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CASE STUDY

FIBROUS GINGIVAL EPULIS: A CASE REPORT OF A ONE YEAR OLD LESION

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ABSTRACT

Epulis is a clinical term used to describe a localised growth on gingiva. A vast variety of epulis can be classified based on histopathological examination, like fibrous hyperplasia, peripheral ossifying fibroma, pyogenic granuloma/ peripheral giant cell granuloma. Fibrous epulis is a tumour- like lesion of the gingiva caused by local irritation in the interdental papilla. This is a unique case report of a fibrousepulis in the maxillary region attaining a large size in a year's time in a 75- year old male.

INTRODUCTION

Fibrous epulis is considered to be one of the most common benign growth occurring on the gingivae (Shafer *et al.*, 1963; Akinosi *et al.*, 1969). The commonest mechanisms in the development of soft tissue tumour- like lesions in the oral cavity include reactive hyperplasia or neoplasms. The majority of localised overgrowths are considered to be reactive rather than neoplastic in nature (Pour *et al.*, 2008). Although several etiological factors (Shafer *et al.*, 1963; Akinosi *et al.*, 1969) have been suggested, in many cases the cause is unclear (Amies, 1951). Epulis is a reactive massive lesion (Ajagbe and Daramola, 1978; Tajima, 2009) that develops in response to chronic and recurring tissue injury, which stimulates an exuberant or excessive tissue response (Rajanikanth *et al.*, 2012). The fibrous epulis usually appears in the interdental papilla as a result of local irritation (calculus, bacterial plaque, caries/ restorations with irregular margins (Kfir *et al.*, 1980). Although epulis is classically categorized into different subtypes, current literature summarizes three main types namely, Fibrous epulis, Granulomatous epulis and Giant cell epulis (Liu *et al.*, 2012).

CASE REPORT

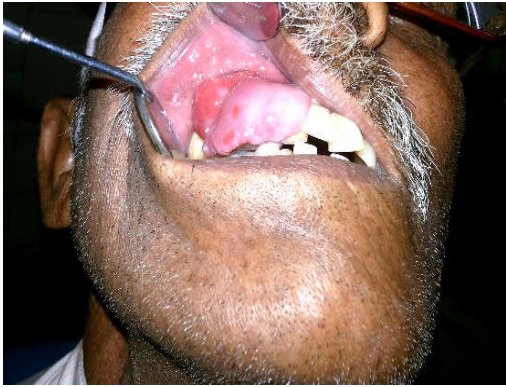
A 75- year old male reported to the out-patient dental department, with a growth in the gingiva causing difficulty in speech and mastication (Fig. 1). Patient gave history of small swelling since one year, which grew in size since past six months. There was difficulty in mastication and speech which led him to seek medical advice. Swelling was evident extra-orally in the upper right anterior region of the jaw. On intraoral examination, a reddish pink, well- defined, firm, non-fluctuant, smooth gingival growth was seen extending from the interdental region of maxillary canine and lateral teeth. There was considerable amount of calculus surrounding the adjoining teeth. Except for controlled hypertension (being treated with Tab. Atenolol 25mg daily) his medical history revealed no other disease. Clinical diagnosis of generalised gingivitis with gingival epulis in relation to maxillary canine and lateral was made. The growth was removed in-Toto by excision of its peduncle with surgical scalpel under local anaesthesia and conscious sedation without tooth extraction (Fig 2). The remaining tissues were cauterised and sutured to prevent any recurrence.

Radiological examination

The orthopantomograph revealed PDL widening with maxillary canine and displacement of the maxillary lateral toward the mesial side.

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Bone resorption was evident in the interdental region. There was no evidence of root resorption in relation to the adjoining teeth. (Fig 3)

Histopathological examination

The excised tissue mass measured 3×2×0.5 cm. It was grey-white in appearance and firm in consistency (Fig 4a, 4b). Haematoxylin & eosin stained sections revealed lining of hyperplastic stratified squamous epithelium (Fig 5). Underlying stroma showed collagen bundles (Fig 5), fibroblasts and blood vessels (Fig 6). Mild chronic inflammation consisting of lymphocytes and plasma cells was also seen.



