

## A Case of Denture Injury Tumor

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### Introduction

A 66 year old, male patient walked into the outpatient department with a complaint of loose teeth set in the lower front region, since 5 months and desired replacement of the teeth set. The lower incisors were mobile and fell off by itself eight months back after which he fabricated his denture. Patient is diabetic since 6 years and under medication. Intra oral examination showed missing teeth in his lower anterior region. A sessile exophytic growth was also noticed on the lower labial mucosa of the mandibular arch in the anterior region which extended symmetrically on either side of the midline (Figure 1). The lesion was split longitudinally all along its length forming two folds and the denture sat comfortably in between the folds (Figure 2). The superficial fold towards the labial mucosa was small, measuring 1 x 0.5 cm and the fold towards the alveolar ridge was larger measuring 2x 1.5 cm in size. The surface of the lesion was smooth and the colour and texture was same as that of the surrounding mucosa. In the centre of the two folds was a solitary ulcer about 1.0mm in diameter. The patient was unaware of the growth as well as the ulcer. On palpation the tissue was firm in consistency and non tender. According to the history and clinical examination a provisional diagnosis of denture induced inflammatory fibrous hyperplasia/ Epulis Fissuratum was given. Withdrawal of the denture and topical application of analgesic gel over the affected site

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was prescribed. Exophytic lesion was excised and medicines like antibiotics and analgesics along with anti-inflammatory drug were prescribed. And a new denture was fabricated after the excised site healed. The excised tissue was sent for histopathologic examination. H & E section revealed increase in the number of epithelial cells. Epithelial cells were hyperkeratotic and irregular. Fibrous connective tissue had numerous inflammatory cells.



Figure 1: Sessile exophytic growth on the lower labial mucosa.

Figure 2: Denture lying over the lesion.

Epulis is a very generic term referring to gingival masses of mixed cell origins and are mostly residues of periodontal cells [1]. The term 'epulis' was given by Virchow, which means 'over the gums'. As the term refers only to site much preferred term is 'denture-induced fibrous hyperplasia'.<sup>2</sup> Other names used to describe the lesions are redundant tissue, denture injury tumor, and denture epulis.<sup>3</sup> Denture-induced fibrous hyperplasia is an adaptive growth because of chronic irritation from

badly adapted dental prosthesis [2]. Other causes include wearing denture day and night continuously, poor oral hygiene, smoking, age-related changes, and systemic conditions [3]. Females are usually affected, with age group of 30-60 years, with a peak incidence in the sixth decade. Maxilla is more affected than mandible. Anterior portion of jaws is often involved [4]. In our case, anterior portion of mandible of a male patient who was in his sixties was affected. Ill-fitting denture and poor oral hygiene induced oral mucosal overgrowth in our patient.

Clinically, the growth may be single or numerous composed of flaps of hyper plastic tissue. And the presence of inflammation varies [4]. It is a raised sessile mass in the form of folds with a smooth surface and normal or erythematous overlying mucosa. Due to chronic irritation, it may get traumatised and present with ulceration on the surface. This mucogingival hyperplasia is a reactive condition of oral mucosa to excessive mechanical pressure on mucosa (as seen in our patient). It produces pain and discomfort but does not affect the mastication, aesthetics and overall well-being of the individual. Chronic trauma in the oral cavity may predispose the patient to carcinoma [2]. Lesions with almost similar clinical features are pyogenic granulomas, fibromas, peripheral giant cell granulomas, peripheral ossifying fibroma, neurofibroma, oral squamous cell carcinoma [4].

Diagnosis is made based on the history and clinical examination of the patient. After surgical excision histopathological examination is required to come to a confirmatory diagnosis. Treatment includes conservative or surgical management based on the duration and size of the lesion. It includes immediate withdrawal of the ill-fitting prosthesis followed by topical application of antifungal agents and paste containing anaesthetics with

local analgesics. Fabrication of new denture should be carried out. In cases of fibrous growth, excision of the lesion becomes necessary. Excision is done either by conventional surgical method or by using laser (a carbon dioxide laser, Erbium: YAG laser, Neodymium-YAG laser, or diode laser) [2,4]. Everything said and done, surgical excision of the lesion remains the best treatment for epulis fissuratum, as carried out in the present case. Prognosis is always good.

To conclude, epulis fissuratum is usually seen in elderly people with chronic trauma associated with ill fitting dentures. Hence care should be practised while fabricating dentures and frequent review must be performed to check for ridge resorption. Proper hygiene of the denture must be instructed.

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