Case Report

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A Case Study of Peripheral Ossifying Fibroma.

Abstract:

The gingiva is frequently the site of localised growths that are thought to be reactive rather than neoplastic. Many of these lesions are difficult to identify clinically and can only be identified as a distinct entity based on typical and consistent histomorphology. One such reactive lesion is peripheral ossifying fibroma. It has been described using various synonyms and is thought to arise from the periodontal ligament, which accounts for approximately 9% of all gingival growths. The lesion is typically small in size, located primarily in the anterior maxilla, with a higher predilection for females, and is more common in the second decade of life. A 11-year-old boy with a large peripheral ossifying fibroma in the anterior maxilla with significant growth and interference with occlusion is presented in this case report.

Key-words: Peripheral ossifying fibroma, fibrous epulis, peripheral cemento ossifying fibroma, calcifying fibroblastic granuloma, gingival growth

Introduction:

Peripheral ossifying fibroma is a reactive gingival overgrowth that occurs frequently in teenagers and young adults in the anterior maxilla. This lesion is widely thought to be caused by periodontal ligament cells and is frequently associated with trauma or local irritants such as subgingival plaque and calculus, dental appliances, and poor-quality dental restorations.[1] Peripheral Ossifying Fibromas are sessile or pedunculated lesions that are usually ulcerated and erythematous or have a colour similar to the surrounding gingiva. Most lesions are less than 2 cm in diameter, though larger ones do occur on occasion.[2,3] When compared to adults, paediatric patients with Peripheral Ossifying Fibroma require special management. It necessitates a proper treatment protocol, as well as close postoperative monitoring.[4,5]We describe a remarkably rare case of a 11-year-old child who had a Peripheral Ossifying Fibroma surgically removed that was connected to the anterior maxillary region. The case had radiographic evidence and was histopathologically validated. When it occurs in children, some aspects of the differential diagnosis and therapy are discussed.

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Case Report:

A 11-year-old boy reported with the chief complaint of soft tissue growth in the palate. Intraoral examination revealed a painless pedunculated, cauliflower-like rubbery mass on the palatal aspect of the maxillary central incisors. The lesion had been present for approximately 3 months. Intraoral examination revealed a well circumscribed, sessile, erythematous firm swelling measuring 3 cm in diameter, located on the palatal gingiva of the maxillary central incisors. History revealed that the lesion started growing on its own since he first noticed it about a month back when it was a small nodule. The lesion was asymptomatic, non-ulcerated and

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overlying mucosa appeared normal. There was no significant medical and familial history. No radiographical signs of involvement of the alveolar ridge were observed.

After routine blood examinations, excisional biopsy of the growth was done under local anesthesia and root scaling of the associated area was done. Antibiotic coverage and thorough curettage of the adjacent periodontal ligament, and periosteum was carried out to prevent recurrence. Histomorphological examination revealed evidence of calcifications in the hypercellular fibroblastic stroma confirming the lesion as Peripheral Ossifying Fibroma. The follow-up of the case showed normal healing of the area. Satisfactory esthetic result was noted three months after surgery.

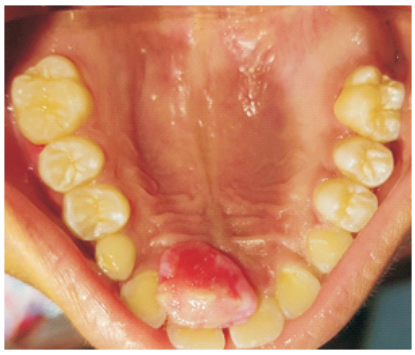

Figure 1: Clinical Appearance Of The Peripheral Ossifying Fibromainvolving Palatal Mucosa Permanent Maxillary Left Lateral