Fig.1



Fig. 4a. External Surface



Fig.2



Fig 4b. Cut Surface



Fig.3

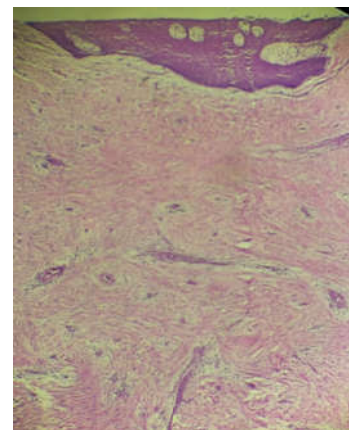


Fig 5. Photomicrograph showing epithelium and collagen bundles with blood vessels ×4x

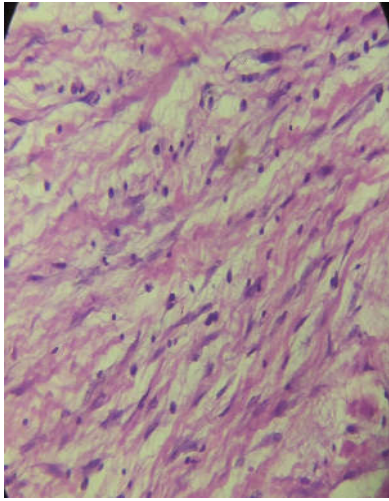


Fig. 6. Photomicrograph showing collagen bundles and fibroblasts×40x

3 Months Follow Up After Surgery



Fig. 7.

Postoperatively

An uneventful healing was evident and patient was recalled after one week for follow up and suture removal. Patient followed up postoperatively at regular intervals and after three months of the surgery there was minimal scarring and healthy tissue around the site of the previous lesion (Fig 7 & 8).

Preoperative View

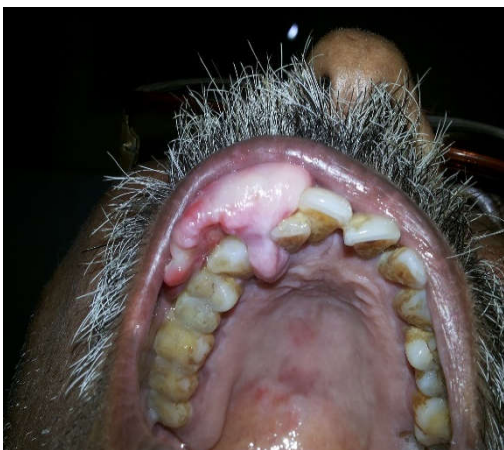
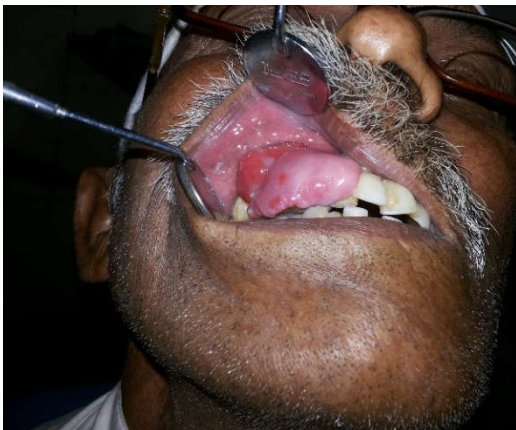
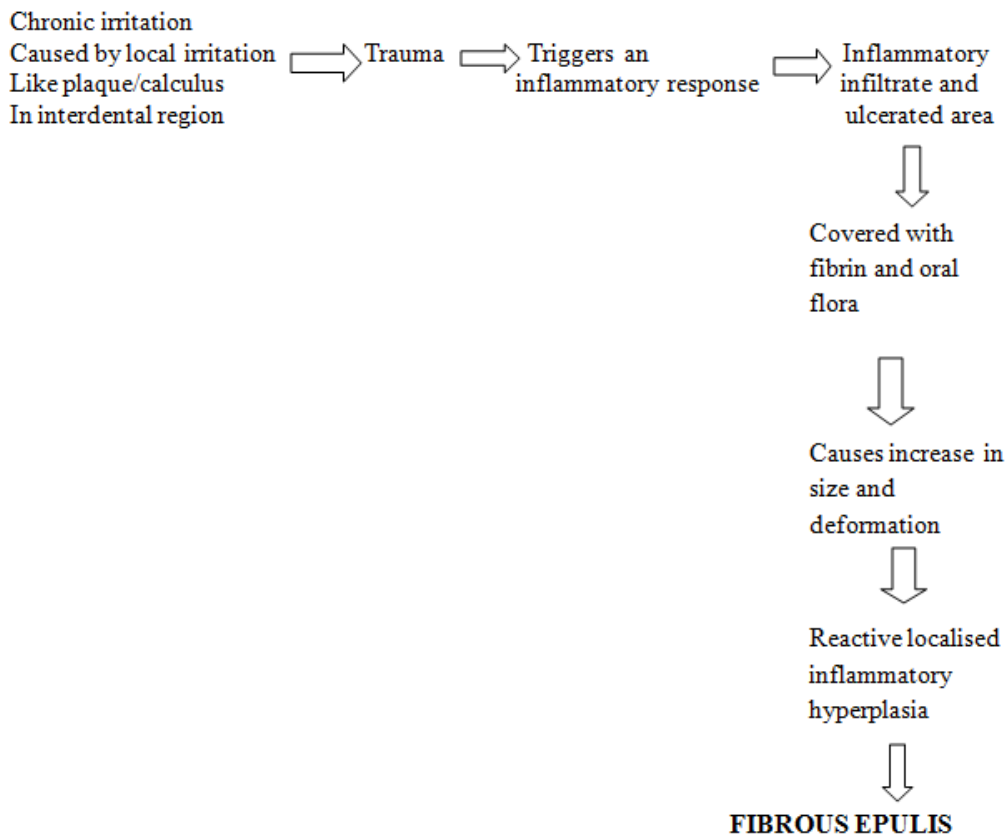


