ABSTRACT
CASE CONTROL STUDY ON PREVALENCE OF GESTATIONAL DIABETES MELLITUS AND THEIR OBSTETRIC OUTCOMES

AIMS & OBJECTIVES:
To assess the Prevalence of Gestational Diabetes Mellitus, To estimate the maternal and Perinatal outcome of Gestational Diabetes Mellitus and to compare with normoglycemic pregnant women.

MATERIALS AND METHODS:
Women aged 18 – 40, 200 Pregnant women with above criteria are selected for this study. All the 200 pregnant women will undergo Glucose Challenge Test with 75gms of glucose and venous blood sampling will be done after 2 hours of glucose intake irrespective of their previous diet. Glucose Challenge Test ≥ 140 mg is considered positive. HbA1c will be done to patient positive for GDM. Other parameters noted – Hb, Blood Glucose, Urea, creatinine, Urine albumin sugar deposits, ultra sonogram, doppler study of fetus. Pregnant women diagnosed to have Gestational Diabetes Mellitus will be treated and followed. Outcomes measured and the outcomes will be compared with normoglycemic patients. Following outcomes are measured.

RESULTS:
Incidence of Gestational in 200 selected population 4% , HbA1C levels are below 5.1% in GDM cases, Majority of GDM patients were in the age of 26-30 yrs [72.5%], 75% GDM patients were multigravida, 62.5% of GDM patients had BMI more than 25 kg/m², 12.5 % of GDM patients had BMI more than 30 kg/m² 37.5 % of patients with GDM had family history of diabetes, Among GDM patients 25% had preeclampsia, Among GDM patients 12.5% had polyhydramnios, Among GDM patients 12.5% had macrosomia, Among GDM patients 25% had labour natural with episiotomy and 75% had cesarean section. Among GDM patients 12.5% were treated with meal plan .87.5% were treated
with insulin therapy. Among GDM patients 12.5% had hypoglycemia, 12.5% had hyperbilirubinemia. Incidence of GDM in Government Rajaji Hospital using ADA criteria is 3.6%

**CONCLUSION:** Out of 200 patients taken up for study, Incidence of GDM in our study is 4%. Selective screening is applicable for women belonging to ethnic group with the low prevalence of GDM. Whereas ethnically, Indian women are more prone to develop glucose intolerance. Indians have eleven fold increased risk. Compared to whites, necessitating Universal screening during pregnancy. In our study, only 50% GDM patients belong to patients indicated for screening as per ADA. If we followed selective screening, we could have been missed 50% of GDM cases in selective screening. 200 patients were screened by Glucose challenge test using 75 gm of glucose irrespective of previous meal, GCT measured after 2 hours. OGTT done by IADPSG Criteria. HbA1C was done to GDM cases diagnosed were treated. Prophylactic steroids given to GDM patients. Hyperglycemia and adverse pregnancy outcomes (HAPO) study specifically evaluated the effect of maternal hyperglycemia, less severe than overt diabetes, on pregnancy outcomes. It demonstrated that there is a continuous relationship between maternal hyperglycemia and Pregnancy outcomes. IADPSG is based on HAPO trial. 2011 ADA Endorsed IADPSG criteria. Early diagnosis of GDM reduces maternal and perinatal mortality and morbidity. During our study, detected GDM patients were closely monitored and treated with either insulin or meal plan which reduce the adverse obstetric and perinatal outcome.