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A CASE REPORT

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RUNNING TITLE: Traumatic fibroma

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ABSTRACT:
Traumatic fibroma, (also called Irritation fibroma, Focal fibrous hyperplasia, Fibrous nodule or Fibroepithelial polyp) is the benign soft tissue neoplasm occurring in the oral cavity. It is a painless, localized, mass of normal color with a smooth surface and a sessile or, occasionally, pedunculated base. The buccal mucosa, labial mucosa, tongue and gingiva are common sites. Here we report a rare case of traumatic fibroma in the ventral portion of the tongue in a patient twenty years of age.

Keywords: Fibrous hyperplasia, Tongue Growth, Traumatic Fibroma.
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INTRODUCTION:

Irritation fibroma or traumatic fibroma, was first reported in 1846 as polypus and fibrous polyp [1]. It is a common submucosal response to trauma from teeth or dental prostheses and found in 1.2% of adults worldwide. It is a benign exophytic oral lesion [1].

Clinically it appears as a painless, localized, mass of normal color with a smooth surface and a sessile or, occasionally, pedunculated base [2]. It may be formed by the proliferation of dense fibrous "scar" tissue which can result from a single traumatic episode or from repeated, less severe traumatic episodes and chronic inflammation or infection. It is most common in the third to fifth decades of life [2]. The prevalence of oral mucosa fibroma is higher in female (71%) then male (29%) [3]. Irritation fibroma can occur anywhere in the mouth but the buccal mucosa along the bite line is the most common sites [4, 5]. Here we report a rare case of traumatic fibroma in the ventral portion of the tongue in a twenty years old patient.

CASE REPORT:

A 20 year-old male patient, reported to the department of oral medicine and maxillofacial radiology, with the chief complaint of a growth in the ventral portion of the tongue [Figure 1]. The lesion was asymptomatic and had been present for one year. There was an increase in size of the growth since past 4 months. Medical history was uneventful and there was no contributory past dental history.

Patient had tongue thrusting habit since childhood. General and extraoral examinations appeared non contributory. On intraoral clinical examination, a penduculated soft tissue nodule measuring 0.5 x 0.4 mm was noticed in the ventral portion of the tongue, extending superiorly 1.0 mm below from the tip of the tongue along the midline and inferiorly 1.0 cm away from the lingual frenum. Colour of the growth was same as that of the adjacent mucosa, with no surface ulceration, erythema or pus discharge. The lesion was of soft inconsistency, covered by intact mucosa. The surrounding mucosa was normal and the patient's oral hygiene was satisfactory. The incisal edges of left mandibular central and lateral incisors were found to impinge the growth.

Based on the clinical appearance and the lesion's history, the differential diagnosis included mucocele, giant cell fibroma, papilloma, granular cell tumor. The lesion was excised under local anaesthesia and hemorrhage control was achieved. Filing the sharp edges of the offending teeth was also done.

Microscopic examination of the excised specimen revealed a nodular mass of fibrous connective tissue covered by stratified squamous epithelium. The connective tissue is usually dense and collagenized. The lesion is not encapsulated and the collagen bundles may be arranged in a radiating, circular or haphazard fashion. The covering epithelium shows atrophy of the rete ridges and the surface may exhibit hyperkeratosis. Scattered lymphocytes and plasma cells may be seen, most often beneath the epithelial surface [Figure 2].

No postoperative complications were present and the surgical site appeared to have healed well. The patient presented for follow-up examination seven days, fifteen days, and two years postoperatively [Figure 3]. There was no evidence of recurrence of the lesion, and the patient had no complaints pertaining to the lesion.

Figure 1: A growth in the ventral tongue

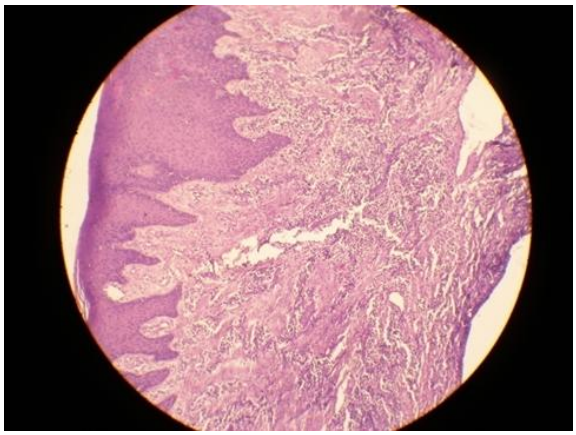

Figure 2: Histopathologic picture showing proliferation of fibroblasts and deposition of collagen fibers in short and cluttered beams

Figure 3: Follow up after 7 days

DISCUSSION:

Traumatic fibroma is most common in the third to fifth decades of life [2]. In the present case, the patient is a twenty year old male. Although irritation fibroma can occur anywhere in the mouth, the buccal mucosa along the bite line is the most common sites, however in the present case the fibroma is in the ventral surface of tongue, which is rare. This inflammatory hyperplasia is the most common oral mucosal mass submitted for biopsy and is usually composed of Types I and III collagen. It is a reactive hyperplasia of fibrous connective tissue in response to local irritation or trauma [3, 6]. Studies on the mean sizes of the different benign tumors have found that the largest of them were lipomas, while on the other hand, the smallest were the fibromas and papillomas [7, 8]. Traumatic fibromas have no malignant potential [9, 10]. Multiple fibromas are seen in conditions like familial fibromatosis, fibrotic papillary hyperplasia of the palate,

tuberous sclerosis, or multiple hamartoma syndromes (Cowden syndrome) [11].

The irritation fibroma is usually treated by conservative surgical excision, electro surgery or soft tissue laser. In the present case surgical excision was the treatment done. Abdulhamed and Merry in their study proved that diode laser provides a marked clinical improvement in excision of soft tissue oral lesions including traumatic fibroma, without the need for surgical intervention [12].

CONCLUSION:

The great majority of soft tissue masses of the oral mucosa are considered to be reactive rather than neoplastic in nature. These benign reactive proliferations are much more common in the mouth than the other parts of body, because of the tendency of mucosa to get traumatized by sharp, hard teeth and prosthetic appliances. The differential diagnosis of irritation fibroma is based mainly on the location of the soft tissue swelling and the final diagnosis should be always based on histopathological examination.

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