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TRAUMATIC FIBROMA – CASE REPORT

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Abstract

Traumatic fibroma is a benign reactive exophytic oral lesion in response to local trauma in the oral cavity. The article presents the case of a 3-year-old girl patient with a month-long proliferation on the left lateral margin of the tongue. Upon detailed history and clinical examination, it was determined history of tongue bite after general anesthesia. Here a soft tissue suture ligation was used for the complete excision of the lesion. The main advantages of using a suture ligation in pediatric patients are effective hemostasis that can be achieved in a short span, is less invasive, and better postoperative phase. It is a safe and fast procedure that allows easy manipulation of the tissue without scarring. The excised lesion was then sent to histopathology for analysis. After clinical and histological examinations, the case was diagnosed as a traumatic fibroma.

Keywords: Case report, Irritational fibroma, Suture ligation, Traumatic fibroma.

Background

A fibroma caused by trauma or irritation is a benign, reactive oral lesion that develops secondary to injury [1,2]. The fibroma is the result of a chronic repair process involving granulation tissue and scar formation resulting in a submucosal fibrous mass. Recurrence is rare and may be due to repeated trauma to the same site. The lesion has no risk of malignancy [3]. The most common sites for traumatic fibroma are the tongue, buccal mucosa, and clinically inferior mucosa, presenting as broad-based lesions, lighter in color than surrounding normal tissue, with the surface often appears white due to hyperkeratosis or with superficial ulceration due to secondary trauma. Differential diagnosis of other lesions including benign tumors (neurofibroma, neurilemmoma, granular cell tumours and lipoma) and mucocele must be excluded by biopsy.

Case Description

Patient Information

A 3-year-old girl reported to the Department of pedodontics, with chief complaint of growth on of the left side of the tongue for 3 months associated with difficulty in speech and mastication. The patient was systemically healthy. history of adenoids surgery since 3month ago. It initially started as a small

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lesion, which had grown to its current size with history of tongue bite after general anesthesia. Chewing and normal oral functions were affected by the growing lesion. In addition, the child did not show any associated habits. Nor does the child nor the mother remember any other event that must have triggered the growth of this lesion. But the child did play with it while biting on it.

Clinical Finding

Clinical intraoral examination revealed a well-defined, pedunculated, single, and ovoid growth of normal mucosal color present on the left lateral border of the tongue (Fig. A). On palpation, it was firm in consistency, nontender lesion measuring 0.9 × 1mm in size, and not associated with any ulceration or bleeding. Hard tissue examination no presence of sharp cusps of teeth. No extraoral swelling and no lymphadenopathy were present. A tentative diagnosis of traumatic fibroma was made based on the patient's history and clinical findings. Chronic fibrous hyperplasia, pyogenic granuloma, peripheral ossifying fibroma, and peripheral giant cell granuloma were among the differential diagnosis. The patient's parents gave informed consent after being apprised of the treatment procedure. Blood tests were conducted and found to be within normal norms

Surgical Procedure

The tongue was immobilized by holding the tip with dry gauze during the procedure. Excision was done from pedunculated area by tight surrounding with vicryl suture 3-0 and follow up for 3 day. 5th day, lesion excised by own.There was no bleeding at the surgical site, but color start change after 16 hours. The sample was placed in a container with 10% formalin solution and sent for histopathological analysis right away.

Histopathological Features

Normal to hyperplastic para to orthokeratinised epithelial cell with elongated connected rete ridges. Focal hyperplasia of fibroblasts and collagen fibers are present in underlying connective tissue, with little or no inflammatory cell infiltration. Based on the clinical and histopathological findings, we confirmed the diagnosis of traumatic fibroma (Figure 1).

