



INFLAMMATORY GINGIVAL SWELLING A EPULIS OR PYOGENIC GRANULOMA - A CASE REPORT

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ABSTRACT

The term Epulis comes from the Greek root for "on the gum" and as such really only describes the location of the lesion which clinically used to describe a localized growth on the gingiva. Histologic examination of epulides indicates that the vast majority are the fibrous hyperplasias, peripheral ossifying fibromas, pyogenic granulomas or peripheral giant cell granulomas. The major epulides are common oral lesions with which dentists should be thoroughly familiar. The clinical and histological relevance of the two cases are discussed and analyzed for their biological behaviour.

KEYWORDS : Epulis, Peripheral Giant Cell Granuloma, Giant Cell Epulis, Reparative Giant Cell Granuloma, Giant Cell Granuloma.

Introduction

The term epulis means tumor or a lump localized on the gum. The best describes as chronic inflammatory hyperplasias. The tumor can be fibrous epulis, pyogenic granuloma and giant-cell granuloma.¹ Fibrous epulis usually arises from an interdental papilla in a firm, pink nodule or varying shape. Fibrous epulis usually associate with a source of chronic irritation such as traumatic occlusion, calculus or the rough edge of a restoration. Histopathologically the lesion consists of hyperplastic connective tissue, can be ulcerated and covered by stratified squamous epithelium.¹⁻³ Pyogenic granuloma usually arises from the interdental papilla. It appears as an elevated, pedunculated or sessile mass with a smooth or lobulated surface. It is deep red or reddish-purple in colour, and the surface maybe ulcerated. It also has tendency to bleed, either spontaneously or on provocation with slight trauma. It may develop rapidly to a variable size and then remain stable for an indefinite period.^{2,4} The lesion appears as a result from local irritation, but in some cases there may be a hormonal conditioning factors, such as in the lesions occurring in pregnancy and at puberty.¹⁻⁴

CASE 1 MANAGEMENT A 28-year-old female came to OPD of dental department, Shaheed Hasan Khan Medical College Nalhar Dist. Nuh, Haryana with the main complaint of gingival swelling in the maxillary anterior region. She had used an orthodontic appliance and it was removed one week before her attendance to hospital. Gingiva had starting to lump approximately one year ago and gradually increasing it's size. There was no abnormality detected on the extra oral examination. From the intra oral examination, there was a gingival swelling around teeth 11 and 21 History of Bleeding from the gums in the area during tooth brushing. Intraoral examination revealed reddish-pink, well defined, firm, nonfluctuant swelling of 1x1 cms and extending from labio-lingually with a sessile base in relation to 11to 21(Fig. 1). The gingival and periodontal status of all teeth was good. Routine blood tests were done. In this case scaling and prophylaxis must be done, and the patient had to perform daily home plaque control. After oral hygiene was satisfying, then proceeds to adjust the occlusal on particular teeth. Later, surgical excision was done from this pyogenic granuloma. Four weeks after the excision of the lesion, the gingivae were totally inflammation-free and exhibit a generally physiologic morphology (fig.2). Radiographic examination showed no widening of periodontal space and no bone destruction. Histopathologically the excised lesion showed a loose granulation tissue filled with blood (fig. 3). Clinical and histopathological investigations assumed that its diagnosed as pyogenic granuloma.



Figure.1

Figure.2

Figure.3

CASE 2 A 20 year female patient came to the OPD of dental department, Shaheed Hasan Khan Medical College Nalhar Dist. Nuh, Haryana with swelling in lower front gums since 8 month, increased since its onset, and had slowly grown to this size, Intraorally On examination, the swelling was approximately 1 × 1.5 cm in size (Fig.1), was found to be sessile, lobulated, sharply demarcated but otherwise of the same color as the surrounding mucosa. On palpation, it had a fibrotic consistency. Complete full mouth periodontal examination revealed the presence of generalized chronic marginal gingivitis with epulis in relation to 41 and 43 regions (Fig. 1). Intraoral periapical radiograph revealed interdental vertical bone loss in 41 and 43 region with widened periodontal ligament space. Blood investigations were not conclusive of any abnormality. Gingivectomy incision placed and the growth was removed (Fig. 2) and root surface was scaled and planed thoroughly and the patient was recalled after 7 days for re-evaluation and pack removal. After histopathological investigation epulis diagnosis was made. At follow-up, after a week the wound healing was uneventful (Fig.3)



Figure.1

Figure.2

Figure.3

DISCUSSION

Gingival enlargement may result from chronic or acute inflammatory changes. In these cases it is important to understand the double etiology and treat them adequately. These two localized gingival enlargement is caused by prolonged exposure to dental plaque. Factors that favor plaque accumulation and retention include poor oral hygiene, as well irritation by anatomic abnormalities such as occlusal interference in these cases and improper orthodontic appliances in case 1. Based on the etiological factors, a thorough removal of dental plaque must be performed initially before proceeds to surgical therapy or excision of the gingiva. Many research, clinical trials and project in different geographical and settings have confirmed that effective removal of dental plaque is essential to dental and periodontal health throughout life.

An epulis is a localized gingival growth, typically starting in the interdental papillae. The lesions which contain relatively little vascularity are focal fibrous hyperplasia and peripheral ossifying fibroma which are pink, smooth surfaced elevations that are usually asymptomatic. Those lesions which contain numerous vascular spaces (pyogenic granuloma and peripheral giant cell granuloma) are usually red smooth surfaced elevations and the degree of trauma to which they are subjected is often sufficient to cause focal

ulceration and pain.¹ A possible hormonal (Estrogen & progesterone) influence for some Peripheral Giant Cell Granuloma has been postulated by Whitaker² & Giansanti.³ Chambers discussing caillouette & mattar's paper suggested that these hormones have immunosuppressive actions which contribute to growth of lesions.² In the present Case-1, this could also be one of the reasons, as the patient was female. Peripheral Giant Cell Granuloma shows a wide age distribution. Cooke⁴ quoting Darlington's study & others showed that majority of cases are between 4 - 6 decades. Brown, Darlington & Kupfer⁵ showed 37% of lesions in range of 31 - 45 years of age, whereas Anderson⁶ stated that it was found in younger patients. The present case-1 was 18 year old patient and case-2 was 19 year old. Bhasker⁷ & Daley et al¹ have shown male predilection whereas several authors have noted a female predilection. Cases which are mentioned here were female and male patients. The histopathology reveals large number of multinucleated giant cells in vascularized fibrocellular stroma. In some cases the giant cells may be found in lumen of Capillaries. Hemorrhage, hemosiderin pigment, inflammatory cells & newly formed bone or mature calcified material throughout the cellular stroma can be seen. Lesion may be covered by stratified squamous epithelium and ulcerated in some cases. In both cases the histopathological findings were corresponding to the above description.⁸ The treatment is simple conservative excision of lesion with removal of any local source of irritation. Bhasker et al reported recurrence rate of 12%, Katsikeris et al⁹ reported 9.8% of recurrence rate and Anderson et al⁹ on other hand reported a rate of 70.6%.

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