

Gestational diabetes: Unfolded area still a concern

Dear Editor,

With all great interest, we read the recent article by Gupta *et al.* titled 'Diabetes in pregnancy study group of India, the answer for gestational diabetes mellitus diagnosis dilemma: May be not!!!!'.^[1] Gestational diabetes is prevalent throughout pregnancy and is related to poor pregnancy and fetal outcomes. The prevalence of gestational diabetes mellitus (GDM) in India varies substantially from state to state, the highest prevalence being seen in central and southern India.^[2] The Ministry of Health and Family Welfare, Government of India (MOHFW), established national guidelines for the diagnosis and management of GDM in India in 2014.^[3] In 2018, they revised their guidelines based on national and international research.^[4] Similarly, the diagnostic tests and criteria also vary, which makes it difficult to decide which test is more reliable. In the study, comparison of three different criteria, namely Modified Carpenter and Couston (C and C), International association of Diabetes and Pregnancy Group (IADPSG) and Diabetes in pregnancy study group India (DIPSI) has been carried out in 162 patients. The author could have elaborated the three criteria and compared the cut off glucose levels of the same. As depicted in Table 1, the cutoff value for 2-hour fasting postprandial glucose is ≥ 140 mg/dl in case of DIPSI criteria and ≥ 153 mg/dl in IADPSG criteria. Also, according to IADPSG criteria, the diagnosis of GDM is based on a single value of glucose above the cutoff level that can lead to a greater number of false-positive GDM cases compared to Modified C and C criteria.^[5]

The study generalizes the issue of GDM over-diagnosis by failing to account for individual differences in pregnancy and health condition that may influence diagnosis and management. Additionally, the study may have looked into the potential effects of GDM over-diagnosis such as higher hospitalization during pregnancy and unnecessary interventions that could harm the mother and child health. The alternative criteria employed are

more complex and difficult to apply that the IADPSG criteria, which presents a barrier for healthcare providers working in resource-limited situations and also the criteria used may not be applicable to all women leading to under-diagnosis.^[6] Furthermore, the findings from the research groups may not be applicable to other populations or healthcare systems outside India.

Insulin production increases in early pregnancy, but insulin sensitivity remains constant, decreases or even increases. Insulin sensitivity begins to deteriorate gradually about midpregnancy and worsens throughout the pregnancy, peaking in the late third trimester. It rebounds once the placenta is delivered. As a result, GDM normally emerges in the late second trimester and vanishes almost immediately after birth. Oral hypoglycemic medicines such as glyburide and metformin appear to be safe and effective in pregnancy.^[7] The significance of controlling GDM is straightforward: if it is diagnosed, treated, and followed up on after delivery, it will reduce a country's load of T2DM in both the present and future generations.^[8] These types of studies have always been beneficial; however, we require a single and clear-cut guideline to diagnose GDM. It is only a matter of time before GDM screening, diagnosis, management and most importantly postpartum follow-up in India are as good as those in any other country.

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Conflicts of interest

There are no conflicts of interest.

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Table 1: Criteria for diagnosing Gestational Diabetes Mellitus (GDM) in Pregnancy

Criteria	Glucose Challenge	Fasting Glucose (mg/dl)	1 h post prandial (mg/dl)	2 h post prandial (mg/dl)	3 hour Post Prandial (mg/dl)	Diagnosed as GDM if
DIPSI	75 g OGTT	Not required	Not required	≥ 140	Not required	If 2 h PP glucose ≥ 140 mg/dl
IADPSG	75 g OGTT	92	≥ 180	≥ 153	Not required	At least 1 value is abnormal
Modified C and C	-	95	180	155	140	Any 2 values are abnormal ^[5]

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