
Early Gestational Diabetes Mellitus Screening and Treatment

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Universal DIPSI Guidelines and Early Gestational Diabetes Screening: The Following Points need our attention to prevent Diabetes from in-utero to adults

1. Two types of GDM: one with high insulin resistance and one with low insulin resistance. The DIPSI Guidelines capture pregnant women with high insulin resistance, reflected in the Single Test Procedure Postprandial Blood Glucose ≥ 140 mg/dl [1]. In contrast, the IADPSG Guidelines fasting component captures pregnant women with low insulin resistance, and Post Prandial 153 mg/dl with high insulin resistance (but if Post Prandial threshold is lowered to 140 as in DIPSI) will be able to capture missing high insulin resistance. The IADPSG Guidelines recommend that GDM be diagnosed if any one value is abnormal in OGTT, but the diagnosis can only be made if OR=1.5 is implemented rather than 1.75 [2].
2. In one study from Italy that used DIPSI and IADPSG criteria in the same Pregnant women, both guidelines have almost the same prevalence but contain different types of Patients [3].
3. The IADPSG Guidelines used in China need revision. If the postprandial criteria 140 mg/dl were used in these guidelines, it would also support the diagnosis of non-GDM high Insulin resistance, as the Asian genotype has high Postprandial insulin resistance compared to Caucasians.
4. The TOBOGM study discovered that early Medical Nutrition Therapy (MNT) can decrease Gestational Diabetes Mellitus (GDM) complications associated with primary neonatal outcomes. The study, named Towards Better Outcomes in Gestational Diabetes Mellitus (TOBOGM), underscores the crucial importance of early screening at the start of pregnancy, followed by personalized interventions for identified GDM cases. The study revealed a 24.9% adverse neonatal outcome rate in the immediate treatment group and a 30.5% rate in the control group. However, after adjustment, the risk difference was insignificant [4].
5. In a recent study by Seshiah et al. [5] in Chennai, the intervention group, consisting of 69 pregnant women with blood glucose levels of ≥ 110 mg/dl, had an adverse neonatal outcome rate of 30.4%. In contrast, the non-intervention group, comprising 82 pregnant women with blood glucose levels of ≤ 110 mg/dl (control group), had a lower rate of 12.2%. The difference was statistically significant at p .006.

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