



# GINGIVAL FIBROUS LESION- A CASE REPORT

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## ABSTRACT

Gingival fibrous lesions are very common reactive local hyperplastic lesions of the gingiva with low rates of recurrence. The histological presentation includes the deposition of dense connective tissue fibers with fibroblastic proliferation. Etiological factors include local irritating factors such as bacterial biofilm, dental calculus, trauma, microorganisms, drug induced & orthodontic treatment, etc. Differential diagnoses include other reactive lesions of gingiva such as pyogenic granuloma, peripheral giant cell granuloma (PGCG), peripheral odontogenic fibroma & peripheral ossifying fibroma (POF). The article's objective is to present a clinical case of a 29-year-old male patient reported with a solitary lesion on the buccal aspect of right lateral incisor & canine and no report of pain. Diagnosis of the fibroma was given based on clinical and histopathological features.

**KEYWORDS-** Gingival Overgrowth, Fibroma, Hyperplasia

## INTRODUCTION

The gingival mucosa is constantly mildly irritated. The majority of irritants in this area include masticatory pressures, entrapment of food debris (especially cellulose roughage), poorly fitting dental appliances, dental calculus, and the wide variety of native bacteria that, under some circumstances, may become pathogenic. The gingival tissue frequently becomes hyperplastic in response to these different irritants, and a number of reactive lesions, including pyogenic granulomas, peripheral gingival fibromas, peripheral ossifying fibromas, and peripheral giant cell granulomas, can develop.<sup>1</sup>

Apart from local chronic irritations, reactive inflammatory hyperplastic lesions appear to be etiologically related to systemic factors such as hormonal changes.<sup>2</sup> Fibroma is a slowly progressing lesion, the growth of which is generally limited. Many cases will progress for long periods of time before patients seek treatment because of the lack of symptoms associated with the lesion.<sup>3</sup> In terms of appearance, gingival fibroma is typically a smooth, nodular, sessile mass with considerable potential for growth. The surface of these lesions is frequently intact, and their color range from typical pink to bright red.<sup>4</sup> The diagnosis can be made by histological examination correlated with clinical findings. Histopathologically, there is a wide spectrum of changes varying from chronically, well-off cellular granulation tissues to moderately noninflamed, avascular masses of collagen.<sup>5</sup> Treatment of irritational fibroma consists of elimination of etiological factors, scaling of adjacent teeth, and total aggressive surgical excision along with involved periodontal ligament and periosteum to minimize the possibility of recurrence.<sup>6</sup>

## CASE REPORT



Figure 1 : Preoperative photos & occlusal radiograph

A 29 years old male patient painter by profession reported to Department of Periodontics at Darshan Dental College & Hospital in Udaipur, with a chief complaint of painless slow growing mass in upper front region. The swelling started as a small nodule and progressed gradually over a time period of 6 months. There was no significant trauma or medical history given by the patient.

An intraoral examination revealed generalized pink gingiva with melanin pigmentation. A well demarcated non-tender, firm, exophytic pedunculated, fibrotic soft tissue overgrowth arising from the interdental papilla of the maxillary right lateral incisor and canine. The non-fluctuant oval mass with smooth and shiny surface was one in number with size  $11.59 \times 7.91$  mm, extending mesiodistally from midbuccal of 13 to distobuccal of 12 and apicocoronally from mucogingival junction to the cervical  $1/3^{\text{rd}}$  of the facial tooth surface. (FIG.1)

A maxillary occlusal radiograph showed solitary soft tissue shadow which was radio-opaque in right front region with no underlying bone involvement. (FIG.1)

Clinically differential diagnosis were pyogenic granuloma, peripheral odontogenic fibroma and peripheral giant cell granuloma. Based on the history, clinical examination and radiographic examination the case was provisionally diagnosed as peripheral ossifying fibroma.

The treatment plan included complete oral prophylaxis followed by excisional biopsy. (FIG.2) After ensuring hemogram of the patient was within normal limits. Consent was obtained for the procedure and under aseptic conditions local anesthesia was administered and sulcular incision was placed, lesion was elevated and slowly detached from the base. Due to profuse bleeding haemostasis was achieved using electrocautery and the excised tissue was sent for histopathological examination.

### ***Histopathological report*** (FIG.3)

#### *Low power view*

- Stratified squamous hyperplastic parakeratinized proliferating epithelium with elongated rete ridges.
- Connective tissue shows dense collagen bundles interspersed in different directions with underlying layer of muscle fibers.

#### *High power view*

- Plump & active fibroblasts interspersed into collagen bundles.
- Chronic inflammatory cells like lymphocytes & plasma cells.

