

Dental Procedure May Reduce Risk of Premature Births

CHICAGO – August 26, 2003 – A non-surgical dental procedure may reduce the risk of preterm birth in pregnant women with periodontal disease, according to new study findings. Nearly 12 percent of babies in this country are born preterm (before 37 completed weeks of pregnancy), which increases their risk of death and lasting disabilities, such as mental retardation, cerebral palsy, lung and gastrointestinal problems, and vision and hearing loss

Abstract

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Periodontal Disease and Preterm Birth: Results of a Pilot Intervention Study

Dr. Marjorie K. Jeffcoat

University of Pennsylvania School of Dental Medicine, Philadelphia, PA.

John C. Hauth

University of Alabama at Birmingham School of Medicine, Birmingham, AL.

Nico C. Geurs

University of Alabama at Birmingham School of Dentistry, Birmingham, AL.

Michael S. Reddy

University of Alabama at Birmingham School of Dentistry, Birmingham, AL.

Suzanne P. Cliver

University of Alabama at Birmingham School of Medicine, Birmingham, AL.

Pamela M. Hodgkins

University of Alabama at Birmingham School of Medicine, Birmingham, AL.

Robert L. Goldenberg

University of Alabama at Birmingham School of Medicine, Birmingham, AL.

Background: Previous case-control and prospective studies have shown an association between the presence of periodontitis and the risk of preterm birth (PTB).

The goal of this pilot trial was to determine the feasibility of conducting a trial to determine whether treatment of periodontitis reduces the risk of spontaneous preterm birth (SPTB).

Methods: Three hundred sixty-six (366) women with periodontitis between 21 and 25 weeks' gestation were recruited and randomized to one of three treatment groups with stratification on the following two factors: 1) previous SPTB at <35 weeks and 2) body mass index <19.8 or bacterial vaginosis as assessed by gram stain. The treatment groups consisted of: 1) dental prophylaxis plus placebo capsule; 2) scaling and root planing (SRP) plus placebo capsule; and 3) SRP plus metronidazole capsule (250 mg t.i.d. for one week). An additional group of 723 pregnant women meeting the same criteria for periodontitis and enrolled in a prospective study served as an untreated reference group.

Results: The rate of PTB at <35 weeks was 4.9% in the prophylaxis group, compared to 3.3% in the SRP plus metronidazole group and 0.8% in the SRP plus placebo group ($P = 0.75$ and 0.12 , respectively). The rate of PTB at <35 weeks was 6.3% in the reference group.

Conclusions: This trial indicates that performing SRP in pregnant women with periodontitis may reduce PTB in this population. Adjunctive metronidazole therapy did not improve pregnancy outcome. Larger trials will be needed to achieve statistical significance, especially at less than 35 weeks gestational age. *J Periodontol* 2003;74:1214-1218.

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