

Denture Induced Gingival Hyperplasia-A Case Report

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Case Report

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Abstract: Gingival overgrowth is a common clinical finding and most of them represent a reactive hyperplasia caused by various etiological factors, plaque being a major etiology. Gingival enlargement can be focal or diffuse in nature. Focal gingival enlargement is seen to be associated with benign proliferation. A poorly fitted prosthesis can give rise to a plethora of problems like pain, discomfort in mastication and speech and epulis fissuratum. Epulis fissuratum refers to reactive tissue response to excessive mechanical pressure imparted by the poor fit of prosthesis. In this article, we discuss a case of epulis fissuratum in a 58-year-old male patient. This case report demonstrates the excision of the overgrowth using electrocautery.

Keywords: Gingival hyperplasia, Fibrotic hyperplasia, gingival overgrowth.

INTRODUCTION

Gingival enlargement or gingival overgrowth, a common trait of gingival disease, is characterized by an increase in the size of gingiva [1,2]. Hyperplasia and hypertrophy are two terms used in pathology to explain gingival growth abnormalities in living tissues. To make the difference between hyperplasia and hypertrophy is important, as these terms are often used for this condition. When we say hyperplasia that means that the cells in the gums have increased in numbers. As for the hypertrophy, it means that the cells in the gums have maintained their number constant but their size has increased.

Epulis fissuratum refers to reactive tissue response to excessive mechanical pressure imparted by the poor fit of prosthesis. The lesion is usually painless [3].

A poorly fitted prosthesis can give rise to a plethora of problems like pain, discomfort in mastication and speech and epulis fissuratum. Prolonged use of ill-fitting denture (removable partial denture/complete denture and continued use of broken denture are the etiologies for epulis. The usual appearance is of two excess tissue folds in alveolar vestibule/buccal sulcus, with the flange of the denture fitting in between the two folds. The cause is usually pressure from the flange of a denture which causes chronic irritation and a hyperplastic response in the soft tissues.

Typically, patients with epulis fissuratum are asymptomatic. The tissue is usually firm with a pinkish appearance, and it has a distinctive fissure where the edge of the flange sits. It may occur in either the maxillary or mandibular sulci, although the latter is more usual. Anterior locations are more common than

posterior. Less commonly there may be a single fold, and the lesion may appear on the lingual surface of the mandibular alveolar ridge. The swelling is firm and fibrous, with a smooth, pink surface. The surface may also show ulceration or erythema. In this article, we discuss a case of epulis fissuratum in a 58-year-old male patient.

CASE PRESENTATION

A 58-year-old male patient reported to the outpatient department with a chief problem of discomfort while using his removable partial denture from the last 20–25 days. He has been wearing the denture from the last 4 years. His medical and family history was non-relevant. On intraoral examination, a hyperplastic tissue folds in the maxillary labial vestibule with maxillary denture flange fitting in between the tissue folds [Figure 1,2].



Fig-1: Pre-Operative view



Fig-2: RPD under the growth

The lesion was firm, nontender. The denture hygiene was poor. It was surrounded by erythema and was the cause of discomfort for the patient due to excessive and continuous mechanical pressure imparted by faulty removable partial denture. A diagnosis of denture-induced fibrous hyperplasia was made and the patient was instructed to stop wearing denture. Oral prophylaxis was done in the upper arch. Seeing the

extent of the lesion, a surgical resection was planned the tissue was infiltrated with local anesthesia containing adrenaline 2%, infraorbital and incisive nerve blocks were given. Using electrocautery the resection was then carried out. Hemostasis was achieved. The field was cleaned with betadine and saline solution. Postoperatively, antibiotics and analgesics were prescribed [Figure: 3].



