

EFFECTIVENESS OF DIABETES STUDY GROUP INDIA(DIPSI) DIAGNOIS CRITERIA IN DETECTING GESTATIONAL DIABETES MELLITUS

G.R.M.U.G.P. Jayawardena¹, K. Guruparan¹, R.S. Gamage¹, M.A.K. Perera¹, U.D.P. Ratnasiri², H.M. Senanayake^{1,3}

¹Department of Health, De Zoysa Hospital for Women, Sri Lanka

²Department of Health, Castle Street Hospital for Women, Sri Lanka

³Department of Higher Education, Faculty of Medicine, University of Colombo, Sri Lanka

Background: There has been a debate on whether glucose challenge tests in the non-fasting state are an effective screening or diagnostic test for gestational diabetes mellitus (GDM). The 75 grams glucose tolerance test (GTT) is the gold standard to diagnose GDM. However, non-fasting 75-gram Diabetes in Pregnancy Study Group India (DIPSI) with the 2-hour cutoff value of ≥ 140 mg/dL has also emerged as a diagnostic technique. The aim of this study was to investigate the sensitivity and specificity of DIPSI compared to GTT. **Methods:** Pregnant women in period of gestation between 24-28 weeks were recruited by simple random sampling method. Non fasting 75g DIPSI were performed in all followed by fasting 75g GTTs within a week time. National Institute for Health and Care Excellence (NICE) 2015 and World Health Organization (WHO) 2013 diagnostic values of GTT were used as reference tests to diagnose GDM. **Findings:** According to the WHO and NICE criteria 20% (33/165) and 23% (38/165) of pregnant women had GDM, compared to 22.4% (37/165) detected by DIPSI. Sensitivity of DIPSI compared to WHO and NICE criteria was 64% and 76% while specificity was 88% and 94%. The area under the ROC curve for the ability of 2-hour value of GCT to predict GDM detected by DIPSI was 0.8 (SE 0.4) compared to WHO and 0.868 (SE 0.38) compared to NICE. **Conclusion:** DIPSI with 2-hour cutoff value ≥ 140 mg/dL lacks sensitivity to diagnose GDM recognized by GTT.