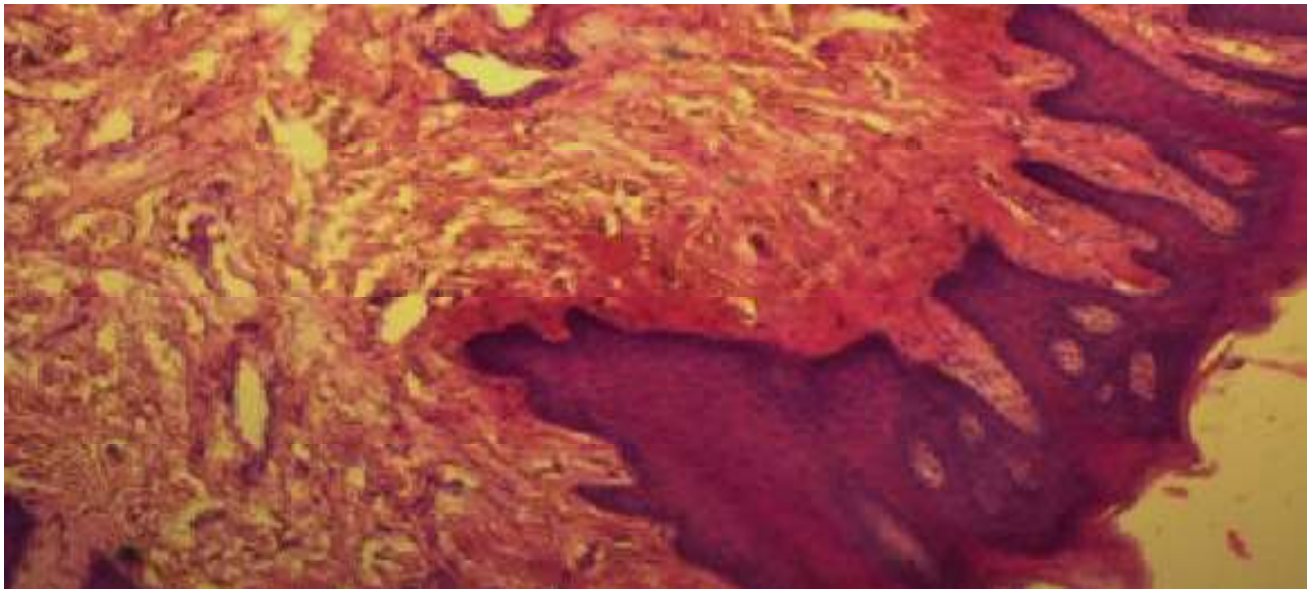

Fig. 1: Histopathological findings.

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Follow-up

A follow-up after 3 days, 1 week, 1 month, and at the end of the 6th month was done. The patient reported no pain or discomfort. The lesion healed with no recurrence.

