CASE REPORT

Pregnancy Tumor: Educate to Eradicate

Aruna Nautiyal*, Sheela Kumargujjari**, Usha Hedge***

Abstract

Pregnancy is a phase in a woman’s life associated with an upsurge in hormones, especially Estrogen and Progesterone. During this delicate phase, the body has a tendency to give an exaggerated response even to minor local factors. However, pregnant patients are apprehensive about receiving dental treatment during pregnancy owing to lack of awareness. As Gynecologists are more likely to see expecting mothers much earlier than dentists, the importance of involving dentists in perinatal care should be emphasized by them, thereby making pregnancy care a multidisciplinary approach. Presenting here is a case report on a Pregnancy tumor with emphasis on monitoring the oral health in pregnant ladies with a coalition triad of Gynecologist – Patient– Dentist, since Prevention is better than Cure.


Key words: Inflammatory hyperplasia; oral cavity; pregnancy; pregnancy tumor

Key Messages

Pregnancy being the most special phase in any woman’s life. This case report on pregnancy tumor stressing on the utilization of dental care among pregnant women and how it affects a woman’s overall health, pregnancy experience, her birth outcome, and the oral health of her children.

Introduction

Pregnancy constitutes a special physiological state characterized by a series of temporary adaptive changes in body structure, as the result of an increased production of various hormones especially Estrogens & Progesterone. The oral cavity is also affected by such endocrine actions, and may present both transient and irreversible changes as well as modifications that are considered pathological. There is a change in oral flora with an increase in P.intermedia due to its affinity to steroids and also owing to increased vascularity hence making pregnant women more susceptible to gingival and periodontal disease. This is reflected in the findings with a higher prevalence of dental problems seen in the pregnant women than the general population. Exacerbating the situation is the limited number of women that actually seek dental advice during...
pregnancy even when a dental problem exists. Various factors have been cited that deter women from seeking dental care during pregnancy, such as socio-economic and socio-cultural factors, lack of public awareness of the importance of oral health and concerns for foetal safety during dental treatment. Thus by increasing the awareness about the importance of oral health during pregnancy care visits; a multi-disciplinary approach may be applied in ensuring the wellbeing of pregnant ladies.

The hormonal changes that occur during pregnancy are linked to an increase in pregnancy gingivitis and pregnancy tumor. Because of the high frequency of pyogenic granuloma in the oral cavity, especially during pregnancy, and necessity for proper diagnosis and treatment, complete information and investigations about this lesion, in addition its treatment is presented.

Case History

A female patient aged 20 year reported to the Department of Periodontology, JSS dental college & Hospital, Mysore with a chief complaint of swollen gums in the lower right back tooth region since the last six months. The swelling first occurred when she was in her second trimester of pregnancy and progressed gradually to attain the present size. During pregnancy, patient had no dental consultation as it was asymptomatic. Since the swelling failed to regress and started causing difficulty in mastication, the patient reported to us one month postpartum. On the lingual side, a 2×1cm solitary, sessile growth of gingiva extending from mesial of 46 extending up to 48 region was seen with ulceration and reddening of the overlying mucosa. On palpation, the growth was firm, non-tender, easily bleeding, nonmobile & flattened (owing to lingual pressure from tongue and cheeks buccally). The gingiva was otherwise healthy in other areas of the mouth. Routine blood investigations were noncontributory. Radiographic examination revealed no bony changes. A differential diagnosis of pregnancy tumor was arrived at on the basis of patient’s case history and clinical appearance.

Treatment

Phase I therapy was performed. Oral hygiene instructions were given, scaling and polishing was done on first visit. 2 weeks later, the patient was recalled for surgical excision of the lesion. After administering local anaesthesia with 2% lignocaine (1:80000), the lesion was excised with a 15 number blade and the biopsy sample was sent for histopathological examination. The excision area covered with periodontal pack and evaluated after one week for healing. After excision, residual calculus was removed and root planing was done. Patient was motivated to maintain oral hygiene and was asked to rinse mouth with 0.2% chlorhexidine mouth wash twice daily for one week. The patient was kept on periodic recall visits and healing was found to be satisfactory with no history of recurrence so far.

