

MANAGEMENT OF BITING OR TRAUMATIC FIBROMA : A CASE REPORT

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ABSTRACT

Traumatic fibroma, biting fibroma and/ or irritation fibroma, is a benign exophytic lesion secondary to tissue injury. It can occur at any soft tissue site exposed to injury or irritation, whereas the tongue, gingiva, buccal mucosa being the most common site of occurrence. Management includes conservative surgical excision of the lesions along with the removal of source of irritation. This case report would highlight about the management of the traumatic fibroma of lower lip in adult male patient with the help of soft tissue laser which was found to be safe, and effective with minimal or no bleeding, and also uneventful healing.

KEY WORDS

Traumatic fibroma, soft tissue, irritation, laser.

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INTRODUCTION

Traumatic fibroma, biting fibroma and/ or irritational fibroma is the most common response of submucosa secondary to trauma from teeth or dental prostheses.^{1,2} They are usually the healed end products of the inflammatory hyperplastic soft tissue lesions which can occur at any age from almost any soft-tissue site including the tongue, gingiva, labial mucosa and buccal mucosa.³ These lesions may be defined as the increase in the size of an organ or tissue due to a local response to injury or increase in the number of constituent cells.³ Irritants may include a wide variety of products ranging from calculi, foreign bodies, overhanging margins of restorations to chronic biting, sharp spicules of bones, and also overextended borders of appliances.^{2,3} Fibroma, a benign neoplasm of fibroblastic origin, is reactive in nature and represents a reactive hyperplasia of fibrous connective tissue in response to local irritation or trauma rather than being a true neoplasm.^{3,4} This article would highlight about the case of traumatic fibroma in the lower lip of an adult male patient and its effective management with the help of soft tissue laser.

CASE REPORT

A forty nine years old male patient reported to the department with chief complaint of swelling on the lower lip for last eight months. The growth was initially small, and slowly increased in size for last six months. On general examination, the patient was found to be systemically healthy. But, chronic lip biting habit was reported by the patient on enquiring about any habits.

On clinical examination, patient oral hygiene was found to be poor with lots of deposits of plaque and calculus. Intra-oral examination revealed the presence of well circumscribed, smooth surface, soft to firm, swelling measuring approximately 7mmx5mm in relation to the labial mucosa of the lower lip adjacent to the tooth number 44, 45 [Fig.1, Fig.2]. Extra-oral lymph nodes were not palpable and no other abnormalities were detected. The growth was found to be interfering with the normal



Figure 1. Soft tissue growth on lower labial mucosa



Figure 2. Tissue growth was found to be interfering with chewing



Figure 3. Growth was excised with the help of laser.



Figure 4. Excised tissue growth.

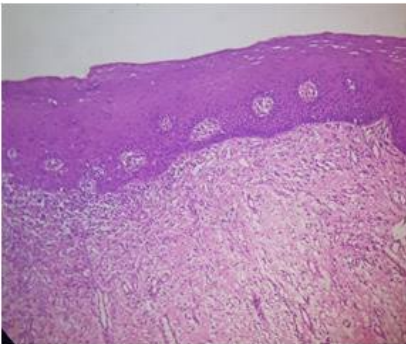


Figure 5. Histopathological photomicrograph of the lesion.



Figure 6. Three weeks post-op.

chewing function since last two months.

After thorough clinical examinations and routine hematological investigations, the patient was informed about the treatment procedure and informed consent was obtained. Surgical excision of the mass was carried out with the help of diodelaser and the excised mass was sent for histopathological evaluation [Fig.3, Fig.4]. Selective grinding of the left lower canines and premolars were done and the patient was advised for cessation of lip biting habit and also sent for medical and psychological evaluation as chronic lip biting sometimes found to be associated with obsessive compulsive disorders apart from dental cause

Histopathological evaluation revealed the presence of atrophic para-keratinized stratified squamous surface epithelium devoid of rete-ridges covering the underlying connective tissue stroma [Fig.5]. The post-operative healing was found to be uneventful with no recurrence was noted till date [Fig.6] The connective tissue stroma was moderately collagenous with dense radiating collagen fibers with minimal blood capillaries. Mild degree of chronic inflammatory cell infiltration also noted through-out the connective tissue stroma. No atypical cellular or nuclear changes detected in the sections. Based on the

clinical examinations and histopathological evaluation, a diagnosis of fibroma was made. Patient was advised for maintenance of oral hygiene and routine follow-ups to prevent recurrence.

