



DENTAL CARE DURING PREGNANCY: A REVIEW

Dental Science

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ABSTRACT

During Pregnancy oral health is essential to overall health. It is high time for dental care postpartum, women in poor dental health readily transmit the tooth decay pathogen *Streptococcus mutans* from saliva to this implant which causes early childhood caries. Preventive sources and treatment for acute problems should be recommended. Dental X-rays should be performed with appropriate shielding. Non-emergent interventions are best provided between 14 and 20 weeks of gestation for comfort and safety. Women's health providers should understand the importance of protecting oral health during pregnancy and educate their patients accordingly.

KEYWORDS

Dental Care, Dentistry, Pregnancy, Pregnancy Gingivitis, Pregnancy Tumors

INTRODUCTION

The American Congress of Obstetricians and Gynaecologists and the American Academy of Paediatrics advise pregnant women to continue "usual dental care in pregnancy" including continued brushing and flossing, scheduled prophylactic cleanings, and any necessary dental work.

Anecdotally, health care providers repeat a common reason they do not refer women for dental care during pregnancy is the lack of dentists willing to provide this care, particularly for low-income pregnant women.

In 2006, the New York State Department of Health developed the first comprehensive evidence-based guidelines covering several aspects of dental care during pregnancy.

The purpose of this article is to review why dental care during pregnancy is advisable and to describe the common dental procedures and treatments to make them understand the importance of protecting their oral health during pregnancy.

PREGNANCY GINGIVITIS

Pregnancy-associated gingivitis is an acute inflammation of the gingival tissues that are associated with pregnancy.

This condition is accompanied by

- Increase in steroid hormones in crevicular fluid
- Increase in the levels of P. intermedia and C. rectus which use the steroid as growth factors

Symptoms:

- Redness and swelling
- Tenderness in the gingiva
- Bleeding of the gums even when you brush your teeth gently
- Shiny gingiva

To treat bleeding gums daily brushing and flossing and scheduled prophylactic cleaning performed by a dental professional are recommended. Periodic Warm salt water rinses can help irritation (1 teaspoon salt to 1 cup of water). Adjunctive therapy with a 0.12% oral chlorhexidine mouth rinse twice daily can provide added benefit. Chlorhexidine is a U.S Food and Drug Administration (FDA) Pregnancy Class B drug and is safe for use during pregnancy. Gingivitis is self-limiting, however, at the extreme, failure to treat it can result in disfiguring changes to the gums.

TOOTH DECAY

A product of acid demineralization of the teeth in bacterial disease is called dental caries. Arresting tooth decay is an important goal of dental care.

Among pregnant women tooth decay is very common because of mainly changes in eating habits, specifically in the frequency and types of foods consumed and in oral hygiene can exacerbate dental caries and new tooth decay.

Women who crave carbohydrate-rich food during pregnancy are, particularly at risk.

Frequent vomiting which is very common in pregnancy can contribute acidic environment which leads to an increase in dental pathogens as well as acid demineralization of tooth enamel. Pregnant women should rinse the mouth with water and use over-the-counter fluoride mouth rinses after vomiting to counteract the effects of the stomach in the mouth.

Women with substance abuse, such as those who use Methamphetamine often have serious decay and methamphetamine is a frequently abused substance for which women are treated during pregnancy.

TEETHEROSION

If the pregnant woman has vomiting from morning sickness the teeth may be exposed to too much stomach acid. Thus, acid can harm the enamel. Morning sickness also called NVP (Nausea and Vomiting of Pregnancy) usually in the first few months of pregnancy can cause erosion.

PREGNANCY TUMOURS

Pregnancy tumors are called pyogenic granulomas which occur in up to 10% of pregnant women.

Feature

1. They may be fat or pedunculated
2. They range from deep purplish red to pink in color
3. They typically occur in the maxillary gingival tissue
4. They appear during the second trimester and tend to grow rapidly during pregnancy and regress postpartum.

