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Treatment of Pyogenic Granuloma by Surgical Scalpel Technique- A Case Report.

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ABSTRACT
Pyogenic granuloma is a reactive hyperplasia of connective tissue in response to local irritants. It is a tumourlike growth of the oral cavity, frequently located surrounding the anterior teeth or skin that is considered to be neoplastic in nature. It usually arises in response to various stimuli such as low-grade local irritation, traumatic injury, hormonal factors, or certain kinds of drugs. Histologically, the surface epithelium may be intact, or may show foci of ulcerations or even exhibiting hyperkeratosis. Gingiva is the most common site affected followed by buccal mucosa, tongue and lips. This report presents a simple surgical excision of a pyogenic granuloma which has successfully used to treat it.
KEYWORDS: *Pyogenic granuloma, benign neoplasm, hyperplastic lesion, Surgical Intervention.*

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I. INTRODUCTION

Pyogenic granuloma is a benign lesion of vascular origin[1]. Pyogenic granuloma is also known as: eruptive haemangioma, granulation tissue-type haemangioma, granuloma gravidarum, lobular capillary haemangioma, pregnancy tumour or tumour of pregnancy.[1] The term "pyogenic granuloma" is considered unsuitable because the tumour is not associated with pus and does not histologically resemble a granuloma[2,3,4] . This pathology can be found at any age but is more common in the second and third decades of life[1-4] . It is located on the skin and mucous membranes, especially on the lips, gums, cheeks and tongue. Often singular but sometimes multiple, Pyogenic granuloma develops most frequently from an ulceration, trauma, small wound, chronic irritation or rough patches following dental care[1-4] .The development of a gingival Pyogenic granuloma may also be related to hormonal changes (puberty, menstruation or pregnancy).[1-4] The treatment of choice for these lesions is wide surgical resection to reduce the risk of recurrence.

II. CASE REPORT

A 18 year-old female patient visited private dental clinic in Hyderabad, Telangana with a chief complaint of a swelling on the gums at the lower front region of the jaw lasting 3 weeks (Fig. 1). On clinical examination, a localized gingival swelling of 1.5cm X 1.5cm in size with clear signs of inflammation was present in relation to 43,44. The lesion was firm in consistency and bleeding on probing was present. The patient's medical history was uneventful. First of all, full mouth scaling and root planing were done. After reduction in the inflammation, at about 1 week, surgery was planned for excision of the lesion. After local anesthesia, the lesion was excised with the help of a 15 no. B.P. blade up to the base of the lesion (Fig. 2). It was ensured that the lesion was completely excised to prevent recurrence of the lesion. Antibiotics and analgesics were prescribed for 1 week. The patient was monitored on a weekly schedule postoperatively, to ensure good oral hygiene in the surgical area (Fig. 3). At 1-yr recall, the gingival tissues were healthy with successful healing and no more recurrence.

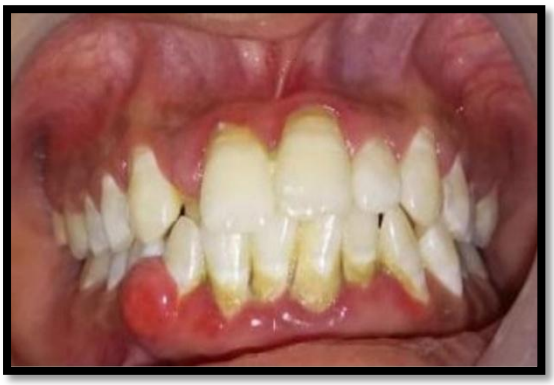

Fig1: Pyogenic Granuloma before treatment

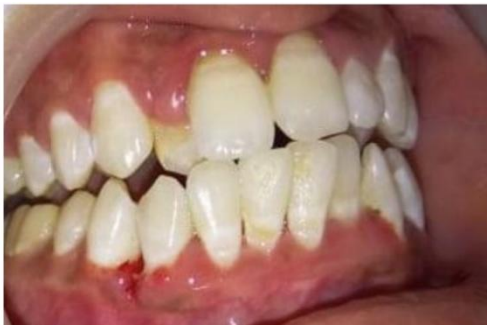

Fig 2: Immediately After surgical excision

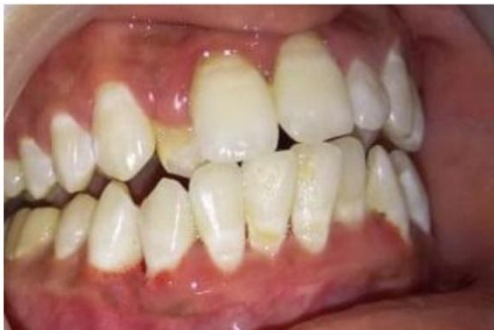

Fig 3: Post operative after 1 week

III. DISCUSSION

Pyogenic granuloma is an inflammatory hyperplasia affecting the oral tissues. Hartzell first ever introduced the term pyogenic granuloma in 1904[5] . This lesion is formed as a result of an exaggerated localized connective tissue reaction to a minor injury or any underlying irritation [6]. The irritating factor can be calculus, poor oral hygiene, nonspecific infection, over hanging restorations, cheek biting etc. Because of this irritation, the underlying fibrovascular connective tissue becomes hyperplastic and there is proliferation of granulation tissue which leads to the formation of a pyogenic granuloma [7]. Pyogenic granuloma may occur at all ages but is predominantly seen in the second decade of life in young adult females, possibly because of the vascular effects of female hormones [8]. The gingiva is the most commonly site affected followed by the buccal mucosa, tongue and lips [5].

Clinically, PG often presents as a painless, pedunculated or sessile asymptomatic mass with a smooth or lobulated surface, soft in consistency, red to purple in colour, that bleeds at the slightest touch. The lesion may ulcerate and be covered with a fibrinopurulent layer. The size varies from a few millimetres to a few centimetres. The growth of the Pyogenic granuloma is slow but it can have episodes of rapid growth.[1,9,10]

Histologically, Pyogenic granuloma 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.

Studies by Zain RB *et al.*, in Singapore populations have also shown the greatest incidence of pyogenic granuloma in the second decade of life[11].

Treatment of pyogenic granuloma involves a complete surgical excision [5]. Recurrence of pyogenic granuloma after excision is a known complication but can be prevented. The recurrence rate for pyogenic granuloma is said to be 16% of the treated lesions and so re-excision of such lesions might be necessary [5].

Differentiation is done on clinical and histological features which help in providing adequate treatment and therefore a good prognosis.

Pyogenic granuloma can be adequately treated with the correct diagnosis and proper treatment planning. A careful management of the lesion also helps in preventing the recurrence of this benign lesion.

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