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After effects of trauma leading to a habit in Paediatric patients

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Abstract

A benign swelling that is usually acquired in the oral cavity is the irritation fibroma. Here we present two case reports of such a fibroma of the lip developed secondary to a lip biting habit. Fibromas are usually asymptomatic, small, mucosa-coloured and hard in consistency and so cause little or no discomfort. Thus, usually neglected by Paediatric patients. The site of occurrence of these is usually in tongue, buccal/labial mucosa, lower lip, hard palate and least seen on gingiva. An incidental finding brings them to light. The lesion here was seen secondary to a lip biting habit developed after a trauma. Excision is usually considered to be the ideal line of treatment. Follow up is essential because of its high growth potential.

Keywords: Ellis class II fracture, biting, irritational fibroma, traumatic lesion

1. Introduction

Oral habits in children are a common problem seen in the society. Lip biting is one such habit. Often overlooked, repeated lip biting can cause dental as well as soft tissue injuries. One such sequelae is the biting fibroma. Inflammatory hyperplastic lesion may be defined as “an increase in the size of an organ or tissue due to an increase in the number of constituent cells, as a local response of tissue to injury.” The irritants may range from sharp calculus, overhanging margins of restorations, foreign bodies, chronic biting of the soft tissues, sharp margins of teeth and overextended borders of dental appliances. These fibromas very often present as sessile or pedunculated growths with a surface that is smooth. Occasionally, the surface can show increased keratinization or ulceration^[1]. This fibroma can occur at any age and site is also varied, like any soft-tissue surface. The timeline of the lesion is that it typically presents as a slow, unpainful growth accumulated over a period of time like months or years^[2]. They are often seen as small growths and those which measure more than 1 cm are rare. Inflammatory hyperplastic lesion usually heals as fibrous hyperplasia (either due to trauma or irritation)^[2, 3]. The tendency for malignancy of these lesions is absent but the recurrence is usually due to the inability to eliminate the cause that is the chronic irritation involved^[2]. Oral squamous cell carcinoma is also a malignancy that can appear to mimic a biting fibroma^[4]. An Ellis Class II fracture of a tooth usually brings predictable and instinctive outcomes to a clinician's mind. But the diversity seen with trauma cases always humbles the Paediatric dentist. Here are two such cases that showed a unique deviation from the regular sequelae expected from this. The occurrence of this type of trauma as a reaction to a habit is rarely seen and usually challenging to diagnose. The treatment plan here becomes more holistic, due to the presence of a habit that is cultivated and may have a psychological basis, rather than the standard surgical line of treatment.

2. Case Report

Case report 1

A male patient who was in his early adolescence reported in the Outpatient department (OPD) of Paediatric and Preventive Dentistry with a chief complaint of a decayed tooth in the lower left tooth back region since a few months.

On soft tissue examination, a swelling was found on the lower lip. Detailed examination of the swelling revealed a mass of size 1.5x1cm, hard in consistency, non-tender and smooth surfaced. Hard tissue examination showed an ELLIS Class II fracture of upper left central incisor for which the patient revealed trauma incurred to the oral cavity a few years back. Since the swelling was below the fractured upper left central incisor, to rule out the presence of tooth fragments or foreign objects, an Intra-Oral Periapical radiograph of the lower lip was taken, which indicated no radio-opaque mass, thereby confirming the absence of tooth fragments or foreign body. After a detailed enquiry with the patient's parents, the child's habit of biting his lip was mentioned which he picked up post trauma. The hard swelling was then diagnosed to be an irritational fibroma secondary to the trauma. The sharp edges of the fractured incisor acted as a source of irritation that led to the biting fibroma

Case Report 2

A male patient in his middle childhood came to the OPD of

Paediatric and Preventive Dentistry Department with a chief complaint of missing teeth in the upper front teeth region since a few years. On enquiring about the past dental history, Patient reported a traumatic injury resulting in the avulsion of upper right primary central and lateral incisors few years back and no treatment was provided pertaining to the avulsed primary teeth. However, a suture was placed on the right side of the upper lip due to soft tissue laceration.

