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RESEARCH ARTICLE

PERIPHERAL OSSIFYING FIBROMA - A CASE REPORT

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Abstract

The gingiva in the oral cavity is constantly subjected to numerous stimuli, resulting in numerous localised growths. Reactive gingival growth is the most common lesion in the oral cavity and usually exhibits indolent behaviour. Many of these lesions are difficult to identify clinically and can be identified as specific entities only on the basis of typical and consistent histomorphology. A peripheral ossifying fibroma is one such reactive lesion. It has been described with various synonyms and is believed to arise from the periodontal ligament, which comprises about 9% of all gingival growths. Here we describe a case of a peripheral ossifying fibroma in a 15-year-old female patient in the anterior maxilla that was painless and pale pink. The purpose of this article is to present a case of POF and emphasize the importance of discussion of a reasonable differential diagnosis.

Introduction:-

Localised gingival enlargements are fairly common and typically represent reactive proliferative lesions rather than true neoplasms. Reactive or inflammatory lesions represent more than 90% of histopathologically analysed gingival biopsies and most commonly include diagnoses of pyogenic granuloma, fibrous hyperplasia, peripheral ossifying fibroma, and peripheral giant cell granuloma.[1] Peripheral ossifying fibroma (POF) is typically a solitary, slow-growing, nodular mass that may be either pedunculated or sessile. Synonyms of POF are peripheral cementifying fibroma, calcifying or ossifying fibroid epulis, and peripheral fibroma with calcification.[2]

It is typically seen as a gingival growth on the interdental papilla and comprises about 9% of all gingival growths. Females are more commonly affected, and the anterior maxilla is the most prevalent location. Incidences of recurrence have been put at 16–20%. However, when we are dealing with gingival lesions, clinical characteristics are insufficient for a final diagnosis once they are common to several lesions; therefore, a histopathological examination is always necessary to determine the diagnosis.[3]

Case Report –

A 15 year old girl reported with chief complaint of painless growth in anterior maxilla since 2 months. It had progressed gradually and attained its present size. There was no history of bleeding or ulceration associated with the swelling. The patient gave history of trauma 7 years back.

Intra-oral examination revealed a well-defined, solitary pedunculated swelling of approx 10x7 mm present interdentally between 11 and 21.

Antero-posteriorly the swelling was extending from the cervical region of 11 to cervical region of 21

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Supero-inferiorly the lesion is extending approx. 1mm below the labial frenum to middle third of the crown of both 11 and 21

Surface of the swelling was homogenous without any irregularity ulcerations and pale pink (fig 1)

On palpation swelling was painless and firm in consistency.

Radiographic examination showed presence of faint calcifications on the buccal aspect of 11, periapical rarefaction with 21 and radicular cyst associated with 11. The root of 11 is incompletely formed (fig 2 and 3)

The densities of calcifications are almost similar to cancellous bone but more than cortical bone

Fig 1:- Showing the well defined mass opposite to the crown of 11 and 21.

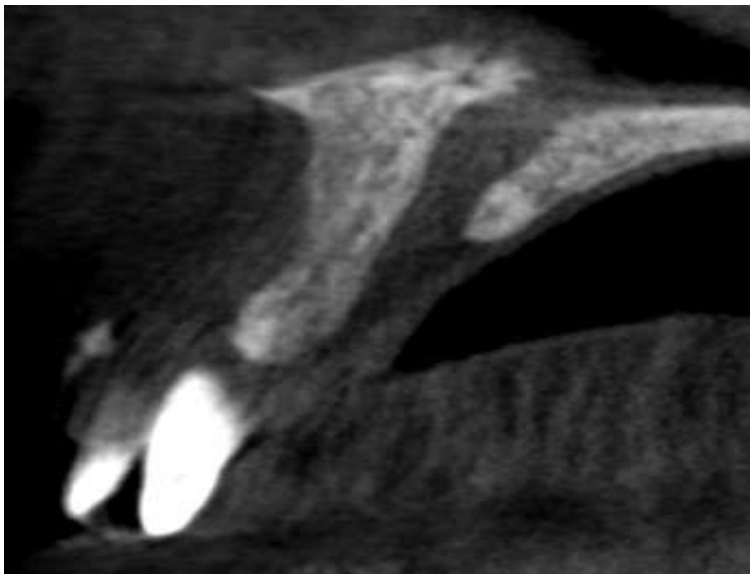

Fig 2:- Showing the presence of calcified foci over the crown of 11.

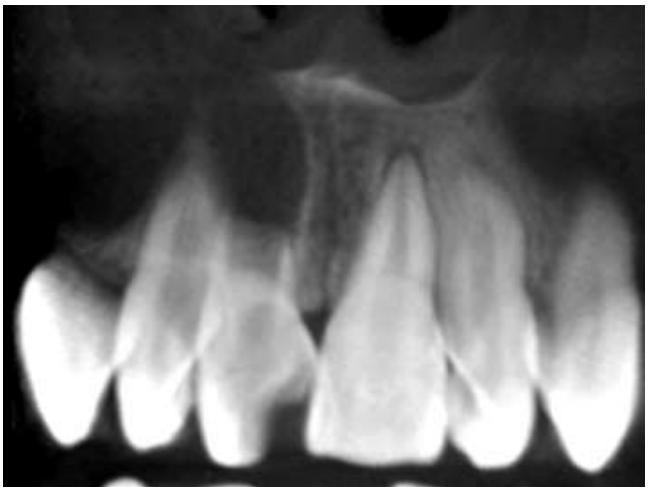

Fig 3:- Showing the presence of radicular cyst and incompletely formed root of 11 also it is showing presence of periapical rarefaction with 21.

Discussion:-

Menzel first described the lesion ossifying fibroma in 1872. 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.[4] POF is a solitary, slow growing nodularmass that is either pedunculated or sessile. Most often it is located in the gingival papilla between teeth. The etiology of POF is unclear. Inflammatory hyperplasia originating in the superficial periodontal ligament is considered to be a factor in POF's causation. POFs are believed to arise from gingival fibres of the periodontal ligament as hyperplastic growth of tissue that is unique to the gingival mucosa. Supporting this hypothesis is the inverse correlation between age distribution of patients presenting with POF and the number of missing teeth.[2] Change in the hormonal levels in the body may play a role. Supporting to this, there is higher incidence of POF among females, increasing occurrence in the second decade and declining incidence after the third decade.[1]The clinically the lesion is asymptomatic initially, the tumor progress to the point where its size causes pain, functional limitation and cosmetic deformities. The lesion may persist for long time depending on the degree of ulceration, discomfort, and interference with function. Cases of tooth migration and bone destruction have been reported, but these are not common.[5] Peripheral ossifying fibroma contains bone, cementum and spheroidal calcifications. When bone predominates,ossifying' is used; when curvilinear trabeculae or spheroidal calcifications are seen then the term cementifying' has been assigned. When both bone and cementum-like tissues are seen, the lesions have been referred as peripheral cemento-ossifying fibroma.[6] The diagnosis of POF based only on clinical observations can be difficult and histopathological examination of the surgical specimen obtained by excisional biopsy is essential for an accurate diagnosis.[7,8] In our case patient had history of trauma which was the triggering factor for the occurance of peripheral ossifying fibroma and treatment consisted of excision of the lesion followed by the extraction of tooth.

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