



MATERNAL OUTCOME AND DIABETES MELLITUS IN PREGNANCY

<b>Dr Virendra Mahatma</b>	Principal Specialist, General Medicine, District Hospital Sirohi
<b>Dr Nihal Singh Meena*</b>	Junior Specialist, Obstetrics And Gynaecology , District Hospital Sirohi. *Corresponding Author
<b>Dr Ashvini Kumar Maurya</b>	Deputy Director, principal Medical Officer, District Hospital Sirohi
<b>Dr Vaibhav Kate</b>	Gynaecologist, Gujarat Hospital Sirohi

**ABSTRACT**

**BACKGROUND-** The aim of this study was to assess the maternal outcome in patients with gestational diabetes mellitus.

**METHODS-** This study was carried out on 50 patients with DM with pregnancy who were in criteria were studied for maternal outcome due to DM. Informed consent was taken from all the patients.

**RESULTS-** Maternal complications, 46.00% patients had polyhydramnios and 38.00% cases developed preeclampsia. Preterm labor was common in 26.00% of GDM patients. APH was found in 2.00% GDM patients, IUGR was found in 4.00% cases. Mean birth weight was 4.01 ± 0.82 Kg.

**CONCLUSIONS-** Gestational diabetes mellitus increased the risk of adverse maternal outcomes. This implies that maternal care and intervention strategies relating to women with gestational diabetes mellitus should be strengthened.

**KEYWORDS :** GDM, APH, PPH

**INTRODUCTION**

Diabetes mellitus is a chronic illness that requires continuing medical care and ongoing patient self-management education and support to prevent acute complications and to reduce the long-term complications. Diabetes care is complex and requires multifactorial risk reduction strategies beyond glycemic control. A large body of evidence exists that support a range of interventions to improve diabetes outcomes.<sup>1</sup>

Maternal complications in GDM include increased incidence of asymptomatic bacteriuria, urinary tract infections, increased incidence of pre-eclampsia, polyhydramnios which may increase the incidence of preterm labor, placental abruption and post-partum hemorrhage and increased risk of operative delivery. The various fetal complications include intra uterine death, macrosomia, shoulder dystocia, increase incidence of respiratory distress syndrome, hypoglycemia, hypocalcemia, congenital malformations, polycythemia, hyperbilirubinemia. Long term complications include obesity, development of type 2 diabetes mellitus during childhood, impaired motor functions and higher rates of inattention deficit syndrome.<sup>2</sup>

**MATERIAL AND METHODS**

This study was carried out on 50 patients with DM with pregnancy who were in criteria were studied for maternal outcome due to DM. Informed consent was taken from all the patients. Detailed history was taken including age, gestational age, history of still birth or pregnancy loss, family history of diabetes, past history of diabetes, obstetric history. Detailed examination was done. Various parameters noted were mode of delivery, fetal weight, maternal and neonatal complications, and neonatal intensive care admission. Data were analyzed by Epi-info software.

**RESULTS**

**Table 1. General characteristics**

Age in Yrs	25.12±3.56
BMI in Kg/mt <sup>2</sup>	25.68±2.01
Polyhydramnios	23(46.00%)
Pre-term labor	13(26.00%)
Pre-eclampsia	19(38.00%)

APH	3(6.00%)
IUGR	2(4.00%)
PPH	1(2.00%)
Mean birth weight	4.01 ± 0.82 Kg

Maternal complications, 46.00% patients had polyhydramnios and 38.00% cases developed preeclampsia. Preterm labor was common in 26.00% of GDM patients. APH was found in 2.00% GDM patients, IUGR was found in 4.00% cases. Mean birth weight was 4.01 ± 0.82 Kg.

**DISCUSSION**

Over past years studies have strongly indicated that untreated diabetes during pregnancy is associated with higher rates of maternal morbidity and mortality.

The purpose of screening and management of DM is to prevent stillbirth, congenital anomalies, recurrent abortion, pre-eclampsia, intra uterine death and decrease incidence of macrosomic babies hence reducing maternal and perinatal morbidity and mortality.

The findings of the present study confirmed that DM patients are liable to have poor pregnancy outcomes.

Registered patients had regular antenatal visits and good glycemic control. Emergency patients had poor glycemic control leading to more maternal and fetal complications than registered patients. In present study mean birth weight 4.01 ± 0.82 Kg. A study at Thomas B et al, shows 45.2% of babies are having birth weight between 2.6-3.9kg and 8.1% babies had weight ≥ 4kg indicating good glycemic control.<sup>3</sup>

In our study mean age of cases was 25.12±3.56 Yrs. Study from south India showed age >25 years is considered as a risk factor for GDM.<sup>4</sup>

In our study 38.00% patients develop preeclampsia. Several studies<sup>5,6</sup> indicate a positive correlation between GDM and development of pre-eclampsia which was 36.00% in our study.

**CONCLUSION**

Gestational diabetes mellitus increased the risk of adverse

maternal outcomes. This implies that maternal care and intervention strategies relating to women with gestational diabetes mellitus should be strengthened.

Educating patients about regular antenatal care and proper monitoring of blood glucose level are important measures to reduce maternal and fetal complications. Universal screening and management by team approach of obstetrician, diabetologist, anaesthetist, physician, neonatologist can reduce fetal-neonatal/maternal morbidity and mortality associated with pregnancy with diabetes.

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