

Research Article

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**BA2025 1440: Early Management of Early Gestational Glucose Intolerance**

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Objective: Diabetes mellitus is a rapidly evolving pandemic and a significant public health problem in recent decades[1]
Aim

1. To determine the risk of GDM in the I Trimester at 8 weeks when 2hr PPBG is >110 mg% (Group B) without intervention
2. To determine the risk of GDM in the I Trimester at 8 weeks when 2hr PPBG is >110mg% with intervention Metformin (Group C)

Method

A Prospective study in two centers; Group A, 182 pregnant women; Group B, 100; and Group C, 69. All of them were screened during 8-10 weeks and DIPSi tests were done to determine how many developed GDM.

Results

In Study 1 and Study 2 of Group A, less than 110 mg/dl, only 4% and 1.2% developed GDM, respectively. In Group B and Group C, if 2-hour post-prandial blood sugar is ≥ 110 mg/dl and no intervention in Group B study, 95.9% developed GDM. In the intervention, Group C, only 1.4% of women developed GDM, and that was because one woman discontinued Metformin after 6 months of gestation. This clearly shows there is great potential for preventing GDM and NCDs.

Design and method:

Testing for PPBS at the 8th week with 110mg/dl so that enough time is available before fetal insulin secretion starts in the 11th week. If PPBS more than 110mg/dl in the 8th week, the PPBS should be controlled with MNT and Exercise and, if necessary, with Metformin so that PPBS should be maintained at less than 110mg/dl (99 +/- 10) till the 12th week. At the 16th week, 75gm OGCT (DIPSi Test) should be done to know whether she develops GDM and, if negative, be repeated at the 24th and 32nd weeks.

Conclusion

The prediction of GDM is 2-hour PPBG > 110 mg/dl at the 10th week. Preventive action should be taken at the 8th week to ensure that maternal 2-hour PPBS remains between 99-109 mg/dl throughout pregnancy. To achieve a "Diabetes Free Generation," the focus should be on offspring development. This involves a concentration on the fetus for the future [2]. early weeks of pregnancy (10 weeks) and is labeled as EGGI.

Table 1 Post Prandial Blood Sugar in Study 1 and Study 2 and Group A, Group B and Group C conversion to GDM

Group A Euglycaemia PPBS <110 mg/dl		Group B PPBS≥110 mg/dl without Intervention		Group C PPBS≥110 mg/dl with Metformin 250 two times			
Study 1(Delhi)		Study 2 (Chennai)		Study1(Delhi)		Study 2 (Chennai)	
No of Patients	GDM	No of Patients	GDM	No of Patients	GDM	No of Patients	GDM
100	4%	82	1.2%	100	96%	69	1.4%

Ref: 1. International Diabetes Federation. IDF Diabetes Atlas, 10th ed. Brussels, Belgium: 2021. Available at <https://www.diabetesatlas.org>

2. Bronson SC, Seshiah V: Transgenerational Transmission of Non-communicable Diseases: How to Break the Vicious Cycle? Cureus. 2021, 13:18754. 10.7759/cureus.18754.

Additional Information

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