The 75-g Oral Glucose Tolerance Test in Pregnancy

The 75-g glucose load has been the international standard for the diagnosis of diabetes in nonpregnant adults for several decades and has been endorsed by the World Health Organization (WHO) for use during pregnancy (1). The article by Schmidt et al. (2) in this issue of *Diabetes Care* adds to the evidence that the 75-g glucose load identifies women who are at risk of pre-eclampsia and whose babies are at risk of macrosomia and perinatal mortality. It also demonstrates that women meeting the definition for gestational diabetes mellitus (GDM) by either the criteria of the WHO (1) or the criteria of the American Diabetes Association (ADA) (3) are at greater risk of these complications than women without GDM.

The controversy over what screening test (if any) to use for the diagnosis of GDM and how to interpret the results is unlikely to be resolved quickly (1,3–5), but the endorsement of the 75-g load at the Fourth International Workshop-Conference on Gestational Diabetes Mellitus in 1977 (5) broke a major stalemate. This recommendation was subsequently incorporated into the ADA Clinical Practice Recommendations (6). The data from the study, provided here by Schmidt et al. (2), are the largest confirmation of the appropriateness of this decision to date.

Schmidt et al. (2) report the results of an observational study of almost 5,000 pregnant women not previously diagnosed with diabetes who responded to an invitation for a 2-h 75-g oral glucose tolerance test during weeks 24–28 of their pregnancies. Women were classified as having normal glucose tolerance or GDM by both the ADA and the WHO sets of criteria. Women meeting criteria for type 1 or type 2 diabetes in nonpregnant adults were excluded from analyses.

The attributable fraction of macrosomia under the WHO criteria was five times as high as when the ADA criteria were used. However, because most pregnancies are not complicated by GDM, only 1–4% of the cases of macrosomia can be attributed to GDM. Similarly, the proportions of pre-eclampsia and perinatal deaths that could be attributed to GDM were small, ranging from 1 to 8%. These data emphasize that GDM, at least as currently defined by either set of criteria, is not the only pregnancy-related factor that can lead to the adverse outcomes studied. Nevertheless, GDM is a potentially treatable condition and this report should not be construed as an argument for giving up screening for GDM. Many of the adverse outcomes attributable to GDM might have been prevented with more aggressive management. Our future aim should not be to discourage further surveillance, but rather to find ways to identify among women with GDM those who are at the greatest risk of complications as well as better ways of identifying high-risk women who don't meet any of the conventional criteria for GDM.

Those with a special interest in GDM anxiously await the results of the Hyperglycemia and Adverse Pregnancy Outcome (HAPO) Study (B. Metzger for the HAPO Group, personal communication), hoping that it will identify a clear cut point or threshold for the complications associated with GDM. In the absence of this unlikely outcome, definitions of GDM will continue to be determined by consensus (7) and data from HAPO and other large studies.

Despite a number of shortcomings of this large-scale observational study, which the authors acknowledge and discuss, the findings demonstrate the utility of the 75-g glucose load during pregnancy. This and other similar studies will move us closer to an international standard.

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