



FIBROUS EPULIS : A CASE REPORT

Periodontology

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ABSTRACT

Fibrous epulis is considered to be a reactive massive lesion rather than true neoplasia, usually asymptomatic with a variable growth rate. The lesion usually appears on the interdental papilla as a result of chronic or local irritation. Adequate excision and histological examination of excised tissues were found to be the best treatment modality for fibrous epulides. This is a case report of fibrous epulis in 72 - year - old female in the maxillary anterior region.

KEYWORDS

Fibrous epulis, Gingiva, Histopathological, Pedunculated

INTRODUCTION

Epulis is a reactive massive lesion that develops in response to chronic and recurring tissue injury, which stimulates an exuberant or excessive tissue response. The name derives from the ancient Greek and is a specific clinical term that bears a topographic meaning, indicating a lesion located over the gingiva. It is twice more common in females and the reasons for this remain unclear¹. There are four types of epulides, depending on the prevalent histological component: fibrous, granulomatous (pyogenic granuloma), angiomatous and giant cells epulis. It usually appears as a single pedunculated lesion rising from the maxillary alveolar ridge. It is indolent, and the dimensions may considerably vary. Its consistency as well is variable, and the colour depends on the prevalent histologic component ranging from pink to dark red². The etiopathogenesis is not completely clear but seems to be related to several factors in which a key role is played by the reactive inflammatory component that determines its action on cells within the periodontal ligament or the periosteum³. Poor oral hygiene seems to be a predisposing factor. The fibrous epulis usually appears in the interdental papilla as the result of local irritation (calculus, bacterial plaque, caries or restorations with irregular margins)¹.

CASE REPORT

A 72-year-old woman was referred to the outpatient department of periodontology, Rajarajeswari dental college and hospital, Bangalore for the evaluation of a painless gingival mass, with approximate 3cm x 2 cm x 0.5cm swelling arising from the maxillary gingiva in relation to the upper right lateral incisors and canine (Figure 1). Patient gave history of swelling twice in the same area and got excised with surgical scalpel in a private clinic before. After one year of the previous excision, patient noted swelling in the same region, which grew since past six months. There was difficulty in mastication.

On intraoral examination, a pale pink, well smooth gingival growth was seen extending from the interdental region of maxillary right lateral incisor to the distal of canine. It was firm in consistency, oval shaped, pedunculated, and did not bleed when touched. No tooth mobility in this region was noted, and regional lymph nodes were normal. The lesion was not associated with any ulcerated mucosa. Patient gives history of tobacco and arecanut chewing in the last 45 years. There was considerable amount of calculus and stains surrounding the adjoining teeth. Patient didn't undergo oral prophylaxis before the surgical procedure because of hypersensitivity. Her medical history revealed no other disease.

Clinical diagnosis of generalised periodontitis with gingival epulis in relation to maxillary lateral incisor and canine was made. The growth was totally removed in one piece by excision of its peduncle with laser under local anaesthesia without teeth extraction (Figure 2). The base was evacuated, and the bone was thoroughly curetted, followed by the placement of the pack. Patient was followed up postoperatively at

regular intervals and after three months of the surgery there was minimal scarring with slight inflammation and healthy tissue around the site of the previous lesion (Figure 3). Patient reported no recurrence at the time of this report.



Figure 1 Clinic evaluation of the mass. Intraoral view. Note the peduncle swelling arising from the maxillary gingival in relation to the upper lateral incisor and canine. Figure 2 Immediate postoperative view of the area, after excision with laser. Figure 3. Follow up after 3 months.

HISTOPATHOLOGICAL EXAMINATION

The mass was fixed in 10% neutral buffered formalin solution, embedded in paraffin and submitted for routine hematoxylin-eosin staining. On microscopic examination, the lesion showed tissue fragments lined by stratified squamous epithelium exhibiting marked ulceration covered by necro inflammatory exudate. Inflammatory granulation tissue and proliferating blood vessels along with focal inflammatory atypia with exocytosis of neutrophils were seen. Commensals were also noted. There was no sign of malignancy or granulomas (Figure 4).



Figure 4 Photo micrograph of the excised tissue showing inflammatory granulation tissue.

DISCUSSION

The gingiva is commonly affected by non-neoplastic and neoplastic lesions, the latter usually being characterized by a progressive growth that can be either benign or malignant. Moreover, the great majority of localized overgrowths of the gingiva are considered to be reactive rather than neoplastic in nature.

Fibrous inflammatory hyperplasias may occur on any surface of the oral mucous membrane as either pedunculated or sessile growth. On the gingiva, a similar lesion is often referred to as an epulis, that is, a growth on the gum. The majority remain small, and lesions more than 1cm in diameter are rare on the cheeks, tongue and floor of the mouth possibly because masticatory trauma restricts their size through necrosis and ulceration. Several authors observed that irritation fibroma is more common in adult females. Carbone and colleagues reported a significant higher frequency and site distribution in maxilla than the mandible⁵.

The term epulis was firstly introduced by Virchoff in 1864 and, later, its histological variants have been described (fibrous, granulomatous, angiomatous and with giant cells) by Liu et al in 2012. The most common clinical aspect of the fibrous epulis is the growth of well-delimited tissue, of a smooth surface, usually with normal colored mucosa, sessile or pedunculated base, of hard consistency, usually located on the anterior maxilla, mainly in the interdental papilla. These characteristics are consistent with our case report of fibrous epulis. 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)⁶.

Treatment usually includes complete excision of the lesion and thorough curettage of the area due to its origin from the periosteum and periodontal ligament cells to prevent recurrence. The most widely used instruments are a surgical or electric scalpel. Lasers can also be a choice since they afford a bloodless surgical field.

The biggest challenge as a clinician is arriving at a definitive diagnosis. For the purpose of final diagnosis, the histopathological examination of such lesions are fundamental.

CONCLUSION

Although the aetiology is not exactly determined, patient's habit of using tobacco and arecanut along with plaque/ calculus could be the predisposing factor for the development of the fibrous epulis in this case. Adequate excision and histological examination of all tissues excised were found to be the best management procedure for fibrous epulides. A thorough knowledge about various aspects of a gingival lesion is the key to a successful diagnosis and treatment planning.

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