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Peripheral Ossifying Fibroma: A case report¹Dr. Sagarika Surya, MDS Student, Department of Periodontics, Himachal Institute of Dental Sciences, Paonta Sahib.²Dr. Varili Syuhlo, MDS Student, Department of Periodontics, Himachal Institute of Dental Sciences, Paonta Sahib.³Dr. Parveen Dahiya, Senior Professor, Department of Periodontics, Himachal Institute of Dental Sciences, Paonta Sahib.⁴Dr. Rajan Gupta, Head of The Department, Department of Periodontics, Himachal Institute of Dental Sciences, Paonta Sahib.**Correspondence Author:** Dr. Sagarika Surya, MDS Student, Department of Periodontics, Himachal Institute of Dental Sciences, Paonta Sahib.**How to Cite This Article:** Dr. Sagarika Surya, Dr. Varili Syuhlo, Dr. Parveen Dahiya, Dr. Rajan Gupta, “Peripheral Ossifying Fibroma: A case report”, IJDSDR – November – December - 2025, Vol. – 4, Issue – 6, P. No. 01 – 04.**Open Access Article:** This is an Open Access article that uses a funding model which does not charge readers or their institutions for access and distributed under the terms of the Creative Commons Attribution License (<http://creativecommons.org/licenses/by/4.0>) and the Budapest Open Access Initiative (<http://www.budapestopenaccessinitiative.org/read>), which permit unrestricted use, distribution, and reproduction in any medium, provided original work is properly credited.**Type of Publication:** Case Report**Conflicts of Interest:** Nil**Abstract**

Peripheral ossifying fibroma (POF) is a reactive, non-neoplastic lesion of the gingiva, usually arising in response to local irritation or trauma. It accounts for approximately 3% of all oral tumors and nearly 10% of all gingival growths. Clinically, POF presents as a firm, painless gingival enlargement, often located in the anterior maxilla, and shows a higher prevalence in young females. Histopathologically, it is characterized by fibrocellular connective tissue containing mineralized deposits resembling bone or cementum, frequently accompanied by chronic inflammatory infiltration. This article presents a case of POF in a 28-year-old male with a swelling in the maxillary anterior region, which had gradually increased in size over six months. Excisional

biopsy was performed, and histopathology confirmed the diagnosis of POF. The lesion was managed successfully with complete surgical excision including periosteum and adjacent periodontal ligament to minimize recurrence. The case is notable due to the patient's gender and age, as POF predominantly affects young females in their second decade. Early diagnosis and appropriate management are critical since incomplete removal and persistence of local irritants contribute to recurrence rates ranging from 8% to 20%. This report highlights the importance of including POF in the differential diagnosis of gingival enlargements, irrespective of age or gender, and emphasizes the role of long-term follow-up to ensure favorable outcomes.

Keywords: Peripheral Ossifying Fibroma, Gingival Enlargement, Reactive Lesion, Periodontal Ligament, Oral Tumors, Excision; Recurrence, Case Report.

Introduction

Gingival enlargement is a frequently encountered condition in routine dental practice, particularly those classified under the reactive category.¹ Common local irritants include dental plaque, calculus, food impaction, faulty restorations, and minor trauma.² Such lesions, often termed *epulis*, are non-neoplastic and represent exaggerated inflammatory hyperplasia. They are typically classified into four types: Peripheral Ossifying Fibroma (POF), Peripheral Giant Cell Granuloma (PGCG), Pyogenic Granuloma (PG), and Focal Fibrous Hyperplasia (FFH).³

Ossifying fibroma was first described by Menzel in 1872, and later in 1927 Montgomery introduced its terminology.^{4,5} The term Peripheral Ossifying Fibroma (POF) was subsequently coined by Eversole and Robin.^{4,6} The lesion is believed to originate from the periodontal ligament cells, supported by the demonstration of oxytalan fibers in certain cases.⁷

POF is an uncommon gingival overgrowth, considered a reactive lesion rather than a true neoplasm, and generally exhibits a benign nature.^{8,9} It accounts for approximately 3% of all oral tumors and about 9.6% of all gingival lesions.¹⁰ Clinically, POF presents as a painless, firm, sometimes lobulated mass that may be ulcerated or hemorrhagic, with size varying according to inflammatory status.¹¹ Histologically, it consists of fibrocellular tissue with calcified deposits resembling bone or cementum, often with chronic inflammatory infiltration at the periphery. Radiographic involvement is usually absent, though occasional superficial bone erosion has been reported.¹⁰

Although POF shows a female predilection and is most common in the second decade of life, the present case is unique as it occurred in a male patient in his late twenties, underscoring the need to include POF in the differential diagnosis irrespective of age or gender.

