

## SURGICAL MANAGEMENT OF FIBROUS HYPERPLASIA

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### Abstract

Fibrous hyperplasia may be caused by a multitude of causes. The most common is due to local irritants, when the gingiva presents clinically as soft and discoloured. Histologically, it is characterised by hyperplastic connective tissue, chronic inflammatory infiltrate and dilated blood vessel. The aim of this case is to describe the clinical and histological characteristics of fibrous hyperplasia of the oral cavity and its treatment plan.

**Keyword:** Fibrous hyperplasia, inflammatory enlargement.

### Introduction

The oral cavity is often exposed to traumatic and irritating agents that produce tissue response, especially by the soft tissues.<sup>1</sup> Reactive hyperplastic lesions represent the most frequently encountered oral mucosal lesions in humans.<sup>2</sup> These lesions represent a reaction to some kind of irritation or low-grade injury like chewing, trapped food, calculus, fractured teeth and iatrogenic factors, including overextended flanges of dentures and overhanging dental restorations.<sup>3</sup>

Gingival enlargement may be caused by a multitude of causes. The most common is due to local irritants, when the gingiva presents clinically as soft and discoloured. Situations in which the chronic gingival enlargements include significant fibrotic components that do not respond to and undergo shrinkage when exposed to scaling and root planning are treated with surgical removal of the excess tissue.<sup>4</sup>

### Case report

A 19 year old female consulted with the chief complaint of a growth in right lingual side of the mouth since 1 year. She was asymptomatic before 1 year when she noticed a growth on right lingual aspect of mouth which was painless and causing difficulty in chewing and speaking. It was excised and associated with profuse bleeding. About 6 months later it recurred at the same location, arising painlessly and gradually increasing to the present size.

Intraoral examination revealed a single well - defined, oval, pinkish, pedunculated growth of size 1.5 cm x 1 cm, located on lingual aspect of the mouth extending from mandibular right canine to right second premolar. The growth had a smooth surface with no signs of ulceration. (Figure.1).

It was firm and non tender on palpation. Oral hygiene was poor with generalised calculus deposits in relation to mandibular teeth. The lesion was provisionally diagnosed as fibroma. The patient underwent a thorough scaling & root planning and excisional biopsy was scheduled after a week to confirm the diagnosis.

### Procedure

After adequately anesthetizing the tissues, the lesion was excised with BP blade no. 15, followed by curettage of remnant tissue and root planning of the teeth in the affected area (Figure 2).



Figure: 1 Pre-operative



Figure: 2. Incisions

The pathological sample was placed in a specimen jar filled with 10% formaldehyde and transferred to the pathological lab for further analysis. Patient was prescribed analgesics and antibiotics for seven days. Patient was recalled after a week, during which no recurrence of the lesion was observed. (Figure 3)

On hisopathological examination, dense fiber bundles interspersed with dilated blood vessels and chronic inflammatory cells including lymphocytes and plasma cells were observed. The surface epithelium appeared normal with acanthotic changes in some areas (figure 4).

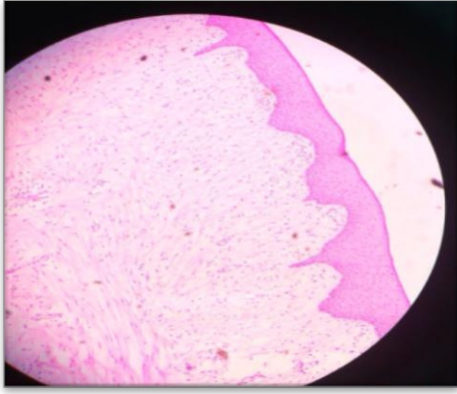


Figure: 3 Histopathology



Figure: 4 Post operative

Based on these findings, a diagnosis of fibrous hyperplasia was given. Patient was placed on a monthly protocol for up to a period of 9 months, during which minimal recurrence of the lesion was observed.

#### Discussion

Inflammatory fibrous hyperplasia or fibrous hyperplasia is a benign soft tissue response to local irritants including calculus, a sharp tooth, a broken filling, excessive plaque and other irritating factors. Fibrous hyperplasia clinically presents as a well-demarcated exophytic mass. The color ranges from normal to white or reddish depending upon whether or not the surface is ulcerated, keratotic or both or neither. It can be soft or firm in palpation.<sup>5</sup> These lesions are most common in the 2nd to 4th decades of life with a mean occurrence age of 36.56 years.<sup>6</sup> They present a marginal predilection for women with the female to male ratio of 1.1:1.<sup>7</sup> This may be explained by the fact that female hormones contribute to an increased production and accumulation of collagen by fibroblasts in the presence of a chronic injury. Interestingly, other reactive lesions also show a great predilection for females and are detected in the first five decades of life, when hormonal changes are most predominant.<sup>8-11</sup> Histologically, inflammatory fibrous hyperplasia is made up of a mass of hyperplastic connective tissue with dilated blood vessels, usually with chronic inflammatory

cells such as lymphocytes and plasma cells, but it can also be made up of solid connective tissue with minimum to no inflammatory cells. The surface epithelium ranges from normal to acanthotic, ulcerated, keratotic or a combination of two or more of these features.<sup>12</sup>

Surgical excision and biopsy is the preferred treatment of choice with removal of local irritants to prevent recurrence. Follow-up of the patient is needed as it exhibits a tendency to recur.<sup>13</sup> In the present case, recurrent of the lesion does not occur as the granulation tissue removed by conservative approach was performed well, but the lesion reoccurred prior was due to the failure of the procedure to resolve.

#### Conclusion

Focal fibrous hyperplasia is a slowly progressing lesion, the growth of which is generally limited. Many cases will progress for long periods before patients seek treatment because of the lack of symptoms associated with the lesion. Discussion of the differential diagnosis should be done tactfully. Long term follow up of the case is required to prevent recurrence of the lesion.

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