Pyogenic granulomas do not pose a danger during pregnancy. If they bleed frequently with chewing or talking or any discomfort excision should be considered during pregnancy

LOOSE TEETH

High levels of hormones progesterone and estrogen during pregnancy can temporarily loosen the periodontal tissues and bones which keep the teeth in place that can make the teeth loose.

PERIODONTAL DISEASE

Periodontal disease is an inflammatory disease of the supporting tissues of the teeth caused by specific microorganisms, characterized by progressive destruction of the periodontal ligament and alveolar bone with increased probing depth formation, recession or both.

Periodontal diseases are rare among young adults approximately 1% of people 1 to 34 years old. Treatment of periodontal disease in pregnancy is considered safe and generally improves maternal oral health. The most common procedures are Scaling and Root planing.

Several studies have suggested a relation between periodontal disease

and adverse pregnancy outcomes including premature birth or low birth weight, gestational diabetes, preeclampsia, and stillbirth. Biologic plausibility for triggering premature labour is thought to be through systemic increases in prostaglandins (specifically PGE2) and cytokines. It results in the release of endotoxin and lipopolysaccharide by pathogenic Gram-negative anaerobes.

DENTAL CARE

In Pregnancy dental care is very important, proper brushing and flossing should be maintained.

For Plaque control, the ADA has accepted two agents

1. Prescription chlorhexidine rinse.
2. Non-prescription essential oil rinse.

Chlorhexidine should not be used before/immediately after using toothpaste.

The proper method of brushing is advised such as the BASS method, Modified BASS technique, FONES method.

The amount of toothpaste or gel needed for effective cleaning is a pea-sized dot on the top half of the toothbrush.

Maintenance of toothbrushes during pregnancy is very important as they may act as a vehicle in breeding and transmitting various organisms in the oral cavity. Toothpaste should be kept in the open air with the head in an upright position with no contact with other brushes.

Gingiva massage is advised as it improves the gingival health by

- Increasing keratinization
- Increasing blood flow
- Increasing flow of gingival crevicular fluid within the gingival sulcus.

This results in an overall improvement in gingival health.

DENTAL PROCEDURES

Great care must be taken when dealing with a pregnant patient since the surgeon has to treat not only the mother but also prevent any undue harm to the fetus.

It is safe to perform procedures under local anaesthesia in the second trimester. In the first trimester, there is a chance of stress as well as teratogenicity while in the third trimester there is a risk of stress-induced early labour. General anaesthesia is a contraindication in the third trimester unless there is a life-saving emergency procedure. In the first and second trimester care must be taken to avoid fetal anoxia.

The mother should be fully explained about the risks before performing any procedure. Teratogenic drugs like Tetracyclines, Salicylates, and Chloramphenicol are best avoided. Drugs like Amoxicillin, Cloxacillin, ampicillin, and paracetamol can be safely prescribed.

During Pregnancy first and last trimesters are a more crucial period. During the first 3 months of pregnancy, the process of organogenesis/fetal development and during 3rd week to 8th-week differentiation takes place. All drugs should be avoided for the potential risk. All dental invasive procedures should be avoided unless severe infection requires emergency treatment. 3rd-trimester patient may develop *Supine Hypotension Syndrome* during dental treatment in a flat position Left lateral position will allow the venous return.

DENTAL X-RAY

Dental X-Rays are usually safe for pregnant women but the fetus undergoes important development during the first trimester and second half of the third trimester. So, it is advised to have all the dental treatment and X-Rays are done during the second trimester to protect the fetus.

Some additional safety measures are taken to protect the mother and fetus from radiation such as the usage of the Lead apron and collar for the patient and if there is no dental emergency then the pregnant women are advised to undergo all the dental procedures after the pregnancy period.

CONCLUSIONS

The pregnancy period is very crucial for preventive dental health care for the mother and subsequently her infant. Greater awareness of oral

health in pregnancy among clinicians, women, and dental care specialists can have a significant impact on improving overall health and their families.

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