Rama Univ. J. Dent. Sci. 2023 June; 10(2):-1-2 ISSN No. 2394-417X (print), 2394-4188(online)

Pyogenic Granuloma: A Case Report

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Abstract

Pyogenic granuloma is a benign vascular tumour of the oral mucosa that follows chronic irritation such as trauma, microorganisms, plaque, calculus etc. It involves the gingiva most frequently. The tumour can also mimic like other vascular lesions, solid tumours, and soft tissue infections.

Keywords: Gingiva, Pyogenic granuloma, Pregnancy tumour

Introduction

Pyogenic granuloma (PG) is a benign lesion of vascular origin [1]. PG is also known as eruptive haemangioma, granulation tissue-type haemangioma, granuloma gravidarum, lobular capillary haemangioma, pregnancy tumour or tumour of pregnancy [1-4]. 1 In oral cavity, it manifests as a tumour-like growth which is considered to be non-neoplastic. The lesion does not contain pus and strictly speaking it is not a granuloma; hence the term pyogenic granuloma is considered as misnomer [5].

Case Description

A 24-year-old male patient visited to the Department of Oral Medicine and Radiology, Rama Dental College Hospital and Research Centre Kanpur with a chief complain of growth in upper left front region from 1 year which gradually increased to the present size. On intraoral examination a solitary roughly triangular in shape, pink colour pedunculated growth measuring approximately 1×1 cm, with well-defined borders extending supero-inferiorly from attached gingiva to incisal edge of left maxillary central and lateral incisors and mesio-distally from labial surface of central incisor to canine. Upon palpation the growth appears to be soft and non-tender with less bleeding. No pus discharge was associated with the growth. The growth was non-pulsatile, non-reducible and compressible in nature. Based on clinical findings the clinical diagnosis of pyogenic granuloma was made. Orthopantomogram (OPG) revealed no bony involvement.

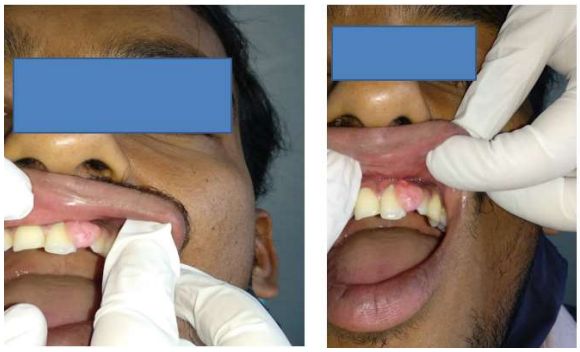

Figure 1: (Solitary growth on the incisal surface)

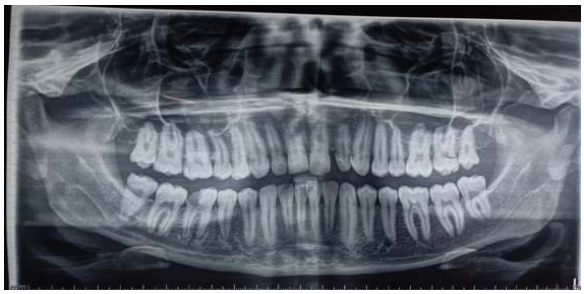

Figure 2 : (Orthopantomogram revealed no bony involvement)

Discussion and Conclusion

Pyogenic granuloma is an inflammatory response that follows chronic irritation (poor oral hygiene, calculus / plaque, excessive restorations, etc.), trauma or a hormonal change in pregnant women. They are found most commonly in gingiva, accounting for 75% of all cases, due to calculus or foreign material accumulation within the gingival crevice, followed by the tongue and buccal mucosa. [6, 7] The prevalence of PG in pregnant women varies between 5% and 8%. It is most commonly seen after the first

trimester of pregnancy, and is considered a hormone-dependent lesion. [8] Pyogenic granuloma appears as a smooth or lobulated exophytic growth manifesting as small, red erythematous papules, and may be sessile or pedunculated. The growth is a slow, asymptomatic, and painless swelling. Histologically, PG appears in two forms: lobular and non-lobular. The lobular form is characterised by the presence of a larger number of proliferating blood vessels with little or no specific changes. The non-lobular form is characterised by the presence of dilated capillary channels and aligns with the endothelial cells. [4] Differential diagnosis includes peripheral giant cell granuloma, peripheral ossifying fibroma, peripheral fibroma and haemangioma. [9, 10]

The treatment of choice for this growth is wide surgical resection with margins of 2 mm from its periphery. Aetiological factors are eliminated in order to reduce the risk of recurrence.[1,9] Most pyogenic granulomas occurring during pregnancy will decrease after delivery.[1,9] When the lesion is large and/ or associated with bleeding episodes, treatment during pregnancy is recommended in the second trimester, with ongoing checks after delivery.[3] Recurrences after a resection of an extra-gingival pyogenic granuloma are rare, unlike those on the gum where the rate can be up to 16%.[1,2] This recurrence can be explained by incomplete resection or failing to eliminate the aetiological.

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To cite this article: "Pyogenic Granuloma: A Case Report": Dr. Jyoti Kiran, Dr. Vishal Mehrotra, Dr. Kriti Garg, Dr. Rahul Srivastava, Rama Univ. J. Dent. Sci. 2023 June; 10 (2): 1-2