

# ABSTRACT

## **Background and Objectives:**

*Gestational diabetes mellitus* (GDM) is amongst the most common medical complications of pregnancy associated with adverse maternal and perinatal outcome. The prevalence of GDM is increasing worldwide especially in India with increasing obesity and lifestyle and dietary changes. Hence this study was undertaken to study the prevalence of GDM and evaluate its maternal and neonatal outcome.

## **Methods:**

This was a prospective study. During the study period, 205 pregnant women between 24 to 28 weeks of gestation were screened for GDM using 75 g oral glucose tolerance test (OGTT) and diagnosed to have GDM based on WHO criteria. Risk factors for GDM, maternal and neonatal outcomes were studied.

## **Results:**

The prevalence of GDM in the study population was 7.8%. Prevalence of GDM cases was significantly associated with body mass index (BMI)  $>25 \text{ kg/m}^2$ , family history of diabetes, previous macrosomia/ large for gestational age (LGA) baby and past history of GDM with  $p < 0.001$  and with multiparity ( $p = 0.024$ ). Maternal Age  $>25$  years was not statistically associated with prevalence of GDM ( $p = 0.358$ ). Incidence of pre-eclampsia and polyhydramnios were significantly higher among GDM cases. Operative delivery and assisted (forceps) delivery had strongly significant association with GDM ( $p < 0.001$ ). GDM cases were significantly associated with higher birth weight ( $>3.5 \text{ kg}$ ) in the neonates ( $p < 0.001$ ). Hypoglycemia was the most common complication noted in neonates of GDM women. Incidence of respiratory distress, transient tachypnea of the

newborn (TTN), polycythemia and neonatal hyperbilirubinemia were also significantly more common among neonates born to GDM women.

**Conclusion:**

BMI  $>25$  kg/m<sup>2</sup>, family history of diabetes, past GDM and previous LGA baby were important risk factors for GDM. The study emphasizes the need to screen all pregnant women for GDM, so that timely diagnosis and intervention will reduce both maternal and perinatal complications.

**Key words:**

Gestational diabetes mellitus (GDM), 75 g Oral glucose tolerance test (OGTT), WHO, BMI, pre-eclampsia, hypoglycaemia.