

Gestational diabetes mellitus and risk of type 2 diabetes 10 years after the index pregnancy in Sri Lankan women: a community based retrospective cohort study

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Introduction & Objectives:

Women with a history of gestational diabetes mellitus (GDM) have an increased risk of type 2 diabetes mellitus (T2DM) later in life. This study aimed to determine the risk of developing T2DM 10 years after GDM in Sri Lankan women.

Methods:

A retrospective cohort study was conducted in the Colombo district. 7205 women who delivered a child in 2005 were identified through the PHM in the field. Women with antenatal records were interviewed and relevant data were extracted from medical records to identify potential participants. 119 women who had GDM and 240 women who did not have GDM were recruited. Current diagnosis of diabetes was based on the history and relevant medical records within the past 1 year.

Results:

The mean duration of follow up was 10.9 (SD= 0.35) years in the GDM group and 10.8 (SD=0.31) years in the non-GDM group. The incidence density of diabetes in the GDM group was 56.3 per 1000 person years compared to 5.4 per 1000 person years in the non GDM group giving a rate ratio of 10.42 (95% CI 6.01-19.12). A woman with GDM was 10.6 times more likely to develop diabetes compared to women with no GDM after controlling for confounding variables. Delivering a child after 30 years, being treated with insulin during pregnancy and birth weight ≥ 3.5 Kg were significant predictors of development of T2DM.

Conclusion:

Women with GDM had a 10 fold higher risk of developing T2DM during a 10 year follow up period as compared to women with no GDM.