

IS MATERNAL PERIODONTAL DISEASE ASSOCIATED WITH INCREASED RISK OF ADVERSE PREGNANCY OUTCOMES? – A REVIEW

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ABSTRACT

Objective: Adverse pregnancy outcomes remain significant public health problems and their etiology is often unknown. Maternal periodontal disease is potential risk factor for adverse pregnancy outcomes. The purpose of this review was to determine the relationship between maternal periodontal infection and risk of preterm birth (PTB), low birthweight (LBW), preterm low birthweight (PLBW), small-for-gestational age (SGA), perinatal mortality, preeclampsia and gestational diabetes (GDM).

Methods: OVID and PubMed databases were searched using a structured search strategy for cross-sectional, cohort, case-control and intervention studies published in English between 1950 and December 31, 2010. After exclusions, 83 studies (65 international and 18 U.S.) were selected for review. Studies were reviewed to determine the strength and consistency of the association by type of study design and sample size for each pregnancy outcome.

Results: A consistent and strong association was found between maternal periodontal infection and increased risk of fetal death and preeclampsia. There was evidence of a less consistent but moderate association for increased risk of PTB, no association for LBW and inconsistent findings for PLBW.

Conclusions: It remains unclear whether maternal periodontal infection increases risk of adverse pregnancy outcomes. High quality studies with large samples sizes are needed to better evaluate the association.

KEY WORDS: Periodontal disease, perinatal, birth outcomes, pregnancy, preterm birth, low birthweight.