The patient presented for follow up at 10 days, 2months. The healing was uneventful. (FIG.4)



Figure 2 : Post-surgical & dimensions of the growth

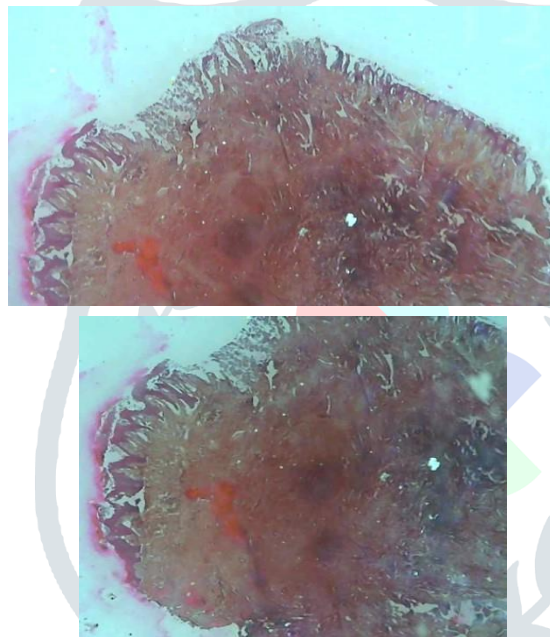


Figure 3 : Histological slides

## DISCUSSION

The common localized overgrowth on the gingiva are considered to be a hyperplastic reaction due to inflammation, and not neoplastic. For years the Greek term "epulis", has been applied to this group of lesions although it does not imply any specific histopathological characteristics.<sup>7</sup> Peripheral fibroma with calcification occur in younger patients more often than fibrous hyperplasia, and thus may represent a stage in the development of fibrous hyperplasia, so the provisional diagnosis for our case was given as peripheral ossifying fibroma.<sup>8</sup> It is likely that many gingival fibromas represent fibrous maturation of a preexisting pyogenic granuloma. However, it is important to submit the excised tissue for microscopic examination because other benign or malignant tumors may mimic the clinical appearance of a fibroma.<sup>9</sup> In our case the diagnosis was confirmed after histological report correlated with clinical findings.



Figure 4 : Follow-up photos

## CONCLUSION

Fibrous lesions are the common entities encountered in dental practice. Making a final diagnosis with a methodical approach is crucial to treating the patient correctly because of the numerous similar lesions that are present. Due to its asymptomatic nature, it may go undiscovered for a longer time, but it should be addressed as soon as the patient reports it to the clinician.

## REFERENCES

1. Eversole LR, Rovin S. Reactive lesions of the gingiva. *Journal of Oral Pathology & Medicine*. 1972 Jan;1(1):30-8.
2. Awange DO, Wakoli KA, Onyango JF, Chindia ML, Dimba EO, Guthua SW. Reactive localised inflammatory hyperplasia of the oral mucosa. *East African medical journal*. 2009;86(2).
3. Cavalcante IL, da Silva Barros CC, Cruz VM, Cunha JL, Leão LC, Ribeiro RR, Turatti E, de Andrade BA, Cavalcante RB. Peripheral ossifying fibroma: A 20-year retrospective study with focus on clinical and morphological features. *Medicina Oral, Patología Oral y Cirugía Bucal*. 2022 Sep;27(5):e460.
4. Bawazir M, Islam MN, Cohen DM, Fitzpatrick S, Bhattacharyya I. Gingival fibroma: an emerging distinct gingival lesion with well-defined histopathology. *Head and Neck Pathology*. 2021 Sep;15:917-22.
5. Hunasgi S, Koneru A, Vanishree M, Manvikar V. Assessment of reactive gingival lesions of oral cavity: A histopathological study. *Journal of oral and maxillofacial pathology: JOMFP*. 2017 Jan;21(1):180.
6. Lanjekar A, Kulkarni S, Akhade S, Sonule S, Rathod U. An unusually large irritation fibroma associated with gingiva of lower left posterior teeth region. *Case reports in dentistry*. 2016 Dec 28;2016.
7. Buchner A, Calderon S, Ramon Y. Localized hyperplastic lesions of the gingiva: a clinicopathological study of 302 lesions. *Journal of Periodontology*. 1977 Feb 1;48(2):101-4.
8. Kfir Y, Buchner A, Hansen LS. Reactive lesions of the gingiva: a clinicopathological study of 741 cases. *Journal of periodontology*. 1980 Nov;51(11):655-61.
9. Neville BW, Damm DD, Allen CM, Chi AC. *Oral and maxillofacial pathology*. Elsevier Health Sciences; 2015 May 13.