

Two criteria of oral glucose tolerance test to diagnose gestational diabetes mellitus

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Gestational diabetes mellitus (GDM) is the most common metabolic disease of pregnancy and has been associated with short and long-term adverse health outcomes for the mother and offspring. Its incidence depends on the population and the diagnostic criteria (2.4-37.7%) and its prevalence is significantly increasing, mostly due to the obesity epidemic¹. Since appropriate glycemic control decreases the risk of GDM-related complications, early diagnosis and treatment are very important.

Since 1954 after the first use of the term meta-gestational diabetes by Hoet, guidelines for the diagnosis of GDM have changed many times, beginning with O'Sullivan & Mahan and followed by Carpenter & Coustan, the World Health Organization, American Diabetes Association, and lastly to that of International Association of Diabetes in Pregnancy Study Group (IADPSG). There is currently no consensus on the definition, screening, diagnosis, and management strategies regarding GDM. Today, there are more than 17 different guidelines for screening and diagnosing GDM by national and international diabetes organizations, health societies, endocrine groups, and obstetric associations². A disagreement is present even between obstetric and diabetes organizations of the same country (e.g., the American Diabetes Association (ADA) and the American College of Gynecology and Obstetrics

(ACOG))^{3,4}. The diversity of recommendations results in different approaches, even within the same hospital. Since this lack of consensus creates major problems in addressing prevalence, complications, the efficacy of treatment, and follow-up of GDM, the need for consensus has been repeatedly expressed by the experts. There is a need for standardization so to have global uniformity in diagnosing GDM.

There are several retrospective and prospective studies to improve the efficiency of GDM diagnosis and find the real prevalence of GDM. However, most studies were performed in local populations only, thus cannot be considered as international, and include different screening strategies, which makes it impossible to reveal the true prevalence. In addition, it is very hard to follow and compare these various studies.

The study by Nunes et al.⁵ in this issue approaches GDM screening through two different criteria. The authors compared the International Association of Diabetes and Pregnancy Study Groups (IADPSG)/American Diabetes Association (ADA) criteria with the Brazilian Federation of Gynecology and Obstetrics Association (FEBRASGO)/Brazilian Diabetes Society (SBD) criteria. The second criteria had 3 points elevated threshold values in the values of fasting and post glucose load in the second hour, which results in a lesser prevalence of GDM (12.5% vs. 5.8% respectively).

However, no statistically significant increase in adverse obstetric outcomes was found in the patients diagnosed with GDM through the first criteria, and not by the second. Thus, lowering the threshold increases prevalence, resulting in unnecessary interventions (diet and treatment).

Despite the almost six decades of research, multiple international conferences, and major collaborative trials, GDM remains a complex and very challenging obstetric and public health issue that certainly deserves to be further discussed and studied. Furthermore, the lack of consensus confuses health care providers of obstetric health who look to the experts for guidance. Therefore, a single acceptable

evidence-based global guideline, which is simple, easy to follow, and validated by confirmative research, is essential.

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