

Association of HbA1c level with pregnancy outcome in GDM patients in 3rd trimester

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Abstract

Background: GDM is a special endocrine complication of the gestational period. HbA1c is a variety of haemoglobin of which synthesis rate is positively related to the glucose concentration of RBC and HbA1c can reflect the mean blood glucose level within the past 8 to 10 weeks.

Method: This prospective observational study was conducted in the Department of Obstetrics and Gynaecology in BIRDEM Hospital, Dhaka over a period of one year. A total of 90 GDM women in the 3rd trimester of pregnancy were enrolled in this study. Maternal complications in the antenatal period, during labour, post-partum period and fetal outcome were studied in both controlled and uncontrolled HbA1c.

Results: In this study, the mean age of the GDM patients was 27.17 ± 4.63 years varied from 20 to 40 years. Regarding

maternal antepartum complications, Vulvovaginitis (26.7% vs 4.4%), UTI (17.8% vs 4.4%) and preterm delivery (24.4% vs 6.7%) were found significantly higher in uncontrolled HbA1c than controlled HbA1c. It was observed that LUCS (68.9% vs 37.8 %) was significantly higher in the uncontrolled groups than in the controlled groups. About the intrapartum complications, complete perineal tear (21.4% vs 0.0 %) was significantly higher in uncontrolled than controlled HbA1c group. UTI (28.6% vs 3.6 %) was the statistically significant postpartum complication of the mother who delivered vaginally. Regarding neonatal outcome, RDS (12.8% vs 0.0 %) showed a significant difference between the two groups. **Conclusion:** HbA1c may be a useful marker to predict pregnancy outcomes in GDM patients.

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