An Illustrative Case of Pediatric Peripheral Ossifying Fibroma

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Introduction :

Peripheral Ossifying Fibroma (POF) is a benign, fibro-osseous, tumor-like growth of the soft tissue that primarily arises from the interdental papilla. Though the etiopathogenesis is uncertain, an origin from cells of the periodontal ligament has been suggested. POFs typically occur in adolescents and young adults in the 2nd and 3rd decade of life, with peak prevalence between the ages 10 and 19 years. POF results from irritants such as trauma, microorganisms, or dental appliances. If untreated, POF can grow larger and cause damage to surrounding teeth and bone. Early diagnosis and complete excision is vital to the management of POF.

Case Description:

This case presentation discusses a 10 year old African American who male presented to Jamaica Hospital Medical Center Pediatric dental clinic complaining about "swollen gums behind his two top teeth." The patient reveals not knowing the lesion was present until he went to the orthodontist, who identified/referred the lesion, to get braces tightened. The patient's health history is noncontributory and there are no known allergies. Upon clinical examination on the palatal gingiva of teeth #8 and #9 an 1.25cm circular, fibrous, ulcerated, pedunculated inflamed lesion was noted. The patient had no recollection of when lesion appeared and revealed having no symptoms. Periapical radiograph revealed #8 and #9 both with open apices and # 9 with a 2mm well circumscribed, radiopaque lesion at the apical third of the root.

Differential Diagnosis

Based on the history, radiographic, and clinical finding the differential diagnosis included peripheral fibroma, peripheral giant cell lesion, and pyogenic granuloma. These lesions typically result from irritants such as trauma, microorganisms, plaque, calculus, restorations, or dental appliances. Gingival enlargement, particularly those belonging to the reactive group such as pyogenic granuloma, peripheral giant cell granuloma, irritational/traumatic fibroma and peripheral ossifying fibroma are innocuous in nature, rarely presenting with aggressive clinical features. In the pediatric population, patients who present with such lesions require special considerations for management as it requires early diagnosis and treatment.

Results

The lesion was conservatively excised and submitted for biopsy. The biopsy was evaluated by Oral Pathology Laboratory, Inc. Microscopically, the lesion was characterized by ulcerated stratified squamous epithelium covering a cellular lesion composed of haphazardly arranged, plum, uniform fibroblasts set in an immature collagenous stroma. Metaplastic calcifications are noted throughout the lesion. The base of excision contains clusters of plasma cells.

B iopsy of the lesion resulted in the diagnosis of Peripheral ossifying fibroma.

Treatment recommendations are undetermined at this time. The vast majority of reported lesions have been conservatively excised with a recurrence rate around 20%. The lesion may persist for many years, however, spontaneous resolution is a possibility due to few reports of occurrence.

References:

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