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Pyogenic granuloma –A case report

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ABSTRACT

Exophytic gingival lesions represent some of the more frequently encountered lesions in the oral cavity. Some of these lesions are reactive in nature. Pyogenic granuloma is relatively common benign mucocutaneous lesion occurring intraorally or extra orally. The name for pyogenic granuloma is misleading because it is not a true granuloma. Actually, it is a capillary hemangioma of lobular subtype which is the reason they are often quite prone to bleeding. The growth is typically seen in young adults, though it may occur in any age, especially in individuals with poor oral hygiene although contributing factors include trauma, inflammation and infectious agent. Treatment is surgical excision to exclude angiomatous proliferation. The purpose of this article is to describe a case of pyogenic granuloma.

Introduction

The pyogenic granuloma is a relatively common, tumor like, exuberant tissue response to local irritation or trauma. The name pyogenic granuloma is a misnomer since the condition is not associated with pus and does not represent a granuloma histologically1. It is a reactive inflammatory process filled with proliferating vascular channels, immature fibroblastic connective tissue, and scattered inflammatory cells2. The surface is usually ulcerated, and the lesion exhibits a lobular architecture. The pyogenic granuloma most frequently develops on the buccal gingiva in the interproximal tissue between teeth3. Most lesions of the gingiva are a response to irritation. Individuals with poor oral hygiene and chronic oral irritants (eg. overhanging restorations, calculus) are most frequently affected. Pyogenic granulomas occur at any age, but they most frequently affect young adults4. Early lesions bleed easily due to extreme vascularity. 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. A number of lesions affect both the facial and lingual gingiva. Pyogenic granulomas usually present as smooth or lobulated red-to-purple masses that may be either pedunculated or sessile. As lesions mature, the vascularity decreases and the clinical appearance is more collagenous and pink. Pyogenic granulomas vary in size from a few millimeters to several centimeters and are painless. These tumors are soft to palpation.

Histologic examination reveals sectioned soft tissue consisting of a lesion composed of ulcerated mucosa covering a core of cellular fibrous connective tissue admixed with proliferating vascular channels and a mixed inflammatory infiltrate. This lesion is a reactive/inflammatory process.

The treatment of choice is conservative surgical excision. For gingival lesions, excising the lesion down to the periosteum and scaling adjacent teeth to remove any calculus and plaque that may be a source of continuing irritation is recommended4. Pyogenic granuloma occasionally recurs, and a re-excision is necessary. No complications are anticipated with removal of this lesion other than the chance of a cosmetic gingival defect. The prognosis is excellent, and the lesion usually does not recur unless inadequately removed. Focus patient education on better oral hygiene, and consider recommending pulsating mechanical toothbrushes with timers. These toothbrushes encourage better hygiene5.

Case report - A female patient aged 26 years was referred to the department of periodontology, Bharati Vidyapeeth Deemed University Dental College and Hospital, Pune, with a complaint of painless growth of gum in the lower front teeth since 1 year. Soft tissue growth was small in size and was stable for 6 months, but it started increasing in size slowly since past 6 months .She gave history of using a pin to clean the affected area. The patient had not taken any treatment for the same and had no relevant medical history. The patient brushed her teeth once daily using a toothpaste and toothbrush using a horizontal stroke for one minute and consumed a mixed diet. On intraoral examination, a growth was seen in the gingiva in relation to mandibular right canine which was small in size, but has now gradually started to increase in size since past 6 months and it is painless.

Fig. 1 Preoperative view



The growth was 0.7 × 0.8 cm in size, roughly oval in shape, ulcerated, soft and was associated with bleeding on probing. The growth covered approximately 2/3 of the crown (Fig.1). The oral hygiene status was fair and width of attached gingiva was adequate. The overjet was decreased and overbite was increased. Intra oral periapical radiograph revealed mild bone loss. Blood investigations revealed normal values. The treatment comprised of oral prophylaxis and surgical excision of the growth by gingivectomy procedure under local anesthesia (Fig.2).

The excised lesion was sent for histopathological examination. Patient was recalled for a post-operative checkup after 48 hrs. No complaints were reported by the patient. The healing was satisfactory. Patient was kept on a follow up for one year. Healing after one month was uneventful with normal gingival form (Fig.3)

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Fig. 2 After Excision



Histopathological examination of the growth revealed Stratified squamous orthokeratinized epithelium covering cellular connective tissue. The epithelium shows area of ulceration. The connective tissue shows proliferating fibroblasts and collagen fibres interposed in which can be seen lot of epithelial lined spaces with in the connective tissue can be seen patchy distribution of lyphocytes and plasma cells. There was no evidence of atypia or malignancy. The clinical and histopathological findings confirmed it to be a case of pyogenic granuloma.

Fig. 3 Healing after one month



Conclusion-

From the present case report it is concluded that pyogenic granuloma can be adequately treated with the correct diagnosis and proper treatment planning. Both the clinical and histopathological findings showed it to be case of pyogenic granuloma. The case was followed up for six months there was no recurrence.

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