

# Successful Treatment Outcome of Irritation Fibroma, Hopeless to Hopeful: A Case Report

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## ABSTRACT

Irritation fibroma is a gingival lesion occurring due to effects of chronic local irritation. This paper reports a case of Irritation fibroma in an 18 year old healthy female in relation to the lower left mandibular first molar. The reactive lesion was managed by conservative excision followed by curettage of surrounding tissue and biopsy of the excised part was diagnosed as irritation fibroma after histological analysis.

**KEYWORDS:** Irritation fibroma, Benign tumour, Oral tumors

## INTRODUCTION

Local reactive lesions occur commonly on oral soft tissues. Oral fibroma being one of them commonly referred as Fibromatosis Fibroma, or Irritation Fibroma, Traumatic Fibroma, Inflammatory Hyperplasia generally occurs as a consequence of local trauma or irritation. This local trauma or irritation may result from dental calculi, improper overhanging margins of the restorations, irregular and sharp margins of carious teeth, bony spicules, and borders of appliances. It is well understood that the term “fibroma” used here in this case in not meant to be used for lesions occurring as neoplastic origin as it used for other anatomical site.<sup>1,2,3</sup>

Being a Hyperplastic lesion of the mucous membrane they present themselves either as a pedunculated or a sessile growth. The majority of such lesions are small in diameter and those measuring greater than 1 cm are rare. Main reason for recurrence includes incomplete removal of lesion, failure to eliminate local irritants, and difficulty in access during surgical manipulation due to intricate location imparts a greater change in management.<sup>6,7,8,9,10,11</sup>

## CASE REPORT

A healthy female of age 18 years reported to the department of conservative dentistry and endodontics, Rungta College of dental science and research, Bhilai, Chhattisgarh, reporting of pain and swelling in lower left back tooth region since 2 weeks. The patient was apparently alright 2 weeks back then she started experiencing pain on chewing food. The pain was dull and continuous and gets aggravated on mastication. She also gave the history of food lodgement in the same region and had undergone endodontic treatment with respect to left mandibular first molar from a private

dental practitioner following which she started noticing soft gingival swelling in relation to same teeth since 1 week. On intraoral examination the left mandibular first molar presented with an access opening which was restored with temporary filling material and a small oval shaped non depressible fibrous gingival swelling measuring 2×2 cm (Figure 1 and 3). On palpation the left mandibular first molar was grade II mobile with deep periodontal pocket (Figure 2), associated with swelling which was tender on palpation. On percussion, the left mandibular first molar revealed the tenderness of the teeth.



Figure 1: Pre-operative view of temporally restored lower left mandibular first molar with gingival swelling

**Radiographic Examination:** The patient was advised to undergo a radiographic examination using intraoral periapical radiograph with respect to left mandibular first molar adjunct with sinus tracking using gutta purcha cone. Radiographic examination revealed a large periapical lesion with respect to mesial root of left mandibular first molar which was extending till furcation area. Sinus tracing with gutta purcha cone suggested endo-perio lesion (Figure 4).

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Figure 2: Deep periodontal pocket with respect to lower left mandibular first molar



Figure 3: Pre-operative examination of gingival swelling



Figure 4: Pre-operative sinus tracing reveals endo-perio lesion

**Provisional Diagnosis:** The swelling was diagnosed as a fibroma.

**Differential diagnosis:** Differential diagnosis comprised of Peripheral Giant Cell Granuloma, Pyogenic Granuloma, Peripheral Ossifying Granuloma, and Parulis. The differential diagnosis was discussed with the relatives of the patient in order to alleviate the fear of any carcinoma.

**Treatment:** Swelling was conservatively treated by surgical excision using scalpel and electrocautery under local anaesthesia followed by appropriate curettage (Figure 5 and 6). The excised tissue was sent for histopathological analysis for definite diagnosis (Figure 7). Redefining of the access cavity was done and teeth was endodontically treated followed by restoration with full coverage cast metal crown (Figure 8,9,10, 11 and 12). Patient was advised to follow regular follow-up protocol. After 6 months the periapical lesion along with area presenting fibroma showed satisfactory healing without recurrence.



