A Comparison of Maternal and Neonatal Outcomes with Two Diagnostic Strategies for Gestational Diabetes

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ABSTRACT

Objective: Consensus is lacking on the optimal diagnostic strategy for gestational diabetes (GDM). The objective of this study was to compare maternal and neonatal outcomes using two different criteria for GDM diagnosis: the International Association of Diabetes and Pregnancy Study Group (IADPSG) and Carpenter - Coustan (CC) two-step approaches.

Study Design: This was a retrospective cohort study of women with a singleton pregnancy delivering at ≥37 weeks between December 2010 and February 2013 in a single tertiary care center. IADPSG criteria were used from December 2010 until July 2013. Women who screened using IADPSG criteria were likely to be racial/ethnic minority and delivered at an earlier gestational age. Women who screened using Carpenter-Coustan criteria were likely to be racial/ethnic minority and delivered at an earlier gestational age. These findings persisted after adjusting for potential confounding factors. There were no differences in LGA or PPH based on screening strategy.

RESULTS

• 14,214 women were included in the IADPSG epoch and 9,554 women were included in the CC epoch.
• GDM rates: 1.167 (8.2%) in the IADPSG epoch and 715 (7.4%) in the CC epoch (p=0.042).

BACKGROUND

International consensus is still lacking on the diagnostic criteria for gestational diabetes (GDM).

In the U.S., screening and diagnosis for GDM involves a two-step approach with an initial 50-g glucose screen followed by a 3-hour oral glucose tolerance test using the Carpenter-Coustan criteria.

In much of the world, a one-step approach of a 2-hour 75-g oral glucose tolerance test is employed to diagnose GDM by the International Association of the Diabetes and Pregnancy Study Groups (IADPSG).

OBJECTIVE

To compare maternal and neonatal outcomes using two different criteria for GDM diagnosis: the IADPSG one-step and Carpenter-Coustan (CC) two-step approaches.