

Case Report

Fibrous epulis associated with impacted lower right third molar

Ni Putu Mira Sumarta and David B Kamadjaja

Department of Oral and Maxillofacial Surgery
Faculty of Dentistry, Airlangga University
Surabaya - Indonesia

ABSTRACT

Background: Epulis or epulides are lesions associated with gingival tissues. Fibrous epulis is a type of hyperplastic fibrous tissue mass located at the gingival which is slow growing, painless, having same color as the oral mucosa and firm on palpation. Anterior regions of the oral cavity are the frequently affected sites as these areas are more prone to be affected by calculus deposition and poor plaque control due to frequent teeth malposition. Removal of any irritating factors and excision of the lesion are the usual treatments. **Purpose:** This case report presents a rare case of fibrous epulis which occurred in the posterior region of the oral cavity and associated with impacted lower third molar. **Case:** A case of fibrous epulis at the lower right third molar area of three months duration is presented. The mass was slow growing, painless and on examination it was a pedunculated mass overlying the unerupted lower right third molar, having same color with the oral mucosa and firm on palpation. Clinically, the lesion was diagnosed as fibrous epulis associated with impacted lower right third molar. **Case management:** The treatment were surgical excision of the epulis and removal of the lower right third molar. The histopathology result showed tissue with squamous epithelial lining, acanthotic fibrous connective tissue, mononuclear inflammatory cells and few capillaries without signs of malignancy. This is consistent with the diagnosis of fibrous epulis. **Conclusion:** Fibrous epulis, although frequently occurred at the anterior region of the oral cavity, may rarely grow at the area of lower third molar. This phenomenon supports the theory that epulis can grow on any surface of oral mucous membrane as long as local irritants are present.

Key words: epulis, fibrous epulis, excision, impacted molar

Correspondence: Ni Putu Mira Sumarta, c/o: PPDGS Departemen Bedah Mulut dan Maksilofasial, Fakultas Kedokteran Gigi Universitas Airlangga, Jl. Mayjend. Prof. Dr. Moestopo No. 47 Surabaya 60132, Indonesia. E-mail: putumira_omfs@yahoo.co.id

INTRODUCTION

Epulis or epulides means “on the gums” are lesions associated with the gingival tissues.¹ Other literature states that when a reactive focal connective tissue proliferation is confined to the gingiva and its exact histologic nature is unknown, it is clinically designated as an epulis. The most common lesions referred to as epulis are peripheral fibroma, peripheral ossifying fibroma, pyogenic granuloma, and peripheral giant cell granuloma.² Traumatic and inflammatory factors constitute favorable conditions for epulis development. Their size varies from 2.5 to 3 cm, in most cases they are pedunculated, and their color varies depending on the tissue structure. Depending on

the histopathological image and clinical picture there are several types of epulis: fibrous epulis, granulomatous epulis, and gigantocellulare epulis.³

Fibrous epulis is another hyperplastic fibrous tissue mass located at the gingiva. It may represent resolving pyogenic granulomas. Usually the fibrous epulis has the same color as the oral mucosa which is light pink, firm on palpation, and has a fibrous texture although sometimes hard if bone is present within the lesion.^{1,3}

The majority of inflammatory reactive hyperplasias occur on the surface of the oral mucous membrane where irritants are quite common.⁴ Fibrous epulis in adults occurs due to chronic irritation or trauma, due to factors such as dentures, a carious tooth, faulty restorations, and

subgingival calculus.^{5,6} Removal of any irritating factors and excision is the usual treatment. These lesion, however may recur if the lesion is not excised totally.^{1,5}

Most reports showed that the anterior region of oral cavity is most frequently affected than the posterior region.⁷ A case of fibrous epulis at the posterior region of oral cavity which is considered rare in terms of site of occurrence, is presented here.

CASE

A 33 year old female patient presented with main complaint of a mass at lower right third molar area since 3 months previously. The mass was slow growing and there had been no pain. The growth was felt by the patient to be preceded by swelling and pain in that area.

Clinically the patient was in good general condition. Intra orally, there was a pinkish lobulated mass, with 3 cm in diameter about 3 cm, distal to the lower right second molar overlying the unerupted lower right third molar (Figure 1). It was found to be pedunculated, firm on palpation, and



Figure 1. The pinkish lobulated mass located distal to the right lower second molar overlying the unerupted lower right third molar.



Figure 2. Orthopantomogram showing impacted lower third molar with radiolucencies along periapical of the lower right third molar tooth and bone destruction distal to the lower right third molar tooth.

there was no pain on palpation. The lesion was clinically diagnosed as fibrous epulis.

Orthopantomogram showed impacted lower third molar with widened periodontal space of the lower right third molar tooth. There was bone destruction distal to the lower right third molar, indicating there was a chronic inflammation in the bone, distal of the impacted tooth crown. The bone surrounding the crown of the impacted left lower third molar was within normal limit (Figure 2).

CASE MANAGEMENT

The patient was treated with complete excision of the epulis and removal of the impacted lower right third molar. On excision, the mass was found to be pedunculated distal to the crown of lower third molar, measuring about 3 cm in diameter, firm in consistency and there was subgingival calculus on the lower right second and third molar tooth.

