



PYOGENIC GRANULOMA – A CASE REPORT

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Abstract : Pyogenic granulomas are benign, hypervascular lesions often caused by trauma or irritation. A 19-year-old female presented with gingival swelling in the upper right posterior jaw, causing discomfort and bleeding. Clinical examination revealed a lobulated, reddish lesion, and histopathological analysis confirmed the diagnosis. Surgical excision provided relief, emphasizing the importance of prompt treatment to manage symptoms and prevent recurrence.

I. INTRODUCTION

A benign, hypervascular lesion called a pyogenic granuloma arises when a localized infection or slight trauma triggers an overabundant proliferative response[1]. Its fast endothelial growth and marked susceptibility for hemorrhaging often make it appear like a tumor despite its non-neoplastic nature.

Earlier Pyogenic Granulomas were believed to be an excessive granulomatous response to infections or pyogenic stimuli, which is why terms like Pyogenic Granuloma and Granuloma Pyogenicum were used. The term 'Pyogenic Granuloma' is actually a misnomer that can lead to initial misunderstanding[2].

II. BACKGROUND

This disorder, which is most common in young girls in their second decade of life[3], is probably caused by hormone issues[4]. Low-grade irritation or acute injuries are the usual causes of it. The gingiva is where lesions usually appear; however, they can also occur on the lips, tongue, palate, and buccal mucosa. These lesions frequently appear as sessile, pedunculated, or raised vascular masses with smooth, lobulated, or warty surfaces. They appear in variety of colors, from dark to intense red to pale red. Usually painless and soft in nature, they are prone to bleeding even with minor trauma. The maxillary anterior gingiva has a higher frequency of occurrence of these lesions than the posterior regions, and they usually develop rapidly. 75% of cases with the ailment present on the facial portion of the gingiva, and the incidence is roughly 2:1 in females over males[3]. Both unilateral and bilateral lesions are possible. Purulent exudate is not usually seen, though it can be seen on occasion.

III. CASE REPORT

A 19-year-old female patient in good health arrived at the Oral Medicine Diagnosis and Radiology (OMDR) department complaining of gingival swelling in her upper right back jaw region that had been present for the previous three months. She noticed that the lesion was getting bigger over time, which made it uncomfortable to eat and caused bleeding while brushing teeth. The patient stated that she has no known hormone abnormalities and is not pregnant. During the clinical examination, at the locations of teeth 16 and 17, a 9 × 11 mm inflammatory gingival lesion affecting the vestibular surface of the clinical crown was found. The lesion's surface was rough, uneven, lobulated, and soft. When touched, it bled as well. No extraoral abnormalities were discovered, despite the presence of calculus and plaque. No skeletal involvement was visible on an intraoral periapical radiograph (IOPR). Each hematological test resulted within expected ranges. The histopathological examination after an excisional biopsy with the patient's informed consent revealed hyperplastic stratified parakeratotic squamous epithelium accompanied by a proliferation of thin-walled blood vessels. Additionally, there is an infiltration of inflammatory cells, including neutrophils, lymphocytes, and plasma cells, which is suggestive of the presence of a pyogenic granuloma.



