Introduction
INTRODUCTION

Pregnancy is a diabetogenic state, characterized by decrease in sensitivity to insulin action at cellular level. Exact mechanism of this diminished tissue responsiveness to insulin is not completely understood but, presumably, it is due to hormonal changes of pregnancy (Fineberg et al 1963). Human placental lactogen is secreted by placental syncytiotrophoblast in increasing amount after 20 weeks gestation and is thought to be the major insulin antagonist during pregnancy. On a cellular level, insulin resistance is supposed to be due to a postreceptor mechanism (Flint DU et al 1980). But, not all the pregnant women develop gestational diabetes, it is only 2–3 percent of all pregnancies in which gestational diabetes develop.

Normal pregnancy is characterized by fasting hypoglycemia with exaggerated glucose and insulin levels postprandially as compared to the nonpregnant state. Women, who are not able to increase the pancreatic insulin secretion to overcome pregnancy induced insulin resistance in later part of pregnancy, develop gestational diabetes.

Gestational diabetes is characterized as a state restricted to pregnant women, in whom the onset or recognition of diabetes or impaired glucose tolerance is first discovered during pregnancy.
Gestational diabetes is associated with increased perinatal mortality, it undiagnosed and/or untreated and with increased perinatal morbidity even when diagnosis is made (Donald R Coustan). Furthermore, women with gestational diabetes are at significantly increased risk for the subsequent development of diabetes when they are not pregnant. Gestational diabetes is associated with increased maternal morbidity also. Maternal complications are UTI, hydramnios, preeclampsia, still birth etc.

Infant born to mothers with gestational diabetes are susceptible to several specific metabolic and neonatal complications as compared with normal newborn. Some of these problems are macrosomia, congenital malformations like neural tube defects, cardiovascular anomalies etc, respiratory distress syndrome polycythemia, hyperbilirubinemia hypoglycemia (Moshe Hod et al).

Recently a study by Tallarigo et al in 1986 has shown that even limited degrees of maternal hyperglycemia which are currently considered to be within normal range, i.e. two hour plasma glucose levels between 120 and 164 mg/dl may affect the outcome of pregnancy in the form of macrosomic baby. These babies are prone to have birth trauma, hypoglycemia and hyperbilirubinemia.
All these complications of impaired gestational glucose tolerance leads to increased perinatal morbidity and mortality.

Though lots of work have been done from time to time over pregnant diabetic mothers and their infants, very little data are available on gestational diabetes and impaired gestational glucose tolerance, while only Tallarigo et al in 1986 has worked over pregnant mothers with two hour plasma glucose levels between 120 and 164 mg/dl, the levels which considered to be within normal range, and they found that these mothers had increased incidence of macrosomic babies.

This study is planned to further study the effects of abnormal gestational glucose tolerance over newborn, so that timely treatment can be given to expecting mothers and neonatal morbidity and mortality can be reduced.

.....