Figure 5: Surgical excision of the swelling done under local anaesthesia.



Figure 6: Post-operative curettage of the area.



Figure 7: Excised specimen of the tissue send for histopathological investigation



Figure 8: Redefining of the access cavity for root canal treatment



Figure 9: Post-operative view of left mandibular first molar after obturation.



Figure 10: Post-operative core build-up using miracle mix.



Figure 11: Prosthesis (full coverage metal crown) with respect to left mandibular first molar



Figure 12: Post-operative follow-up after 6 month showing

**Follow-up:** The patient followed a routine follow-up plan for 1 month and 6 months postoperatively. The excised area appeared to heal well without any complication (Figure 11 and 12). No evidence of recurrence was noted postoperatively.

## DISCUSSION

Fibrous growths appearing on oral soft tissues are common and include a wide variety of reactive and neoplastic conditions. These fibromas are the result of hyperplasia arising from continuous long-term irritation due to dental calculi, irregularly shaped margins of the restoration, ill-fitting appliances or any other irritation factors.<sup>1,2,3,4,5</sup>

When dealing clinically, such type of lesions presents themselves as a challenge to establish a proper differential diagnosis. In the present case, clinical feature led to the differential diagnosis of Pyogenic Granuloma, Peripheral Giant Cell Granuloma, Peripheral Ossifying Granuloma, and Parulis. Although it is very important to treat each case of such kind of lesion occurring in oral cavity with high level of suspicion, but equally important is the discussion of the finding with the relatives of the patient in more tactful way to alleviate the fear of carcinoma during the duration of reaching to a definite diagnosis.<sup>8,10</sup>

Since the clinical appearance of these wide variety of lesions appearing in the oral cavity may be markedly similar, hence arising at definite diagnosis may be a challenge and may be based on histopathological findings. The fibromatosis fibroma can be differentiated from other lesion by the findings that Peripheral Giant Cell Granuloma contains the presence of giant cells in micro structure and green/blue discoloration, while Peripheral Ossifying Granuloma contains flecks of calcification. Peripheral Odontogenic Granuloma being characteristic in its histological section present itself with odontogenic epithelium in histological section.<sup>12</sup>

The fibromatosis fibroma as described in this present case, is a focal, reactive, non-neoplastic tumour-like growth occurring in the soft tissue and may present it as a pedunculated nodule, or it may have a broad attachment

base. Fibroma can be treated conservatively by complete excision of growth followed by removal of the etiologic factor. The lesion can be present in patient's oral cavity for a duration of month to years depending on the level of discomfort and interference with normal functioning.<sup>5,7</sup>

Treatment consists of conservative surgical excision of the lesion and curettage of the adjacent tissue in order to remove the lesion completely. The rate of recurrence completely depends on the extent of removal of the lesion and removal of chronic Irritation factor. Proper follow-up protocol is needed for a good prognosis.

## CONCLUSION

Fibroma mostly diagnosed on the basis of clinical and histo-pathological diagnosis are benign and self-limiting conditions. Most cases present themselves with the history of trauma or chronic irritation to mucosa with slowly developing swelling. Trauma or chronic irritation due to dental calculi, improper overhanging margins of the restorations, irregular and sharp margins of carious teeth, bony spicules, and borders of appliances may be the cause of fibroma. The prevention of this can be brought up by removal of the etiologic factor at earliest. Clinical and histo-pathological diagnosis can play a key role to arrive at a definite diagnosis. Thorough examination of the oral mucosa should be done with special attention to local Irritation factor to arrive at a definite diagnosis and proper treatment planning. Complete excision had always been the choice of treatment with special attention towards removal of Irritation factors. Recurrence mainly occurs due to incomplete removal of the lesion or the Irritation factor responsible for its development. In this case, the patient showed satisfactory prognosis and uneventful post-operative healing. The patient was advised to adhere to a proper follow-up protocol for proper monitoring.

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