

Report of a Case of Epulis Fissuratum

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Abstract: Epulis fissuratum is an overgrowth of vestibular alveolar mucosal tissue resulting from chronic irritation due to trauma caused by ill-fitting denture flange or broken removable/ fixed partial denture (FPD). The aim of this report is to present a case of Epulis fissuratum in relation to broken fixed partial denture, which was treated without surgical excision.

Keywords: Epulis, fissuratum, Denture, FPD, Hyperplasia, Mucosa.

INTRODUCTION

Epulis fissuratum is a mucosal hyperplasia that results from chronic low-grade trauma induced by a denture flange [1]. It arises in association with denture flanges or broken FPD and is usually observed in the maxillary or mandibular vestibule. Clinically presents as excess folds of firm vestibular soft tissue, as a result of rubbing of the edge of dentures that does not fit well [1]. This case report describes a case where the epulis fissuratum was treated without surgical excision.

CASE REPORT

A 40 year old male patient reported to the department of oral medicine and radiology with the chief complaint of broken fixed partial denture in the upper jaw since 1 week. The patient had been using FPD since 5 years. The FPD fractured 1 week back, following which patient noticed hyperplastic folds of alveolar mucosa involving labial vestibule bilaterally. The patient had a habit of smoking 4 beedi's/ day since 2 years.

Systemic examination revealed no significant abnormality. On intraoral examination the salient points noted were: partially edentulous maxillary arch with broken FPD in relation to 16 to 27 region (Fig. 1), poorly fabricated FPD over mandibular arch and exophytic, pedunculated growth in upper labial vestibule on facial aspect involving 12, 13 region and 23, 24 region on right and left side respectively. The growth was pinkish - red in

colour (Fig. 2) with lobulated surface, firm in consistency and non-tender on palpation.



Fig. 1: Broken upper FPD



Fig. 2: Exophytic growth bilaterally involving upper labial vestibule.

The provisional diagnosis of epulis fissuratum was made. Differential diagnosis of pyogenic granuloma, peripheral ossifying fibroma and peripheral giant cell granuloma were also considered. Patient was preceded with removal of broken upper FPD and lower FPD. Successive follow-ups were done at an interval of 2 week (Fig. 3), 4 week (Fig. 4) , 8 week (Fig. 5, 6) which showed regression in size of growth and at the end of 8 weeks complete regression was noted and a removable complete denture (RPD) was fabricated (Fig. 7).



Fig. 3: Follow up after 2 weeks



Fig. 4: Follow up after 4 weeks



Fig. 5: Follow up after 8 weeks showing almost complete regression of on left side



Fig. 6: Follow up after 8 weeks showing almost complete regression on right side



Fig 7: New complete denture fabricated at end of 8 weeks.

DISCUSSION

'*Epulis fissuratum*' also known as 'Granuloma fissuratum' is an oral pathologic condition that appears in the oral cavity as an overgrowth of fibrous connective tissue [2]. It is also known as inflammatory fibrous hyperplasia, denture epulis, denture induced fibrous hyperplasia. The word "epulis", can be used to describe any gingival tumor, but it is widely used in association with this specific condition. It is associated with the edges of a denture that irritate the mucosa which could result in epulis [1].

In an epidemiological survey done the incidence of epulis fissuratum was found to be 0.37 lesions per 1000 persons in the 18-22 year age group and in people aged > 35 years was found to be 4.1 per 1000 persons and with an incidence of 3.5% in males and 4.4% in females [1].

An ill-fitting / broken denture results in excessive pressure on the oral tissues. This in turn increases keratinisation and proliferation of connective tissue because of inflammation resulting in hyperplastic tissue mass. It appears as single or multiple folds of hyperplastic tissue in the alveolar vestibule. The redundant tissue is usually firm and fibrous, although some lesions appear erythematous

and ulcerated. The size of the lesion can vary from localized hyperplasias < 1cm in size to massive lesions that involve most of the vestibule.

It usually develops on facial aspect of the alveolar ridge. Most often occurs in middle-aged and older adults, females, and in maxilla than mandible. It is more common in anterior than posterior areas of jaws. Another similar but less common fibrous hyperplasia called a fibroepithelial polyp or leaf like denture fibroma, occurs on hard palate beneath a maxillary denture [3]. It is a characteristic flattened pink mass that is attached to palate by a narrow stalk. Usually flattened mass is closely approximated to palate and sits in a slightly cupped out depression. The edge of the lesion is serrated and resembles a leaf [3].

Histologically overlying epithelium is frequently hyperparakeratotic and demonstrates irregular hyperplasia of the rete ridges with underlying hyperplastic fibro-vascular connective tissue. A variable chronic inflammatory infiltrate can also be seen [4]. The differential diagnosis includes peripheral giant cell granuloma, peripheral ossifying fibroma, bony exostosis and pyogenic granuloma.

The treatment modality for a patient who is a denture wearer and developed epulis fissuratum is to leave the CD/ RPD out of the mouth for several days so that the edema will subside, and the remaining lesion will become considerably smaller. In cases of epulis fissuratum arising due to broken FPD or FPD with sharp edges, complete removal of FPD is the line of treatment. By doing so constant irritating stimulus is omitted from oral soft tissue environment which is the main causative agent for persistence of such lesion. If the condition is not long standing, and rather limited in extent, simply adjusting the denture flange area of CD/RPD in the affected area will bring about a resolution of the lesion. The use of tissue conditioners will also help to subside the lesion [5]. If still does not resolve, the lesion's surgical excision becomes imperative. Surgical options include scalpel biopsy or carbon dioxide laser excision. This is followed by fabrication of a new set of adequately fitting dentures [5].

CONCLUSION

For treating Epulis Fissuratum cases first emphasis should be given to removal of causative agent such as correction of sharp edges of CD/ RPD/FPD or complete removal of broken CD/RPD/FPD rather than proceeding to surgical excision of lesion as first line of treatment. This will help in limiting inflammatory process in

underlying connective tissue which is mainly responsible for proliferation of overlying epithelial cells and fibro-vascular bundle of connective tissue. As in present case complete remission of such a large growth of epulis fissuratum was seen following removal of broken FPD at the end of 8 weeks.

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