



Journal Homepage: -[www.journalijar.com](http://www.journalijar.com)  
**INTERNATIONAL JOURNAL OF  
 ADVANCED RESEARCH (IJAR)**

Article DOI:10.21474/IJAR01/13447  
 DOI URL: <http://dx.doi.org/10.21474/IJAR01/13447>



**RESEARCH ARTICLE**

**PERIPHERAL OSSIFYING FIBROMA: A CASE REPORT**

**Dr. Amit Rawat, Dr. Jyotirmay Chakrawarty, Dr. Janhavi Lahane and Dr. Ankita Barodiya**

**Manuscript Info**

**Manuscript History**

Received: 25 July 2021

Final Accepted: 29 August 2021

Published: September 2021

**Abstract**

*Copy Right, IJAR, 2021.. All rights reserved.*

**Introduction:-**

There are numerous histologically different types of focal overgrowths which may occur on the gingiva, such as Peripheral giant cell granuloma, the giant cell fibroma, pyogenic granuloma, peripheral ossifying fibroma (POF). POF has been known by a variety of different names namely Peripheral cementifying fibroma, Calcifying or ossifying fibroid epulis<sup>16</sup>, Peripheral odontogenic fibroma. POF is a lesion that occurs exclusively on the gingiva, and with a female predilection(2:1 to 3:2) it is more common in children and young adults. It presents as a well-defined, firm mass, sessile or pedunculated, the size varies from 0.5 cm to 2 cm in diameter. It is usually covered by smooth normal epithelium and the surface may frequently be ulcerated due to mechanical trauma.<sup>12</sup>

Here, we present a case report of POF occurring in a 21 year old male.

**Case Report**

A 21 year old male reported to the department of Oral and Maxillofacial Surgery, with a chief complaint of swelling in the right anterior region of the upper jaw since 11 months(figures 1-2) The swelling was gradual in onset, which was initially small in size and slowly enlarged to the present size. The swelling had no aggravating or relieving factors but seldom was associated with bleeding during brushing. Extraoral examination revealed facial asymmetry on the Right side with obliteration of the nasolabial fold and stretching of the skin on the same side. Intraoral examination revealed a firm, sessile mass present near 13 and 14 extending upto the canine fossa region and obliterating the labial and buccal vestibule.



The swelling was of the normal colour of the mucosa with reddish shiny spots in the center and well defined borders with no effect on the surrounding areas. No mobility of the teeth and no bleeding on provocation was apparent.

The above findings led us to give a provisional diagnosis of benign soft tissue tumour. Benign soft tissue tumor encompass a diverse range of lesions, so a probable clinical differential diagnosis for the same was given. They were pyogenic granuloma, peripheral ossifying fibroma or peripheral giant cell granuloma. To confirm the diagnosis, an incisional biopsy and an OPG was ordered which confirmed the diagnosis of Peripheral Ossifying fibroma.

### Histopathology

The specimen sections examined showed cellular proliferation of fibroblast like spindle cells with calcification resembling Osteoid and Cementum giving rise to the diagnosis of Peripheral Ossifying(Odontogenic) Fibroma.

### Surgical Technique

A Crevicular incision was given from Left upper central incisor extending upto the Right first molar tooth. After blunt layerwise dissection, a full thickness mucoperiosteal flap elevated, tumour lining was exposed which was carefully removed from the surrounding soft tissues and tumour cavity curetted completely.

After thorough irrigation with 5% Betadine solution and 0.9% Normal Saline, haemostasis was achieved , the surgical cavity was packed with Iodoform roller gauze and closure was done in layers with 3-0 Vicryl leaving a margin of tissue for dressing. The specimen removed was sent for excisional biopsy and confirmation of the tumour.



### Discussion:-

Since the late 1940s intra oral ossifying fibromas have been studied and encountered in the literature<sup>11</sup>. Many names have been given to similar lesions, such as epulis, peripheral fibroma with calcification, peripheral ossifying fibroma, calcifying fibroblastic granuloma<sup>5</sup>, peripheral cementifying fibroma, peripheral fibroma with cementogenesis and peripheral cemento-ossifying fibroma<sup>2</sup>.

Some investigators believe that the lesion is nevertheless odontogenic in origin, being derived from the Periodontal ligament<sup>15</sup>, especially as it occurs on the gingival and contains Oxytalan fibres. At the present time, the exact origin is unknown and uncertain. Kumar et al., [2006]<sup>3</sup> stated that the fibrocellular response of POF is similar to that of other reactive gingival lesions originating in the periodontal ligament.

Cuisia and Brannon [2001]<sup>4</sup> Gracia de Marcos et al. [2010]<sup>3</sup> Moon et al. [2007]<sup>5</sup> stated that other factors that have been implicated in the etiopathogenesis of POF were trauma and local irritants such as plaque, calculus, ill-fitting dental appliances and microorganisms.