Case Report

A 28-year-old male presented to the Department of Periodontics with a complaint of swelling in the upper right front tooth region for the past 6–7 months. The swelling had gradually increased in size. Medical and dental histories were non-contributory.

Clinical examination revealed a well-defined, firm, fibrotic swelling on the labial gingiva of the maxillary right central incisor, measuring 1.1 × 0.9 cm. The surface was ruffled, non-tender, with no discharge or secondary changes.

Radiographic evaluation showed mild bone loss adjacent to the lesion, without deep bone invasion or root resorption.

Based on these findings, a provisional diagnosis of fibroma was made, with differential diagnoses of POF and pyogenic granuloma.

Treatment: Excisional biopsy under local anesthesia was performed. The excised specimen was submitted for histopathology.

Histopathology: Hematoxylin and eosin-stained sections showed parakeratinized stratified squamous epithelium overlying fibrocellular stroma. Dense collagen bundles with plump and spindle-shaped fibroblasts were observed, along with focal calcified deposits and a chronic lymphocytic infiltrate. No dysplastic or malignant features were noted. A definitive diagnosis of Peripheral Ossifying Fibroma was established.

Prognosis and Follow-up

The postoperative period was uneventful. The patient was recalled at one month and is under regular follow-up. No signs of recurrence have been observed to date.

Discussion

POF is a common inflammatory hyperplasia of the gingiva, usually triggered by local irritation or trauma. Although benign, it may progressively enlarge if untreated.¹² Since the first reports in the 1940s, POF has been recognized as a distinct entity, not merely a transitional form of pyogenic granuloma or peripheral giant cell granuloma.¹³

POF most often occurs in the anterior gingiva, especially in the maxilla, and shows a female predilection in the second decade of life.¹⁰ In contrast, the present case involved a male in his late twenties, emphasizing the need to consider POF in all demographic groups. Its pathogenesis is thought to arise from periodontal ligament cells, supported by the presence of oxytalan fibers in some lesions.^{14,15} Hormonal influences and possible genetic predispositions have also been suggested.¹⁶

The treatment of choice is complete surgical excision, including removal of the periosteum and periodontal ligament at the lesion base. Local irritants such as plaque and calculus must be eliminated to prevent recurrence. Reported recurrence rates vary between 8% and 20%, likely due to incomplete excision or persistence of etiological factors.¹⁷

Conclusion

Peripheral Ossifying Fibroma is a reactive, non-neoplastic lesion with potential for recurrence if inadequately treated. Early diagnosis, complete excision with periosteum and periodontal ligament removal, and elimination of local irritants are essential for successful management. Histopathological confirmation remains

the gold standard for diagnosis, and long-term follow-up is recommended.

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Legends Figure



Figure 1: Preoperative intraoral view showing a well-defined gingival swelling in the maxillary anterior region.



Figure 2: Postoperative intraoral view showing satisfactory healing of the surgical site after excision of the lesion.

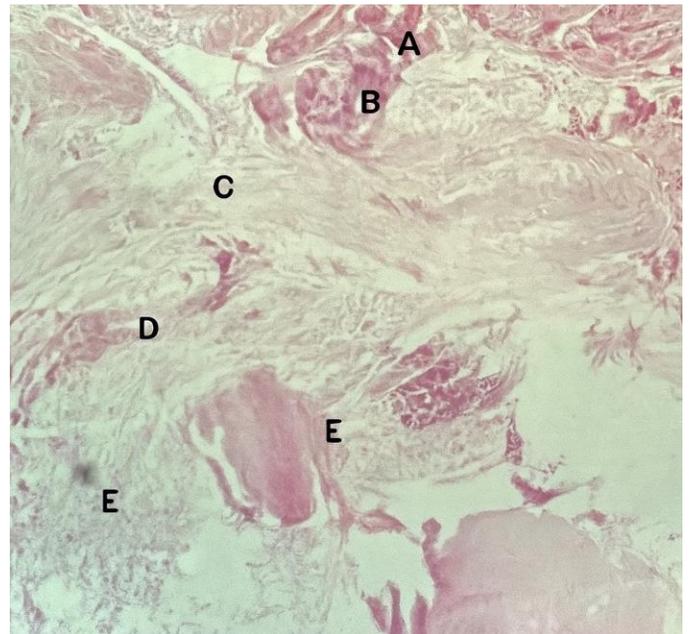


Figure 3: Histological structures of the oral mucosa. The image shows the various layers and components: (A) Epithelium, (B) Basement membrane, (C) Lamina propria, (D) Collagen fibres, and (E) Submucosa.