

ABSTRACT

INTRODUCTION: Macrosomia is the most important adverse pregnancy outcome in diabetic pregnancies which needs to be addressed. A step in this direction is this study wherein we try to find a correlation between glycosylated haemoglobin (HbA1c) at delivery and occurrence of macrosomia in infants of diabetic mother. **METHODOLOGY:** A cross-sectional study was done on 230 diabetic pregnant women and their newborns born in Government Kilpauk Medical College & Hospital, Chennai. Maternal level of HbA1c was measured at delivery by HemoCue HbA1c 501Analyser and the newborn was weighed on an Electronic Weighing Scale. Macrosomia was taken as birthweight>4000grams. The parameters noted were age and BMI of the mother, weight gain during pregnancy, type of diabetes, duration of diabetes, mode of treatment, gestational age, birth order and mode of delivery. **RESULTS:** Pregnant diabetic women with HbA1c>5.6 are more likely to have macrosomic baby ($p<0.0001$). BMI, weight gain during pregnancy and delivery by caesarean section is related significantly to macrosomia. Macrosomia also seem to occur in women who were being treated with insulin for diabetes mellitus. Age of the mother, type of diabetes mellitus, birth order of the baby and gestational age had no association with macrosomia. **CONCLUSION:** in order to reduce the occurrence of macrosomia, glucose levels should be kept under control within limits in the last trimester of pregnancy.

KEYWORDS: HbA1c, macrosomia, infants of diabetic mother