

Case Report**Florid Granulation Tissue / Pregnancy Tumor****Dr. Nethravathi T.D¹, Dr. Sanjay Venugopal ², Dr. Vaibhavi Joshipura³**

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Abstract :

The physical and emotional changes that occur during pregnancy affect the oral health of pregnant women to a greater extent. The hormonal changes that occur during this time are linked to an increase in pregnancy gingivitis and pregnancy tumor. In addition to it, the recent researches have showed that periodontal health may alter the systemic health of the patient and adversely affect the well being of the fetus by elevating the risk for preterm, low-birth-weight baby. In spite all this, by having well knowledge and being prepared, these risks can be managed and prevented and can stay on the path of health and well being. Other names of pregnancy tumor are Pyogenic granuloma, Exuberant Granulation tissue, Granuloma Gravidarium, Angiogranuloma, Pregnancy Epulis. In this article history, etiology, clinical, histopathological features, treatment and preventive measures of Florid granulation tissue / pregnancy tumor is discussed.

Key words: Pregnancy tumor, Pyogenic granuloma, Florid granulation tissue, Preventive Measures.

Journal of Dental Sciences & Research 1:2: Pages 51-56**Introduction :**

The link between pregnancy and periodontal inflammation has been known for many years.

Tumors of gingivae occurring during pregnancy are by no means rare occurring in 30% - 100% in all pregnant women. Reports of such tumors can be found in dental

journals. Pitcarin in 1818 was first to describe gingival hyperplasia in pregnancy. Pinard and Pinard in 1877 who first recorded the first case of pregnancy tumor. These pregnancy tumors appear most often during the 2nd trimester of pregnancy. It is characterized by erythema, edema, hyperplasia and increased bleeding. The lesion classically occurs in an area of gingivitis and is associated with poor oral hygiene with presence of plaque and calculus.

Case Report:

A female patient aged 24 years reported to department of periodontics, Sri Siddhartha dental college and hospital, Tumkur, Karnataka, India. Complaining of, the gum lesion that had occurred during her first pregnancy which regressed completely after parturition. Later during her second pregnancy in 1st month again the same lesion appeared on gingiva at the same site which did not regress after parturition.



Fig. 1: Pre operative photograph

The lesion was nodular, circumscribed Polypoid lesion measuring about 1.2 x 0.8 cm, pinkish to reddish in color that bled easily and was painless. This lesion involved the marginal and interdental gingiva on facial surface of maxillary left lateral incisor and canine. Local factors plaque and calculus were present.

Oral hygiene instructions were given, scaling and polishing was done on first visit. Then the patient was recalled for surgical excision of the lesion. 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 1 week.

And patient is kept under observation through recall checkups.



Fig. 2: Post surgical photograph

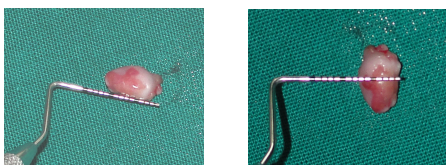


Fig. 3a & 3b: Measurement of the Excised lesion

Microscopic examination revealed surface stratified squamous epithelium which was thin and showed thin parakeratin layer. Underlying connective tissue showed numerous capillaries lined by endothelial cells within which RBCs and also presence of few chronic and acute inflammatory cells were seen.

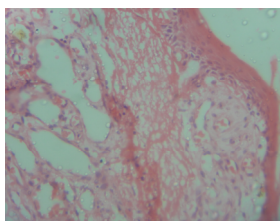


Fig.4: Photomicrograph of Pyogenic Granuloma



Fig. 5: Post operative photograph after 1 week

Discussion:

Florid granulation tissue/ pregnancy tumor is not a neoplasm, it is an inflammatory response to bacterial plaque and is modified by the patients condition (Maier AW, Orban B.1949)². According to Cross it could be result of combination of factors such as vitamin c deficiency, hormonal alterations and local trauma. According to Blum, it is due to endocrine disturbance with local factors¹. In 1986 Vilman showed that it is due to micro trauma from tooth brushing, local irritants such as plaque and calculus².

