

EFFECTS OF MATERNAL DYSLIPIDAEMIA ON MATERNAL AND PERINATAL OUTCOMES: A PROSPECTIVE COHORT STUDY

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BACKGROUND

Adverse pregnancy outcome can cause short and long term maternal and fetal health complications and dyslipidemia could be a risk factor. Maternal hyperlipidemia is one of the most metabolic changes during the pregnancy.

OBJECTIVE

To determine the prevalence of dyslipidemia among pregnant women who come for antenatal clinic in University of Nigeria Teaching Hospital Ituku-Ozalla and Enugu State Teaching Hospital Parklane Enugu

METHODS

- The study was a prospective observational cohort study of eligible pregnant women attending antenatal clinic (ANC) at the two study centers.
- The eligible participants were consecutively recruited in their early gestations noting the women's socio demographic data, previous obstetric data and present obstetric history.
- Their blood samples were collected for lipid profile analysis.
- Women who met the criteria for dyslipidemia were identified.
- Appropriate Controls were matched for age, gestational age and parity.
- Both groups were then followed up throughout pregnancy and in labor for any development of adverse maternal or neonatal outcomes.

RESULT

The mean age of the **200 participants** involved in the study was **30.40± 5.19 years**. The Prevalence of dyslipidemia among the participants was **57.5%**. In comparison, those with dyslipidemia were at higher risk of still births, IUFD, low birth weight and birth asphyxia (**P < 0.05**).

The incidence of pre-eclampsia and gestational diabetes were not different between the two groups (**RR= 2.305; CI 95%: 0.801-6.893; P= 0.102 and RR=1.282; CI 95%: 0.224-7.349; P=.078**) respectively.

Dyslipidemia			Dyslipidemia		
Maternal outcomes	Yes (%) (N=55)	No (%) (N=47)	Neonatal outcomes	Yes (%) (N=55)	No (%) (N=47)
Gestational diabetes (GDM)			Preterm		
Yes (%)	3 (5.5%)	2 (4.3%)	Yes (%)	7 (12.7%)	3 (6.4%)
No (%)	52 (94.5%)	45 (95.7%)	No (%)	48 (87.3%)	44 (93.6%)
PIH/ Pre-eclampsia			Still birth		
Yes (%)	11 (20.0%)	4 (8.5%)	Yes (%)	8 (14.5%)	1 (2.1%)
No (%)	44 (80.0%)	43 (91.5%)	No (%)	47 (85.5%)	46 (97.9%)
IUFD			Birth Asphyxia		
Yes (%)	7 (12.7%)	1 (2.1%)	Yes (%)	12 (21.8%)	1 (2.1%)
No (%)	48 (87.3%)	46 (97.9%)	No (%)	43 (78.2%)	46 (97.9%)
Mode of delivery			Low birth weight (LBW)		
C.S (%)	20 (36.4%)	12 (25.5%)	Yes (%)	11 (20.0%)	1 (2.1%)
S.V.D (%)	35 (63.6%)	35 (74.5%)	No (%)	44 (80.0%)	46 (97.9%)
			Macrosomia		
			Yes (%)	9 (16.4%)	10 (21.3%)
			No (%)	46 (83.6%)	37 (78.7%)

DISCUSSION

This study showed a high prevalence (57.5%) of dyslipidemia among pregnant women at early second trimester which suggests that they already had an intrinsic dyslipidemia prior to the index pregnancy.

This observation was lower than the prevalence of 83.8% in a study carried out among pregnant women. In a study carried out among pregnant women in LUTH, South West Nigeria in 2014, the prevalence of hypercholesterolemia was 9.1% which was lower than 19.5% found in this study.

CONCLUSION

This study showed a high prevalence (57.5%) of dyslipidemia among pregnant women at early second trimester which suggests that they already had an intrinsic dyslipidemia prior to the index pregnancy