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## Fibro-Epithelial Polyp: Case Report with Literature Review

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Oral fibroma is the most common benign soft tissue tumor caused due to continuous trauma from sharp cusp of teeth or faulty dental restoration. It presents as sessile or occasionally pedunculated painless swelling which can be soft to firm in consistency. Its incidence occurs mostly during third to fifth decade and shows preference for female. Its occurrence corresponds with intraoral areas that are prone to trauma such as the tongue, buccal mucosa and labial mucosa, lip, gingiva. Even with conservative surgical excision, the lesion may recur until the source of continuous irritation persists. This article presents a case of large size oral fibroma on left alveolar region associated with ulceration along with literature review.

**KEYWORDS:** Benign Connective Tissue Tumor, Fibro-epithelial Polyp, Irritation Fibroma, Traumatic Fibroma, Focal Fibrous Hyperplasia.

### INTRODUCTION

Fibroma of the oral mucosa is the most common benign soft tissue tumor of the oral cavity derived from fibrous connective tissues (CTs).<sup>1</sup> Its pathogenesis lies in the fact that due to continuous local trauma, a type of reactive hyperplasia of fibrous tissue occurs.<sup>2</sup> Thus, "Focal fibrous hyperplasia" (FFH) term was suggested by Daley et al. in 1990,<sup>3</sup> for such type of reactive tissue response, rather than the term "fibroma." It is also known as irritation fibroma (IF)/traumatic fibroma/fibro-epithelial polyp.<sup>4,5</sup> The prevalence of such fibromas was found to 39.1% among the South Indian population.<sup>6</sup> It presents clinically as sessile or occasionally pedunculated painless swelling that can be firm, resilient to soft, spongy in consistency.<sup>7</sup> Cooke described such type of pedunculated swelling which arises from a mucosal surface as "polyp".<sup>8</sup> The tumor appears as elevated nodule of normal colour with smooth surface. The tumor is mostly small in size but, if larger in size and projecting above the surface, it may sometimes get inflamed and even may show superficial ulceration or hyperkeratosis.<sup>9</sup> In this article we present a rare case of large size fibro-epithelial polyp associated with inflammation occurring on left alveolar region extending buccally and lingually.

### CASE REPORT

A 42-year-old male reported to the Department of Oral and Maxillofacial Surgery with the chief

complaint of growth in left lower back region of the mouth since 4 months. History elicited that the a solitary, painless growth had been observed in his left mandibular molar region which was initially small in size and then it gradually enlarged to present size of oval shape, well-defined, pedunculated lesion. On intraoral examination 35 had been found missing and sharp cusp with respect to 25 was noted.

The growth was smooth and associated with ulceration over superior surface of lesion, size was about 3.5 cm × 2 cm × 2 cm arising from extraction socket region of 35 and extending from the alveolar ridge 1 cm buccally and lingually and also above the level of occlusal plane (Figure 1). Grade 3 mobility of 34, 36 was present. On palpation, the growth was firm in consistency, non-tender and was attached to the underlying surface. Clinical diagnosis of fibro-epithelial polyp was given. Orthopantomograph was taken (Figure 2) to rule out other possible radiolucent lesions of jaw and to know extent of lesion radiographically. Under local anesthesia, surgical excision of lesion along with extraction of periodontally compromised tooth 34, 36 was done. Enameloplasty of 25 was also done. After achieving homeostasis, primary closure was done. Specimen appeared fibrotic in consistency (Figure 3).

Histopathological examination of H&E stained

specimen showed hyperparakeratinized stratified squamous atrophic epithelium with the underlying fibrous connective tissue stroma along with mixture of acute and chronic inflammatory cells infiltrate in the areas of hyalinization. Histopathological diagnosis confirmed the clinical diagnosis. Post-operative healing was uneventful. No recurrence was reported at 6 months follow-up.

