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An Unusual Occurrence of Epulis Fissuratum in Mandible ; A Case Report and Literature Overview.

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ABSTRACT

Occasionally long term usage of a complete denture in edentulous patients results in fibrous inflammatory reactions in the underlying and peripheral mucosa. Epulis fissuratum is one such reactive lesion of oral mucosa which occurs due to the local irritation from the existing long standing overextended denture flange resulting from residual ridge resorption. The literature suggests that such lesions are seen more commonly in maxilla and anterior part of the labial sulcus and has a female predilection. This article describes a case of uncommon occurrence of epulis fissuratum in mandibular lingual sulcus in a male patient.

KEYWORDS complete denture, epulis fissuratum, lingual sulcus.

Introduction

In everyday clinical practice clinicians frequently come across geriatric edentulous patients who are reluctant to part away with their old dentures. Adaptability to the dentures, comfort, economic and psychological reasons, physical disability could be the probable reasons for the reluctance. Long term use of denture may culminate into reactive lesions of oral mucosa. Epulis fissuratum is one such denture related oral mucosal lesion. Epulis fissuratum is also known as Denture-induced hyperplasia, inflammatory fibrous hyperplasia Granuloma fissuratum and denture epulis. This reactive lesion may extend few millimeters or involve complete vestibule. Literature shows a female predilection [1-8] and prevalence in the maxillary jaw. [6, 9-12] An uncommon occurrence of epulis fussuratum in mandibular anterior lingual sulcus in a male patient is discussed in this case report.

Case report

A 62 year old male patient reported to the Department of Prosthodontics, for construction of new set of dentures . His past dental history disclosed that the patient was completely edentulous since15 years and wore a single set of maxillary and mandibular acrylic complete dentures for 12 years. The patient had a habit of tobacco chewing and smoking since 30 years. The condition of the existing denture was poor, which exhibited gross attrition of anterior and posterior acrylic teeth, few dislodged posterior teeth and staining of dentures due to tobacco chewing, smoking & poor hygiene maintenance.

Extraoral examination revealed that the vertical dimension of occlusion was decreased due to attrition of teeth, however , the TMJ was asymptomatic. The lower lip was everted, oral commissures were inverted, the lips lacked support, the mentolabial sulcus was deep.

The intra oral examination revealed that the patient had atwood order VI resorbed mandibular alveolar ridge and order IV maxillary alveolar ridge. The mandibular ridge was covered by a thin fibrous tissue on the crest of the anterior part. A single roll of hyperplastic tissue was seen in the sublingual crescent area in the region of incisors 3 cms in length and 1 cm in width (Fig 1). The growth was pink in appearance, firm, movable, attached at a base and non tender. The patient did not have any complain with respect to the lesion.

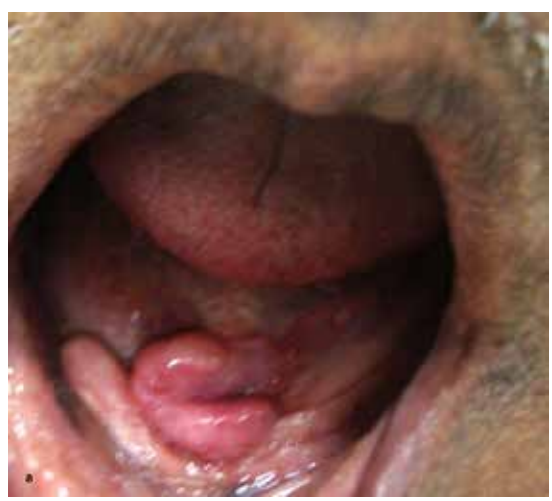

Figure 1 - Epulis Fissuratum seen in mandibular sublingual crescent area

There was no medical history contributing to the occurrence and growth of the lesion. The maxillary denture was stable and retentive, however mandibular denture lacked stability and retention. The hyperplastic growth was seen with respect to overextended mandibular lingual flange. A provisional diagnosis of epulis fissuratum was made based on the clinical findings and past dental history of the patient . The overextended denture flange was reduced . Patient was advised tissue rest by restricting denture wear, regular and vigorous massage in the area of lesion as well as mandibular ridge crest for one month. [13] At the follow up appointment improvement was noticed at the alveolar crest area. But the hyperplastic tissue did not show much regression. As the lesion continued to exist a decision of surgical removal of epulis fissuratum was made. Medical history ruled out the presence of any systemic diseases. Physical fitness and consent was obtained from the patient before undergoing surgical procedure. The lesion was surgically excised following aseptic technique (Fig 2) .

