Treatment Aids Periodontitis, Not Birth Outcomes

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Contributing Writer

Treating maternal periodontitis between 21 weeks’ gestation did improve the disease but failed to lower the risk of preterm delivery, increase fetal birth weight, improve Apgar scores, reduce the number of small-for-gestational-age neonates, or decrease the rate of neonatal intensive care unit admissions, reported Bryan S. Michalowicz, D.D.S., and his associates.

Several previous studies have reported a strong link between periodontal disease and preterm birth, but others have found no association. Similarly, two previous clinical trials have concluded that periodontal treatment during pregnancy cuts the risk of preterm birth, but another found no benefit, the researchers said (N. Engl. J. Med. 2006;355:1885-94).

Their Obstetrics and Periodontal Therapy (OPT) study was a randomized, blinded trial in which 823 pregnant women with early to moderate generalized periodontitis were assigned to receive nonsurgical treatment either before 21 weeks (treatment group) or after delivery (control group). The women were seen at four U.S. medical centers between 2003 and 2005.

Treatment comprised periodontal scaling and root planing—removal of dental plaque and calculus from the tooth enamel and root—with ultrasonic and hand instruments, using local anesthesia as needed. All clinical measures of disease improved in all treated patients.

However, treatment did not improve the rate of preterm delivery or other related outcomes, said Dr. Michalowicz of the department of developmental and surgical sciences at the University of Minnesota, Minneapolis.

There was a nonsignificant reduction in spontaneous abortion and stillbirths in the treated group. However, “we view this finding with particular caution because only 19 patients in our study had either a spontaneous abortion or stillbirth and because we began evaluating rates of earlier pregnancy losses only after seven such events had occurred,” Dr. Michalowicz and his associates wrote.

In an editorial comment accompanying this report, Dr. Robert L. Goldenberg, with Jennifer F. Culhane, Ph.D., of Drexel University, Philadelphia, said that these results on miscarriages and stillbirths might be more significant than the authors believed.

Periodontal treatment may well have affected early adverse outcomes “since observational studies suggest that periodontal disease is much more strongly associated with late miscarriage, stillbirth, and early spontaneous preterm birth than with preterm birth in general. “One could hypothesize that periodontal treatment might preferentially reduce these other outcomes but not late preterm birth,” they said (N. Engl. J. Med. 2006;355:1925-7).

Dr. Goldenberg and Dr. Culhane also noted that treatment during pregnancy might be too late, and that prepregnancy intervention is needed. “We have hypothesized that once the inflammatory cascade is activated during pregnancy, interventions targeting this pathway may be ineffective in reducing the rate of preterm birth,” they noted.

Three larger ongoing trials of the issue are underway, and their results “will help clarify whether periodontal treatment has any role in reducing the rate of preterm birth. In the meantime, the findings of Michalowicz et al. do not support the provision of periodontal treatment in pregnancy for the purpose of reducing preterm birth,” Dr. Goldenberg and Dr. Culhane said.

NIH Sets Newborn Genetics Program

The National Institutes of Health has launched “Health Information Rx Program” to encourage physicians to refer parents of newborns diagnosed with genetic conditions to Genetics Home Reference, a free, patient-friendly Web site with information on more than 500 genetic topics. The Web site also provides information on newborn genetic screening for expectant mothers. To find out more about the program or to request a free copy of an “Information Rx” pad, which directs patients to the Web site, visit http://ghr.nlm.nih.gov.