

## CASE REPORT

# Localized Fibrous Overgrowth - Traumatic Fibroma: A Case Report

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## ABSTRACT

Oral irritation fibroma is a benign scar-like reaction to chronic irritation in mouth, usually due to biting of lips, cheek, or rubbing of skin against a sharp tooth or prosthesis. It is a raised pedunculated/sessile lesion which may be few millimeters to centimeters in size with normal/ulcerated overlying mucosa. These lesions may grow aggressively and do not disappear without treatment and removal of irritant. This article describes a case of 10-year-old boy with an asymptomatic nodular lesion on lower labial mucosa associated with a root stump of lower left canine and chronic biting of lower lip. On removal of the root stump and discontinuing the habit of lip biting, the lesion started to shrink gradually and completely disappeared in 1 month. No surgical excision of the lesion was required once the irritant was removed. There was no recurrence of the lesion.

**Keywords:** Irritation fibroma, Lip biting, Oral traumatic fibroma.

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## INTRODUCTION

The oral fibroma is by far one of the most common fibrous tumors like growth of the oral cavity.<sup>[1]</sup> It is also known as traumatic fibroma, irritation fibroma, focal

fibrous hyperplasia, oral polyp, etc. It is a common soft tissue enlargement generally due to chronic irritation.<sup>[1,2]</sup> It usually is a solitary elevated lesion which may be pedunculated or sessile ranging from few millimeters to few centimeters in size. The overlying mucosa may be smooth or even ulcerated (due to repeated trauma).<sup>[3]</sup> Commonly seen on buccal mucosa, lower labial mucosa, and tongue, they are generally observed in adults; however, they may occur in individuals of any age and either sex. Histologically, it is a reactive focal fibrous hyperplasia, represented by an unencapsulated nodular mass of fibrous connective tissue that is often arranged in haphazard fascicles with mild chronic inflammatory infiltrate.<sup>[3,4]</sup> Treatment of choice is removal of irritating factor along with conservative excision of the lesion with one to 2 mm safety margins, laser excision being a modern approach. Recurrence is uncommon, but the lesion may recur if the irritation persists.<sup>[2,5]</sup>

## CASE REPORT

A 10-year-old boy reported to the Department of Pedodontics and Preventive Dentistry, Modern Dental College and Research Centre, Indore, with the chief complain of swelling and irritation on the left inner side of lower lip since seven to eight days (Fig 1). The patient gave a history of swelling being small to begin with, enlarging slowly. On enlargement of the swelling, the patient developed a habit of biting on it. This was patient's first dental visit with insignificant medical and family histories.

Intraoral clinical examination disclosed a whitish-pink enlargement on the left lower labial mucosa. The lesion was an elevated sessile nodule, with a smooth surface which was approximately 3 mm in diameter. It extended from the level of mesial surface of erupting 33 to the middle surface of the same. The growth was sessile, non-pulsatile, and non-tender and did not bleed on manipulation. No submandibular or sublingual lymph nodes were palpable. Dental examination revealed a root stump of 73 embedded horizontally which was impinging on the labial mucosa (Fig 1).

Considering the history and clinical findings, a provisional diagnosis of irritation fibroma was noted. Management of the lesion included conservative

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treatment at first (by removing the irritant) followed by surgical excision of the lesion if needed. First, extraction of the root stump of 73 was done under local anesthesia (Fig 2a and b), also, the patient and his parents were counseled for immediate discontinuation of the lip biting habit as it was the additional suspected cause for the lesion. The patient was recalled after 1 week, and regression in the size of the lesion was seen (Fig 3a). Thus, the plan for surgical excision of the lesion was delayed, and the patient was encouraged about maintenance of oral hygiene and discontinuation of the lip biting habit.

On the second recall visit after 15 days, the lesion considerably reduced in size which did not need any surgical intervention (Fig 3b). The lesion completely disappeared in a month's time after removal of the irritational factor (Fig 3c). Further, recall visits were uneventful and there was no evidence of recurrence.