Fig. 8.

DISCUSSION

The most common clinical aspect of fibrous epulis is the growth of well-defined delimited tissue of a smooth surface, usually with normal coloured mucosa, sessile or pedunculated base of hard consistency, mostly located on anterior maxillary region in interdental papillae (Ajagbe and Daramola, 1978; Kfir *et al.*, 1980; Alam *et al.*, 2010). Though these characteristics are consistent with our case, report of a fibrous epulis with this size (Nomura *et al.*, 2003; Halliday *et al.*, 2007; Dabholkar *et al.*, 2008) is unusual. The term Epulis (from the Greek words 'epi' - over and 'oulon' - gums) was first used by Virchow in 1864 and it has generated great controversies in its use (Alam *et al.*, 2010; Tamarit-Borra's *et al.*, 2005). According to the current tenth revision (ICD-10) of the International Classification of Diseases published by the WHO, the 'Fibrous Epulis' is coded as a type of 'Other disorders of the gingival and edentulous ridge (K06.8) (Canadian Institute for Health Information, 2012).

The most common cause of Fibrous Epulis is



Majority of the gingival Epulis occur on the buccal/lingual surface of the gums. Gingival lesions more than 1 cm in diameter are rare on the cheeks, tongue and floor of the mouth because masticatory trauma restricts their size through necrosis and ulceration (Dabholkar *et al.*, 2008).

The term reactive localised inflammatory hyperplasia has been used more appropriately to describe lesions such as pyogenic granuloma/ pregnancy tumour, calcifying fibroblastic granuloma, peripheral ossifying fibroma, fibrous epithelial polyp, fibrous hyperplasia, denture irritation hyperplasia (epulisfissuratum), peripheral giant cell granuloma and fibrous epulis. These conditions can be considered for differential diagnosis of such large lesions and final diagnosis is based on histopathological studies.

Conclusion

Although the aetiology is not exactly determined, continuous trauma due to plaque/ calculus seems to be the predisposing factor for the development of the fibrous epulis in this case. Clinically it is difficult to diagnose the lesion from the other lesions like peripheral ossifying fibroma/ pyogenic granuloma. Hence a histopathological examination of the specimen is mandatory to confirm the diagnosis.

The treatment of choice is surgical excision of the whole growth with its base and elimination of the irritating factors to avoid recurrence.

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