DISCUSSION

Localized fibrous tissue overgrowths are very common in the oral mucosa.³⁻⁶ The etiology of an irritational fibroma is usually a source of irritation.³ Traumatic fibroma or irritation fibroma is a consequence of trauma to the lip or cheek or from biting the lip or cheek.^{1,3-4} It usually presents as an ovoid or round smooth surface asymptomatic pale pink growth. The only line of treatment is a conservative surgical excision under local anesthesia followed by sutures.^{3-4,6-7} It occurs more commonly the buccal mucosa along the occlusal line followed by labial mucosa, gingiva and palate. Biting of the cheek is considered to be one of the main reason of occurrence. It usually varies in size, asymptomatic in nature with female predilection and mostly encountered in fourth to the sixth decade of life.

Histologically, it might appear as an intact or ulcerated stratified squamous epithelium along with

shortening and flattening of rete pegs. Conservative excisional biopsy is curative and its findings are diagnostic; however if the exposure to causative irritant persists recurrence may occur.³⁻⁷ Similar such lesions, which may also arise due to irritation from plaque micro-organisms also include pyogenic granuloma, peripheral giant cell granuloma, peripheral ossifying fibroma etc.⁴ Long-term postoperative follow-up is extremely important as incompletely removed lesions along with persistence of irritants may result in recurrence. However, recurrence rate was found to be very low with laser. The use of lasers has emerged as a new alternative to conventional surgical excision. The excision of fibroma with the help of soft tissue diode lasers was found to be a quick and effective procedure with minimal or absolute no bleeding.⁷⁻⁹ Diode lasers have many advantages such as less bleeding, scarring, pain, infection, swelling, reduction in surgical time, and a good coagulation usually without anaesthesia.⁷⁻⁹ Due to sterilizing properties of lasers satisfactory wound healing was usually achieved within a few days even without the placement of sutures.

CONCLUSION

Excision of traumatic and /or irritation fibroma with the help of laser was found to be safe, effective and removal of irritants or causative factors are necessary to effectively manage such cases and prevention of recurrence.

REFERENCES

1. Irritation fibroma of the oral mucosa: a clinicopathological study of 129 lesions in 124 cases. Toida M, Murakami T, Kato K, et al. *Oral Med Pathol.* 2001;6:91-94
2. Jain G, Arora R, Sharma A, Singh R, Agarwal M. Irritation fibroma: Report of a case. *J Curr Res Sci Med* 2017; 3:118-21.
3. Banerjee S, Pal TK. Localized Gingival Overgrowths: A Report of Six Cases. *Contemp Clin Dent* . 2017 ; 8 (4) : 667 – 671 . doi:10.4103/ccd.ccd_624_17.
4. Sawai, Madhuri & Sharma, Pooja & Jafri, Zeba & Sultan, Nishat. (2021). Diode laser in the excision of intraoral fibroma: A safe tool for minimally invasive dentistry. *Indian Journal of Case Reports.* 7. 75-78. 10.32677/IJCR.2021.v07.i03.001.
5. Rangeeth BN, Moses J, Reddy VK. A rare presentation of mucocele and irritation fibroma of the lower lip. *Contemp Clin Dent* 2010;1:111-4
6. Kolte AP, Kolte RA, Shrirao TS. Focal fibrous overgrowths: A case series and review of literature. *Contemp Clin Dent* 2010;1:271-4.
7. Pai JB, Padma R, Divya, Malagi S, Kamath V, Shridhar A, Mathews A. Excision of fibroma with diode laser: A case series. *J Dent Lasers* 2014;8:34-8.
8. Jain PR, Jain S, Awadhya S, Sethi P. Excision of traumatic fibroma by diode laser. *J Dent Lasers* 2018;12:67-9.
9. Kohli A, Gupta K, Pandey M, Dwivedi A. Excision of Irritation Fibroma Using a Diode Laser. *Rama Univ J Dent Sci* 2016 Sep;3(3):26-29.