



**A CASE CONTROL STUDY TO DETERMINE PREDICTORS OF GESTATIONAL  
DIABETES MELLITUS AMONG ANTENATAL WOMEN AT MULAGO HOSPITAL**

**BY**

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## ABSTRACT

**Introduction:** Gestational diabetes is rising globally and it is associated with poor pregnancy outcome. The WHO recommends selective screening in resource limited settings. There is need to determine factors strongly associated with GDM so that we can effectively conduct selective screening.

**Objective:** To determine the factors which are associated with gestational diabetes in Ugandan women at Mulago National Referral Hospital.

**Study design:** This was an unmatched case-control study.

**Study setting:** The study was conducted in the antenatal clinics and the 5B antenatal ward at Mulago National Referral Hospital from November 2013 through February 2014.

**Procedure:** Mothers who were at least 24 weeks pregnant had their fasting sugars taken. Those with FBS  $\geq 95$ mg/dL were subjected to a 75g oral glucose tolerance test. Two hour postprandial glucose was measured. A diagnosis of gestational diabetes was made for mothers whose two hour postprandial glucose  $\geq 155$ mg/dL. 105 participants were selected for analysis. Data was entered using EPIDATA and analyzed using STATA (Version 12). Odds ratios were calculated.

**Results:** A total of 1149 women were screened with 873(76%) from upper Mulago and 276(24%) from lower Mulago. Among these, the number of mothers with gestational diabetes was 21(2%). The proportion of mothers with GDM in Upper Mulago was 1.6%, whereas the proportion of mothers with GDM in lower Mulago was 2.5%. Median age for cases was 30 years where as for controls it was 25 years. Median BMI was similar for both cases and controls that is 29.76 versus 28.38 respectively. Mothers between 25-34 years were 15 times more likely to have GDM than controls( $P \leq 0.01$ ), whereas mothers aged 35 years and above were 30 times more likely to have GDM than the controls( $P \leq 0.00$ ).

**Conclusions:** Pregnant women who are at least 25 years old should be screened for gestational diabetes between 24 and 33 weeks of gestation.