AICOG 2025
Mumbai
67th All India Congress of Obstetrics & Gynaecology
FOGSI celebrates 75 years – Diamond Jubliee
8-12 January, 2025 | JIO World Convention Centre

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Title: PREVALENCE OF GDM IN RURAL AREAS IN CENTRAL INDIA

INTRODUCTION

- Gestational diabetes mellitus (GDM) is a condition causing glucose intolerance during pregnancy, affecting 14% of pregnancies worldwide.
- Pregnancy-related diabetes prevalence in India increased from 0.53% in 2015-16 to 0.80% in 2019-21, with most states experiencing an increase.
- This increases maternal and neonatal complications, including pre-eclampsia, cesarean delivery, type 2 diabetes, and macrosomia.
- Central India (Ujjain, Madhya Pradesh) lacks comprehensive data on GDM prevalence, requiring targeted interventions.

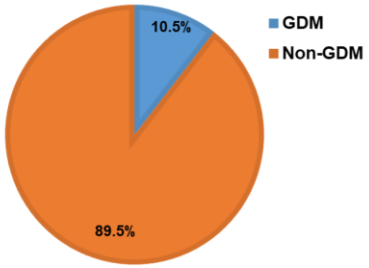
AIM AND OBJECTIVE

- To assess the prevalence of gestational diabetes mellitus (GDM) in pregnant females in rural Ujjain, India, and its correlation with risk factors like maternal age and obesity.
- To learn the outcome and prospect of DIPSI Criteria as a screening tool fot Gestational Diabets Mellitus.

MATERIAL & METHOD

- A cross-sectional observational study at R. D. Gardi Medical College examined 200 pregnant women aged 18-45 years, focusing on gestational ages 22-28 weeks were included, while those with pre-diagnosed diabetes were excluded.
- The study used the DIPSI guidelines for oral glucose tolerance test and statistical analysis, with a "P" value of 0.05 considered statistically significant.

RESULTS



GDM PREVALENCE BASED ON PREVIOUS OBSTETRIC HISTORY

Variables	GDM (n= 21)
BOH	07 (33.33%)
H/o macrosomia	06 (28.57%)
Past h/o GDM	08 (38.10%)

AGE DISTRIBUTIONS OF GDM AND NON-GDM ARE COMPARED

Age group	GDM (n= 21)	Non-GDM (n= 179)
<25 years	05 (23.81%)	95 (53.07%)
>25 years	16 (76.19%)	84 (46.93%)

DM-FREE FAMILY IN THE RESEARCH POPULATION

Family history	GDM (n=21)	Non-GDM (n=179)
Present	12 (57.14%)	68 (37.99%)
Absent	09 (42.86%)	111 (62.01%)

BMI DISTRIBUTION OF THE STUDY'S PARTICIPANTS

BMI (kg/m^2)	GDM (n=21)	Non-GDM (n=179)
<25	04 (19.05%)	114 (63.69%)
>25	17 (80.95%)	65 (36.31%)

DISCUSSION

Women with a history of GDM are at an increased risk of developing type 2 diabetes mellitus in future and their children are also at risk for the same. Women with GDM require intensive monitoring during pregnancy to offset the potential complications and hence accuracy of diagnosis is important.

Earlier, two-step approach was followed for the diagnosis of GDM, which used initial screening with the 50 g GCT, followed by OGTT in patients with abnormal GCT. The HAPO study and the subsequent IADPSG criteria suggested universal use of OGTT for the diagnosis of GDM. However, this appeared to be an impractical exercise, especially in developing countries, and hence the DIPSI recommended 75 g non-fasting test as a simple, economical and feasible single-step procedure for the diagnosis of GDM.

CONCLUSION

GDM prevalence in rural Ujjain, Madhya Pradesh, India is 10.50%, with higher rates in older, obese, and family-related women.

DIPSI diagnostic process is effective, but limited awareness and healthcare access contribute to underdiagnosis.

Community-based awareness programs, early screening, and healthcare system strengthening are crucial.

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