In the series reported by Cundiff, over 80% of the lesions occurred in both the jaws anterior to the molar area. A series of 185 cases of 'peripheral fibroma with calcification' were also reported by Bhaskar and Jacoway with very similar clinical data.<sup>13</sup>

Peripheral ossifying manifest as a pedunculated or sessile nodule. The color of these lesions can be red to pink with areas of ulceration, and their surface may be smooth or irregular. Although they are generally small<sup>6</sup>, size can vary with reports ranging from 0.2-3.0 cm to 8 cm and some lesions may be as large as 9 cm in diameter.<sup>6</sup> Cases of tooth migration and bone destruction have been reported, but these are not common findings.[7] In vast majority of cases,

there is no apparent underlying bone involvement visible on the roentgenogram. However, superficial erosion of bone is noted occasionally.<sup>2,8,9</sup>

Gardner<sup>8</sup> stated that POF cellular connective tissue is so characteristic that a histologic diagnosis can be made with confidence, regardless of the presence or absence of calcification.

### **Conclusion:-**

Peripheral Ossifying fibroma is a slowly enlarging lesion which is the reason for its late detection by the patients. But once identified, surgical excision and specimen submitted for histopathological examination for confirmation of diagnosis should be done as the lesions do recur with some frequency (16-20%) as stated by the studies of Cundiff, Eversole and Rovin. Close post-operative followup is necessary to intercept any kind of recurrence and for the patients to lead a disease free life.

### **References:-**

1. Feller L, Buskin A, Raubenheimer EJ. Cemento-ossifying fibroma: Case report and review of the literature. *J Int Acad Periodontol* 2004;6:131-5.
2. García de Marcos JA, García de Marcos MJ, Arroyo Rodríguez S, Chiarri Rodrigo J, Poblet E. Peripheral ossifying fibroma: A clinical and immunohistochemical study of four cases. *J Oral Sci* 2010;52:95-9.
3. Kumar SK, Ram S, Jorgensen MG, Shuler CF, Sedghizadeh PP. Multicentric peripheral ossifying fibroma. *J Oral Sci* 2006;48:239-43.
4. Pushparaja S, Soniya A. Peripheral ossifying fibroma: A clinical and histological evaluation of 51 cases. *PJSR* 2012;5:9-14.
5. Moon WJ, Choi SY, Chung EC, Kwon KH, Chae SW. Peripheral ossifying fibroma in the oral cavity: CT and MR findings. *Dentomaxillofac Radiol* 2007;36:180-2.
6. Farquhar T, MacLellan J, Dymont H, Anderson RD. Peripheral ossifying fibroma: A case report. *J Can Dent Assoc* 2008;74:809-12.
7. Poon CK, Kwan PC, Chao SY. Giant peripheral ossifying fibroma of the maxilla: Report of a case. *J Oral Maxillofac Surg* 1995;53:695-8.
8. Eversole LR, Rovin S. Reactive lesions of the gingiva. *J Oral Pathol* 1972;1:30-8.
9. Bhaskar SN, Jacoway JR. Peripheral fibroma and peripheral fibroma with calcification: Report of 376 cases. *J Am Dent Assoc* 1966;73:1312-20.
10. Lee KW. The fibrous epulis and related lesions. Granuloma pyogenicum, 'Pregnancy tumour', fibro-epithelial polyp and calcifying fibroblastic granuloma: A clinico-pathological study. *Periodontics* 1968;6:277-92.
11. Zhang W, Chen Y, An Z, Geng N, Bao D. Reactive gingival lesions: A retrospective study of 2,439 cases. *Quintessence Int* 2007;38:103-10.
12. Gardner DG. The peripheral odontogenic fibroma: An attempt at clarification. *Oral Surg Oral Med Oral Pathol* 1982;54:40-8.
13. L. R. Eversole and S. Rovin, "Reactive lesions of the gingiva," *Journal of oral pathology*, vol. 1, no. 1, pp. 30-38, 1972.
14. C. S. Miller, R. G. Henry, and D. D. Damm, "Proliferative mass found in the gingiva," *The Journal of the American Dental Association*, vol. 121, no. 4, pp. 559-560, 1990.
15. C. K. Poon, P. C. Kwan, and S. Y. Chao, "Giant peripheral ossifying fibroma of the maxilla: report of a case," *Journal of Oral and Maxillofacial Surgery*, vol. 53, no. 6, pp. 695-698, 1995.
16. Roy A, Shivaprasad S, Ashok L. Peripheral ossifying fibroma. *Int J Oral Health Sci* 2013;3:101-4.