

## UNIVERSAL SCREENING FOR GESTATIONAL DIABETES (NIROGIMAATHA PROJECT – SRI LANKA) – RESULTS OF COMMUNITY BASED EARLY PREGNANCY SCREENING

C. Wijeyaratne<sup>1,2,3</sup>, C. Kariyawasam<sup>2</sup>, Jayawardane A.<sup>1,3</sup>, S. Jayasinghe<sup>1</sup>, S. Amarasekara<sup>1,3</sup>, D. Hemachandra<sup>4</sup>, H. Benaragama<sup>4</sup>

<sup>1</sup>Department of Obstetrics and Gynaecology, University of Colombo, Sri Lanka

<sup>2</sup>NIROGI Lanka Project, Diabetes Prevention Task Force, Sri Lanka Medical Association, Sri Lanka

<sup>3</sup>De Soysa Hospital For Women, Professorial unit, Sri Lanka

<sup>4</sup>Family Health Bureau, Ministry of Health, Sri Lanka

Background: The quantum of glucose intolerance in early pregnancy among Sri Lankans is unknown. Nearly 95% of women in Sri Lanka have formal antenatal booking before 8 weeks of gestation. NIROGI Lanka Project aims for universal screening of pregnant women. Objective: To determine the prevalence of previously undetected diabetes/pre-diabetes among South Asian women in the first trimester and compare with gestational diabetes detected in later pregnancy. Methodology: Data was collected from five selected semi-urban centres in Colombo District of Sri Lanka. 75g Glucose Challenge Test of pregnant mothers (DIPSI) was conducted in field based maternity clinics. The glucometers were validated by the Medical Research Institute, Colombo and staff training provided under expert supervision. Results: Between 07.02.2014 to 23.03.2015, a total of 3385 consecutive pregnant women were screened. Those with known diabetes at booking were excluded. Numbers screened were: 2163 in 1<sup>st</sup>, 880 in 2<sup>nd</sup> and 231 in 3<sup>rd</sup> trimesters. Two hour BG  $\geq 140$  mg/dl - 557 (25.75%) in 1<sup>st</sup>, 188 (21.36%) in 2<sup>nd</sup> and 41 (17.75%) in 3<sup>rd</sup> trimesters. 2hBG  $\geq 153$  mg/dl - 353 (16.32%) in 1<sup>st</sup>, 118 (13.41%) in 2<sup>nd</sup> and 27 (11.69%) in 3<sup>rd</sup> trimesters. Conclusion: Prevalence of glucose intolerance in pregnancy is high among semi-urban Sri Lankan women in all three trimesters, while DIPSI method nearly doubled the detection rate. Specificity of the test cut offs requires further study with pregnancy outcomes. The 2h BG cut off of 140mg/dl being unequivocal in detecting impaired glucose tolerance (IGT) in the first trimester, this data calls for urgent action to detect early pregnancy or pre-pregnancy IGT in the South Asian settings.