

Pyogenic Granuloma – Red Mass Lesion: A Case Report

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ABSTRACT

Pyogenic granuloma is a reactive lesion. It usually arises in response to various stimuli such as low-grade local irritation, traumatic injury, hormonal factors, or certain kinds of drugs hyperplasia of connective tissue in response to local irritants. Gingiva is the most common site affected followed by buccal mucosa, tongue and lips. It is a tumourlike growth of the oral cavity, frequently located surrounding the anterior teeth. Histologically, the surface epithelium may be intact, or may show foci of ulcerations or even exhibiting hyperkeratosis. Pyogenic granuloma should be excised along with the base and its causative factors. This paper presents a case of a pyogenic granuloma managed by surgical intervention.

Keywords : Granuloma gravidarum, Pregnancy tumor, Pyogenic granuloma

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INTRODUCTION

Pyogenic granuloma also known as a “Granuloma gravidarum,” and “Pregnancy tumor”. Pyogenic granuloma represents an exuberant connective tissue proliferation to a known stimulus or injury. It appears as a red mass because it is composed predominantly of hyperplastic granulation tissue in which capillaries are very prominent (1).

The term pyogenic granuloma is a misnomer as it is neither pus producing, nor represent granulomatous inflammation (2). The growth is typically seen in young adults but females are more commonly affected than males because of the hormonal changes that occur in women during puberty, pregnancy, and menopause. It is especially found in individuals with poor oral hygiene (3). This article represents a case of pyogenic granuloma.

CASE REPORT

A 25 years old female patient reported to the department of periodontology, IDS, Bareilly with a chief complaint of swelling in gums in the upper right

back teeth region since 2 months. Patient also complained of bleeding from the same site frequently. The lesion was of negligible size when the patient first noticed it (2 months back), but had grown rapidly over the past 15 days to attain the present size (Fig.1)

The patient had no relevant medical history. Clinical examination revealed a roughly oval bright red exophytic sessile lesion on the gingiva in the right upper first and second premolar region that measured about 0.7 *0.8 cm in diameter. The growth covered approximately 2/3 of the crown. The lesion was soft in consistency with bleeding on probing. The oral hygiene status was fair and width of attached gingiva was adequate. Routine Blood exami-



Figure 1. Preoperative Clinical View

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Figure 2. Just after Excisional biopsy

nation revealed values within normal range. The treatment comprised of oral prophylaxis and an excisional biopsy under local anesthesia along with histopathologic evaluation (Fig.2).

The histopathologic examination revealed hyperplastic parakeratinized stratified squamous epithelium overlying delicate inflammatory stroma. Stroma shows predominant vascular component and infiltration of acute and chronic inflammatory cells in a few collagenous matrix. Thus it was diagnosed as pyogenic granuloma (Fig.3) Post operative healing was uneventful. Recurrence was not found even at 6 months.

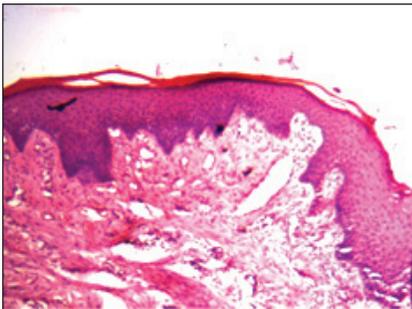


Figure 3. Histopathological view



Figure 4. Post operative after 1 month

DISCUSSION

Pyogenic granulomas are commonly seen on the gingiva, with interdental papillae being the most common site in 70% of the cases where they are presumably caused by calculus or foreign material within the gingival crevice (4). Hormonal changes of puberty and pregnancy may modify the gingival reparative response to injury, producing what was once called a “pregnancy tumor.” Under these circumstances, multiple gingival lesions or generalized gingival hyperplasia may be seen. Pyogenic granulomas are uncommonly seen elsewhere in the mouth but may appear in areas of frequent trauma, such as the lower lip, the buccal mucosa, and the tongue (5).

Pyogenic granulomas are typically red. Occasionally they may become ulcerated because of secondary trauma. The ulcerated lesions may then become covered by a yellow, fibrinous membrane. They may be pedunculated or broad based and may range in size from a few millimeters to several centimeters (1). The lesion is painless & soft in consistency. Although older lesions tend to become more collagenized and firm. These lesions may be seen at any age and tend to occur more commonly in females than in males. Gingival irritation & inflammation that result from the poor oral hygiene, dental plaque & calculus or over-hanging restoration may be precipitating factors in many cases (4).

Pyogenic granulomas can grow at an



Figure 5. Post operative after 6 months

alarming rate. If left alone, a number of pyogenic granulomas undergo fibrous maturation and resemble and/or become fibromas.

Although pyogenic granuloma can be diagnosed clinically with considerable accuracy, radiographic and histopathological investigations are required for confirming the diagnosis and thus differentiating it from other similar lesions and planning the treatment.

Microscopically, pyogenic granulomas are composed of lobular masses of hyperplastic granulation tissue. Some scarring may be noted in some of these lesions, suggesting that occasionally there may be maturation of the connective tissue repair process (6).

Clinically, this lesion is similar to peripheral giant cell granuloma, which also presents as a red gingival mass. A peripheral odontogenic or ossifying fibroma may be another consideration, although these tend to be much lighter in color. Rarely, metastatic cancer may present as a red gingival mass. Biopsy findings are definitive in establishing the correct diagnosis (1).

Pyogenic granulomas should be surgically excised; this includes the connective tissue from which the lesion arises, as well as removal of local etiologic factors (plaque, calculus, foreign material, source of trauma). Recurrence is occasional and is believed to result from incomplete excision, failure to remove etiologic factors, or reinjury of the area. The end of pregnancy often brings considerable shrinkage of pregnancy-associated pyogenic granulomas, but residual lesion may need to be excised.

CONCLUSION

The pyogenic granuloma most frequently develops on the buccal gingival especially in the maxillary arch in the interproximal area between teeth. A history of trauma is common in extraggingival sites, whereas most lesions of the gingiva are a response to irritation. Poor oral hygiene and chronic oral ir-

ritants like calculus are most frequently affected.

In the present case as there was gradual increase in the size of the growth covering almost 2/3 of the crown. Patient was also unable to keep the area clean which became the site for further plaque retention. An excisional biopsy was performed. Both the clinical and histopathological findings showed it to be a case of pyogenic granuloma. Even after six months of follow up the growth didn't recur.

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