CASE REPORT

Peripheral Ossifying Fibroma- Report of 3 cases

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Abstract

Peripheral ossifying fibroma is a relatively common gingival growth which is considered to be reactive rather than neoplastic in nature, the pathogenesis of which is unknown. It occurs exclusively on the gingiva more commonly over the interdental papilla as a nodular mass, either pedunculated or sessile. Colour varies from red to pink. The lesion often remains present for many weeks or months before the diagnosis is made.

Here we are presenting three case reports of peripheral ossifying fibroma.


Introduction

Peripheral ossifying fibroma is a common benign soft tissue tumor that occurs most commonly on gingiva, etiopathogenesis of which is uncertain. Because of their clinical and histopathological similarities, some peripheral ossifying fibromas are thought to develop initially as pyogenic granuloma that undergoes fibrous maturation and subsequent calcification. However, this may not hold true for all cases. The mineralized product probably has its origin from cells of periosteum or periodontal ligaments. Here, we are presenting three case reports of peripheral ossifying fibroma.

Case Report 1

A 45 year old male patient reported with a painless growth over lower front teeth region since 1 year. The swelling was small initially and gradually increased to the present size and caused the mobility of two teeth in the same region and their subsequent exfoliation about 2 months back. Generalized heavy plaque and calculus was present with halitosis. Generalized periodontal status was poor. Intraoral examination revealed a single dome shaped growth measuring 1.5 × 2 cm in maximum diameter over the residual alveolar ridge in relation to 32, 31, 41 extending from the labial to lingual alveolar mucosa. Overlying mucosa was mixed red and white in appearance. On palpation, it was non tender, sessile, firm in

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consistency, and did not blanch on pressure (Fig 1a).

Provisional diagnosis of pyogenic granuloma in relation to 32, 31, 41 region was made.

An intraoral periapical radiograph revealed superficial erosion of bone i.r.t 32, 31, 41 region (Fig 1b). All hematological investigations were within normal limits.

Excisional biopsy of the lesion was done along with extraction of 42 and sent for histopathological examination, where it was diagnosed as peripheral ossifying fibroma. A thorough oral prophylaxis was done and patient was kept on follow up.

**Case Report 2**

A 47 years old female patient visited the department with the complaint of painless growth on upper front teeth region since 6 months. She gave a history that a small pea sized growth started around 6 months back that has gradually increased to the present size. Intraoral examination revealed a solitary, ovoid shaped growth 4×2 cm in maximum diameter over attached gingiva and alveolar mucosa in upper front teeth region extending into the vestibule superiorly and onto the labial surface of 22 inferiorly. Mesially from middle 1/3\textsuperscript{rd} of 11 distally upto 23. Overlying mucosa was pale pink. On palpation swelling was firm in consistency, pedunculated, nontender (Fig 2a). Provisional diagnosis of fibroma was made.

Electric pulp testing revealed 11, 21, 22 were vital. Intraoral periapical radiograph showed no bony changes (Fig 2b).

Excisional biopsy was taken and sent for histopathological examination which revealed the presence of benign proliferative tissue of variable cellularity within which were present trabeculae of mature bone rimmed by osteoclasts. Stromal haemorrhage and inflammation were absent. Histopathological features were suggestive of Peripheral ossifying fibroma. Patient was kept on follow up (Fig 2c).

**Case Report 3**

A 33 years old female patient complained of a growth on upper front teeth region since 8 months. The growth started as small pea size around 8 months back which has gradually increased to
attain the present size. The growth exhibits bleeding while brushing. Intra oral examination revealed a solitary ovoid shaped growth about 3 cm in maximum diameter along marginal gingiva extending mesially from distal surface of 21 to mesial surface of 13 distally. Overlying mucosa was erythematous with indentations of lower teeth were seen. On palpation it was firm in consistency, pedunculated and nontender (Fig 3a). Provisional diagnosis of pyogenic granuloma was made.

Electric pulp test revealed teeth in the vicinity of growth were vital.

Intraoral periapical radiograph revealed no bony changes (Fig 3b). Excisional biopsy was done and sent for histopathological examination which was suggestive of peripheral ossifying fibroma. Patient was kept on follow up and thorough oral prophylaxis was advised.

Discussion

Peripheral ossifying fibroma is a benign tumor of connective tissue origin. Synonyms are peripheral cementifying fibroma, calcifying or ossifying fibroid epulis, peripheral fibroma with calcification. The term peripheral odontogenic fibroma is given by WHO in their classification of odontogenic tumors and is a totally different entity. The term peripheral ossifying fibroma is used for the relatively common gingival lesion characterized by a high degree of cellularity usually exhibiting bone formation, although occasionally cementum like material or rarely dystrophic calcification may be found instead. An attempt at the clarification of the terms “peripheral ossifying fibroma” and “peripheral odontogenic fibroma” has been published recently by Gardner. It’s exact derivation is still uncertain at present, however, some investigators believe that the lesion is nevertheless odontogenic in origin, being derived from the periodontal ligament, especially since it only occurs on the gingiva and may contain oxytalan fibres. It may occur at any age, but is more common in children and young adults with a peak prevalence between ages of 10 and 19, however in present cases, all the three patients were adults. Almost two-third of cases are seen in females, but one of the case reported to us, was that of a male. The lesion is approximately equally divided between maxilla and mandible with a slight predilection for maxillary arch, but one of our case, was in mandible. Cundiff reported 80% of cases in both jaws occurred in front of molars, which was similar to present cases. The clinical appearance is characteristic, but not pathognomic. It is well demarcated local mass of tissue on the gingiva, typically interdental papilla with a sessile or pedunculated base. It may be of same colour as that of adjacent mucosa or may vary from pale pink to cherry red. Overlying mucosa may be intact or ulcerated. Radiologically vast majority of cases presents with no apparent underlying bone involvement, but on rare occasion superficial erosion of bone may be seen, which was seen in one of the three cases. Histologically the bulk of the lesion is composed of quite characteristic exceedingly cellular mass of connective tissue comprising large numbers of plump, proliferating fibroblasts intermingled throughout a very delicate fibrillar stroma. Vascularity may not be as prominent as in pyogenic granuloma. Varying forms of calcification may be in the form of single or multiple interconnecting trabeculae of bone or osteoid, although less commonly globules of calcified material closely resembling acellular cementum or diffuse granular dystrophic calcification may be found. On occasions multinucleated giant cells may be found and it
may bear considerable resemblance to peripheral giant cell granuloma. The existence of these lesions needs periodontal consultation and treatment includes the elimination of subgingival irritants and gingival pockets throughout the mouth as well as the excision of the gingival growth.

**Conclusion**

Three cases of peripheral ossifying fibroma are presented here, that may be clinically missed as common gingival lesions like peripheral fibroma, peripheral giant cell granuloma and pyogenic granuloma, only histopathology can serve as definitive diagnosis in such cases.

**References**