



REVIEW ON PREGNANCY AND ORAL HEALTH: A QUESTION TO CARE

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ABSTRACT Pregnancy is a unique period during a woman's life and is characterized by complex physiological changes, which may adversely affect oral health. Pregnant women, including some with definite signs of oral disease, often do not seek dental care. Preventive, diagnostic, and restorative dental treatment is safe throughout pregnancy and is effective in improving and maintaining oral health, therefore it is important to educate pregnant woman about preventing and treating dental condition, which can be critical, both for women's own oral health and for the future oral health of their children.

KEYWORDS : Dental, oral health, pregnancy, woman.

INTRODUCTION

Pregnancy is a dynamic state leading to several physiological transient changes in the body systems including the oral cavity.¹ Oral health is crucial to overall health and because of normal physiologic changes, pregnancy is a time of particular vulnerability in terms of oral health.² During pregnancy, woman may witness various changes in the oral cavity due to hormonal changes; particularly estrogen changes, that can lead to periodontal disease: which includes gingivitis, periodontitis, gingival hyperplasia, pyogenic granulomas and various salivary alterations.^{1,2,3} In most of cases, because pregnant women believe that dental treatment during pregnancy affects pregnancy negatively, they usually delay dental treatment and most women are unaware of the negative effects of bad oral hygiene on pregnancy and afterwards.⁴ Oral hygiene directly affects an individual's self-respect, talking, nurturing and overall feeling good and such problems decrease the quality of life of pregnant women and they cause serious economic and social problems.⁵

Approximately 40% of pregnant woman get periodontal diseases during pregnancy and as per studies more prevalent in African, American and cigarette smokers.⁵ Various studies have suggested the link between poor maternal oral health, pregnancy outcomes and dental health of the newborn; which may range from preterm delivery and low birth weight to higher risk of early caries among infants. Unfortunately, apart from self-maintenance of oral hygiene, pregnant women face several other barriers in achieving optimal oral health, such as difficulty for seeking dental services include lack of knowledge and value, negative oral health experiences, negative attitudes toward oral health professionals and negative attitudes of dental staff toward pregnant women. Likewise, incorrect assumptions, lack of knowledge or experience often plays a role in the hesitance shown by dental professionals in providing dental care for pregnant women.¹

Oral lesions in pregnant woman

During pregnancy, many changes occur in the oral cavity that can be seen as periodontal disease, which includes gingivitis and periodontitis.² Pregnancy is also considered to be the most appropriate time for the development of oral dental health for mothers and children and prevention of caries in early childhood period.³ Gram negative bacteria or lipo-polysaccharides and cytokines can be transported to both placental tissues and uterus and cervix. It is thought that porphyromonas gingival is triggered placental tissue inflammatory responses and initiated premature labor by the release of effectors molecules. Oral bacterial microorganisms pass through placental tissue and may affect Amniotic membrane, amniotic fluid, placenta, fetal circulation, brain and lung.⁵ It has been reported that the frequency of oral and dental health problems in women during pregnancy varies between 30% and 98.8%.⁶ Below are mentioned few common dental problems that pregnant women face:

Dental caries: Pregnant women are more prone to tooth decay due to change in the acidic environment of oral cavity, increased consumption of sugary diet and carelessness toward oral health. Recurrent vomiting becomes common in pregnancy that enhances acidic environment leading to progress of carious pathogens and an

increased demineralization making teeth prone to caries. Untreated carious lesions increase the incidence of abscess and cellulitis.⁷

Periodontal disease: About 30% of pregnant women suffer from periodontal diseases. While the role of elevated levels of circulating estrogen is well established in higher prevalence of gingivitis and gingival hyperplasia during pregnancy, the association between pregnancy and oral diseases like periodontitis require further research. The role of elevated levels of inflammatory markers (i.e. interleukin 6, interleukin 8 and PGE2) has been found in the amniotic fluid of child bearing women having periodontal conditions, which is considered to be associated with premature labor and low birth weight.⁸

Gingivitis: Gingivitis or bleeding tender gums is the most common dental problem and contributes to around 60–70% of pregnant women. Such conditions are common due to decreased immune response, hormonal fluctuations of estrogens and progesterone and changes in normal oral flora.⁹

