PERIPHERAL ODONTOGENIC FIBROMA OF MAXILLA - A CASE REPORT

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ABSTRACT

The tumours occurring in the oral cavity may be of odontogenic or non-odontogenic in origin. Odontogenic tumours occur commonly as an intraosseous counterpart but may also present in the peripheral location on the gingiva and in such cases they are referred to as peripheral odontogenic tumours. Of all the peripheral odontogenic tumours, peripheral odontogenic fibroma occurs frequently than its central counterpart. This paper presents a report of peripheral odontogenic fibroma of maxilla in a 61 year old male which clinically presented as a slow growing, firm, solitary mass in the gingiva in relation to right upper canine and premolar region. This article emphasises the need for careful histopathological examination as they clinically mimic commonly occurring inflammatory growth and also regular follow up of the patient as cases of recurrence has been reported.

Keywords: *Peripheral odontogenic fibroma, Odontogenic tumours, Gingival growth.*

INTRODUCTION

Most common entities of gingival enlargement are inflammatory in origin followed by reactive and neoplastic (benign or malignant). Sometimes it is challenging for the clinicians to differentiate these growths clinically. One such rare growth seen in gingiva is the peripheral odontogenic fibroma (POdF) comprising only 0.05% of all biopsy specimens[1]. WHO defined odontogenic fibroma "as a benign odontogenic neoplasm of fibroblastic origin characterized by relatively mature collagenous fibrous tissue and varying amounts of odontogenic epithelium with potential to occur in either a central or extra osseous location". The extra osseous counterpart is designated as peripheral odontogenic fibroma[2,3]. In the past POdF was described by Baden and his co-workers as 'odontogenic gingival epithelial hamartoma' and by Mckelvy and Cherrick as 'peripheral ameloblastic fibrodentinoma'[4]. They are derived from the overlying gingival epithelium or the rests of dental lamina in peripheral location.

CASE REPORT

A 61 year old male patient reported to the department with a chief complaint of growth in the upper front teeth region for a period of 3 months. History revealed that 3 months back a small growth developed in the upper front teeth region which slowly increased to the present size. Personal and past medical history revealed no remarkable findings. On general examination patient appeared normal. Past dental history revealed that he had undergone extraction of decayed teeth few years back.

On intraoral examination well- localized, solitary, ovoid, pedunculated, firm growth of size 1.8X 1.5 cm with well-defined margins was present in the buccal aspect of attached gingiva in relation to 13, 14, 15 region. Anteriorly it extended to the distal aspect of 12 and posteriorly to 15 (missing) region. The surface over the growth was smooth and appeared erythematous compared to the adjacent mucosa (fig1). Generalised gingival inflammation due to calculus was present. On palpation the growth was non- tender with no evidence of bleeding. Teeth associated with growth had no evidence of any pathology like dental caries, mobility, and periodontal pocket. Since the growth was present for a period of three months, slow growing, no associated bleeding and ulceration, a provisional diagnosis of benign gingival growth with a differential diagnosis of peripheral giant cell granuloma and peripheral ossifying fibroma was given.

RVG taken in relation to 12, 13, and 14 region revealed no evidence of any hard tissue changes (fig2). Surgical excision of the growth was done under local anaesthesia (fig3) and the specimen was subjected to histopathological examination for final diagnosis. Histopathology report revealed fibrous connective tissue of variable cellularity with moderately dense collagen fibers consisting of strands and islands of odontogenic epithelium, surrounded by thick rim of dentinoid material suggestive of Peripheral Odontogenic Fibroma (fig4).

Based on the histopathological report a final diagnosis of Peripheral Odontogenic Fibroma was given. Patient is under regular periodic follow up to look for any recurrence (fig5).

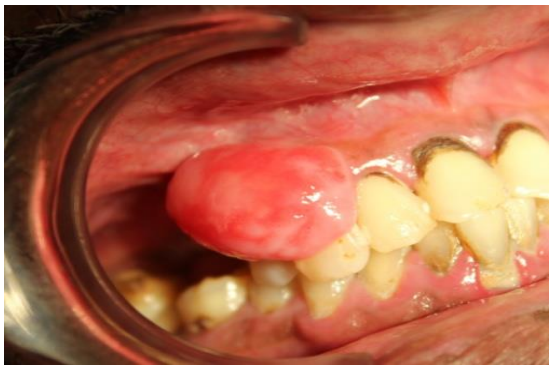

Fig. 1: clinical picture of the growth in relation to 13, 14, 15 region

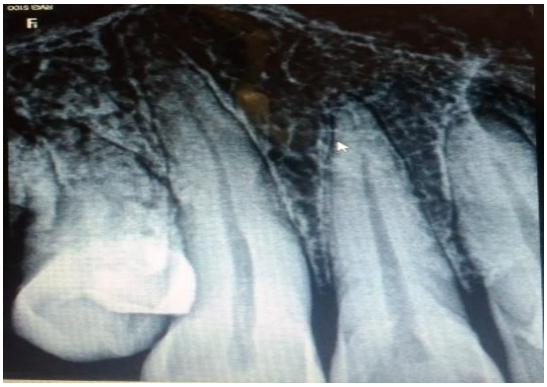

Fig. 2: Radiographic image of 12, 13, 14 region showing no evidence of bony involvement

