

Case Report

Irritational Fibroma: A Case Report

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ABSTRACT

Irritational fibroma is a reactive lesion that is among the most common oral soft -tissue lesions, caused due to local trauma or irritation by plaque, calculus, overhanging margins, and restorations. The intraoral fibroma typically is well demarcated; and its size can vary from millimeter to few centimeters. The color is usually same as the surrounding mucosa and consistency is soft to firm. Treatment usually requires total excision and recurrence is rare.

Introduction

Fibroma is a benign tumor of fibroblastic origin which represents a reactive hyperplasia of fibrous connective tissue following local irritation or trauma rather than being a true neoplasm.¹ Irritational fibroma is a common, benign, slow-growing, soft - tissue tumor, often seen associated with trauma and constant irritation.² The traumatic irritants include calculus, foreign bodies, overhanging restorations, caries, chronic cheek biting, sharp bony spicules and overextended borders of dentures.³ It is usually characterized by a slow, painless growth assembled over a period of time. Clinically, the growth is seen localized, with a smooth surface texture and a hard consistency and generally with normal coloured mucosa, sessile, or pedunculated base,⁴ and is smaller than 1.5 cm at its largest diameter.⁵ Here we are presenting a case of irritational fibroma in a 25-year-old male in mandibular anterior region.

Case report:

Clinical examination:

A 25-year-old male patient visited to the Department of Periodontics, People's dental academy, Bhopal, Madhya Pradesh, India, with the chief complaint of painless growth in the gums in the lower front teeth region, present since the last 5 months. The patient was apparently all right 5 months back, when he noticed a small growth in the mandibular anterior teeth region. Patient reported increase in size of the growth with time along with no complaint of pain. No history of similar overgrowth was given by the patient. The patient's medical and family history was non-contributory to the present case.

Extraoral examination revealed bilaterally symmetrical face, with competent lips and the non palpable lymph nodes. On intraoral examination, a 4 mm x 5 mm x 5 mm roughly ovoid gingival growth was seen in the interproximal region extending mesio-distally from the

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distal line angle of 41 to the mesial line angle of 42 and apico-coronally from gingival margin till the incisal third of the crown with no lingual extension. The growth was pinkish, firm, well defined, mobile, pedunculated, non-pulsating and smooth surfaced. [Figure 1 and Figure 2] Oral examination revealed compromised oral hygiene with moderate plaque, stains and calculus deposits. Based on the clinical examination and history given by the patient, irritational fibroma with respect to 41,42 was considered as a provisional diagnosis.



[Figure 1]



[Figure 2]

Investigations:

IOPA of the region revealed no significant bone loss with respect to 41, 42. Routine hematological examinations including hemogram, bleeding time and clotting time were found to be within normal physiological limits.

Differential diagnosis:

Hyperplastic fibroma, peripheral giant cell granuloma, pyogenic granuloma, peripheral ossifying fibroma were considered in differential diagnosis. Due to the presence of local factors, history of tobacco chewing, no significant bone loss or calcifications, the clinical appearance and the site of the lesion, a final diagnosis of irritational fibroma was considered.

Treatment:

Phase 1 therapy consisted of a thorough scaling and root planing and oral hygiene instruction were given. The patient was demonstrated the proper brushing technique (Modified Bass Technique). Patient was advised 0.2% chlorhexidine mouthrinse 10 ml, 1:1 dilution, twice daily for 15 days. The patient was then reassessed after 1 week and there was considerable reduction in the size of the growth.

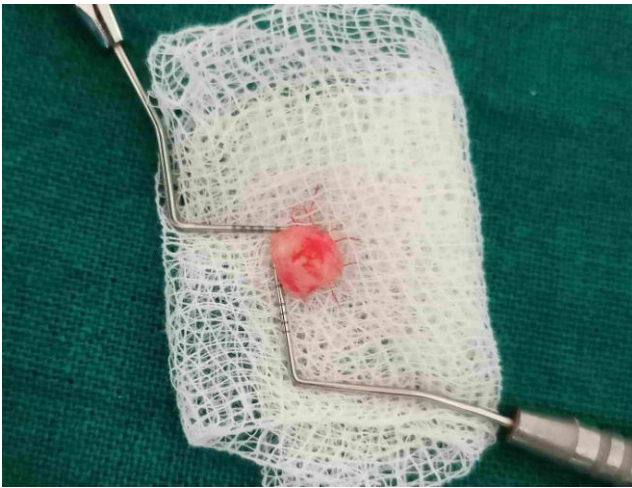
Phase II therapy consisting of surgical excision of the growth was planned and executed under local anesthesia following which periodontal dressing was placed and antibiotic and analgesic were prescribed. [Figure 3 and Figure 4] At 1 week post-operative, the surgical site had healed uneventfully. The patient was kept on periodontal maintenance therapy and proper brushing technique and oral hygiene instructions were reinstated. The lesion does not reoccur as seen on 4 month recall post-operatively.