## DISCUSSION

Irritation or traumatic Fibromas are the most common connective tissue tumors occurring in the oral cavity caused due to trauma or local irritation.<sup>10,11</sup> Rather than being a true neoplasm, they are merely fibrous overgrowths. Literature suggested the term fibro-epithelial polyp for such type of benign lesions.<sup>12</sup>

It is one of the most common sub-mucosal response to continuous irritation from sharp teeth or faulty dental prosthesis.<sup>13</sup> Fibroma occurs as a result of chronic repair process that include granulation tissue and scar formation causing a fibrotic growth.<sup>14</sup> The local irritation may include calculi, sharp bony spicules remaining after extraction, overhanging margins of restorations, foreign bodies, habit of biting and over extended margins of dental appliances. Axell (1976) reported 3.25% prevalence among adult Swedish people for fibromas. It mostly occurs after fourth decade with no gender preference.<sup>15</sup> The lesions are mostly seen in intraoral areas which are prone to trauma such as the lateral border of tongue, lip, buccal mucosa, retromolar region. Clinically, they appear as broad-based lesions, slightly paler than the surrounding normal mucosa, with the white surface due to hyperkeratosis or with surface ulceration caused due to trauma. The growth rate of fibroma is slow with no recurrence.<sup>16</sup>

The clinical presentations of oral fibroma are not unique and the differentiation of these lesions should be made from giant cell fibroma, neurofibroma, peripheral ossifying fibroma, pyogenic granuloma or peripheral giant cell granuloma. The oral fibroma and peripheral ossifying fibroma both appear pale, firm and non-tender. However, peripheral ossifying fibroma appear exclusively on gingiva, and they may be firmer to palpate because of calcified material in

the stroma along with its greater tendency to displace adjacent teeth as compared to fibroma. On the other hand, lesions like pyogenic granuloma and peripheral giant cell granuloma are more vascular, so bleeds heavily on palpating or probing, thus, more difficult to achieve homeostasis as compared to Traumatic fibroma.<sup>17</sup> Lipoma if considered in the differential diagnosis has a pale yellow color, soft and has slippery nature on palpation.<sup>18</sup>

The differential diagnosis of oral fibroma is mainly based on its location. If reported on the tongue, the chances of neurofibroma or granular cell tumor may be considered. Lesions occurring on the lower lip or buccal mucosa might be considered as mucocele. Traumatic Fibromas can also be differentiated from true fibromas on the basis of its etiology being presence of a continuous source of irritation.

Histopathological examination shows that traumatic fibroma exhibits two patterns of collagen arrangement based on the amount of irritation and the site of the lesion:

- (a) **Radiating pattern**- associated with such sites which are immobile in nature (e.g. palate) and sustained a greater degree of trauma,
- (b) **Circular pattern**- associated with such sites which are flexible in nature and sustained a lesser degree of trauma (e.g. cheeks).

As compared to this, true fibroma does not show any of the above mentioned specific patterns. They are capsulated with well-defined margins from the surrounding healthy tissue.<sup>19</sup>

Until the source of irritation has been removed, the chances of recurrences may persist. But, it does not hold a risk of malignant transformation.<sup>7</sup> Mostly treated by conservative surgical excision along with removal of source of etiology. Literature suggested other treatment modalities like the use of electrocautery, Nd:YAG laser, pulsed dye laser, cryosurgery, intralesional injection of corticosteroids or sodium tetra-decyl sulfate for sclerotherapy.<sup>20</sup> However, histopathological study of excised specimen should always be done to rule out other benign or malignant soft tissue tumors as it can also mimic the clinical appearance of a fibroma.<sup>2</sup>

## CONCLUSION

Traumatic fibroma being one of the most common benign soft tissue fibrous lesion should always be considered in cases of reactive hyperplastic lesions of oral cavity. As it causes difficulty during normal activities like eating and chewing, prompt surgical intervention along with removal of irritating source should be done to prevent recurrence.

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**LEGENDS**

**Figure 1.** Intraoral view of lesion



**Figure 2.** Surgical excision of lesion.



**Figure 3.** Excised specimen of lesion



**Figure 4.** Post-Operative view