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Peripheral ossifying fibroma – a case report

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Abstract

Increase in size is a common feature of gingival disease. Peripheral ossifying fibroma is a reactive lesion found on the gingiva and non-neoplastic in nature. It is most commonly seen in females and usually arises from interdental papilla. Peripheral ossifying fibroma represents a separate clinical entity rather than a transitional form of pyogenic granuloma, peripheral giant cell fibroma and irritational fibroma. Careful diagnosis of peripheral ossifying fibroma is important to avoid unnecessary aggressive therapy. The definitive diagnosis is established by using histopathological examination. A conservative surgical treatment provides an excellent prognosis. We present a rare case of 31 year female patient with peripheral ossifying fibroma in mandibular gingiva in the region of 44-46.

Keywords: Gingiva, Fibroma, Reactive lesion, Peripheral ossifying fibroma

1. Introduction

Benign neoplasm of the periodontal tissues are characterised by progressive growth without remarkable symptoms. The growth is measured in terms of months or years and they are often found incidently on routine examination. They may be diffuse or localised. Increase in size is a common feature of gingival disease and the accepted terminology for this condition is gingival enlargement or gingival overgrowth. In a survey of 25% of oral tumours, approximately 8% had occurred on gingiva and in a study of 868 overgrowth of the gingiva, the incident of fibroma noted was 11%^[1]. Clinically, peripheral ossifying fibroma shows benign behaviour. Peripheral ossifying fibroma is a reactive lesion and originates from the periodontal ligament^[2]. This lesion generally affects women in the second decade of life. The site for its occurrence is mostly on the gingiva, anterior to the molars, interdental papillary region and in maxilla^[3]. They are slow growing, spherical in shape, pink in colour, surface may be ulcerated and base may be sessile or pedunculated. The confirmatory diagnosis is based on the histopathological examination^[4]. A conservative surgical management provides an excellent prognosis, though the recurrence rate can reach 20-22%.

2. Case report

A 31year old female patient reported to the department of periodontics with a complaint of slowly growing, painless, gingival growth in mandibular posterior region extending from 44 to 46 since 6 months (Figure 1). The medical and dental history was not relevant.

On clinical examination, a solitary, sessile, reddish pink exophytic mass measuring about 1.5 cm X 1cm was seen extending from buccal aspect of 44 to 46. The growth had lobulated surface. There was no displacement and mobility of associated teeth due to the growth. On palpation the growth was firm and nontender. On radiographic examination, no abnormality was detected. After blood and urine investigations and phase-I therapy, the lesion was surgically excised (Figure 2) and sent for histopathological examination (Figure 3). The patient was reviewed after 3 months (Figure 4).

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Fig 1



Fig 2



Fig 3



Fig 4

2.1. Histopathological examination

Histopathological examination revealed parakeratinized stratified squamous epithelial lining and the underlying connective tissue was fibrocellular showing multiple trabaculae of immature bone and globules of darkly stained calcified material, blood vessels and inflammatory cells. Thus a final diagnosis of peripheral ossifying fibroma was given.

3. Treatment

After the elimination of local etiological factors such as plaque and calculus, under local anaesthesia, local resection with deep margins including both the periodontal ligament and the affected periosteal component was done.

The recurrence rate of peripheral ossifying fibroma is considered high for reactive lesions and varies from 8.9-20% respectively which may be due to incomplete removal of the lesion [5].

4. Discussion

Peripheral ossifying fibroma is a reactive lesion formed on the gingiva and non-neoplastic in nature, usually results due to local irritation caused by subgingival plaque, calculus, dental appliances, poor quality of dental restorations or trauma. This solitary growth of the gingiva occurs most commonly at the region of interdental papilla. It accounts for 9.6% of all biopsy reports of the gingival lesion [6]. Peripheral ossifying fibroma is more cellular than the peripheral giant cell fibroma and less vascular than pyogenic granuloma. Majority of the lesions occur in the second decade of the life with the declining incidence in later years. In Chinese population the mean age of incidence of Peripheral ossifying fibroma was found to be 44 years which is contradictory to previous literature. It occurs most frequently in females than in males. Hormonal influences and the presence of local irritants have been suspected to have some role in development of this lesion. Peripheral ossifying fibroma lesion does not require imaging beyond radiograph [7]. Histologically, fibrous proliferation with large number of fibroblasts is seen associated with the formation of mineralized product. So, the characteristic feature of the peripheral ossifying fibroma is highly cellular connective tissue containing foci of calcified material.

We present a rare case of peripheral ossifying fibroma seen in

mandibular gingiva (44 to 46). The etiopathogenesis of the lesion is not known, trauma or local irritation, subgingival plaque may influence the development of lesion. Differential diagnosis of this condition includes pyogenic granuloma, traumatic fibroma and peripheral giant cell granuloma [8]. Other terms used in reference to peripheral ossifying fibroma are peripheral cementifying fibroma, peripheral fibroma with cementogenesis/osteogenesis, calcified or ossified fibrous epulis and calcified fibroblastic granuloma [9].

Treatment of choice for peripheral ossifying fibroma is local resection with periodontal and periosteal component. In addition, plaque and calculus removal is required. Generally rate of recurrence is 8.9 to 20% and probably occurs due to incomplete removal or repeated injury [10].

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