

AN UNUSUAL CASE OF EXTRAGINGIVAL PYOGENIC GRANULOMA ASSOCIATED WITH A FENESTRATION DEFECT- A RARE CASE REPORT.

Case Report

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ABSTRACT:

Pyogenic granulomas are relatively common benign mucocutaneous lesions found in the oral cavity or extra orally; The first case was reported in 1844 by Hullihen and the term “pyogenic granuloma” or “granuloma pyogenicum” was coined only in 1904 by Hartzell. It is a reactive tumor like lesion which arises in response to various stimuli such as chronic low grade irritation[1], trauma and hormonal imbalance[2]. It's an inflammatory hyperplasia commonly seen in the oral cavity caused due to chronic irritation and trauma. In this case report we present a case of pyogenic granuloma associated with gingival/bony fenestration caused due to chronic irritation by exposed root tip.

Key words:

Gingival fenestration,
pyogenic granuloma

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INTRODUCTION:Pyogenic granuloma is a most commonly seen benign overgrowth caused due to chronic irritation to the soft tissues. It is an inflammatory hyperplasia or a reactive tumor like lesion histologically resembling inflamed fibrous granulation tissue.[3] Etiology is attributed to the chronic low grade irritation,[6] poor oral hygiene may be one of the aggravating factor.[4]There is angiogenesis and rapid growth of the lesion due to stimulation effect caused by various growth factors[5] and so far 4 cases of pyogenic granuloma have been documented in graft versus host reaction in patients under cyclosporin therapy.[6] There is also one documented case post GTR [Guided Tissue Regeneration]therapy[8].

Although pyogenic granuloma is seen in all the age groups but most commonly it is seen in second decade of life.[3] These lesions are most commonly seen on maxillary gingival and anterior area is mostly affected than posterior region. It is commonly described as an exophytic proliferative lesion of the gingiva[3]. PG is also called as pregnancy tumor. It is seen in 5% of all the pregnancies.[7]

Here is a case of overgrowth associated with gingival fenestration. A male patient came to the Out-Patient Department of Periodontics, with the chief complaint of gingival overgrowth and severe sensitivity associated with pain and bleeding in relation to canine and pre molar region. On examination, we found out that there is a reddish pink pedunculated overgrowth seen in the vespieule area of premolar and canine of the first quadrant. The growth was roughly oval and approximately 10-12 mmin size. Further examination of the lesion revealed that, there is a fenestration defect associated with the lesion exposing the tip of the root. The lesion could be caused by a constant irritation by the exposed root tip [Fig1]. We excluded the lesions associated with use of tobacco by a careful history. When a mass is found in the oral cavity it is important to formulate a differential diagnosis and we included Irritational Fibroma, Lipoma, Pyogenic Granuloma in differential diagnosis. For confirmed diagnosis we decided to send the lesion for histological examination. After taking an informed consent we carried out an excision of the lesion and sent for histological examination. The extraction of root stump was carried out

after the excision of the lesion. Gingival fenestration defect was sutured with 3-0 black silk sutures. Patient was recalled after 7 days [Fig-2]. On examination on 7th day, the healing was excellent showing the complete closure of the soft tissue defect.



Fig-1 Pre operative gingival overgrowth associated with root stump



Fig-2 Post operative view after the excision
The histological report revealed that, the lesion was a pyogenic granuloma. [Fig-3 a&b]

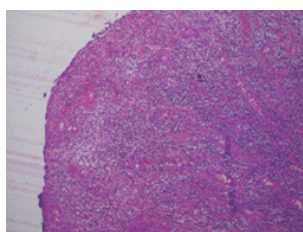


Fig- 3a. Histological picture of the lesion[10x] Stratified squamous orthokeratinized epithelium covering the underlying inflamed connective tissue

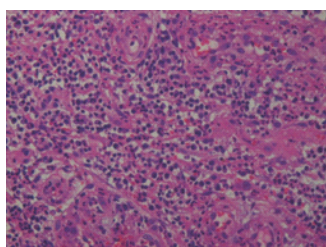


Fig 3b proliferating fibroblasts, collagen fibers, with lymphocytes and plasma cells[40x].

Histopathological examination of the growth revealed ulcerated stratified squamous orthokeratinized epithelium covering the underlying inflamed connective tissue with proliferating fibroblasts, collagen fibers, with lymphocytes and plasma cells. The clinical and histopathological findings confirmed it to be a case of pyogenic granuloma.

DISCUSSION: Angelopoulos AP projected the term Hemangiomatic Granuloma that precisely articulates the histopathologic picture of oral pyogenic granuloma[8].

Several authors favor the hypothesis that Pyogenic Granuloma as an "infectious" entity. Kerr has reported staphylococci and botryomycosis, foreign bodies, and localization of infection in walls of blood vessel as contributing factors in the growth of the lesion.[9]

The pyogenic granuloma is quite a common, tumor like, exuberant tissue response to localized irritation or trauma. Pyogenic granulomas occur at any age, but they most frequently affect young adults. The maxillary gingiva (especially in the anterior region) is involved more frequently than the mandibular gingiva; the facial gingiva is involved more than the lingual gingiva. These tumors are soft to palpation. A history of trauma is common in extragingival sites, where as most lesions of the gingiva are a response to irritation. Individuals with poor oral hygiene and chronic oral irritants (eg, overhanging restorations, calculus) are affected most frequently. The prognosis is excellent, and the lesion usually does not recur unless in adequately removed. In this case, the lesion could be caused by the chronic irritation caused by the exposed root tip.

Pyogenic granuloma occasionally recurs, and a re-excision is necessary. The recurrence rate is higher for pyogenic granulomas removed during pregnancy. The only outpatient care is observation of the surgical healing 1 week after removal.

CONCLUSION:

Although Pyogenic Granuloma is a non neoplastic lesion of the oral cavity, its proper diagnosis, and treatment are very important. Pyogenic Granulomas are reactive lesions due to the constant irritation like over-hanging restorations, calculus, fractured tooth etc., so removal of the causative agent should be the main goal of the treatment.

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