**Original article:**

**Prediction of neonatal hypoglycemia using cord blood C-peptide and cord HbA1c in infant Of diabetic mother**

**DR.Mitali Mahapatra\* , DR.Rishav Raj\*\***

Department of OBGY\* and Pediatrics\*\*

Name of the Institute/college: HI Tech Medical College , Bhubaneshwar , India

Corresponding author : DR.Mitali Mahapatra

**Abstract:**

**Introduction: :** Our aim was to find out the role of cord blood C-peptide and cord blood HbA1c in prediction of Neonatal Hypoglycemia in infant of diabetic mother.

**Methodology:** A Prospective Observational Study. All the mothers with diabetes mellitus and their newly born delivered in HI-TECH MEDICAL COLLEGE,BBSR in a period of 1 year from September 2013 to September 2014 were recruited for the study after prior consent . Newborn with following complication were excluded:1.Preterm 2. IUGR baby 3.Neonatal Sepsis 4. Birth Asphyxia 5. RDS 6. MAS 7. Babies with major congenital anamolies. 2ml of cord blood was collected in EDTA vial for Hba1c estimation and another 2ml of cord blood was collected in plain vial for estimation of cord blood c-peptide .As per protocol glucose monitoring was done in infant of diabetic mother to rule out hypoglycemia and fetal adverse outcome. As per American Academy of Pediatrics ,Neonatal Hypoglycemia is defined as follows : Less than 40 mg/dl (2.2mmol/l) during first 24 hrs of life. Less than 50mg/dl (2.8 mmol/l) after 24 hours of age.

**Results:** Umbilical Cord HbA1c is a good predictor of neonatal hypoglycemia. The Hypoglycemia in Infant of Diabetic mother was associated with raised cord blood c-peptide.

**Keywords:** Neonatal hypoglycemia,IDM, cord blood c-peptide,cord blood Hba1c.