Histopathologic result was fibrous epulis. Microscopic examination revealed tissue with squamous epithelial lining, achanthotic fibrous connective tissue, mononuclear inflammatory cells and few capillaries. There was no sign of malignancy (Figure 3).

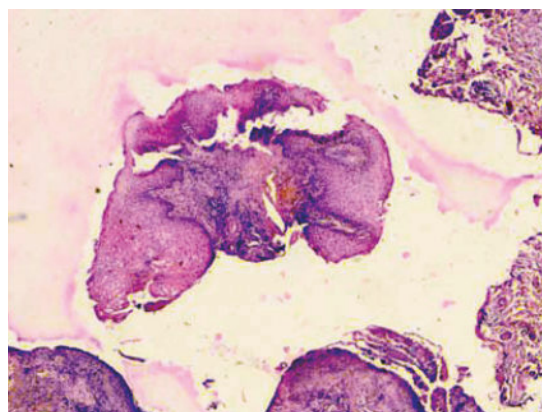
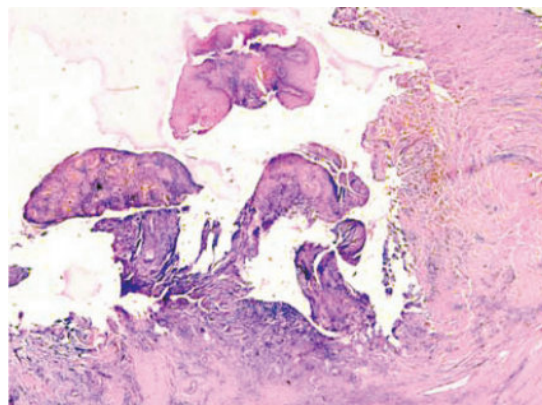


Figure 3. Histopathological examination was fibrous epulis. Microscopic examination showed tissue with squamous epithelial lining, achanthotic fibrous connective tissue, mononuclear inflammation cells and few capillaries. There was no sign of malignancy. (HE, $\times 200$).

DISCUSSION

A variety of swellings located on or near the gums is clinically included under the heading of epulis. Epulis usually occur as a result of gingival hyperplasia due to local irritation of the gums.⁶ Fibrous inflammatory hyperplasias, if located on the gingiva often referred as epulis.⁴ Epulises are lesions which do not give pain, however, their presence causes difficulties in chewing and eating.³ The patient presented was with sign and symptom in accordance to that of fibrous epulis, which is a slow growing, asymptomatic, pedunculated mass with firm consistency.

Within the oral cavity most local irritants are physical and stimulate the submucosal connective tissue, periodontal ligament, or the periosteum.² Fibrous epulis arises in response to local irritation from sharp margins of a carious tooth or the presence of subgingival calculus. The common variety of epulis often arises from the interdental papilla.⁶ The etiology of the fibrous epulis in this case may be the subgingival calculus, as the chronic irritating factor, at the distal part of the crown. As suggested by Peralles *et al.*,⁷ other possible etiology of this lesion is local tissue irritation by bacterial agents and cellular debris at the distal aspect of the lower right third molar which induced hyperplasia of the pericoronal tissue. This is supported by the orthopantomogram which showed bone destruction distal to the crown of lower right third molar.

The majority of inflammatory reactive hyperplasia occurred on the surface of the oral mucous membrane where irritants occurred presented are quite common.⁴ These are in accordance with the reported case that the epulis grew on the mucous membrane of the pericoronal tissue of the lower right third molar. However, most reports showed that the anterior regions of the oral cavity were affected more frequently, varying from 57% to 71% of the cases, and this can be explained by the fact that these regions are drier than the posterior regions, are prone to be affected by calculus deposition on the inferior region, and the frequent teeth malposition also in this area, making hygiene and plaque control difficult.⁷⁻⁹ Those are in contrast to the case in this patient where the epulis grew in the posterior regions of oral cavity, which is at the lower third molar area. In the author's opinion this is considered a rare site for fibrous epulis as no such cases have been documented neither in our department nor in the literature so far.

The fibrous epulis in the current case occurred in a 33 year-old female patient. This is in line with the majority of reports that epulis occur more frequently in women. It

is probably caused by high estrogen concentration that is considered to be a factor favourable to their formation and influencing their growth.³ Study by Bataineh and Al-Dwairi⁴ showed that fibrous lesion frequently affected people between age 21 and 60 years old. This study also found that females were more commonly affected than males. Other study also showed that inflammatory gingival hyperplasia affect adults on their third or fourth decades of life, specially females.⁷

Treatment of epulis involves excision with gingival recontouring and removal of the source of irritation is done to prevent recurrence.⁶ This patient was treated with surgical excision of the epulis and removal of the impacted lower third molar because its position predispose to calculus formation, which may be the most irritating factor in this case, and the increased concentrations of bacterial agents can cause chronic irritation inducing hyperplasia of the pericoronal tissue.

In conclusion, epulis can grow on any surface of oral mucous membrane as long as local chronic irritants are present.

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