Fig-3: Surgical excision done and electrocautery used and sutures placed to arrest bleeding

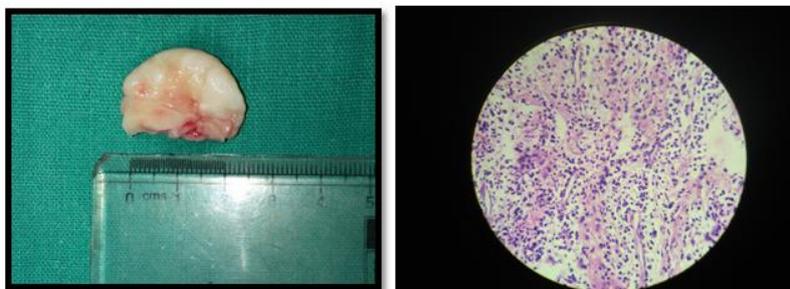


Fig-4: Histological presentation of the excised tissue specimen

The patient was instructed not to wear the denture and rinse the mouth with chlorhexidine mouthwash. The excised specimen [Figure 4] was sent for histopathological examination. It revealed hyperplastic epithelium in most of the areas, and the underlying connective tissue was fibrous, with moderate inflammatory infiltrate consisting of

predominantly lymphocytes. The patient was recalled for follow-up after a week and the healing was satisfactory. The new denture was fabricated after 1 month [Figure 5]. The patient is on regular follow-up for 6 months and there was no recurrence of the lesion till date.



Fig-5: Periodontal dressing placed after excision, Post-Operative view after one week

DISCUSSION

The term 'epulis' was coined by Virchow and it literally means 'over the gums'. But usage of this term is not appropriate as it refers only to site. Because of this reason another term, 'denture-induced fibrous hyperplasia' is considered to be a much preferred term.

Denture-induced fibrous hyperplasia is an adaptive growth caused by chronic irritation from badly adapted prosthesis with variable hypertrophy and hyperplasia [4].

The two main etiological factors are irritation and trauma from denture [5]. Denture-induced hyperplasia may be treated conservatively or surgically. Since the lesion was large it was treated with surgical excision followed by fabrication of new denture and the patient was educated on the need to maintain the oral hygiene.

When the area to be excised is minimally enlarged, electrosurgical or laser techniques provide good results for tissue excision.[3]After excision the area was sutured and periodontal pack was placed. The hyperplastic tissue usually represents only the result of an inflammatory process; however, other pathologic conditions may exist. It is therefore imperative that tissue samples should always be submitted for pathologic examination after removal [6].

CONCLUSION

A case of successfully managed denture-induced hyperplasia is presented. The need for regular maintenance visits and good denture hygiene habits is also highlighted. Patients with epulis fissuratum should be educated about the benign nature of the condition, treatment options, and importance of not to wear the dentures at night time.

REFERENCES

1. Agrawal AA. Gingival enlargements: Differential diagnosis and review of literature. *World Journal of Clinical Cases*. 2015; **3**:779-788.
2. Baltacıoğlu E, Yuva P, Yılmaz M, Atagu O, Kehribar MA. Periodontal treatment of gingival hyperplasia cause of Cyclosporin : A case series. *The Journal of Dental Faculty of Atatürk University*. 2013; **23**: 82-88.
3. Omal PM, Mathew SA. Denture-induced extensive fibrous inflammatory hyperplasia (Epulis fissuratum) *Kerala Dent J*. 2010;**3**:154-5.
4. Tamarit-Borrás M, Delgado-Molina E, Berini-Aytés L, Gay-Escoda C. Removal of hyperplastic lesions of the oral cavity. A retrospective study of 128 cases. *Medicina oral, patología oral y cirugía bucal*. 2005;**10**(2):151-62.
5. Canger EM, Celenk P, Kayipmaz S. Denture-related hyperplasia: A clinical study of a Turkish population group. *Braz Dent J*. 2009;**20**:243-8.
6. Bhusal D, Joshi S. Comprehensive complete denture rehabilitation, a way to achieve recovery of abused tissue: A case report. *J Nepal Dent Assoc*. 2010;**11**:59-6.