Pregnancy itself cannot cause gingivitis; gingivitis in pregnancy is caused by bacterial plaque. Gingival changes in pregnancy

were described as early as 1818, even before any knowledge about hormonal changes in pregnancy was available. Pinard and Pinard, in 1877 was first to notice gingivitis in pregnancy. The term pregnancy tumor was first coined by Blum in 1912. In 1946 Ziskin and Ness¹ compiled a clinical classification of pregnancy gingivitis as follows:

Class I – Characterized by bleeding gingivae with more or less, no other manifestations.

Class II- Characterized by changes in the interdental papilla-edema and swelling with subsequent blunting of interdental papilla.

Class III- Characterized by involvement of the free gum margin, which takes on the color and general appearance of a raspberry.

Class IV- Generalized hypertrophic gingivitis of pregnancy

Class V – The pregnancy tumor.

Pregnancy itself cannot cause gingivitis, gingivitis in pregnancy is caused by bacterial plaque possibly that bacterial-hormonal

interactions may change the composition of plaque and thereby lead to gingival inflammation. Kornman and Loesche 1980 reported that the sub gingival flora changes to a more anaerobic flora as pregnancy progresses mainly Prevotella Intermedia will predominate. This increase appears to be associated with elevations in systemic levels of Estradiol and Progesterone, which can substitute for Menadion (vitamin k) essential growth factor for Prevotella Intermedia and coincide with gingival bleeding.

Increased levels of progesterone, produce dilation and tortuosity of gingival microvasculature, circulatory stasis and increased susceptibility to mechanical irritation favor leakage of fluid into perivascular tissues and results in increase in pocket depth and hence associated with transient tooth mobility. Destruction of gingival mast cells by the increased sex hormones and the resultant release of histamine

and proteolytic enzymes may also contribute to the exaggerated inflammatory response to local factors. O'Neil TCA 1979, suggested that during pregnancy, a depression of the maternal t-lymphocyte response may be a factor in the altered tissue response to plaque^{2,4}.

Florid granulation tissue / pregnancy tumor usually appears after 3rd month of pregnancy but may occur earlier. The reported incidence according to Maier A W, Orban B in 1949 was 0.2%-9.6%. The incidence of occurrence is more common in maxilla than mandible and anterior region than posterior that is in accordance with the present case report.

Clinically lesion appears as a discrete, mushroom like, flattened spherical mass that protrudes from the gingival margin or more often from the interproximal space and is attached by a sessile or pedunculated base. It is purplish or dark red in color, with a bright red border. It is usually semifirm and is

a superficial lesion and usually does not invade the underlying bone².

Histologically Florid granulation tissue / pregnancy tumor exhibits ulceration of the surface epithelium and characterized by a fibro endothelial proliferation of the stroma amidst acute and chronic inflammatory cells (Anneroth 1983)⁵.

Surgical excision is the preferred treatment of choice, with removal of local irritants to prevent recurrence. For pregnancy tumor, a conservative approach is recommended. In absence of significant esthetic or functional problems or both, the lesion should not be excised because it may resolve after parturition. Local irritants should be removed. Those lesions failing to resolve should be surgically excised. Follow up of the patient is needed because pyogenic granuloma exhibits a tendency to recur⁵.

How to Prevent Pregnancy Gingivitis and Pregnancy Tumors³

- Eat balanced diet
- Brush twice daily for at least 5 minutes with fluoride containing tooth paste
- Use a soft bristled brush because it will prevent the irritation to gums
- Use floss once a day
- Avoid eating junk food between the meals
- If a pregnant women has morning sickness, rinse mouth with plain water to get rid of the acids in mouth caused by vomiting
- Visit dentist regularly

Conclusion

Thus it is must for every pregnant woman to maintain fastidious oral hygiene. Pregnancy itself cannot cause gingivitis; gingivitis in pregnancy is caused by bacterial plaque, hormonal alteration and local trauma. Hence if we take at most care with regular dental checkups it is

possible to avoid the pregnancy tumor during pregnancy.

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