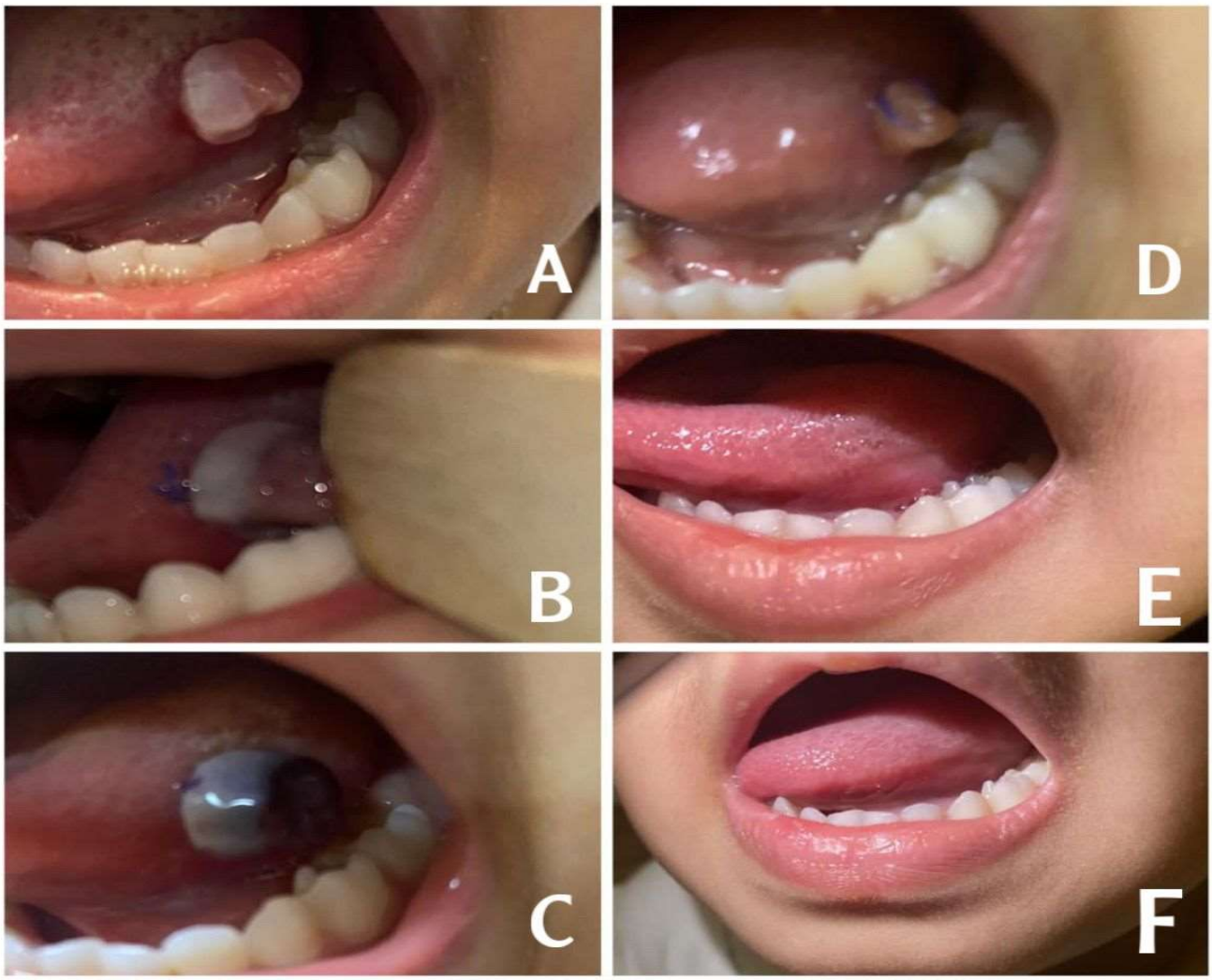

Fig. A: Growth on the left lateral border of the tongue. **Fig. B:** Suture ligation on the left lateral border of the tongue after few hours. **Fig. C:** Suture ligation on the left lateral border of the tongue after 3 days. **Fig. D:** Suture ligation on the left lateral border of the tongue after 5 days. **Fig. E:** Postoperatively after 1 week. **Fig. F:** Postoperatively after 6 months.

Discussion

In the oral cavity, fibroids appear to be the most prevalent benign soft tissue tumors. In fact, it is actually a localized proliferation of dense collagenous fibrils resulting from regional trauma rather than prolonged irritation rather than a true tumor [4]. A traumatic fibroma is essentially a submucosal fibrous mass consisting of granulation tissue and scar tissue. Traumatic fibromas, according to Parker and Lucas, show a pattern of collagen regulation based on the location and extent of the lesion. The preferred treatment for traumatic fibroids, as well as for any reactive hyperplasia, is complete surgical excision and resection of the source. The irritant fibroid is treated by removing the causative cause, complete scaling of the teeth, and complete surgical removal to reduce the risk of exacerbation [5]. Excision was

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treated in different ways depending on anatomical and clinical factors. Treatment options include the traditional surgical approach, use of a soft tissue laser, cryosurgery, or electrosurgery [6]. The most common form of treatment is surgical excision with a scalpel, which involves complete excision of the lesion with safety margins during the surgical procedure. Control of intraoperative bleeding, the need for sutures, and the possibility of postoperative edema are all drawbacks of conventional knife surgery [7]. Suture ligation ablation allows for more efficient diagnosis and treatment of soft disorders in children's mouths and teeth. Due to its low invasiveness, suture treatment is favorably received by both children and parents. In this example, the suture was employed to minimize bleeding and postoperative pain while also promoting rapid healing with little scarring, also no need of local anesthesia preoperative.

With the support of hemostasis during soft tissue therapies, and stop blood supply for the lesion, wound healing can be accelerated, resulting in less postoperative discomfort and a lower need for analgesics. The majority of soft tissue treatments do not necessitate the use of a local anesthetic. The time spent in the operator chair is shortened when soft tissue treatments are performed with suture.

Conclusion

Proper evaluation of the case with careful clinical and histological diagnosis is essential for the treatment of irritational fibroma.

Irritational fibroma, although benign, can be quite bothersome to the patient and requires surgical removal. From the patient's and clinician's point of view, Suture ligation ablation has been touted as simple, safe, and effective method of removing the fibroma.

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Conflict of interests:

The authors declare no conflict of interest.

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