Traumatic fibroma in buccal mucosa: A case report and literature review

S Prasanna*, G Nandhini, K Rajkumar

Email: dr.prasanna1oralpath@gmail.com

Abstract

Fibroma is the most common benign tumour of oral cavity with tongue, gingiva and buccal mucosa as the commonest site of occurrence. Females are most commonly affected than males (2:1). It is well demarcated with size ranging from few millimetres to few centimetres, sessile or pedunculated. They are usually characterized by slow growth, painless, smooth surface and colour paler than the adjacent tissue. Total excision is the treatment of choice and recurrence rate is less. The case report presents a case of fibroma in a 70 year old male along with brief review of literature on oral fibroma.

Key words: Benign tumour, oral fibroma, soft tissue tumour, traumatic fibroma

Introduction

Inflammatory hyperplastic lesion are categorized as those lesion which show increased organ or tissue size because of any local response of tissue to injury or rise in number of constituent cells. The causative agents like chronic cheek biting, overextended borders of appliances, overhanging margins, foreign bodies, calculi are usually termed as traumatic irritants. Fibroma is a benign neoplasm of fibroblastic origin and it occurs as a result of the response to local irritation or trauma that causes reactive hyperplasia of fibrous connective tissue.1

Traumatic fibroma is generally considered as an inflammatory hyperplastic lesion which is in healing phase and it can occur in any age from any soft tissue location most common being buccal mucosa, tongue and gingiva. It presents itself as a slow, painless growth and which is seen for over period of months or years.2 Clinical presentation of the lesion is characterized as a localized growth with smooth surface, hard in consistency, sessile or pedunculated measuring usually less than 1.5 cm with colour as that of normal mucosa. The site of predilection for these benign tumours are anterior maxilla more specifically interdental papillary region.3

Case report

A 70 year old male patient reported to the outpatient department with a chief complaint of growth in his left side cheek for past eight years. Patient was a known hypertensive for past four years and under medication. The patient had maxillary and mandibular completely edentulous dental arches for past three years and had undergone complete denture treatment.

On intraoral examination of the oral cavity, it revealed a single soft tissue swelling in the left buccal mucosa in relation to 36, 37 region which was well circumscribed measuring approximately 2x2 cm in size, pale pink in colour and overlying mucosa

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appeared normal (Figure 1). On palpation, all the inspectory findings regarding site, size, shape was confirmed and the growth was soft in consistency and pedunculated (Figure 2). Under local anaesthesia, excisional biopsy was performed and the specimen was sent for histopathological examination (Figures 3, 4, 5 and 6).

**Figure 1:** Extra oral presentation

**Figure 2:** Intra oral presentation of the lesion

**Figure 3:** Gross picture of the specimen

**Figure 4:** 4x view showing overlying parakeratinized stratified squamous epithelium with dense collagenous connective tissue

**Figure 5:** 10x view showing hyperplastic nature of the overlying epithelium

**Figure 6:** 40x view showing hyperchromatic basal cells, numerous budding and mature blood vessels of varying sizes with mild inflammatory cells surrounding them

Histopathological examination showed a parakeratinized stratified squamous epithelium covering a mass of connective tissue made of loose to dense collagen fibres. The surface epithelium was mostly hyperplastic with acanthosis and intracellular oedema of the spinous cell layer. The connective tissue showed mild to moderate inflammatory cell infiltration.
The deeper portion showed collections of fat cells and sections of muscle. Based on the clinical and histopathological findings, the case was diagnosed as traumatic fibroma.

Discussion
The most common soft tissue tumour seen in the oral cavity is the fibroma and it is commonly found in locations that are prone to trauma or irritation. They are generally asymptomatic, can be seen in all organs and most commonly occur in fourth decade of life.4

Tissue enlargements can be present in the oral cavity due to various pathological processes happening in the tissues leading to challenges in diagnosing these lesions. Among these, few enlargements are seen to occur because of chronic tissue injury that stimulates an excessive tissue response.5 Kfir et al. has classified reactive gingival lesion as fibrous hyperplasia, peripheral fibroma, with calcification, pyogenic granuloma, or peripheral giant cell granuloma.6 Various patterns of collagen arrangement are seen as suggested by Barker and Lucas, based on the site of the fibroma lesion and on the amount of irritation leading to it. They generally show two patterns of arrangement, radiating and circular types. The radiating type shows fibres radiating towards the epithelium from the base of the lesion depicting that these areas are subjected to higher degree of trauma and in sites which are immobile especially in palatal region. The circular pattern, shows a central mass of disoriented fibres surrounded by a peripheral layer of collagen fibres running beneath and parallel to the overlying epithelium and they are seen in regions with lesser trauma and flexible in nature.7,8

Presence of a capsule, sharp demarcation of the tissue from surrounding normal tissue and the characteristic of collagen fibres in the lesion are the characteristics that differentiate a true fibroma.

Conclusion
Fibromas are generally termed as benign tumour of fibrous connective tissue. The histopathological features of the present case showed the features of a fibroma. But thorough clinical, radiographic and histopathologic features in combination with surgical findings are required to identify these lesions and to accomplish this; we need more studies to evaluate the true nature of such fibromatous lesions.

References