RESPONSE TO COMMENT ON KOIVUSALO ET AL.

Gestational Diabetes Mellitus Can Be Prevented by Lifestyle Intervention: The Finnish Gestational Diabetes Prevention Study (RADIEL): A Randomized Controlled Trial. Diabetes Care 2016;39:24–30

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We would like to thank Dr. Bao (1) for his interest in our gestational diabetes mellitus (GDM) prevention study RADIEL (the Finnish Gestational Diabetes Prevention Study) (2). Because of the globally increasing prevalence of GDM, the findings that GDM can be prevented by a behavioral lifestyle intervention in high-risk women is indeed very promising and important from a public health point of view. Further, it will be of great interest to see whether there will be long-term metabolic advantages among the women and their offspring during a longer follow-up.

Why was the RADIEL study successful? It could be partly due to the slightly different inclusion criteria as compared with those of many other recent randomized controlled intervention trials—specifically, women with a history of GDM were included (3,4). The RADIEL study, however, reminds us also about the heterogeneity of GDM women (5). This phenomenon, although well known among clinicians, has been surprisingly little taken into account when planning strategies for GDM prevention, which may partly explain the inconsistent findings in previous intervention studies. It will be interesting to see whether the long-term effects of the intervention will vary between the different phenotypic groups of GDM women. One type of intervention is probably not suitable for all high-risk women, although a healthy lifestyle can certainly be recommended for all pregnant women before and during pregnancy.

Interestingly, Bao (1) comments on the possibility of lifestyle intervention initiated in the prepregnancy state and whether this would be more effective than intervention initiated in early pregnancy. We do agree with Bao that this period of life is highly important when aiming at improvements in lifestyle in high-risk women. Although the need for this kind of prepregnancy intervention has been recognized, no study results have been published yet. As Bao noted, the outcomes of interventions initiated in prepregnancy are of major importance and one key research area. Another highly important time point for lifestyle interventions is time after delivery (6). Postpartum counseling reaches women at high risk for diabetes after their delivery and potentially before their next pregnancy, therefore offering an excellent opportunity for future prevention strategies.

Both pregnancy and the first postpartum year are exceptional times for the woman and her family. Targeting pregnant women could therefore potentially have an impact on the whole family, an opportunity that should not be wasted. Strategies promoting lifestyle improvement during pregnancy and the first postpartum year also provide possibilities for better metabolic health later in life. These kinds of strategies for prevention of adiposity and type 2 diabetes could be applicable to the normal processes in health care systems in many developed countries. We have to keep in mind that prevention is always less expensive than treatment of a disease.

Duality of Interest. No potential conflicts of interest relevant to this article were reported.

References

1. Bao W. Comment on Koivusalo et al. Gestational diabetes mellitus can be prevented by lifestyle intervention: the Finnish Gestational Diabetes Prevention Study (RADIEL): a randomized controlled trial. Diabetes Care 2016;39:24–30 (Letter). Diabetes Care 2016;39:e125. DOI: 10.2337/dc16-0665
2. Koivusalo SB, Rönö K, Klemetti MM, et al. Gestational diabetes mellitus can be prevented by lifestyle intervention: the Finnish Gestational Diabetes Prevention Study (RADIEL): a randomized controlled trial. Diabetes Care 2016;39:24–30
3. Poston L, Bell R, Croker H, et al.; UPBEAT Trial Consortium. Effect of a behavioural intervention

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in obese pregnant women (the UPBEAT study): a multicentre, randomised controlled trial. Lancet Diabetes Endocrinol 2015;3:767–777
4. Simmons D, Jelsma JGM, Galjaard S, et al. Results from a European multicenter randomized trial of physical activity and/or healthy eating to reduce the risk of gestational diabetes mellitus: the DALI Lifestyle Pilot. Diabetes Care 2015;38:1650–1656
5. Huvinen E, Grotenfelt NE, Eriksson JG, et al. Heterogeneity of maternal characteristics and impact on gestational diabetes (GDM) risk-implications for universal GDM screening? Ann Med 2016;48:52–58
6. Ferrara A, Hedderson MM, Brown SD, et al. The comparative effectiveness of diabetes prevention strategies to reduce postpartum weight retention in women with gestational diabetes mellitus: the Gestational Diabetes' Effects on Moms (GEM) cluster randomized controlled trial. Diabetes Care 2016;39:65–74