Tooth mobility: Due to hormonal rush mineral changes in lamina dura and disturbance in the periodontal ligament attachment, affect mobility of teeth leading to periodontal diseases.⁹

Tooth erosion: Tooth erosion, another unwanted dental problem is considered to be caused by pregnancy induced vomiting. It is understood that dental erosion can be effectively controlled with the use of a solution containing sodium bicarbonate that neutralizes the acid and prevents damages. It is advised to consult patient's physician and gastroenterologist to control the related medical conditions.¹⁰

Pregnancy oral tumor: It occurs in up to 5% of pregnancies, and this vascular lesion is caused by increased progesterone in combination with local irritants and bacteria. Lesions are typically erythematous, smooth, and lobulated; they are located primarily on the gingival, but tongue, palate, or buccal mucosa may also be involved. Pregnancy tumors are most common after the first trimester, grow rapidly, and typically recede after delivery.¹¹

Role of dentist in oral health care

Every dental professional should assess pregnant women's oral health status with the help of various questions about pregnancy and frequency of consuming foods, beverages, and medications that contain sugar and use of tobacco, alcohol, and recreational drugs.¹² Dentist should assure pregnant women that there is no need to postpone or avoid oral health care during pregnancy. Oral health care, including the use of X-rays, pain medication, and local anesthesia, is safe, important, and covered by Medicaid throughout pregnancy.¹³ Dentist can help pregnant woman by encouraging maintaining good oral health behaviors during pregnancy and motivates them to follow the instructions:¹⁴

- Brush teeth twice a day with fluoridated toothpaste.
- Floss once a day.
- Choose healthy snacks and avoid foods and drinks containing sugar.
- Drink water with fluoride.

- If you vomit, rinse your mouth with a teaspoon of baking soda in a cup of water and delay tooth brushing for about an hour.

Dental professionals should provide proper emergency and routine oral disease management and treatment to pregnant women. Dentist should develop, discuss and provide pregnant woman a comprehensive care that includes prevention, treatment and maintenance for all oral health care.¹⁵ Appropriate dental chair position should be followed and use of standard practice when placing restorative materials such as amalgam and composite with use a rubber dam and high speed evacuation during endodontic and restorative procedures.¹² Dental professionals should also educate family and community about pregnancy myths and facts.¹¹[Tbale-1]

CONCLUSION

Oral health is a silent epidemic of oral diseases and pregnancy should not be considered as an absolute reason to defer required dental care. Oral care during pregnancy is of utmost importance and involves the contribution of the patient herself, dental professionals and physicians. During pregnancy dental professional should limit the drug therapies and it is better to avoid radiography and elective surgery. Female patients of childbearing age or expecting females should be screened for caries and oral diseases for timely management. Pregnant woman must be educated about the importance of maintaining good oral hygiene, expected changes in the oral cavity and routine dental visits. Dental health professionals must be aware changes of pregnancy related conditions and their proper management without harming the patient and fetus.

Table-1 Myths & facts about pregnancy and oral care

Myths	Facts
Pregnancy has nothing to do with oral health	During pregnancy, physiological changes occur that may adversely affect oral health, such as dental caries, pregnancy gingivitis, periodontitis pregnancy tumor and tooth erosion.
Never get dental X-rays while pregnant	Dental X-rays with lead shielding are considered safe during pregnancy by the American Dental Association, even though radiation exposure from dental X-rays is low, once a decision to obtain X-rays is made, it is the dental providers responsibility to follow the ALARA Principle to minimize the patient's exposure.
Dentists and dental hygienists do not need to know if a woman is pregnant	It is important for dental providers to know that a woman is pregnant as she may be at risk for certain oral conditions. A woman should inform the dental team if she is pregnant, of her expected due date, and if her pregnancy is high risk.
Gain a child, lose a tooth.	The fetus does not take calcium from its mother's teeth. This myth likely originated because pregnant women may be at higher risk for dental caries.
Maternal oral health does not affect the future child's health	Restoring active carious lesions before delivery may reduce the child's risk of dental caries. Pregnancy is an opportune time to educate women on the importance of their own oral health and the health of their future child. Poor prenatal nutrition may also affect a child's tooth development.

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