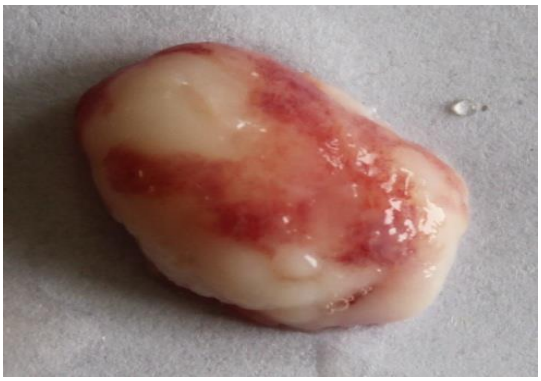

Fig. 3: Excised specimen

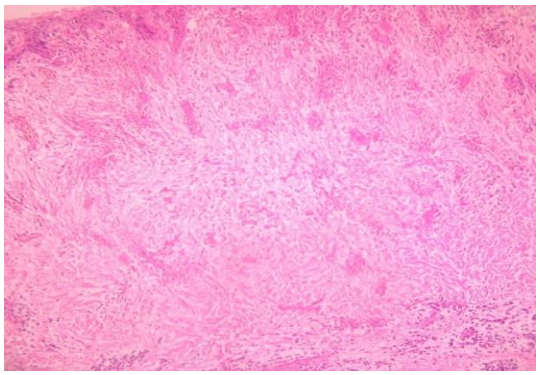

Fig. 4: Histopathology picture showing islands of odontogenic epithelium

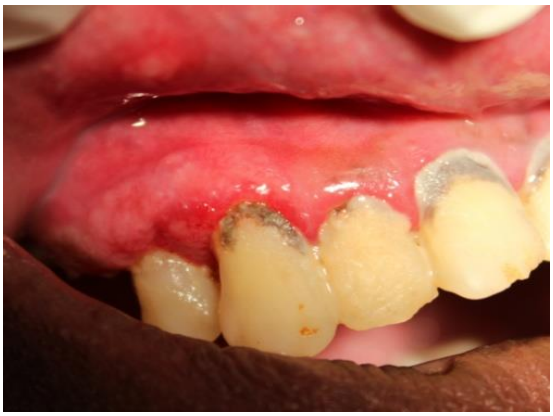

Fig. 5: Intraoral picture after 4 months follow up

DISCUSSION

Peripheral odontogenic fibroma is an uncommon benign mesenchymal odontogenic neoplasm. Clinically they present as a raised, firm, painless, smooth surfaced gingival mass. They occur in wide age range, more common in third decade. They have slight female predilection and the common site of occurrence being maxillary anterior and mandibular canine-premolar region. The mean size reported is 1.2mm^2. Clinical differential diagnosis for this lesion includes peripheral giant cell granuloma, peripheral ossifying fibroma, pyogenic granuloma, fibrous hyperplasia, peripheral fibroma, and peripheral odontogenic tumours.

Histologically they are characterised by the presence of relatively mature collagenous fibrous tissue and varying amount of odontogenic epithelium[5]. Sometimes they may also show presence of variable amount of myxoid connective tissue, as a result it was also called as odontogenic epithelial hamartoma, hamartoma of dental lamina, peripheral ameloblastic fibrodentinoma and granular cell odontogenic fibroma[6]. Recurrence rate ranging from very low to as high as 38.9% has been documented hence regular follow up is mandatory and the reason for it is encountered as budding of basal cell layer of surface epithelium[5]. In a study presenting the relative frequency of peripheral odontogenic tumours (POTs) done by Buchner, it was found that peripheral odontogenic fibroma accounted for 51.1% of the total POTs[7]. The treatment option for the lesion is to ensure complete surgical excision of the growth.

The present case is characteristic of peripheral odontogenic fibroma in its site of occurrence, age and size. There have been case reports documented with displacement of associated teeth but in this case no such findings noted.

CONCLUSION

Peripheral odontogenic fibroma though reported as a rare entity, it clinically mimics many inflammatory, reactive and neoplastic growths. Hence proper history and careful histopathology is

mandatory to avoid misdiagnosis pertaining to this growth.

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