Patient was systemically healthy. On examination, no significant extra oral findings were spotted. Intra oral examination, revealed presence of overall abundant local factors. Bucally there was a firm, sessile growth, measuring 0.8 x 0.4 cm involving the interdental papilla between 46 & 47.
Histopathological examination revealed a stratified squamous epithelium showing hyperplasia with increased keratinization with proliferating rete pegs & underlying connective tissue shows lots of proliferating blood vessels, formation of vascular spaces in fibro cellular stroma infiltrated with inflammatory cells like lymphocytes, plasma cells & macrophages, confirming the clinical diagnosis of pregnancy tumor. Patient is presently on maintenance and regular follow up.

Fig. 4: H&E section showing hyperplastic epithelium & inflammed CT

Discussion

Hullihen’s in 1844 first reported pyogenic granuloma in English literature but the term “Pyogenic granuloma” or “granuloma pyogenicum” was introduced by Hartzell. Pregnancy tumor is one of the inflammatory hyperplastic conditions seen in the oral cavity. However this term is a misnomer because the lesion is neither related to infection nor is it a neoplasm, in reality it arises in response to various contributory stimuli.

This benign hyperplastic lesion of the oral mucosa occurs in up to 0.2-9.6% of pregnancies. It appears most often during the 2nd trimester of pregnancy, as also seen in the present case. Clinically, oral pyogenic granuloma is a smooth or lobulated exophytic lesion manifesting as small, red erythematous papules on a pedunculated or sometimes sessile base. It is characterized by erythema, edema, hyperplasia and increased bleeding. The size of present tumor in the present case was 2x1 cm which is in accordance to that found in previous case reports too. Maxillary tumors are more common than mandibular. This present case is in contrast to the above finding were it was found on the mandibular arch.

Pregnancy itself cannot cause gingivitis; instead it is caused by bacterial plaque, hormonal alteration and local trauma. With utmost oral care and regular dental checkups, it is possible to avoid the pregnancy tumor during pregnancy. Nearly one third of the women cite safety concerns regarding dental treatment as the barrier for seeking dental care. Researchers have reported that mothers believe that poor oral health is normal during pregnancy and a tooth may be lost with each child. This problem of misinformation may be attributed to the lack of information being provided to pregnant women on oral health care by antenatal care providers. A failure to communicate oral health information has been shown to significantly reduce the likelihood that a pregnant woman will seek dental care. It is well established that dental treatment during pregnancy is extremely safe and will not result in adverse pregnancy outcomes. There also appears to be some confusion among women regarding the appropriate time to seek dental treatment during pregnancy. Correct information through authentic sources is hence very essential. Women should be informed that necessary treatment can be provided throughout pregnancy; however, the period between the 14th and the 20th week of pregnancy is the best time to provide treatment. Dental procedures such as diagnostic procedure, periodontal treatment, restorations and extractions are safe and are best performed during the second trimester when the organogenesis is complete. Emergency dental care can be performed at any gestational age. The third trimester presents the additional problems of positional discomfort and the risk of vena caval compression. These conditions can be resolved by propping the woman on the left side to move the uterus off the vena cava and placing a pillow under the patient’s right hip.
Hence patients should be encouraged to seek professional dental care prior to becoming pregnant and at least once a trimester during pregnancy. Preventive measures such as frequent updating of medical records, consulting with her obstetrician, reinforcing oral hygiene behaviours may reduce the risk of dental emergencies during pregnancy. Strategies to change the perceptions of health care professionals include dental health education to be integrated into prenatal health care professionals.

**Conclusion**

The case presented here is of a pregnancy tumor occurring in the mandibular posterior region. Case appearance correlated with the patients case history pointed out towards the diagnosis of pregnancy which was confirmed by histopathology. Complete surgical excision with meticulous scaling procedures is the treatment of choice. Also a comprehensive oral health program with hand in hand of gynecologists if possible will have a potential to establish attitudes about the importance of maintaining optimum oral health of expectant mothers. A multidisciplinary team that include the family physician, gynecologists and dental practitioner should assume an active role in providing health education to pregnant women which can significantly decrease the possibility of oral diseases. Eliminating barriers to accessing perinatal oral health care requires a coordinated and collaborative. Through their interactions with pregnant mothers, health care providers and community partners, they can make substantial contributions to improving access to and utilization of dental care during pregnancy. It goes without saying that utilization of dental care among pregnant women affects a woman’s overall health, pregnancy experience, her birth outcome, and the oral health of her children.

**References**