[Figure 3]



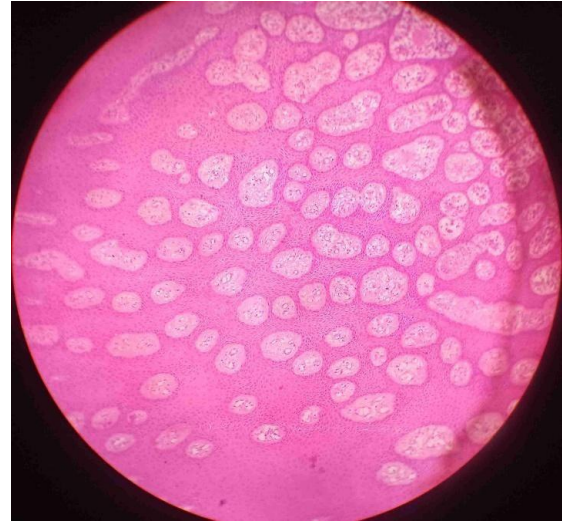
[Figure 4]



[Figure 5]

Histopathology:

The histopathological report revealed the presence of hyperparakeratinized stratified squamous epithelium and connective tissue. The epithelium was hyperplastic with elongated rete ridges and the connective tissue was composed of numerous engorged blood capillaries and large collagen bundles. The presence of chronic inflammatory cell infiltrate composed of lymphocytes and plasma cells were evident, which were suggestive of irritational fibroma.



[Figure 6]

Discussion:

The oral mucosa is constantly affected by various types of stimuli which results in conditions like inflammation, irritation and neoplasms.^{2,6} One of such conditions is focal overgrowths which are reactive in nature and occur following trauma or irritation due to any foreign bodies, calculus, broken teeth or iatrogenic reasons.^{2,7} Hyperplastic lesions are a response of low grade irritation or injury.² About 7.4% of oral soft tissue lesions includes traumatic or irritational fibroma which is a common exophytic growth.⁸ Irritational fibroma is a reactive focal fibrous hyperplasia which is commonly prevalent in anterior region and usually related with interdental papillae. It can occur at any age but more frequently seen in 4th and 6th decade.²

High female prevalence around 2nd decade of life may be the result of hormonal changes.⁹ Around 60% of the cases are associated with anterior region of maxilla while 55-60% are reported at incisor-cupid region.¹⁰ It is usually seen with minimum diameter which is somewhere in between 1.5cm to 3cm, but few cases have been reported in the literature with the diameter of 6cm-9cm also.⁹

This particular case report presents the lesion of irritational fibroma with respect to 41 and 42 with

diameter of 4 mm x 5 mm x 5 mm. Clinical features of irritational fibroma shows pale to bright red colour mass with smooth surface texture, sessile or pedunculated with varying size.^{11,12} Amplified inflammatory response and healing response determine the size of these hyperplastic masses.¹³

Sometimes, pathological migration and bone loss are seen associated with irritational fibroma.¹² Differential diagnosis includes hyperplastic fibroma, pyogenic granuloma, peripheral ossifying fibroma and peripheral giant cell granuloma which have the same etiology as of irritational fibroma.¹⁴

Histopathology features showed parakeratinized stratified squamous epithelium showing marked acanthosis. The underlying connective tissue consisted of large collagen in the form of bundles. There were numerous dense chronic inflammatory cells spread in the stroma. Blood vessels showed dilations with engorged blood elements.

Treatment of irritational fibroma involves the removal of irritation or trauma causing etiological factor followed by phase I therapy which includes scaling and root planing along with total surgical excision of the mass. If left untreated, it may result in dentoalveolar complications along with difficulty in speech and mastication. It is important to provide treatment as early as possible as long standing hyperplastic lesions due to chronic irritation may lead to malignancy.¹⁵

Follow up at definite time intervals should be carried out to rule out any cases of recurrence.¹⁶

Conclusion:

Irritational fibroma is one of the most common oral soft tissue lesion. A thorough history, clinical, radiographic and histologic examination should always be carried out to rule out other oral lesions and arrive at an accurate diagnosis. Early detection of lesion, elimination of the

causing agents and the treatment of the lesions is of utmost importance.

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