Peripheral Ossifying Fibroma: - A Case Report

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Abstract: The peripheral ossifying fibroma (POF) is a reactive gingival overgrowth occurring frequently in the anterior maxilla in teenagers and young adults. It is a nonneoplastic enlargement of gingiva. Due to its clinical and histopathological similarities, some POFs are believed to develop initially as a pyogenic granuloma that undergoes fibrous maturation and subsequent calcification. The peak incidence is found most frequently in teenagers and young adults. Trauma or local irritants such as dental plaque, calculus, micro-organisms, masticatory forces, ill-fitting dentures and poor quality restorations have been implicated in the etiology of peripheral ossifying fibroma. Here we report a case of peripheral ossifying fibroma in a 60 year old female in maxillary anterior region.

Key words: Peripheral Ossifying Fibroma, Micro – Organisms, Masticatory, Calculus

INTRODUCTION

The peripheral ossifying fibroma (POF) accounts for 3.1% of all oral tumors and for 9.6% of all gingival lesions. Synonyms of POF are peripheral cementifying fibroma, calcifying or ossifying fibroid epulis, and peripheral fibroma with calcification. In 1872, Menzel first described the ossifying fibroma, but only in 1927, did Montgomery assign its terminology. The POF may appear ulcerated and erythematous or exhibit a colour similar to the surrounding gingiva. It may be pedunculated or sessile and does not blanch upon palpation. The POF may occur at any age range, but exhibits a peak incidence between the second and third decades. The average age is around 28 years, with females being affected more than males. The pathogenesis of this tumor is uncertain; however, the pluripotent cells of the periodontal ligament have the apparent ability to transform or metaplastically change into osteoblasts, cementoblasts or fibroblasts, in response to irritants such as calculus, bacterial plaque, orthodontic appliances, ill-adapted crowns, and irregular restorations, and are therefore, capable of producing a unique inflammatory hyperplasia, the peripheral ossifying fibroma. Incidences of recurrence have been put at 16–20%.

CASE REPORT

A 50 years old female patient reported to the department of Oral Medicine and Radiology with a chief complaint of swelling in the upper front tooth region since 2 years. On asking the patient she told that initially the swelling was small in size and had gradually increased to the present size. It was not associated with any pain but patient reported that bleeding occurred during brushing. Her past dental & medical history was non contributory.

On intraoral examination, grossly carious teeth were present wrt 15, 16, 35, 46 and 47, generalised stains and calculus, gingival recession and grade I mobility was present. A solitary well defined growth was present on the maxillary anterior teeth region with relation to right maxillary central incisor, left maxillary central and lateral incisors. It is roughly oval in shape and measures about 3x2 cm in its greatest dimensions. It extends from distal aspect of 11 to distal aspect of 22. The overlying mucosa appears pale pink to reddish pink in colour with normal surrounding mucosa. On palpation all inspector findings were confirmed. The growth was firm in consistency, non tender and was not associated with any discharge.

DISCUSSION

Intraoral ossifying fibromas have been described in literature since the late 1940s. Many names have been given to similar lesions, such as, epulis, peripheral fibromas with calcification, peripheral ossifying fibromas, calcifying fibroblastic granuloma, peripheral cementifying fibroma, peripheral fibroma with cementogenesis, and peripheral cemento-ossifying fibroma. POF are sessile or pedunculated, usually ulcerated and erythematous or exhibit a color similar to the surrounding gingival. Peripheral ossifying fibroma occurs mostly in craniofacial bones and categorized into two types central and peripheral. The central type of ossifying fibroma...
the bone, and the peripheral type occurs on the soft tissues overlying the alveolar process. 

The main etiological factors of POF are trauma and chronic irritation, particularly from the subgingival plaque and calculus. It is widely considered that this lesion originates from the cells of periodontal ligament. It is most commonly seen in second to third decade of life with female predilection of 5:1 ratio. Only 0.5% cases are reported in the older age group. 60% of POFs occur in the maxilla and they are found more often in the anterior region, with 55-60% presenting in the incisor-cusp region. Radiographically, migration of teeth with interdental bone destruction has been reported in some cases but in a vast majority of cases there is no apparent underlying bone involvement visible. On rare occasions, there appears to be superficial erosion of bone.

Histopathologically, POF, can exhibit either an intact or ulcerated stratified squamous epithelium. The deeper fibroblastic component is highly cellular with central areas of calcification. The mineralized tissue may consist of bone, cementum like material, dystrophic calcification, or a combination of each.

The lesions should be surgically excised and submitted for microscopic examination for confirmation of diagnosis. 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. Follow-up is essential because of the recurrence rates. Incidences of recurrence have been put at 16–20%. The reasons for recurrence include incomplete removal of lesion, failure to eliminate local irritants, and difficulty in access during surgical manipulation due to intricate location of POF being present usually at interdental areas.

CONCLUSION

A peripheral cement-ossifying fibroma is a slowly progressing lesion, the growth of which is generally limited. 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.

REFERENCES

LIST OF PHOTOGRAPHS

Figure 1 Intraoral photograph of growth irt. 11 and 12

Figure 2 Orthopantomogram showing generalized bone loss

Figure 3-Histopathological picture showing cementoid material with dystrophic calcification