastication. Examination revealed approximately 3 × 1.5 cm pedunculated non-tender, firm, pinkish red growth present on the buccal gingival in relation to mandibular left canine to 1st premolar region, lesion extended up to the level of occlusal plane and revealed indentations made by the occluding mandibular premolar. The surface of the growth was pinkish red in color. No secondary changes were seen related to ulceration and fungation. The clinical differential diagnoses for the growth were pyogenic granuloma, traumatic fibroma, and peripheral giant

Cellgranuloma, and peripheral ossifying fibroma, and provisional diagnosis of pyogenic granuloma with respect to the 32-33 regions were made for the gingival growth.

Fig. 1

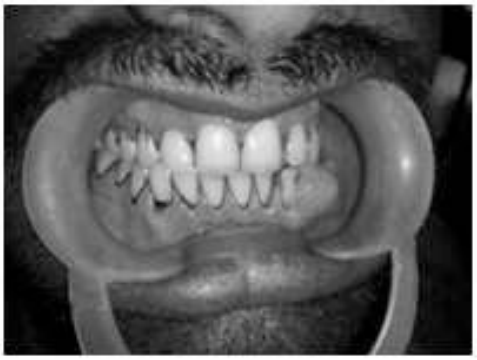

Fig. 2

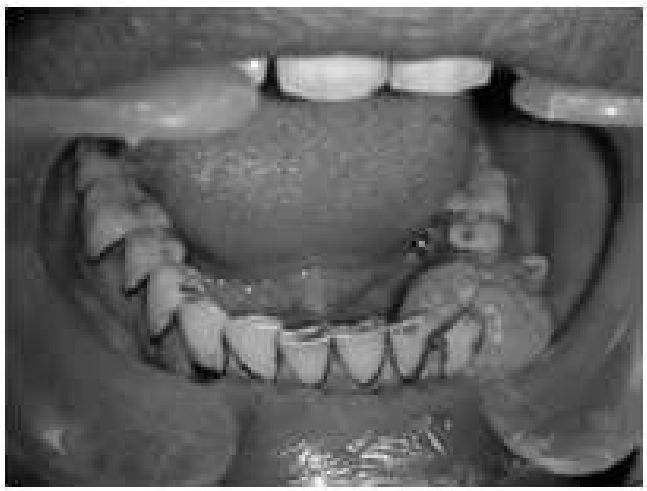

Fig. 3

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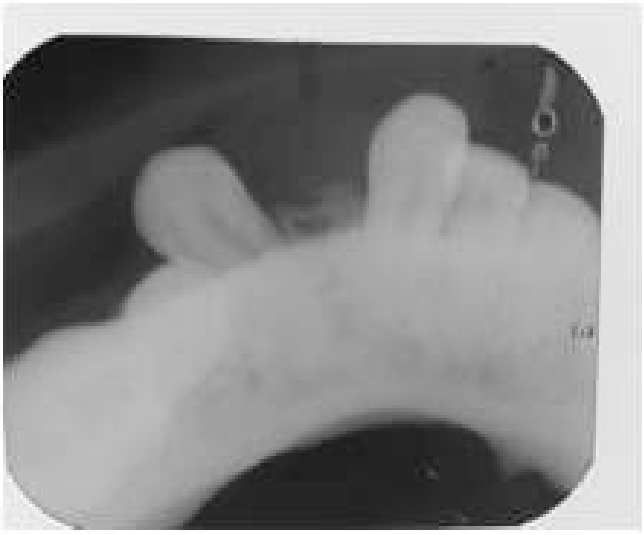

Fig. 4

Fig. 5

Radiographic examination

Radiographs were obtained. The radiographs did not reveal any abnormality and there was no finding pertaining to the multiple exophytic lesions. (fig.4, 5)

Histopathological examination

On histopathological examination, upon low power magnification (4x), the lesional tissue exhibited a keratinized stratified squamous epithelium (gingiva), overlying a fibrous connective tissue stroma exhibiting dense interlacing bundles of collagen and numerous ossifications. High power magnification (40 x) showed pink homogenous calcified tissue (ossification), with a presence of osteocytes entrapped in the lacunae. The histology for all the lesions was the same.

