Case Report

Irritational Fibroma: Sequelae to Luxation Injury in Primary Teeth

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Abstract

Oral benign lesions in children present a challenge in its diagnosis and management. Irritational fibroma, a benign lesion of the oral cavity, occurs most commonly in the line of occlusion on the buccal mucosa and in the maxillary anterior gingiva. It is rarely seen among children. This paper aims to present a case of irritational fibroma of the gingiva in a 7-year-old female patient as sequelae to irritation following trauma to primary teeth and the use of laser as a modality to excise the tissue.

Keywords: Irritational fibroma, laser excisional biopsy, luxation injury

Introduction

Oral fibroma is a common benign scar-like reaction to persistent long-standing irritation in the mouth. It is also a traumatic fibroma, focal intraoral fibrous hyperplasia, fibrous nodule, or oral polyp. Fibromas are considered the most common benign soft-tissue growth in the oral cavity, derived from fibrous connective tissues.[1] Irritational fibromas are fairly less prevalent in children. We present here a rare case where irritational fibroma developed as a result of luxation injury to the primary teeth and the advantage of using soft tissue laser excision in children.

Case Report

A 7-year-old female patient reported to the Department of Pediatric and Preventive Dentistry, Vokkaligara Sangha Dental College and Hospital, Bangalore, with the complaint of swelling in the upper front tooth region for the past 2 months. History of presenting illness revealed that pain was present for the past 3 days; the pain was mild to moderate, intermittent, and occurred on eating. The swelling was small initially and grew slowly to the present size. The father gave a history of a fall about a year back; no treatment was given. Her medical and drug history was not significant. No significant extraoral findings were noted. On intraoral soft tissue examination, a solitary gingival growth was evident with respect to 61, pink in color, roughly oval about 1 mm × 2 mm with overlying smooth surface. Surrounding mucosa was normal and borders well defined [Figure 1]. On palpation, all inspectory findings were confirmed; the growth was nontender, firm in consistency, mobile, and also showed a sessile base toward the vestibule; and under the growth, the exposed root of 61 was evident. Hard tissue examination revealed normal compliment of the teeth and early childhood caries. 61 crown was lingually displaced and was blackish brown in color, with root tip poking out of the gums [Figure 2], and nontender on percussion. Based on history and clinical examination, a provisional diagnosis of localized gingival epulis secondary to trauma was made. Differential diagnosis was irritational fibroma.

Intraoral periapical radiograph (IOPAR) showed no hard tissue lesion and normal 21. The treatment planned was excision of the growth followed by the extraction of 61. Informed consent was obtained, and the 61 was extracted under local anesthesia followed by excision of the lesion using laser [Figure 3]. The specimen was then sent for histological examination.

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Figure 1: Preoperative intraoral view of the lesion.

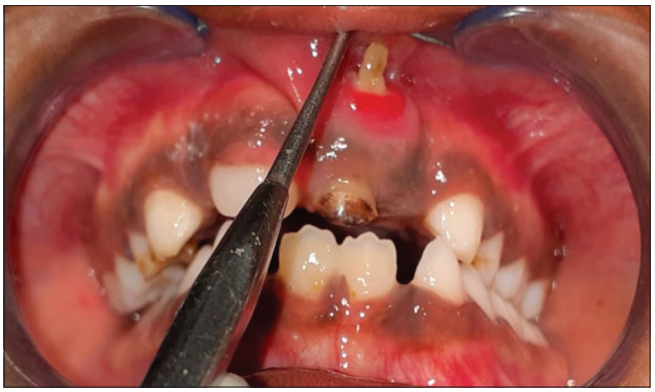

Figure 2: Preoperative intraoral view of the root tip, under the lesion.

Figure 3: Immediate postoperative view of the extracted tooth and the excised tissue.

Figure 4: Healing after 2 weeks postoperatively.

The histological examination revealed the presence of hyperparakeratinized stratified squamous epithelium and connective tissue. The epithelium was hyperplastic with elongated rete ridges, and there was a presence of chronic inflammatory cell infiltrate composed of plasma cells and lymphocytes, which was suggestive of irritational fibroma. The healing after 2 weeks was uneventful [Figure 4], and the child had undergone comprehensive full mouth rehabilitation.

Discussion

Traumatic or irritation fibroma is the healed end product of the inflammatory hyperplastic lesion, which can occur at any age from almost any soft-tissue site, tongue, gingiva, and buccal mucosa being the most common. It is usually characterized by a slow, painless growth accumulated over a period of months or years.[2] The etiological factors for these lesions can be imputed to the irritants such as plaque, calculus, overhanging margins and restorations, sharp tooth edges, or other oral prostheses, trauma, lip/cheek biting, irregular denture borders, rather than being a true neoplasm.[3] It frequently develops between the second and fourth decades of life. The high female predilection and a peak occurrence in the second decade of life suggested hormonal influences. There are very few reported cases of fibroma in children due to traumatic reasons. In our case, the trauma resulted in the primary incisor to subluxate in a way that there were a lingual inclination of the crown and a buccal inclination of the root. This led to the root tip being exposed and the sharp tip caused continuous irritation of the gingival tissue and thus led to the formation of irritational fibroma. The usual modalities of treatment for oral soft tissue benign lesions have been scalpel excision, electrocautery, or cryotherapy.[4] Lasers have the advantage of clear surgical field, offering better visualization, faster healing, less postoperative healing, and better patient acceptance, especially in children.[5] It is important to submit the excised tissue for microscopic examination because other benign or malignant tumors can also mimic the clinical appearance of a fibroma.[6]

Conclusion

Irritational fibroma is one of the most common oral soft tissue lesions, which can be confused with other similar entities such as peripheral ossifying fibroma and peripheral giant cell granuloma. Therefore, thorough history, clinical, radiological, and histological examination should be carried out to rule out differentials. Advances in dentistry, such as soft tissue lasers, have made excisional biopsy of such lesions painless, swift, and non anxiety provoking, making it an ideal choice for children. Any trauma to the primary dentition should not be overlooked, and regular monitoring for all kinds of traumatic injuries to teeth is mandatory.

Declaration of patient consent

The authors certify that they have obtained all appropriate patient consent forms. In the form the patient(s) has/have given his/her/their consent for his/her/their images and other clinical information to be reported in the journal. The patients understand that their names and initials will not be published

and due efforts will be made to conceal their identity, but anonymity cannot be guaranteed.

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Conflicts of interest

There are no conflicts of interest.

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