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Large Peripheral Ossifying Fibroma in Posterior Maxilla: A Case Report

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ABSTRACT:
Peripheral ossifying fibroma (POF) is a rare connective tissue-based reactive benign lesion that is not the soft tissue equivalent of central ossifying fibroma.POF's etiology and pathogenesis are unknown, however, some researchers believe it is caused by irritating chemicals like dental calculus, orthodontic appliances, and ill-fitting restorations, which cause a reaction in the periodontal ligament. A case of POF in a 30-year old female patient is described. A very large painless lesion is seen in the left maxillary premolar region extending into the mandible premolar region preventing full closure of the oral cavity. To reach a final diagnosis, a thorough clinical examination and histopathology findings must be correlated.

KEYWORDS: Peripheral ossifying fibroma, Maxilla, Excision.

I.INTRODUCTION

POF (peripheral ossifying fibroma) is a rare type of gingival overgrowth that is most likely the result of a reactive gingival overgrowth. POFs are made up of one or more mineralized tissues, such as bone, cementum- like material, or dystrophic calcification[1], encased in a cellular fibroblastic tissue matrix.Females are more likely to be afflicted than males, and the most common place of incidence is the anterior maxilla.[2] POFs can strike at any age, but they are more common in the second decade of life.POF appears as a solitary, slow-growing, pedunculated, or sessile nodular mass clinically. The mucosa on the surface of the skin might be smooth or ulcerated, and the colour can range from pink to red. In certain situations, tooth migration has been associated with interdental bone loss.[3]Although lesions as large as 6 cm and 9 cm in diameter have been documented, POFs typically measure less than 1.5 cm in diameter.[4] Peripheral giant cell granuloma, pyogenic granuloma, and fibrous epulis are all differential diagnoses on the clinical level.

II.CASE REPORT

A 30-year-old female patient reported to the department of Periodontics with a chief complaint of a painless growth on the gingiva in the upper left back region of her mouth for 6-7 months. It had steadily grown in size until it had reached its current size. Mouth closure was partial and lips were potentially incompetent due to the lesion. Bleeding on brushing was occasionally related to growth. There was no mention of any previous trauma in the patient's history.Intraoral examination revealed a single, large pedunculated growth from the distal aspect of 23 to the mesial aspect of 26 extending downwards till the marginal gingival area of 34 to 36. The lesion measures about 2.5cm x 2cm and is non-tender, non-fluctuant, non-compressible, firm and pinkish-red in colour.The patient's previous dental and medical histories were irrelevant.The entire tumor was removed under local anesthesia, and the underlying surface was meticulously curetted up to the deepest possible tissue. The tissue was sent for histopathological evaluation. The differential diagnosis included peripheral giant cell granuloma, pyogenic granuloma, and fibrous epulis. Microscopic examination of the H&E stained tissue section shows a highly cellular connective tissue stroma with numerous interlacing collagen fibers. Foci showdense collagen matrix, intermixed with numerous angular to spindle-shaped cells. Numerous irregular bony trabeculae with lacuna filled with osteocytes are seen scattered throughout the lesion. These are surrounded by blood vessels and budding capillaries.The Histopathologic report confirmed the diagnosis as Peripheral Ossifying Fibroma (POF).

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III. DISCUSSION

Eversole and Robin coined the phrase Peripheral Ossifying Fibroma (POF).[5] It only appears on the gingiva. It is a reasonably frequent gingival development that is considered reactive rather than malignant.[6] POF is characterized by a high degree of cellularity, which usually manifests itself as bone formation however,cementum-like material or dystrophic calcification may also be present. Plaque accumulation, calculus, masticatory stresses, ill-fitting appliances, disfigured teeth, low quality or broken-down restorations, and ill-fitting crowns have all been discussed in the literature as potential predisposing factors for the development of POF.It is more frequent in the early and second decades of life, and it is more common in women. The anterior maxilla is the most prevalent site for this lesion, with 55–60% appearing in the incisor-cuspid region.[7] In the present case it was reported in the maxillary posterior region which is not a frequent site of occurrence.The POF was diagnosed as an exophytic, smooth-surfaced, pink or red nodular mass that was sessile or occasionally on a pedicle. The diameter of a peripheral ossifying fibroma might range from 0.2-3.0 cm to 9 cm.[8]Histopathologically, the lesion is characterized by stratified squamous epithelium covering an extremely cellular mass of connective tissue composed of plump fibroblasts, fibrocytes, fibrillar stroma, and areas of mineralization with multinucleated giant cells nearby in some cases. Total excision of the lesion, including the periosteum and periodontal ligament, as well as other irritating stimuli, are all part of the treatment of peripheral ossifying fibroma.

IV. CONCLUSION

POF, which is one of the prevalent solitary swellings in the oral cavity, is sometimes misdiagnosed as pyogenic granuloma. Confirmation of the diagnosis requires radiological and histological investigation.

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Images:

Figure-1 Intraoral clinical appearance of the lesion
Figure-2 Excised tissue
Figure-3 Histopathology

Figure-1

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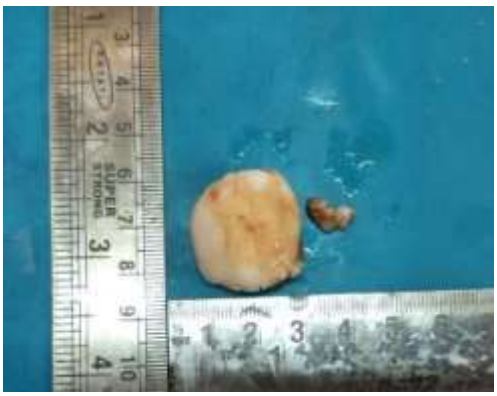

Figure-2

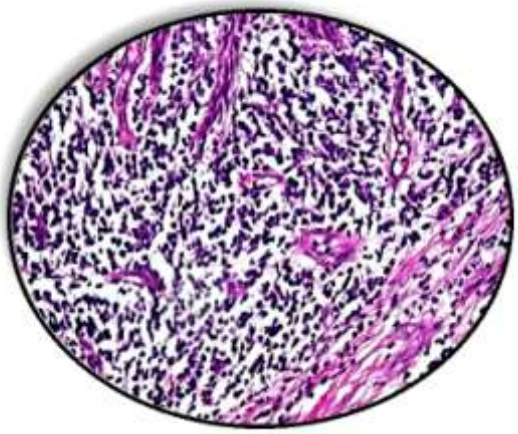

Figure-3