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Oral Health and Dental Management

Commentary Article

Oral health and Pregnancy: An understanding on the correlation between them from a Dental Hygienists perspective

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ABSTRACT

The correlation between oral health and pregnancy is quite significant. The changes in sex hormone levels (estrogen and progesterone) during pregnancy leading to gingival inflammation and edema is well known. These hormones enhance the inflammatory response to plaque biofilm they also make the blood vessels in the gingiva more permeable.

Pregnancy may have noteworthy effects on oral health and might require modifications in the typical treatment plans that are generally used for pregnant women. Risk of periodontal diseases, dental caries, and gingival inflammation are comparatively more in pregnant women than the general population.

Gingivitis and gingival enlargement are the most common diseases of the gingiva. This may be due to the local factors which results in inflammation or conditioned enlargement often landing in neoplastic enlargement. They usually appear bulbous due to the diffuse swelling of gingivae making it critical for the appearance and the treatment becomes inevitable.

Keywords: Dental; Hygienist

COMMENTARY

Some of the conditioned enlargements of gingivae occur during pregnancy, puberty, vitamin C deficiency whereas the non-specific conditioned enlargement results in pyogenic granuloma.

Pregnant women often experience hormone-based gingival inflammation which raises the risk of gingival bacterial proliferation. Due to the hormonal fluctuations in pregnancy harmful bacteria thrive in and out of the periodontal tissues, resulting in pregnancy-associated gingivitis. Increased inflammatory response usually occurs in the second and third trimesters of pregnancy.

There exists an oral-systemic link between preterm delivery or low birth weight and oral inflammation. At times of pregnancy, the oral bacterial count raises creating a suitable environment for the pathogenic bacteria. Lack of oral hygiene, gingivitis or periodontitis may allow the bacteria to permeate the bloodstream from which they make their way to developing foetus. When the bacteria reach the placenta, they compromise sterility of the amniotic sac creating a potential for preterm labour. Most of the child bearing women are unaware of the association between pregnancy and maintenance of oral health which might result in inevitable situations. Considering these dental hygienists should educate the women of child-bearing age to maintain optimal oral health during pregnancy.

According to the international workshop 1999 of gingival diseases, pregnancy associated gingivitis and pregnancy associated pyogenic granuloma come under the heading 'gingival disease modified by systemic factors'

Most of the clinicians are not advising their patients regarding the importance of oral health care during pregnancy. In a study that evaluated obstetricians' awareness of periodontitis as a risk factor for preterm delivery or low birth weight, 49% of clinical experts rarely or never suggested dental examinations to their patients even if 84% considered periodontitis an important risk factor in pregnancy.

Pregnancy associated gingivitis is very common with 50-70% of women affected. It can be localized or generalised. It usually manifests in the second and eighth month of pregnancy. The gingiva appears red and inflamed with rolled gingival margins. Bleeding on gentle probing is a clinical sign. Scaling and meticulous oral hygiene instructions by the dental hygienist and thorough daily techniques by the patient treat this effectively. It occurs when the patient response to plaque accumulation is magnified because of the systemic condition of the patient.

Granulomas in pregnancy occur as a single or multiple masses in the marginal or attached gingiva. These masses appear as mushroom like, bleed easily, sessile, bulging from the margin or interproximal area. The lesions do not spread to bones but has perfect markings and grow till third trimester after which they degenerate

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spontaneously

Pregnancy- associated pyogenic granuloma also comes under this heading. It is described as gingival overgrowth that can be localized or generalised. It is a benign lesion that bleeds easily and can be sessile or pedunculated. It is a not as common as pregnancy gingivitis, as it only affects around 0.2-0.5% of pregnant women. It occurs between the first and third trimester and can regress on its own after this period. They should be dealt with as soon as they are detected by scaling and or root surface debridement

In regards to periodontitis, links to increases of bone loss may be secondary to gingival inflammation. It might also be caused by other aetiological factors for e.g behavioural risk factors present before pregnancy. These behavioural risk factors include poor oral hygiene and smoking.

Conclusion: Gingival enlargement is major concern in pregnancy as it impairs both function and aesthetics. In case of severe enlargements surgical procedure is best opted to reduce the size of the lesion which helps reduce the number of patient clinical visits and improves the patients' quality of life.

The need of oral health practitioners is much required for the special patient population like pregnant women to identify periodontal diseases, caries, and nutritional deficiencies. Oral health and pregnancy have a significant correlation.

Dental hygienists need to be aware of pregnancy related oral changes and also the importance of oral hygiene to ensure the health of both mother and baby. It is important the Dental Hygienist demonstrates good oral hygiene instructions and provides good instrumentation in preventing and managing this pregnancy associated gingival diseases. They also need to encourage pregnant women to maintain an optimal level of oral hygiene and overall health.

Oral health care professionals should work in collaboration with obstetricians to deal with importance of dental care in all the trimesters into routine prenatal care.