Patient also gives the positive history of constant lip biting on the same side post the healing of the lip laceration. Swelling was small initially and then was increased gradually in size to attain the present size of about 0.5cm x 0.5cm. There was no difficulty in speaking or chewing and no significant medical history.

It was decided to tackle the condition with awareness and with education towards the habit and its harmful effects

3. Discussion

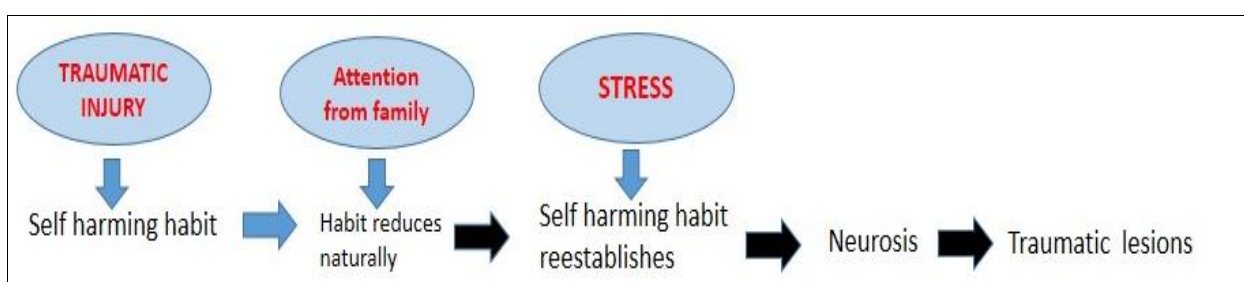


Fig 1: Show Traumatic injury, attention from family and stress

Biting fibroma also goes under the name of traumatic or irritational fibroma [5]. The underlying pathology resulting in a fibroma is the hyperplasia of the traumatized cells and proliferation of collagen fibrils [6].

Barker and Louis in 1967 stated two types of patterns in the arrangement of collagen namely circular and radiating types in response to the degree of irritation and the location. They gave an inverse relation to the intensity of trauma and banality of the location. Thus a higher intensity of trauma induced fibromas in rarer sites like palate and milder traumas in locations more common like lips and buccal mucosa [7].

The cause of a biting fibroma is usually either a traumatic injury or a chronically inflamed tissue or sometimes, both. The trauma can be acute and solitary, like biting of the lip or it can be repeatedly seen, as in case of long duration of biting of the buccal mucosa. Other related causes may include injury due to overextended dental appliances, foreign bodies, improper margins of a dental restoration, and sharp borders of fractured teeth [8].

Children develop habits, such as lip, cheek, nail biting, and pencil chewing. Though they may seem harmless, these habits can be detrimental to the oral mucosa as well as contribute to temporomandibular disorders at a young age [9].

According to a study done by Dhull K.S *et al*, the prevalence of lip biting in Bhubaneswar, Orissa was seen to be as high as (13.4%) [10]. Prolonged biting of oral mucosal tissues is a type of unintended injury that is seen usually on the buccal and labial mucosa and lateral borders of the tongue. The habit of soft tissue biting usually is as an unintentional practice due to a variety of emotions. This form of self-harm maybe be

associated as a stimulus and may even be exacerbated by traumatic injury [11]. The cases we describe here represent fibromas developing because of self-biting (either intentional or unintentional). It was decided to confirm the diagnosis as biting fibroma. The line of treatment is usually an excisional biopsy which is curative and its findings are diagnostic [12]. Here it was first decided to tackle the condition with awareness and with education towards the habit and its harmful effects.

3.1 Figures



Fig 1: Showing Ellis Class II fracture of upper left central incisor and the swelling on the lower lip. (Case 1)

