GLYCAEMIC CONTROL IN PREGNANT WOMEN WITH DIABETES AND FETAL OUTCOME

Thesis

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ABBREVIATIONS

AC	: Abdominal circumference
AFI	: Amniotic fluid index
BPD	: Biparital diameter
BPP	: Biophysical profile
CNS	: Central nervous system
CS	: Cesarean section
CTG	: Cardiotocography
CVS	: Cardio vascular system
DKA	: Diabetic ketoacidosis
DM	: Diabetes mellitus
FL	: Femur length
GAD	: Glutamic acid decarboxylase
GDM	: Gestational diabetes mellitus
HDL	: High density lipoproteins
IFG	: Impaired fasting glucose
IGT	: Impaired glucose tolerance
IOM's	: Institute of Medicine’s
IUFD	: Intra uterine fetal death
LGA	: Large for gestational age
MAOIs	: Mono amine oxidase inhibitors
MBG	: Mean blood glucose
MODY	: Maturity-onset diabetes of the young
NICU	: Neonatal intensive care unit
NIDDM	: Non insulin dependent diabetes mellitus
NSAIDs	: Non steroidal anti inflammatory drugs
NVD	: Normal vaginal delivery
OGTT	: Oral glucose tolerance test
PI	: Pulsitility index
RI	: Resistance Index

Abstract

In conclusion glycemic control in pregnant diabetic females and fetal outcome had intimate relation to each other. It is useful in modulation of fetal out come as regards to the fetal weight, congenital anomalies, fetal mortality, the need for NICU admission, neonatal jaundice. In our study we had patients in their third trimester presenting to us with gestational diabetes, or pregestational diabetes, either in good control or intermediate or poor controlled state. We tried to adjust the glycemic states as much as possible, however that was hard enough in poorly controlled patients. So the net result from this study that glycemic control started as early as possible (the best being preconceptional) is important to decrease the incidence of congenital anomalies, fetal weight, fetal mortality, the need for NICU admission and neonatal jaundice.

Keywords:

Glycaemic control
Pregnant women
Diabetes mellitus
Fetal outcome

INTRODUCTION

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Abnormal maternal glucose regulation occurs in 3-10% of pregnancies. Studies suggest that the prevalence of diabetes mellitus (DM) among women of childbearing age is increasing. This increase is believed to be attributable to more sedentary lifestyles, changes in diet, continued immigration from high-risk populations, and the virtual epidemic of childhood and adolescent obesity that is presently evolving everywhere.

Gestational diabetes mellitus (GDM) is defined as glucose intolerance of variable degree with onset or first recognition during pregnancy. Gestational diabetes mellitus accounts for 90% of cases of diabetes mellitus in pregnancy. Type II diabetes mellitus accounts for 8% of cases of diabetes mellitus in pregnancy, and given its increasing incidence, preexisting diabetes mellitus now affects 1% of pregnancies.

Infants of diabetic mothers experience double the risk of serious injury at birth, triple the likelihood of cesarean delivery, and quadruple the incidence of newborn intensive care unit admission. Studies indicate that the risk of these morbidities is directly proportional to the degree of maternal hyperglycemia. For this reason, the excessive fetal and neonatal morbidity attributable to diabetes in pregnancy should be considered preventable with early diagnosis and effective treatment therapies.

Gestational diabetes mellitus (GDM) is associated with increases in maternal and perinatal morbidity, including cesarean section, neonatal hypoglycemia, and, fetal macrosomia. Moreover,

human epidemiological and animal studies suggest that the intrauterine diabetic environment increases risk for hypertension, obesity, and type II diabetes in adulthood.

Intensive management of women with glucose intolerance during pregnancy has resulted in markedly improved outcomes in recent years. Despite these advances, care of the infant of a mother with diabetes continues to require vigilance and meticulous monitoring with a full understanding of the quality of glycemic milieu in which it developed.

AIM OF THE WORK

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To evaluate the relation between metabolic control and fetal outcome which will be assessed according to APGAR score, birth weight & NICU admission.

Statistical analysis will be done to correlate glycaemic control& fetal outcome.