MATERIAL AND METHODS
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The present work entitled "Study of lipoprotein profile changes during the process of labour and 24 hours of post partum period" was carried out in the department of Obstetrics & Gynaecology and Lipid Research Laboratory, Department of Medicine, M.L.B. Medical College, Hospital, Jhansi.

SELECTION OF CASES

The study comprised of pregnant females admitted to the antenatal clinic, labour room, and maternity wards during antenatal or various stages of labour. A total of 102 cases were considered and of these only 52 cases were taken for final assessment. Rest of the patients were excluded from the study because their blood samples were discarded due to some problems like short hospital stay and hemolysis etc. Patients of high risk group were also excluded from the study. Cases selected for the study were free from any complications of pregnancy.

METHOD

After selection of cases a complete detailed history of patients was taken with emphasis on age, address, socio-economic status and occupation.

Obstetric History

- Date of last menstrual period or duration of amenorrhea.
- Gravida and parity.
- Previous still birth.
- Duration of onset of pain
- Any accompaniments i.e. leaking or bleeding per vagina.

Past History

Any past history of pregnancy induced hypertension, eclampsia, intrauterine growth retardation and pre & post maturity, medical disorders like hypertension, diabetes, tuberculosis, renal and liver diseases and thyroid disorders were excluded.

Family History

Diseases like coronary heart disease, hypertension, and diabetes were excluded in the family of the patients.

Personal History

Tobacco chewing, alcohol intake, smoking and therapy with corticosteroid, thiazides, betablockers with special emphasis on hormonal contraceptives were excluded.

Dietary History

Daily intake of food with emphasis on fat and calories per day, type of diet whether vegetarian or non vegetarian was assessed.
EXAMINATION : General examination

Detailed examination with special emphasis upon built, weight (serial measurement), pulse, blood pressure, pallor, icterus and oedema, was done.

Obstetric Examination

1. Per abdominal Examination (P/A):
   - Assessment of gestational age by final height.
   - Lie and presentation of fetus.
   - Fetal heart sound and amount of liquor adequate or not.

2. Per vaginal examination (P/V): To know -
   - Dilation of cervix.
   - Thinning of cervix.
   - Presenting part and its station.
   - Colour of liquor to know the condition of fetus.
     whether normal or in distress.
   - To decide the stage of labour for withdrawing the blood samples at proper time for our study.
   - To assess the pelvis whether it is adequate for normal vaginal delivery or not.

INVESTIGATIONS

Blood : Haemoglobin

Blood group

Blood sugar (Fasting and post prandial)

V.D.R.L. to exclude syphilis.
Urine: Routine – Albumin
Sugar
Microscopic examination.

Procedure for blood sampling

3-4 ml blood from antecubital vein with minimal stasis on recumbent posture was withdrawn under aseptic conditions. Samples were collected in autoclaved vials and allowed to settle for half an hour to separate the serum. Further procedure and estimation of lipoproteins was done at the Lipid Research Laboratory, Department of Medicine, M.L.B. Medical College, Jhansi.

Blood samples were collected during the process of labour or was contemplated to start within a short period. Following blood samples were taken:
1. In early labour – at the onset.
2. End of 1st stage – full dilatation of cervix.
3. End of 2nd stage – after delivery of baby but before expulsion of placenta.
4. End of 3rd stage – after delivery of placenta.
5. Blood sample with 24 hours of post partum.

The above samples were estimated for serum total cholesterol (STC), serum triglycerides (STG), and high density lipoprotein (HDL) by the standard methods. Very low density lipoprotein (VLDL) and low density lipoprotein (LDL) were calculated by the following formulae:
VLDL (mg/dl) = STG/5 (Valid upto the values of STG \( \leq 300 \) mg/dl).

LDL (mg/dl) = STC - (STG/5 + HDL)
STC = (VLDL + HDL)

For the study, patients selected, were divided into following groups according to mode of delivery:

Group I: Subjects having normal spontaneous vaginal delivery served as control group.

Group II: Subjects having vaginal delivery where artificial rupture of membrane (A.R.M.) was done to induce labour.

Group III: Subjects with normal vaginal delivery where artificial rupture of membrane and oxytocin augmentation was done.

Group IV: Normal subjects who underwent elective caesarean section.

Group V: Normal subjects who underwent emergency caesarean section due to obstructed labour.

Lipoprotein profile between these 5 groups were compared during 1st, 2nd, 3rd stage of labour and within 24 hours of postpartum period.

It was also tried to know the effect of parity on lipoprotein profile. Subjects were divided according to parity—primigravida and multigravida. The lipoprotein profile were compared in these two groups during intrapartum and 24 hours postpartum period.

Umbilical cord blood of newborns from placental side was studied for lipoprotein profile changes in relation to mode of delivery and diet—vegetarian and non-vegetarian.