Talking with Patients

Pregnancy and Oral Health

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Pregnancy is typically a very special and stressful phase in a woman's life. The future mother is not only concerned with her own health but also with the health and well-being of her future baby. Throughout the 9-month gestational period, important physiological and transient changes take place in the woman's body, many of which impact oral health.^{1,2}

Relative to the mother's overall health, increased hormonal activity, increased blood flow, fluctuation in blood pressure, systolic heart murmur, anemia, respiratory changes, gastrointestinal changes, and "gestational diabetes" are only a few of the important transient changes that occur during pregnancy. These directly or indirectly lead to many symptoms that manifest during pregnancy, such as nausea and vomiting, nasal congestion, heartburn, alteration in taste and food cravings, hyperventilation, and shortness of breath. In addition, fatigue and depression are also common during pregnancy.

The following items are relevant when discussing the impact of pregnancy on oral health and dental care:

- 1. Pregnancy gingivitis. Although pregnancy does not cause gum disease, pregnancy gingivitis is a common complication of pregnancy that results from an exaggerated inflammatory response to local irritants such as plaque and calculus buildup.¹ This condition is characterized by moderately red gums and can progress to more obviously inflamed and bleeding gums. The condition can be prevented by good oral hygiene and regular professional cleanings. In severe cases of inflammation and gingival growth, gum surgery may be required. Also related to this topic, several reports suggest that bacteria associated with periodontal disease are associated with low birth weights and preterm births,^{3,4} which highlights the importance of maintaining good oral health before and during pregnancy.
- 2. *Pregnancy and "soft teeth."* One of the most common misconceptions regarding pregnancy and oral health is the notion that teeth weaken during pregnancy. Contrary to popular belief, calcium is not lost from teeth during pregnancy. The higher risk

for developing cavities during pregnancy is not attributed to changes in the composition of teeth but rather to changes in diet (increased and more frequent consumption of sugars) and oral hygiene (difficulty brushing and flossing because of gag reflex, morning sickness, etc.). Cavities can be prevented during pregnancy much like they are prevented in nonpregnant patients: good oral hygiene, healthy diet, regular dental visits for cleanings, and checkups.

- 3. *Pregnancy and dental treatments*. Routine dental care, including cleanings, scaling and polishing, fillings, and caps, is permissible during pregnancy. Treatment of cavities, gum disease, and other dental infections should not be postponed because of pregnancy. It is generally accepted that elective (nonurgent) dental procedures should be avoided during the first trimester.
- 4. *Pregnancy and X-rays*. The use of X-rays during pregnancy is a controversial topic. As a general rule, X-rays should be avoided during pregnancy, especially during the first trimester. However, X-rays might be required

*Assistant clinical professor, chair of hospital dentistry/chief of oral medicine, Department of Dental Ecology, University of North Carolina at Chapel Hill School of Dentistry, Chapel Hill, NC, USA for diagnosis and treatment of dental conditions during the pregnancy, in which case standard precautions, such as the use of a lead apron and highspeed X-ray sensors, should be followed.

 Pregnancy and local anesthetics (xylocaine/lidocaine). Most commonly used local anesthetics such as xylocaine or lidocaine are safe and can be used during pregnancy whenever necessary to reduce pain and discomfort during dental treatments.

CONCLUSIONS

The pregnant woman should not postpone any needed dental care in fear of jeopardizing her pregnancy. Failure to address developing dental problems and to maintain good oral health can affect the health of the mother and the unborn child. The dental team should be aware of necessary modifications in treatment and medication protocols that assure safe dental management. Although routine dental treatment is certainly safe, especially in the second and third trimesters, the dental team should consult with the patient's obstetrician whenever in doubt regarding treatment and/or medication. In addition, transmission of bacteria that cause cavities from the mother to the child after birth has been documented,^{5,6,7} so maintaining good oral health during pregnancy, even if routine dental care is required, is very important.

DISCLOSURE

The authors do not have any financial interest in the manufacturers whose materials are discussed in this article.

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