

Periodontal Tx Failed to Lower Preterm Births

Pregnant women with periodontal disease fared the same whether their disease was treated or not.

BY ROBERT FINN

Treating periodontal disease in pregnant women does not decrease their chances of preterm birth, according to a study of 756 women.

Several previous studies have found that pregnant women with periodontal disease have an increased likelihood of giving birth prematurely.

But this was the first study to use a randomized controlled trial to test the idea that treating periodontal disease may improve a woman's chances of carrying her pregnancy to term.

Periodontal disease is very common, affecting more than 30% of individuals in some populations. The investigators, led by Dr. George A. Macones of Washington University in St. Louis found that 50% of the 3,563 pregnant women they screened had either gingivitis or periodontitis (*Am. J. Obstet. Gynecol.* 2010; 202:147.e1-8).

Women were included in the study if they had periodontal disease and were 6-20 weeks pregnant. They were ex-

cluded if they had already received periodontal treatment during their pregnancy, if they had used antibiotics or antibiotic mouthwash within 2 weeks, if they had a multiple pregnancy, or if they had known mitral valve prolapse.

The 376 women in the active treatment group received thorough periodontal treatment, in which trained dental hygienists removed stains, plaque, and calculus above and below the gum line, leaving the root surfaces smooth and clean. The 380 women in the control group received only a superficial cleaning and stain removal above the gum line.

The primary outcome was spontaneous preterm birth, which the investigators defined as births occurring before 35 weeks' gestation.

Secondary outcomes included the type of preterm birth (either spontaneous or indicated), delivery before 37 weeks' gestation, gestational age at delivery, birth weight, and major neonatal adverse outcomes, such as death, sepsis, and chronic lung disease.

There were no significant differences

VITALS

Major Finding: There was no significant difference between pregnant women who received treatment for periodontal disease and those who did not in terms of spontaneous preterm birth, gestational age at birth, or major neonatal adverse outcomes.

Data Source: Randomized, controlled trial of 756 pregnant women with periodontal disease.

Disclosures: The study was supported by the Pennsylvania Department of Health, the National Center for Research Resources, and the National Center on Minority and Health Disparities. No conflicts of interest were reported.

many results that were not significant may have arisen by chance.

In an accompanying editorial, Dr. Kim A. Boggess of the University of North Carolina at Chapel Hill offered another possibility. Dr. Boggess suggested that scaling and root planing may have disseminated oral pathogens or their toxins to the rest of the body, accounting for the apparently increased risk of active treatment in this one subgroup of women (*Am. J. Obstet. Gynecol.* 2010;202:101-2).

between active treatment and control groups on any of these measures. Investigators did, however, find one significant difference within the planned subgroup analyses: Among women with a history of previous preterm birth, those in the active treatment arm had a greater risk of preterm birth than those in the control treatment arm.

The investigators suggested that this one statistically significant result among

Regarding the idea of treating pregnant women for periodontal disease, Dr. Boggess wrote: "Although promising, the current data do not support periodontal treatment during pregnancy to reduce the preterm birth risk."

However, she also said that the trial "confirmed that periodontal treatment improves the oral health of pregnant women, and oral health for the sake of oral health cannot be disputed." ■

Internal Tocodynamometry Disappoints in Large Trial

BY MARY ANN MOON

Internal tocodynamometry during induced or augmented labor failed to reduce the rate of operative deliveries compared with external monitoring of uterine contractions, according to a report.

Nor did internal tocodynamometry improve the rate of adverse neonatal outcomes, the use of analgesia, the use of antibiotics, or duration of labor in a multicenter trial comparing the two approaches, according to Jannet J.H. Bakker of the Academic Medical Center, Amsterdam, and her associates.

Internal tocodynamometry is advocated by professional obstetric societies because it "is thought to quantify the frequency, duration, and magnitude of uterine activity more accurately" than external monitoring. This in turn is assumed to allow better adjustment of oxytocin infusion and improved interpretation of fetal heart-rate patterns.

"However, clinical data to support such hypotheses are limited, and recommendations are based on expert opinion" in the absence of definitive data, the investigators noted.

Only three small clinical trials have compared the two techniques, and "the small samples in these trials resulted in limited power to detect differences and in wide confidence intervals around estimated risk reductions," they said.

Ms. Bakker and her colleagues assessed

1,456 women who delivered at six hospitals in the Netherlands over a 4-year period. All the women had singleton, term pregnancies and received oxytocin for induction or augmentation of labor. They were randomized to internal tocodynamometry (734 patients) or external monitoring (722 patients).

The primary outcome was the rate of operative delivery. In all, 230 women

VITALS

Major Finding: Thirty-one percent of women in the internal-tocodynamometry group and thirty percent in the external-monitoring group required operative delivery, a non-significant difference.

Data Source: A multicenter trial of 1,456 women.

Disclosures: None reported.

(31%) in the internal-tocodynamometry group and 214 (30%) in the external-monitoring group required operative delivery, a nonsignificant difference, the researchers said (*N. Engl. J. Med.* 2010;362:306-13).

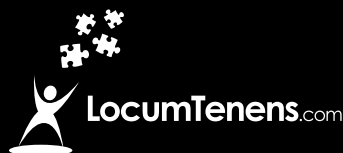
The rates of secondary outcomes also were similar between the two groups. These included adverse neonatal outcomes, use of antibiotics during labor, use of analgesia, and total amount of oxytocin used.

Internal tocodynamometry carries serious risks, "including placental or fetal-vessel damage, infection, and anaphylactic reaction. We did not observe any complications of internal monitoring in our study, but it was not powered to detect these events," which are estimated to occur in up to 1 in 300 deliveries. ■

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