Study of C-Peptide Level In. Cord Blood of Macrosomic Newborns

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﴿ بسم الله الرحمن الرحيم ﴾

المناخلة لا علم لنا إلا ما علمتنا لمناعبه المتاذبة العليم النائد أنت العليم الحكيم

﴿ صدق الله العظيم ﴾

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GDM Gestational Diabetic Mothers

GH Growth hormone

GHRH Growth hormone releasing hormone

GFR Glomerular filtration rate

GIP Gastro-intestinal peptides

HBA_{1c} Glycosylated Hemoglobin

HC Head circumference

HCM Hypertrophic Cardiomyopathy

IDDM Insulin Dependent Diabetic Mothers

IDMs Infant of Diabetic Mothers

IGF Insulin Growth Factors

IUGR Intra-Uterine Growth Retardation

LGA Large for gstational age

L/S Lecithin Spyhingomyeline ratio

M Male

MAG₃ Scan Mercaptoacetyl triglycine

MG Multigravida

Mod Mode of delivery

MRI Magnetic Resonant Immage

NICU Neonatal Intensive Care Unit

No Number

NSB Non specific binding

PG Primigravida

Pi Ponderal Index

PLCs Proinsulin-like Component

RDS Respiratory Distress Syndrome

RIARadio Immune Assay RTARenal Tubular Acidosis SD Standard deviation SGASmall for gestational age SPC Saturated phosphatidyl-choline TTNTransient Tachypnea of Newborn VDVaginal delivery WLSWet lung syndrome

Introduction and Aim of the Work

Inroduction and Aim of the Work

C-peptide (connecting peptide), is a 31 amino acid residue of proteolytic cleavage of pro-insulin in pancreatic B cell. It is consecreted into the portal circulation in equimolar amount as insulin.

C-peptide has been found to be an accurate measure of insulin secretory activity of pancreatic B-cell.

Pedersen in 1954 hypothesized that postneonatal hypoglycemia and fetal macrosomia in infants of diabetic mothers are related to chronic fetal hyperinsulinemia as a response to fetal hyperglycemia.

Macrosomic infants of non diabetic mothers are also at risk of hypoglycemia in the immediate neonatal period.

This work will be carried-out, aiming at assessment of the insulin secretory activity of B-cell of pancreas.

The aim of this work was to evaluate cord blood C-peptide as an early predictor of neonatal hypoglycemia.

Neonates studied will be selected from NICU, Obstetric and Gynecology hospital, Ain Shams University.