UNIVERSAL VERSUS SELECTIVE SCREENING FOR GESTATIONAL DIABETES MELLITUS

F. Muriithi, W. Stones, E. Sequeira, N. Kunyiha
Aga Khan University Hospital, Nairobi, Kenya

BACKGROUND:
Gestational hyperglycaemia is associated with a higher incidence of adverse maternal and fetal outcomes than is seen in normal pregnancy. Untreated gestational diabetes mellitus (GDM) increases perinatal morbidity and mortality. Fetal long term sequelae include obesity, type 2 diabetes mellitus, intellectual and neurological developmental impairment. For the mother, GDM is a strong risk factor for type 2 diabetes, 35-60% within 10 years. Screening is an important component of the diagnostic process.

OBJECTIVES: To compare detection rates of the universal to the selective risk factor-based screening strategy for gestational diabetes mellitus.

METHODOLOGY: A prospective cross-sectional study involving 185 participants consecutively recruited at or less than 28 weeks gestation. All participants had their risk factors for gestational diabetes identified and recorded at the beginning of the study then underwent the 50g oral glucose challenge screening test. Detection rates and prevalence of universal and selective strategies were calculated and compared. An exploratory analysis of risk factors was also done.

RESULTS: The Prevalence of an abnormal screening test in the sample with risk factors was 12.0% (95% CI: 6.0%, 17.9%) and in the sample without risk factors it was 19.1% (95% CI: 9.5%, 28.7%).

CONCLUSION: Overlap of confidence intervals indicates no evidence of a difference between the screening strategies. However despite the non-significant, higher detection rates by the universal strategy, clinical practice safety demands that as many cases of gestational diabetes as possible are detected because of adverse clinical correlates hence justifying universal screening.