fig. 1. pre operation image of oral pyogenic granuloma

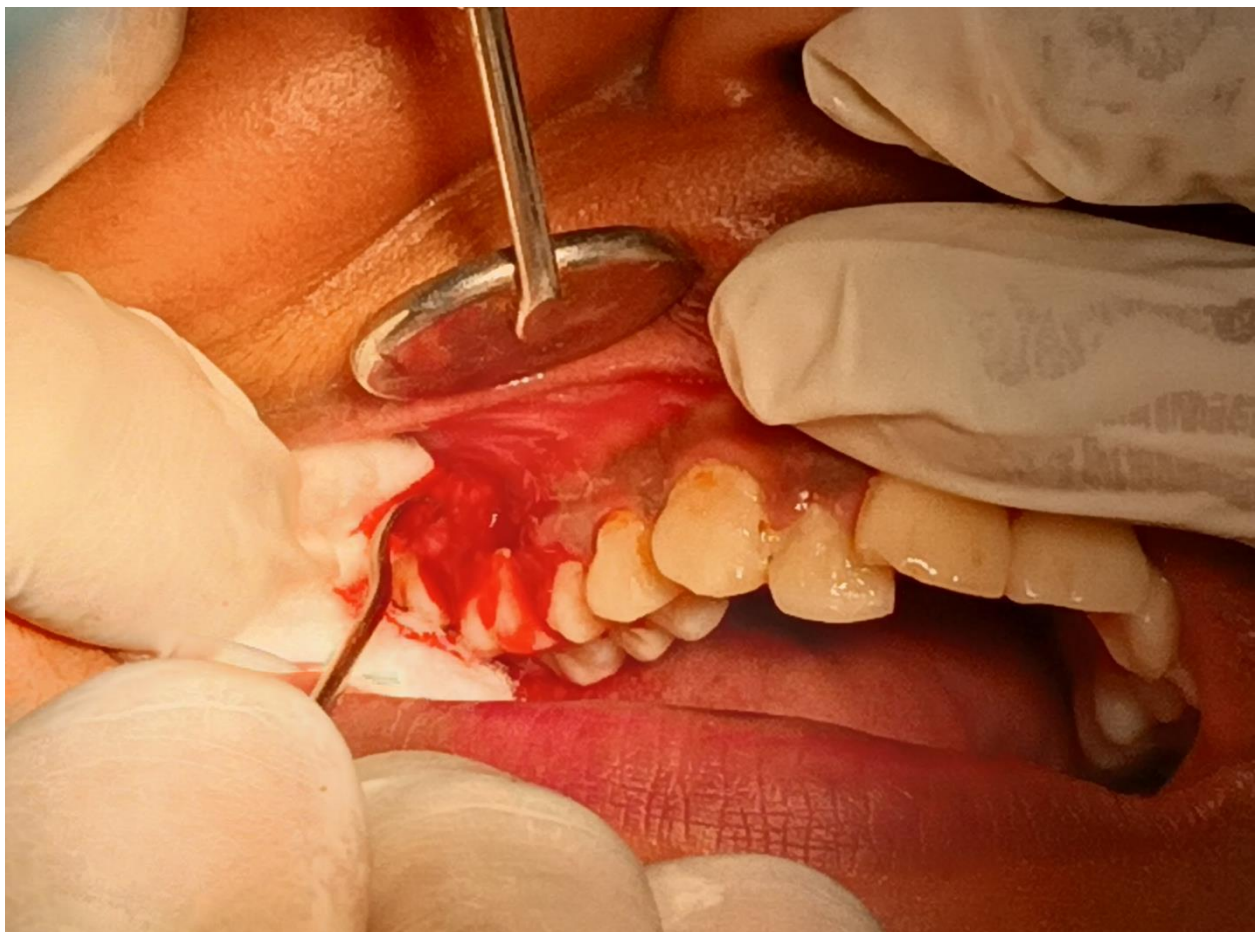


fig. 2. post operation image of the patient's oral cavity



fig. 3. excised mass of oral pyogenic granuloma

IV. DISCUSSION

Benign and extremely vascular, pyogenic granulomas are frequently brought on by mild trauma or long-term irritation[5]. They resemble tumor-like, however they are not cancerous and do not signify neoplasm. This 19-year-old female patient's case exhibits several of the common traits connected to pyogenic granulomas. The lesion's rapid growth and vascularity, as well as its lobulated, soft, and reddish appearance, are hallmark features of pyogenic granulomas[6][7]. The tendency to bleed easily when touched is a common trait due to the proliferation of thin-walled capillaries in the lesion[8]. Although pyogenic granulomas are often painless, this patient experienced discomfort during eating and brushing teeth, likely because of the lesion's size and location on the gingiva, which interfered with her daily routine. Histopathological examination revealed hyperplastic parakeratotic squamous epithelium and a significant number of thin-walled blood vessels, confirming the diagnosis[9]. The presence of inflammatory cells, including neutrophils, lymphocytes, and plasma cells, is also typical of pyogenic granulomas[10]. The absence of purulent discharge or systemic involvement supports the diagnosis of a confined lesion[11]. As in this case, excision is typically the initial step in treatment. This is especially important if there is continuous discomfort because it will both ease the symptoms and prevent them from returning.

V. CONCLUSION

To sum up, this case emphasizes the typical appearance of a pyogenic granuloma, stressing the significance of determining the underlying causes and proving effective treatment by surgical removal and histological analysis. Even though these lesions are benign, immediate care is essential to maintaining oral health due to the discomfort, bleeding, and rapid growth associated with them.

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