

## Peripheral Ossifying Fibroma: A Case Report and Review

Dr. Khalid G. Azouni (MSc Periodontics, BDS Dentistry)<sup>1\*</sup>, Huda Abdal-Kader Al-Sadi (BDS Dentistry)<sup>2</sup>

<sup>1</sup>Dental specialist (periodontist) – primary healthcare corporation (PHCC) – Qatar

<sup>2</sup>Dentist, primary Health care corporation (PHCC) – Qatar

DOI: [10.36347/sjds.2023.v10i09.005](https://doi.org/10.36347/sjds.2023.v10i09.005)

| Received: 09.03.2023 | Accepted: 12.04.2023 | Published: 21.09.2023

\*Corresponding author: Dr. Khalid G. Azouni (MSc Periodontics, BDS Dentistry)

Dental specialist (periodontist) – primary healthcare corporation (PHCC) – Qatar

### Abstract

### Case Report

Gingival enlargement, especially reactive hyperplasia lesions such as pyogenic granuloma, peripheral giant cell granuloma, irritational/traumatic fibroma and peripheral ossifying fibroma are frequently encountered in the oral cavity. They are usually of benign nature, rarely presenting with aggressive clinical features.[1] We present in this article a case of peripheral ossifying fibroma originating from an interdental papilla distal to mandibular premolars.

**Keywords:** Gingival enlargement, peripheral ossifying fibroma.

Copyright © 2023 The Author(s): This is an open-access article distributed under the terms of the Creative Commons Attribution 4.0 International License (CC BY-NC 4.0) which permits unrestricted use, distribution, and reproduction in any medium for non-commercial use provided the original author and source are credited.

## INTRODUCTION

Gingival enlargement, especially reactive hyperplasia lesions such as pyogenic granuloma, peripheral giant cell granuloma, irritational/traumatic fibroma and peripheral ossifying fibroma are frequently encountered in the oral cavity. They are usually of benign nature, rarely presenting with aggressive clinical features [1]. They are a group of fibrous connective tissue lesions that commonly occur in oral mucosa secondary to injury and represent a chronic process in which excessive repair (granulation tissue and scar) follows injury. As a group, these conditions present as submucosal masses that may become secondarily ulcerated when traumatized such as during mastication [2]. The pathogenesis of Peripheral Ossifying Fibroma (POF) is uncertain. Some authors have hypothesized a reactive lesion originating from the periodontal ligament influenced by irritating agents as dental calculus, plaque, orthodontic appliances, and ill-fitting restorations. Because of their clinical and histopathologic similarities, researchers believe that some (not all) peripheral ossifying fibromas develop initially as pyogenic granulomas that undergo fibrous maturation and subsequent calcification. The

mineralized tissue probably has its origin from cells of the periosteum or periodontal ligament. The Peripheral ossifying fibroma does not represent the soft tissue counterpart of the central ossifying fibroma although their similarity in name [3].

POF has a peak incidence in young and teenage individuals, with a predilection for females. Overall, 60% of POFs occur in the maxillary jaw, especially in the incisor-canine region. POF constitutes 9.6% of the gingival lesions, and it rarely occurs in the anterior mandibular region [4]. An important clinical aspect of POF is the high recurrence rate, which ranges from 8% to 45% [5].

## CASE DESCRIPTION

A 39 year old female visited the clinic with a large swelling on the gingiva lingual to the interdental papilla between teeth 45 and 46. The swelling was there for a year and was painless. On Examination, the swelling was pedunculus and of a hard consistency with an associated smaller swelling on the buccal side of the same interdental papilla (Figure 1).



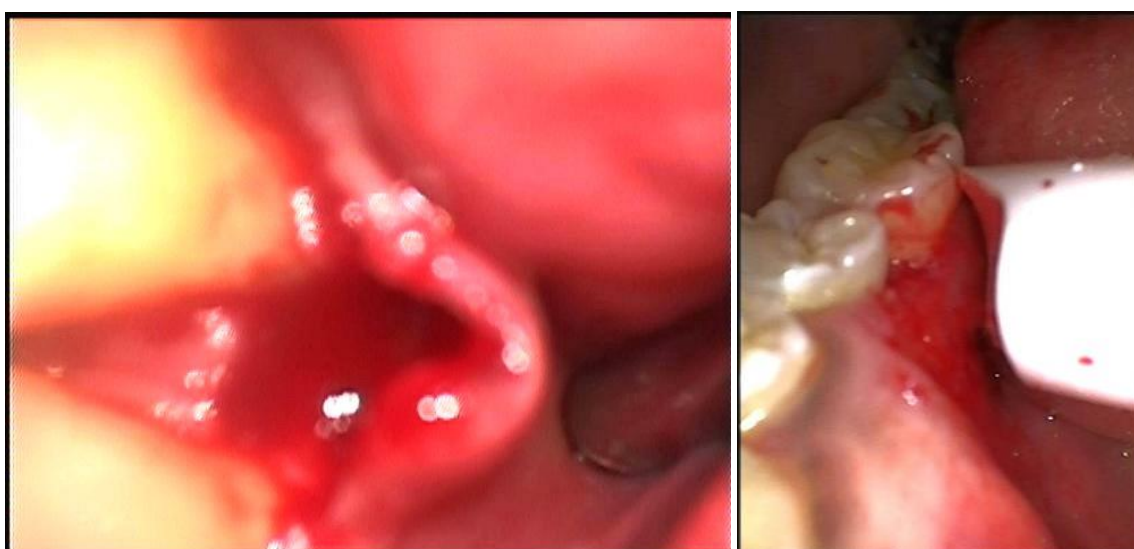
**Figure 1: Preoperative view of the gingival lesion**

Radiographic examination revealed a soft tissue swelling as seen in Figure 2.



**Figure 2: Panoramic and occlusal radiographs for the patient revealing a soft tissue lesion not extending to the alveolar bone**

Both the lingual and buccal extensions of the lesion were excised and send for histopathological analysis as shown in figure 3.



**Figure 3: Postoperative Views after Excision of the lesion**

Histopathological report confirmed it was a peripheral ossifying fibroma. Healing was uneventful.

## CONCLUSION

Peripheral ossifying fibroma is a benign oral lesion rarely presenting with aggressive clinical features and may possibly recur after removal

## REFERENCES

1. Buduneli, E., Buduneli, N., & Unal, T. (2001). Long-term follow-up of peripheral ossifying fibroma: report of three cases. *Periodontal Clin Investig*, 23, 11-14.
2. Regezi, J. A., Sciubba, J. J., & Jordan, R. C. K. (2017). *Oral Pathology: Clinical Pathologic Correlations*, 7<sup>th</sup> Edition. Elsevier. P 162
3. Neville, B. W., Allen, C. M., Damm, D. D., & Chi, A. C. (2016). *Oral and Maxillofacial Pathology*. 4<sup>th</sup> Edition. Elsevier. P 487.
4. Katanec, T., Budak, L., Brajdić, D., & Gabrić, D. (2022). Atypical peripheral ossifying fibroma of the mandible. *Dent J (Basel)*, 10, 9. 10.3390/dj10010009
5. Cuisia, Z. E., & Brannon, R. B. (2001). Peripheral ossifying fibroma – A clinical evaluation of 134 pediatric cases. *Pediatr Dent*, 23, 245-8.