## DISCUSSION

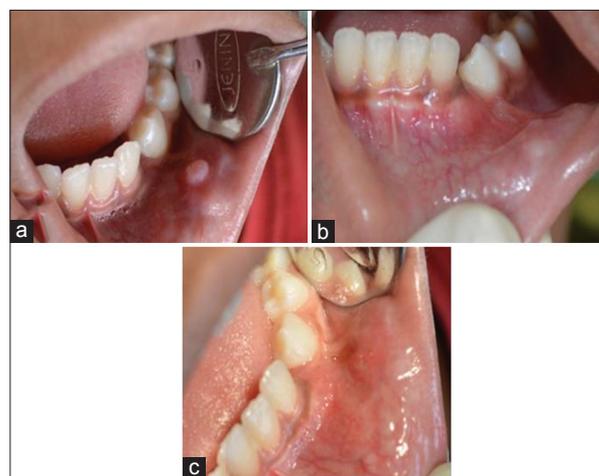
The effects of chronic local irritation have been seen commonly in the form of fibroma or mucocele in children.<sup>[1]</sup> Few studies have comprehensively reported the incidence of oral soft tissue lesions in children. A report on pediatric oral lesions in Thailand showed that the lesions that were repeatedly encountered were dentigerous cyst, mucocele, irritation fibroma, pyogenic granuloma, odontogenic keratocyst, osteomyelitis, and fibrous dysplasia with no statistical differences between genders.<sup>[6]</sup> Pour *et al.* have reported that of 260 cases of oral lesions 0.38% were diagnosed as traumatic/irritation fibroma.<sup>[7]</sup> Traumatic fibromas are localized fibrous hyperplasias caused due to trauma or local irritation.<sup>[2]</sup> The irritants may include calculi, overhanging margins, restorations, sharp tooth, chronic biting, foreign bodies, overextended borders of appliances, etc. As seen in this case, the factor associated with the irritation was a root stump constantly imposing on the labial mucosa. General literature suggests that repetition of noxious habits such as lip biting and bruxism is one of the major factors causing/exaggerating traumatic/irritation fibroma.<sup>[1,8]</sup> This advocates that the habitual biting of lower lip assisted in further enlargement of the lesion. The fibroma is considered to be a reactive lesion which is a response of connective tissue cells to chronic irritation. When trauma occurs, the tissues of the oral cavity react and an unruly repair process are seen. As a result, an overabundance of fibrous connective tissue is produced and thus the formation of a nodule or mass.<sup>[3]</sup> Traumatic fibroma has also been associated with tongue piercing and rarely with natal tooth, showing that any kind of local irritation may cause these reactive hyperplastic



**Figure 1:** Pre-operative picture showing nodular mass on lower lip with root stump of lower left canine in proximity



**Figure 2:** Intraoperative pictures: (a) removal of root stump of canine, (b) extracted root stump



**Figure 3:** Post-operative pictures: (a) after 1 week, (b) after 15 days, (c) after 1 month

lesions and traumatic/irritation fibroma is the healed end product of this inflammatory hyperplastic lesion.<sup>[9]</sup>

On gross pathology, it is a round to ovoid polypoid lesion smooth surfaced, firm sessile, or pedunculated mass which may be 1–2 cm in diameter, surface may be hyperkeratotic or ulcerated (due to repeated trauma). Microscopically, it is similar to fibrous papule with prominent blood vessels and collagen bundles and fibrous stroma. The overlying squamous mucosa is benign which may be hyperkeratotic or ulcerated.<sup>[3,4]</sup> However, in this case, no histopathological examination could be done as the lesion recessed by itself on removal of the galling agent.

These hyperplastic lesions are self-limiting in contrast to neoplastic lesions.<sup>[1]</sup> Fibromas may grow rapidly and thus should be identified and treated as soon as possible. Surgical excision is the treatment of choice along with the removal of the irritant.<sup>[2]</sup> Alternate treatment options include carbon dioxide or Er, Cr:YSGG laser excision as a substitute or as an adjunct to conventional scalpel excision.<sup>[5,10]</sup> This method is considered to improve esthetic results and diminish the potential rate of recurrence. However, recurrence is possible if the aberrant stimuli persist.<sup>[10]</sup> As seen in this case, these hyperplastic cells may also show regression on their own once the irritant stimulus is removed.<sup>[1,11]</sup>

## CONCLUSION

Fibromas have been well reported in literature with ages ranging from toddlers to adolescents. In most of the cases, these are benign and self-limiting conditions with etiology related to repeated trauma to the mucosa. A proper diagnosis (clinically and histopathologically) should be made to provide a definitive management and prevention of the lesion. Complete excision of the lesion along with the removal of local irritant has been the choice of treatment. In this case, the patient reported with good prognosis and an uneventful post-operative recovery and has been advised to suspend the habit of lip biting.

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