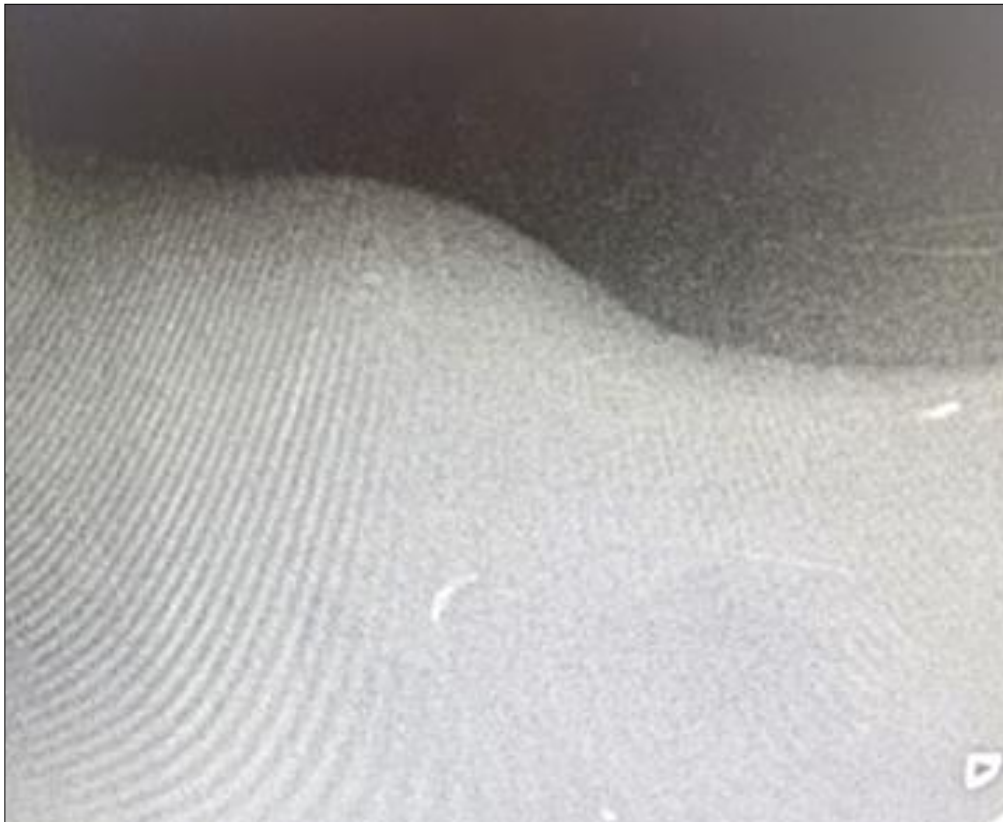


Fig 2: Radiograph of the lower lip showing absence of foreign body.

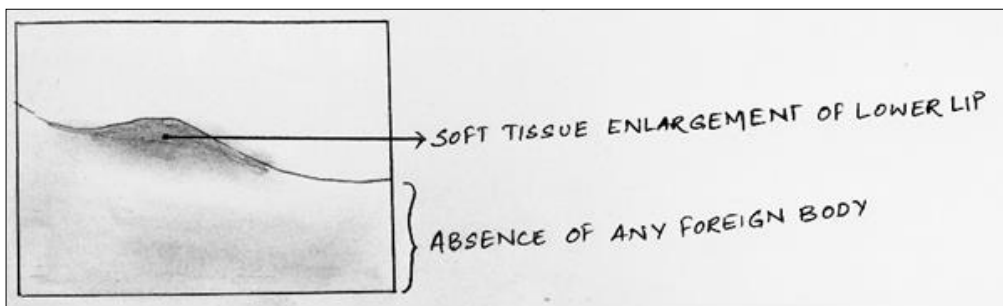


Fig 3: Diagrammatic representation of figure 2



Fig 4: Showing swelling on the right upper lip (Case 2)



Fig 5: Radiograph of the upper lip showing absence of foreign body.

4. Conclusions

Two sessions of making the child aware of his habit was done over a period of two weeks. The harm that the lip biting habit was causing was told to the child as well as the parent.

Six months and One year follow up via a telephonic conversation revealed the reducing of lip biting habit by the child and reduction in the size of the fibroma.

1. The handling of an oral mucosal lesion should be a multifaceted approach.
2. The presence of a habit adds a psychological layer to the condition which should also be considered in the management.
3. Just a surgical approach is incomplete.

When awareness was created, the children understood the harm being caused and gradually reduced the habit. This in turn helped in resolving the fibromas.

Conflict of Interest

Not available

Financial Support

Not available

5. References

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