
Periodontal disease and adverse pregnancy outcomes

Author's Reply

Sir,

We appreciate Drs Nugent and Baker's comments on our article¹ and agree that it is clinically important to assess the effect of periodontal disease on intrauterine growth restriction. A low birthweight could be due to a shortened duration of gestation (e.g. preterm birth), poor growth *in utero* (e.g. intrauterine growth restriction), or both. Preterm birth and intrauterine growth restriction do not necessarily share a similar aetiology and strategy for prevention. It is important to study the impacts of periodontal disease on both preterm

birth and intrauterine growth restriction. In this systematic review, we found that most studies examined the effects of periodontal disease on preterm birth or low birthweight and few studied intrauterine growth restriction. As indicated in our article (last paragraph, p.139), the only study that examined the impact of periodontal disease on fetal growth was from Offenbacher *et al.*² They compared the mean birthweight of infants between mothers with and without periodontal disease at the same gestational age groups and found decreased mean birthweight in infants born to mothers with periodontal disease after adjusting for gestational age and other confounding variables in both preterm and term births.² This finding suggests that periodontal disease may increase the risk of intrauterine growth restriction. Intrauterine growth restriction is commonly defined as the birthweight less than the 5th or 10th percentile for expected gestational week according to different reference fetal growth charts (also called small for gestational age). As we concluded in the last sentence of our article, more studies are needed to confirm if periodontal disease is a risk factor for intrauterine growth restriction and other adverse birth outcomes. ■

References

- 1 Xiong X, Buekens P, Fraser WD, Beck J, Offenbacher S. Periodontal disease and adverse pregnancy outcomes: a systematic review. *BJOG* 2006;113:135–43.
- 2 Offenbacher S, Lief S, Boggess KA, Murtha AP, Madianos PN, Champagne CM, *et al.* Maternal periodontitis and prematurity. Part I: obstetric outcome of prematurity and growth restriction. *Ann Periodontol* 2001;6:164–74.

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