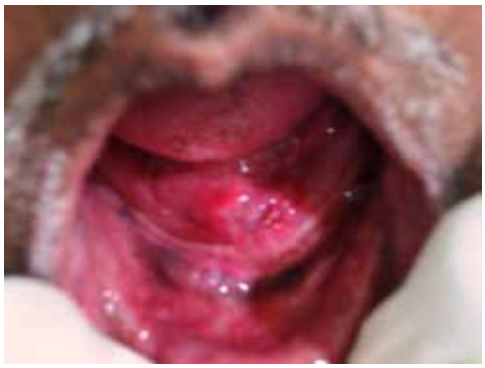

Figure 2 - Healing seen 1 week post surgery

The excised specimen was sent for histolopathological examination. The histological examination revealed pseudoepitheliomatous hyperplasia and the connective tissue component. The connective tissue showed the presence of blood vessels of varying calibre and few inflammatory cells confirming the diagnosis of epulis fissuratum (Fig 3)

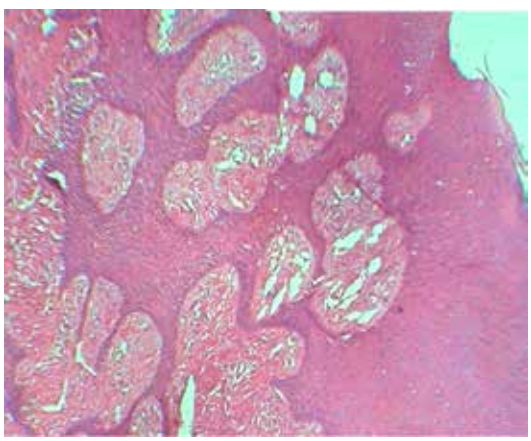

Figure 3 - Low magnification histopathological section showing fibrous tissue and inflammatory infiltrate.

The patient was recalled after a week for removal of sutures. New set of dentures was constructed one month postoperatively. Special precautions were exercised in the fabrication of mandibular denture. A final impression of mandibular arch was made using with admixed technique advocated by McCord and Tyson [14] to record the details of order VI ridge. The lost Vertical dimension of occlusion was restored and verified using esthetics and phonetics method. Neutral zone was recorded and balanced occlusal scheme was developed to improve the stability and retention of the mandibular denture. After denture placement regular recalls were made to assess the outcome of new dentures. A follow up of 4 years did not show any recurrence till writing of this paper.

DISCUSSION

Epulis fissuatum or denture induced hyperplasia around the complete denture border is the result of fibroepithelial response to complete denture wearing. It is often asymptomatic and may be limited to the tissues around the borders of the dentures in vestibular, lingual or palatal regions. Epulis fissuratum occurs in the free mucosa lining the sulcus or at the junction of attached and free mucosa. With time , due to residual ridge reduction even the best fitting denture gradually develop overextensions as a result of settling into different positions on basal seat. [13] Along with overextended borders tipping forces resulting from imbalanced occlusion can also be a causative agent. [10,15]

The lesion shows female predilection [1-8] and it is mostly seen in the maxilla [6,9-12]. However , there are contradictory studies which support the prevalence in mandible [8, 16-17] and equal predilection amongst male and female [18,19]. The anterior regions of the jaws are more frequently affected than the posterior regions. [8-10, 12, 17, 18, 20] The size of the lesion may be as small as a few millimeters to massive lesion involving the entire vestibule. It is usually asymptomatic but sometimes severe inflammation and ulceration can occur. The lesion may occur singly or in combination with denture stomatitis. [13] The healing takes place uneventfully after the modification and correction of overextended denture flanges or surgical removal. [12, 21,22]

Jainkittivong et al. evaluated 500 patients [3], Mikkonen et al. studied approximately 1,900 patients [4] , Coelho et al studied 305 patients [6] . In their respective studies all of them found out that the hyperplasia was prevalent among the females. However , in the case report our finding was observed in a male patient, presenting in the lesion in the lingual sulcus contrary to the information available in the literature, which makes this case rare one.

Conclusion –

An unusual case of epulis fissuratum is discussed . A male patient presenting with an epulis fissuratum in the ,mandibular lingual sulcus due of long term use of old denture was treated first by conservative approach followed by surgical excision. After surgical wound healing the patient was given a complete denture prosthesis that was prepared by sound prosthodontic treatment planning. Patient was educated regarding the importance of maintenance or oral health and followup procedure.

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