

Case Report

Pyogenic Granuloma - A Case Report

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Abstract

Pyogenic Granuloma is a relatively common mucocutaneous lesion seen in the oral cavity, as a response to some underlying local irritant. This condition is frequently associated with periodontal pain and discomfort, and in some cases interferes with mastication and aesthetic problems. This paper presents a case of pyogenic granuloma managed by surgical intervention.

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Introduction

Pyogenic granuloma, or granuloma pyogenicum is a reactive inflammatory hyperplastic lesion which appears in response to various stimuli such as low grade local irritation, traumatic injury, certain drugs and hormonal factors.^{1,2} The term pyogenic granuloma was coined in 1904 by Hartzell.

The term "pyogenic granuloma" is a misnomer because the lesion does not contain pus and is not a true granuloma. The incidence of pyogenic granuloma is 19.76-25% of all reactive lesions.^{3,4} It develops in about 5% of the pregnancies and hence also known pregnancy tumor and granuloma gravidarum.

It often presents as a painless, pedunculated, or sessile mass of gingiva and maybe seen in any size from a few millimetres to several centimetres.

Surgical excision is the treatment of choice, followed by curettage of the underlying lesion.^{5,6}

This paper presents a case of Pyogenic Granuloma which discusses the clinical characteristics of the lesion with emphasis on its diagnosis and management.

Case Report

A 28 year old female patient reported to the outpatient department of oral medicine and radiology, A.B Shetty Memorial Institute of Dental Sciences, Mangalore, with a complain to swelling in the gums of upper left back region since 1 month. The mass was not painful but often bled while eating, rinsing and sometimes spontaneously.

Extra oral examination was non-significant. Intra oral examination revealed an irregular, sessile exuberant growth with respect to buccal aspect and interdental gingiva of 26 and 27, measuring about 2x2cms (Fig.1). On palpation, the growth was soft in consistency, tender and bled profusely on probing. Oral hygiene was poor with presence of supragingival and subgingival calculus.



Figure 1 : Pre-operative view showing lesion between 26 and 27.

Based on the clinical findings, the case was provisionally diagnosed as "pyogenic granuloma". Intra oral periapical radiograph was taken and no bony involvement was seen (Fig. 2). Routine hematologic tests were done and were observed to be within the normal range.



Figure 2 : Intraoral periapical radiograph showing no bone loss wrt 26, 27

The patient initially underwent phase 1 periodontal therapy that comprised of scaling, root planing and oral hygiene instructions. After a week, an informed consent of the patient was taken for the treatment. A complete surgical excision of the mass wrt 26, 27 was done under local anaesthesia (Fig. 4). The excised tissue was then sent for histopathologic evaluation. Periodontal dressing was placed and the patient was recalled after a week for evaluation. The patient was advised postoperative antibiotics, analgesic, and chlorhexidine mouth rinse of 0.2% and maintenance of oral hygiene measures.

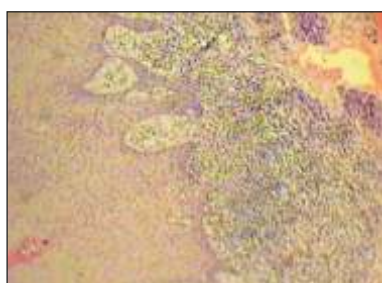


Figure 3 : Histopathological picture showed dense inflammatory infiltrate

Histopathological examination showed variation in thickness of the stratified squamous parakeratinized epithelium. Connective tissue showed dense inflammatory infiltrate mainly consisting of plasma cells, lymphocytes, abundant blood vessels, collagen fibres and extravasated red blood vessels (Fig. 3). The above histopathologic findings were suggestive of pyogenic granuloma.



Figure 4 : Post - operative view after excision



Figure 5 : Post-operative view after 1 week

At 6 months recall, the gingival tissues were healthy with successful healing and no recurrence (Fig. 6).



Figure 6 : Post - operative view after 6 months

Discussion

Pyogenic granuloma is an inflammatory hyperplasia affecting the oral tissues. Over the years, various authors have suggested other names such as granuloma gravidarum, pregnancy tumor, Crocker and Hart Zell's disease, vascular epulis, benign vascular tumor, hemangiomatosis granuloma, epulis teleangiectaticum granulomatous, and lobular capillary hemangioma.^{7,8}

It is now universally agreed that this lesion is formed as a result of an exaggerated localized connective tissue reaction to a minor injury or any underlying irritation.⁷The irritating factor can be calculus, poor oral hygiene, nonspecific infection, over hanging restorations, cheek biting. Due to this irritation, the underlying fibro vascular connective tissue becomes hyperplastic and there is proliferation of granulation tissue which leads to the formation of a pyogenic granuloma. Clinically pyogenic granuloma is a smooth or lobulated epiphytic lesion manifesting as a small, red erythematous papule on a pedunculated or sessile base. Pyogenic granuloma may

occur at all ages but is predominantly seen in the second decade of life in young adult females, possibly because of the vascular effects of female hormones. The gingiva is most commonly affected followed by the buccal mucosa, tongue and lips.⁹Recurrence rate for pyogenic granuloma is said to be 16 % of the treated lesions and so re-excision of such lesions might be necessary¹⁰.

Conclusion

In this case, an excisional biopsy was performed for appropriate diagnosis and treatment. A careful diagnosis and management of the lesion helps in preventing the recurrence of this benign lesion.

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