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Correspondence

A reply to “Maternal hyperglycemia and the oral glucose tolerance test”



To the Editor,

We appreciate Professor Tsai being interested in our study, which compares the characteristics of pregnant women having hyperglycemia according to the severity of glucose intolerance, and shows the need for managing the condition of women having mild hyperglycemia with the 100-g oral glucose tolerance test (OGTT) [1]. We used a two-step approach to gestational diabetes mellitus (GDM), as recommended by the American Diabetes Association. It demonstrated that detection and management of mild hyperglycemia (below the current diagnosis criteria of GDM, including 0+ and 1+ groups based on the 100-g OGTT, and which may be also defined as borderline GDM) are necessary for improving pregnancy outcomes, in addition to GDM.

Recently, we mentioned the following in the article titled “Association between fetal abdominal circumference and birth weight in maternal hyperglycemia”: diagnosis threshold values for GDM criteria (where the population is classified as borderline GDM and GDM women according to the results of diagnostic 100-g OGTT after positive screening of 50-g oral glucose challenge test using the Carpenter and Coustan criteria) are similar to those in the International Association of Diabetes and Pregnancy Study Groups (IADPSG) criteria [2,3]. Therefore, we assume that applying the IADPSG criteria to the cohort of maternal hyperglycemia including borderline GDM and GDM would induce similar results to the study [3]. The IADPSG criteria are important because they are based on data from adverse pregnancy outcomes.

In this study [1], we demonstrated that the fasting plasma glucose levels in women with mild hyperglycemia that fell below the diagnostic criteria for GDM were more closely associated with birth weight when these women without intervention were compared with patients with GDM who received a consultation regarding diet and exercise. As a result, we emphasized the need to extend the current diagnostic criteria for GDM to include women in the 0+ and 1+ groups based on the 100-g OGTT. This is because when women are newly diagnosed with GDM according to extended criteria, advised on diet and exercise, and monitored

with respect to their plasma glucose levels, adverse maternal and infant outcomes could be improved with minimal increases in health care costs.

The two-step approach using 100-g OGTT to diagnose GDM is still widely used. Therefore, in addition to GDM diagnosed using the 100-g OGTT, the detection and management of mild hyperglycemia below the current diagnostic criteria of GDM are necessary to improve pregnancy outcomes.

Conflicts of interest

The authors have no conflicts of interest relevant to this article.

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