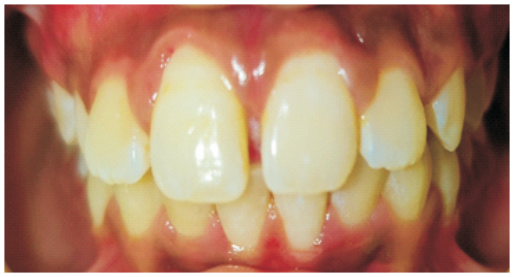

Figure 2: Intraoral Appearance

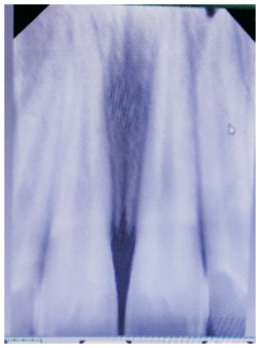

Figure 3: Radiographic Finding

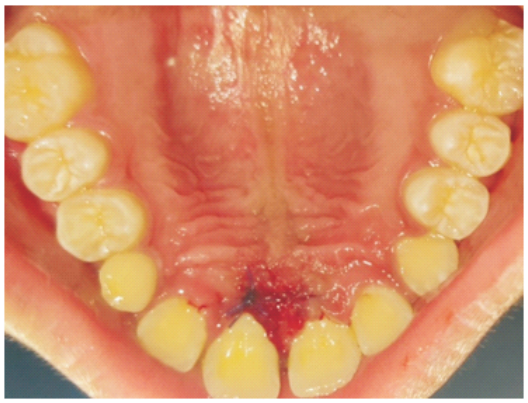

Figure 4: Post Operative

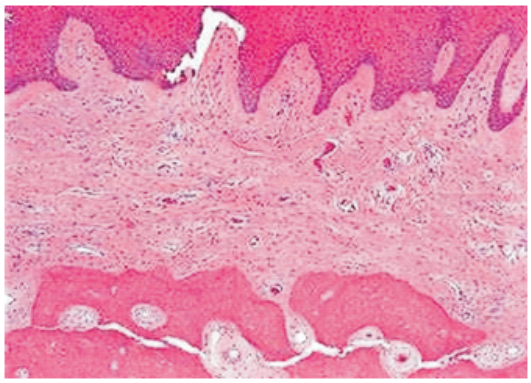

Figure 5: Histopathological Finding

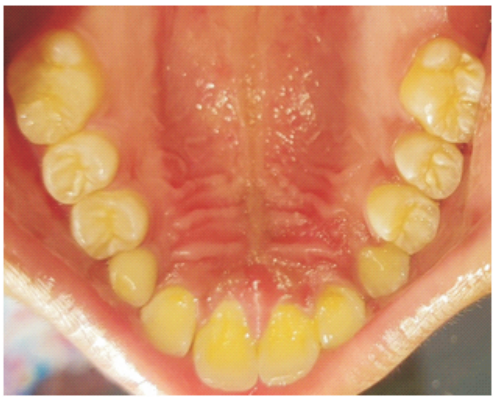

Figure 6: Follow Up After Three Months

Discussion:

Clinical findings of reactive lesions, such as the Peripheral Ossifying Fibroma reported in this case, are relatively prevalent in youngsters. Trauma and persistent irritation, notably from subgingival calculus and plaque, are the primary etiological factors of Peripheral Ossifying Fibroma.[6] The superficial periodontal ligament is thought to be the site of inflammatory hyperplasia, which is thought to have a role in the histogenesis of the Peripheral Ossifying Fibroma. [7,8]

These findings include the exclusive occurrence on the gingiva, the proximity of gingiva to PDL, and theinverse correlation of age distribution of lesions with the number of the lost teeth and their corresponding PDL.[6] A solitary, red to pink, pedunculated or sessile, nodular, soft-tissue growth that is typically visible in the gingival interdental papilla area of the maxillary anterior region characterises Peripheral Ossifying Fibroma, which is frequently prevalent in the second to third decades of life and has a female predisposition. However, just 1%–2% of cases have been observed in children ages 0–10, according to reports.[9,10]

The lesions that share comparable histomorphological characteristics and come from periodontal ligament cells are the ossifying fibroma (OF) and the Peripheral Ossifying Fibroma. However, an OF is a benign neoplastic lesion that is a part of the group of benign fibro-osseous lesions of the jaws, whereas a Peripheral Ossifying Fibroma is a reactive lesion. Both Peripheral Ossifying Fibroma and Ossifying Fibroma exhibit various proliferative activities.[11] The ulcerated lesions are more likely to be painful, but this was not the case. Gingival lesions that mimic Peripheral Ossifying Fibroma include peripheral giant cell granuloma, pyogenic granuloma, fibroma, calcifying epithelial odontogenic cyst, calcifying odontogenic cyst, and others.[5] Histologically, stratified squamous epithelium in Peripheral Ossifying Fibroma can be either ulcerated or intact. Three zones in a typical ulcerated lesion can be found:

Zone I: The area that has a superficial ulcer and is covered in fibrinous exudate, polymorphonuclear neutrophils, and debris.

Zone II: The zone underneath the surface epithelium, which consists primarily of lymphocytes and plasma cells with diffuse infiltration of chronic inflammatory cells.

Zone III: More collagenized connective tissue, decreased vascularity, and high cellularity; a major feature is osteogenesis, which includes the creation of osteoid and bone. In rare instances, this process can even reach the ulcerated surface.[11] Despite the fact that most lesions are typically less than 1.5 cm in length, PERIPHERAL OSSIFYING FIBROMA s in children can grow at an accelerated rate and become rather large in a short amount of time.[5] If early surgical surgery is not performed, Peripheral Ossifying Fibroma can grow big, resulting in substantial bone loss next to it and significant functional or aesthetic changes.[6]

Conclusion:

In the differential diagnosis of localised soft tissue gingival development, Peripheral Ossifying Fibroma should also be taken into account, particularly if focal calcifications are visible on the radiograph. Peripheral Ossifying Fibromapatients should have diligent long-term follow-up, especially if they were diagnosed as youngsters. In conclusion, it is challenging to distinguish between the majority of reactive lesions, especially in the early stages. The etiological variables must be removed regardless of the surgical approach used, and the tissue must be histologically tested for confirmation.

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