International Journal of Enhanced Research in Medicines & Dental Care (IJERMDC),
ISSN: 2349-1590, Vol. 10 Issue 3, March 2023, Impact Factor: 7.125

Management of pyogenic granuloma in pregnant female: A case report

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ABSTRACT

Pyogenic Granuloma is a commonly occurring non neoplastic, reactive lesion in response to any traumatic stimulus or local irritation. Increased hormonal levels of estrogen and progesterone during pregnancy modify this tissue response towards the stimuli. While excising the lesion in third trimester of pregnancy, special consideration should be given to the position of the patient and pain management.

Keywords: Pyogenic Granuloma, Inflammation, Third trimester pregnancy.

INTRODUCTION

Pyogenic granuloma (PG) is a non-neoplastic lesion of the oral cavity. It mostly occurs as a tissue-reaction to any stimulus such as trauma or local irritation [1]. PG generally occurs as a solitary exophytic growth that can be sessile or pedunculated with a smooth or lobulated surface. Colour of the lesion may vary according to the vascularity. It may be painful, can interfere with the mastication. Maxilla is more commonly affected than mandible. PG can grow at a faster rate and frequently bleed profusely with little or no trauma. It sometimes involves tissues other than gingiva like the lips, tongue, buccal mucosa, and palate [2]. PG mostly occurs in young females in the second decade of life. Female sex hormones play significant roles in its pathogenesis [1,3]. Persistent periodontal inflammation may further complicate the lesion and its management. Present case report aims the management of similar lesion in pregnant female in third trimester.

CASE REPORT

A 29 year female patient reported in the dental emergency with the chief complaint of continuous bleeding from upper right back tooth region. She was just entered in her 2nd trimester of pregnancy. On clinical examination, gingival overgrowth was present on buccal as well as palatal side with respect to interdental region of #15 and #16. Haemostasis was achieved after pressure pack.

Patient was followed up in the OPD. Reddish brown, painless, solitary, pedunculated gingival growth of size 5X5mm was there as shown in figure 1A. Growth was interfering with the occlusion. Debridement was done. With the consent of the patient, excisional biopsy was planned after gynaecologist opinion.

Patient was scheduled on the next day. Colour of the growth changed to light pink as shown in figure 1B and 1C. Local anaesthesia was infiltrated with the insulin syringe to minimize the pain. Growth was excised in toto and sent for histopathological examination. One suture was placed using 3-0 black silk as depicted in figure 1D. Analgesic (Paracetamol 500mg SOS) was prescribed. Chlorhexidine mouthwash 0.2% was also prescribed twice daily for 1 week. Suture removal was done after one week. Healing was uneventful. Gingival health at this time is shown in figure 1E.

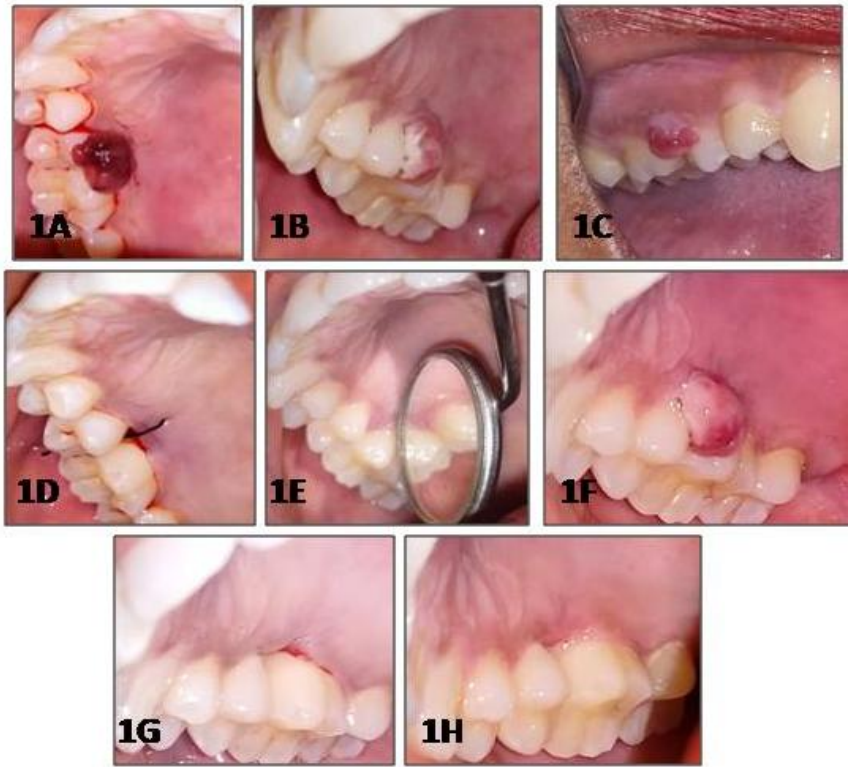

Figure 1: 1A-Initial visit , 1B-preoperative-palatal side, 1C-preoperative-buccal side, 1D- post operative suturing, 1E-1 week post operatively, 1F- After 3 months showing recurrence, 1G-growth excised again, 1H- 1 week after excision of recurred lesion.

