Role of risk factors for gestational diabetes mellitus in determining newborn outcomes in a Nigerian teaching hospital

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Introduction: Gestational diabetes mellitus (GDM) is a common metabolic disorder. The risk factors for GDM are often employed in selective screening. The impact of risk factors for GDM on newborn is yet to be fully evaluated.

Objective: To determine the impact of maternal clinical risk factors for gestational diabetes mellitus on the anthropometric and clinical outcomes of the newborns.

Method: The study was a prospective open cohort study carried out from March 1st to November 2017 at the Lagos University Teaching Hospital (LUTH), Lagos; Nigeria. Ethical approval obtained from LUTH ethics committee. All the pregnant women were categorized into either risk group or control group based on the presence or absence of clinical risk factors for GDM. They all had 75 g OGTT done at 24 to 28 weeks gestation. The women and babies were followed up till delivery. The pregnant women were categorized into those with single, two and more than two clinical risk factors for GDM. Anthropometric measurements of the newborn that were done were birth weight, chest, abdominal and head circumference. The P value of less than or equal to 0.05 was considered significant.

Results: Ninety pregnant women were recruited in the course of the study. About 24% of the pregnant women had GDM based on IADPSG criteria. There were eight deliveries of macrosomic babies. More than 60% of the deliveries of macrosomic babies occurred in women with more than three risk factors for GDM. There were higher occurrences of birth trauma, neonatal ward admissions in newborns of women with multiple risk factors for GDM.
Conclusion: Assessment risk model using more than two maternal clinical risk factors for GDM could be employed to evaluate the risk of adverse fetal outcomes in resource poor settings.

Conflict of interest: We declare no conflict of interest.

Keywords: GDM, Gestational Diabetes Mellitus.