TRAUMATIC FIBROMA: A CASE REPORT

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ABSTRACT
Traumatic fibroma, also known as irritation fibroma or focal fibrous hyperplasia, is a benign fibrous tumour commonly occurring in the oral cavity. This exophytic soft tissue overgrowth typically arises due to chronic irritation or trauma. Clinically, the lesion appears to be slow growing, asymptomatic, firm mass which may become ulcerated. Definite diagnosis for this benign tumour is from its histopathological examination which usually reveals atrophic epithelium with high fibrous collagen content in the connective tissue with discrete foci of blood vessels. The treatment typically involves surgical excision. It is uncommon for the lesion to recur if the causative factor is eliminated.

KEYWORDS: Traumatic fibroma, irritation fibroma, exophytic lesion.

INTRODUCTION
Intraoral mucous membrane and surrounding soft tissue structures are persistently challenged with subdued amount of irritating stimuli, which results in hyperplastic changes. Cheek and tongue biting, fractured restoration or tooth structures, overhanging dental restorations, chronic topical drug administration, orthodontic appliance or prosthodontic rehabilitative prosthesis are few examples of such irritating factors.\textsuperscript{[1]}

Traumatic fibroma also known as irritation fibroma, focal fibrous hyperplasia, reactive fibrous hyperplasia is one of the most common soft tissue exophytic lesion of the oral cavity with varied clinical presentation.
Traumatic fibroma comprises about 20% of all the oral hyperplastic overgrowth.\cite{2} Despite their benign nature, it may mimic other exophytic anomalies, necessitating thorough clinical examination, histopathological evaluation and appropriate management strategies.

By delving into the complexities of this lesion, we seek to enhance clinician’s understanding facilitate accurate diagnosis and optimize treatment outcomes for individuals affected by traumatic fibroma.

**CASE REPORT**
A 37-year-old male had reported to the department of Oral Medicine with a complaint of fractured restoration in the lower right back tooth region. As an incidental finding, an exophytic growth was noted on the right lateral surface of the tongue with patient having no recollection of any traumatic experience. The patient was systemically healthy with no subjective symptoms associated with the lesion.

On examination, a well-defined lesion on the lateral border of the tongue of approximately 0.5×0.5 cm in size, about 8 cm away from the tip of the tongue and 4 cm from the midline, round in shape with broad base, smooth surface and paler than the surrounding tissues was noted. [Fig.1]

![Figure 1: Exophytic growth noted on the right lateral border of the tongue.](image)

On palpation, the nodule was non tender, of firm consistency, sessile and non-pulsatile with no local rise in temperature was noted. A fractured restoration involving lingual aspect of 47 in close proximity of the mass was noted. A provisional diagnosis of traumatic fibroma was suggested. Chronic irritation due to sharp edges of the restoration was probably the cause for this exophytic lesion. A differential diagnosis of focal fibrous hyperplasia was given. An
excisional biopsy under local anaesthesia was performed which resulted in the elimination of the lesion. [Fig.2]

![Figure 2: Surgical excision of the lesion.](image)

Alongside re-restoration of 47 was done. Histopathological examination revealed, focally atrophic epithelium, partially keratinised stratified squamous and non-dysplastic epithelium with underlying connective tissue of densely fibroed, short bundles of collagen. Focal cellularity of chronic inflammatory cells along with discrete foci of blood vessels were seen. Thus, the microscopic evaluation unambiguously supplemented the provisional diagnosis of traumatic fibroma. [Fig.3]

![Figure-3: Histopathological picture.](image)

Suture removal was done and the lesion had healed uneventfully. No recurrence has occurred after the excision of the lesion. [Fig.4]
DISCUSSION

Fibromas develop as a result of a chronic adaptive repair process that includes granulation tissue and scar formation resulting in a fibrous submucosal mass.\(^\text{[1]}\)

Traumatic fibromas are more commonly seen in 4\(^{\text{th}}\)-6\(^{\text{th}}\) decade of life, and the prevalence rate is 1.2%. It constitutes around 20% of all oral reactive hyperplastic lesions with 66% female predilection, affecting almost twice more than males major reason being hormonal imbalance and higher stress and anxiety levels in females.\(^\text{[2,3]}\) Clinically the lesion manifests as a painless, sessile firm mass, smooth-surfac ed (surface can be hyperkeratotic or ulcerated), yellowish-white or mucosal coloured (pink to red). Oral fibromas grow over weeks or months to reach their maximum size, typically 1 cm in diameter, but vary from case to case. These irritation fibromas are more frequently seen in the gingiva and mucosa (along the line of occlusion). Other less common intraoral sites are the tongue, lower lip, hard palate, and floor of the mouth.\(^\text{[4,5]}\) A diagnosis may be suspected if a patient presents with typical symptoms of oral fibroma during an intraoral examination.

Histopathologically, oral fibromas are nodular masses composed of collagen-containing fibrous connective tissue, with decreased vascularity that causes this exophytic growth to appear lighter than the surrounding normal tissue.\(^\text{[6]}\)

According to Barker and Lucas, traumatic fibromas exhibits varied patterns of collagen arrangement depending on the site of the lesion and the amount of irritation. There are two types of patterns: (a) radiating pattern and (b) circular pattern. The authors hypothesized that when there is a greater degree of trauma, radiating pattern appears in sites that are immobile.
in nature (e.g., palate), while lesser trauma induces the circular pattern which occurs in sites that are flexible in nature (e.g., cheeks).[7] In this case, the lesion was of radiating pattern.

The treatment plan consists of conservative surgical excision and management of the aetiology. The lesion usually does not recur, unless incompletely excised; and with no reported cases of malignant transformation.[8] In addition to the conventional surgical scalpel method, laser and electrocautery are newer treatment modalities that have added advantages of minimal bleeding during surgical excision, rapid healing and reduced postoperative pain and no postoperative scars are evident after the employment of proper treatment modalities.[9,10,11]

**CONCLUSION**

Traumatic fibromas commonly arise in response to chronic irritation or trauma, presenting as a well-defined fibrous mass in the oral mucosa. Histologically, these lesions are characterised by dense fibrous tissue with variable amounts of collagen and fibroblasts. Removal of irritational agents and complete surgical excision is the treatment of choice to prevent the recurrence of the lesion.

**REFERENCE**


