

Comparison of the International Association of the Diabetes and Pregnancy Study Group (IADPSG) criteria for diagnosis of gestational diabetes mellitus against a ‘one-stop’ diagnostic test: A Prospective Descriptive Cross Sectional study

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Abstract

Objective: The aim of this study was to investigate the utility of a single value non fasting glucose tolerance test as described by the Diabetes in Pregnancy Study Group of India (DIPSI) in detecting GDM **Design:** A Prospective Descriptive Cross Sectional study **Setting:** A Tertiary care maternity hospital in Sri Lanka. **Sample:** A sample of 165 pregnant women between 24-28 weeks of gestation was recruited **Method:** All women had the DIPSI and standard OGTT tests performed within a one week and results compared using standard non parametric tests. **Main outcome measures:** DIPSI and IADPSG criteria were compared using sensitivity, specificity and area under the ROC curve. **Results:** According to the IADPSG criteria 20% (33/165) had GDM, compared to 22.4% (37/165) detected by DIPSI. Sensitivity of DIPSI criteria was 64% while specificity was 88%. The area under receiver operator curve was 0.8. The mean satisfaction for DIPSI was of 8.9 ± 0.4 , compared to 4.7 ± 1.3 for OGTT ($p < 0.001$). Analysis of false positives showed that it was mainly due to elevated fasting values in the IADPSG criteria. **Conclusion:** Although DIPSI has a low sensitivity compared to the IADPSG criteria, area under the ROC curve is 0.80 indicating its utility for diagnosing GDM. It has additional advantages of allowing a diagnosis of GDM in a single visit and high acceptability among women. **Funding:** This study was self-funded **Key words :** Gestational Diabetes Mellitus, Diabetes in Pregnancy Study Group India, Oral Glucose Tolerance Test

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Running Title

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Although DIPSI has a low sensitivity compared to the IADPSG criteria, area under the ROC curve is 0.80 indicating its utility for diagnosing GDM. It has additional advantages of allowing a diagnosis of GDM in a single visit and high acceptability among women.

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Tweetable abstract

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