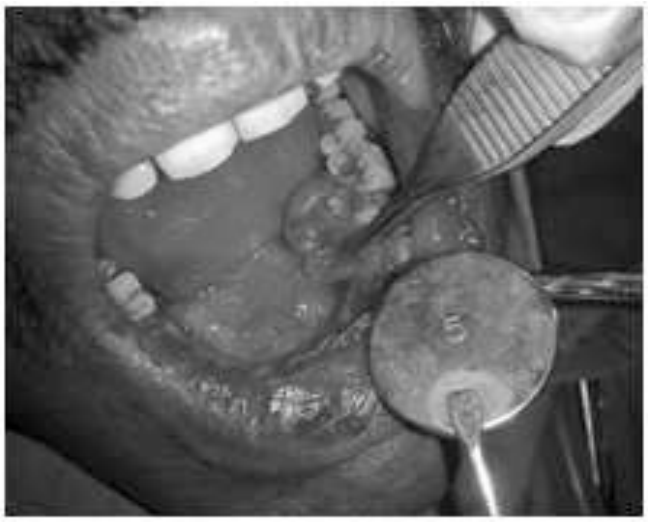

Fig. 6

Fig. 7

Follow up

The patient presented for a follow-up examination 20 days postoperatively. The surgical site appeared to be healing well. There was no evidence of recurrence of the lesion and the child was asymptomatic (fig.8)

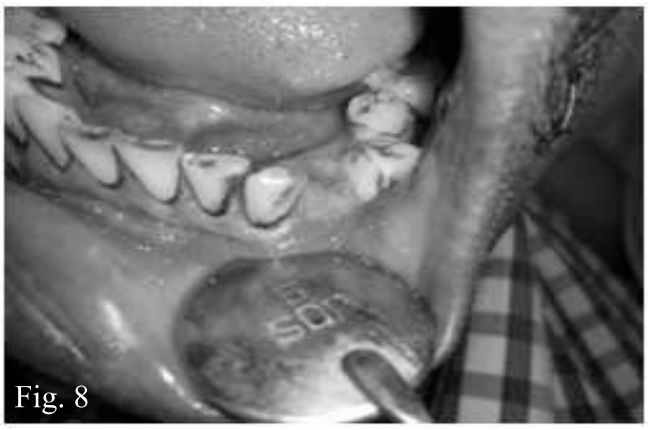

Fig. 8

Discussion

Menzel first described the lesion ossifying fibroma in 1872, but its terminology was given by Montgomery in 1927.4 Peripheral ossifying fibroma occurs mostly in craniofacial bones and categorized into two types central and peripheral. The central type of ossifying fibroma arises from the endosteum or the periodontal ligament (PDL) adjacent to the root apex and expands from the medullary cavity of the bone, and the peripheral type occurs on the soft tissues overlying the alveolar process. Peripheral ossifying fibroma is thought to be either reactive or neoplastic in nature. Considerable confusion has prevailed in the nomenclature of peripheral ossifying fibroma with various synonyms being used, such as peripheral cementifying fibroma, ossifying fibro epithelial polyp, peripheral fibroma with osteogenesis, peripheral fibroma with cementogenesis, peripheral fibroma with calcification, calcifying or ossifying fibroma epulis, and calcifying fibroblastic granuloma.[5]

Approximately 60% of POFs occur in the maxilla and they are found more often in the anterior region, with 55- 60% presenting in the incisor-cuspid region. In our case the lesion was seen in the mandibular region involving the incisors, in a male patient aged 21 with a moderate amount of supra and sub-gingival calculus and interdental angular bone loss. It usually measures less than 1.5 cm and rarely reaches more than 3 cm in diameter, but lesions of 6 cm and 9 cm have also been reported.[6] The surface may be either intact (34%) or ulcerated (66%). The reported case was of 2×1.5 cm in diameter with a smooth surface. The lesion represents varying stages of a fibroma with ossification, however, ossification or calcification may not be evident in all cases, particularly in earlier stages of growth. Foci of radiopaque material, bone formation or dystrophic calcification may be seen, particularly in large lesions or lesions with overt mineralization. POF can produce migration of teeth with interdental bone destruction.[7]

Treatment of POF consists of elimination of etiological factors, scaling of adjacent teeth and total aggressive surgical excision along with involved periodontal ligament and periosteum to minimize the possibility of recurrence. Long term postoperative follow-up is extremely important because of the high growth potential of incompletely removed lesion and a relatively high recurrence rate.

Conclusions

POF being one of the commonest solitary swelling in the oral cavity is many times clinically diagnosed as pyogenic granuloma. Radiological and histopathological examination is required for confirmation of diagnosis. Close postoperative followup is required because of the growth potential of incompletely removed lesions and the 8%–20% recurrence rate.

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