After 3 months, patient again reported with the similar growth on the same palatal site as depicted in figure 1F. Patient was in 3rd trimester this time. Although growth was not interfering with the occlusion but patient was so apprehensive for this growth happening again and again, also growth gained it's size within 1 day, excision was planned with gynaecologist's opinion. Excisional biopsy was done again as shown in figure 1G. No sutures given this time. After 1 week, patient followed up with the clinically healthy gingival as shown in figure 1H. Tissue was sent for histopathological examination again. Patient didn't report after that.

Histopathological examination of initial biopsy specimen confirmed pyogenic granuloma with the findings as overlying stratified squamous epithelium with underlying connective tissue stroma showing intense inflammatory cell infiltrate chiefly neutrophils as revealed in figure 2A and 2B. Numerous small and large vascular channels were also evident. Histopathological examination of subsequent biopy as in figure 2C and 2D confirmed the lesion as recurrent case of pyogenic granuloma.

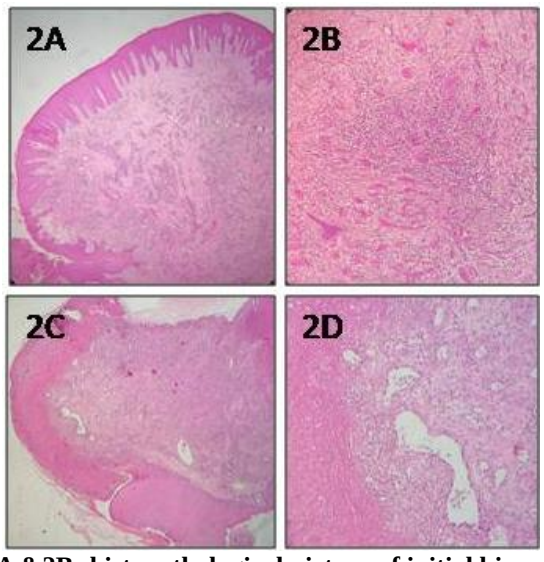

Figure 2: 2A &2B- histopathological picture of initial biopsy specimen
2C & 2D- histopathological picture of recurrent lesion.

DISCUSSION

Oral health care in pregnancy is often avoided and misunderstood by patients. Silk H et al suggested that every pregnant woman should be screened for oral risks, educated and counselled on oral hygiene, and should be advised dental treatment when necessary. Appropriate dental care during pregnancy may help to reduce poor prenatal [4] outcomes. As the lesion occurs in response to local irritation or trauma, many such stimuli might be there in some patients. Repeated gingival inflammation secondary to plaque, calculus and foreign body are sufficient to initiate the lesion. Females are more commonly affected probably due to the vascular effects of hormones that occur during puberty, pregnancy and menopause. Pregnancy itself does not cause any gingival disease; rather gingival diseases are caused by bacterial–hormonal interactions which change the composition of plaque and thereby lead to gingival inflammation [5].

As reported by Kornman and Loesche, sub gingival flora shifts towards more anaerobic spectrum as pregnancy progresses. This can be related to predominance of Prevotella Intermedia. This increase appears to be associated with elevations in systemic levels of Estradiol and Progesterone, which acts as substitute of Menadion (vitamin k), essential growth factor for Prevotella Intermedia and [6]. O'Neil suggested that, supression of the maternal T- lymphocyte response during pregnancy may lead to altered tissue response [7].

In absence of significant aesthetic or functional problems, the lesion should not be excised because it may resolve after parturition as the hormonal levels become normal. Local irritants should be removed in every case. Those lesions failing to resolve, should be surgically excised. Follow up of the patient is needed because pyogenic granuloma exhibits a tendency to recur [8].

CONCLUSION

Special care regarding dental chair positions, analgesia should be taken while managing pregnant females in third trimester. Complete excision of the lesion should be done, otherwise it can reoccur.

Conflict of interest: No conflicts

Funding: No funding was received.

Acknowledgement: We acknowledge the department of Periodontics, PGIDS, Rohtak.

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