SUMMARY AND CONCLUSION
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The present study entitled "Haematological and physical growth effects of toxaemia of pregnancy on newborns" was carried out in the department of Paediatrics, M.L.B. Medical College, Hospital, Jhansi. Detailed history of mothers was taken including their parity, family history of similar illness and socio-economic status with special emphasis to history of antenatal care.

Morphological examination of placenta and the various hematological examinations were carried out in the department of Pathology. Physical examination of newborns was performed and their weight, length and head circumference were noted. Gestational age was calculated with the help of Dubowitz's criteria and the date of last menstrual period.

The mothers were grouped according to the indicators published in William's Obstetrics into mild and severe type of toxaemia of pregnancy. In this study, bulk of patients (74.36%) were of severe grade of toxaemia of pregnancy. The incidence of toxaemia was observed to be more common (74.36%) in primipara as compared with multipara (25.64%). Majority of the patients (92.31%) developed symptoms in the third trimester. Convulsions developed in twenty two (56.4%) of the total cases and all these cases were from the group with severe type of toxaemia of pregnancy.
Association of family history with the toxaemia of pregnancy was not found to be significant in this study. Only 7.69% cases showed positive family history in toxaemia of pregnancy cases, indicating it is not a familial disorder.

Regular antenatal check up and intensive monitoring for fetal growth is essential to diagnose chronic placental insufficiency. It was lacking notably in our cases as 35 (89.75%) cases of this study did not receive antenatal care.

Haematological examinations revealed significant high fetal Hb% (81.5%), thrombocytopenia (30.76%) and leucopenia (33.33%) in study group cases while no significant difference was observed in total Hb%, when compared with controls.

The foetal Hb% was higher significantly in premature and 37-39 weeks gestational age group than 39 weeks or above age group. The foetal Hb% was also higher (92.2%) in premature, small for date and in 37-39 weeks gestational age with small for date (82%) when compared with appropriate for gestational age group at same age.

Examination of placenta revealed that the weight of placentae were comparable in the study and the control groups, but on morphological examination of the placentae, several pathological changes were noted in the study group. Cf the morphological changes, retroplacental clots were observed most frequently in 66.78% cases. Other changes
noted were placental infarction (15.78%) and cord anomalies in the form of thick cord, tortuous cord and haemorrhage in cord (10.26% each), multiple knots in the cord (7.69%) and abnormal attachment of cord in 5.13%. But none of these lesions were pathognomonic of toxaemia of pregnancy.

Incidence of low birth weight in study group was 69.23% in comparison to control group 48.71%. This difference was significant.

An attempt was also made to compare with weight of newborns of toxaemic group with age matched control group. Birth weight was significantly different in study group (Mean weight 2.3 kg) as compared with control group (Mean weight 2.6 kg). High incidence of prematurity (74.36%) was also found in toxaemia of pregnancy cases but most of the prematures were between 33-37 weeks of gestation (69.23%). Among the 39 cases, 29(74.36%) cases were premature and 9(23.07%) cases were full term. Out of these 8 small for date cases, seven were delivered by mothers who had not taken any antenatal care during pregnancy. Small for date incidence was higher in mothers who did not receive antenatal care and treatment for toxaemia of pregnancy. Thus cause of small for date seems to be due to disease per se in their mothers rather than due to drugs administered for toxaemia.

In babies having head circumference less than ten and ten to twenty fifth percentile significant
difference was noted of toxaemia of pregnancy group as compared to control while no significant difference was observed in crown heel length percentile of both study and control group.

CONCLUSIONS

1. Toxaemia of pregnancy is a disease shared by the pregnant woman and her fetus. Problems experienced at birth represented the consequences mainly of the maternal disease and not due to pharmacological intervention.

2. Incidence of severe type of toxaemia of pregnancy was found to be higher (74.36%) and incidence of eclampsia was noted in 56.41% in toxaemia of pregnancy.

3. Toxaemia of pregnancy is more common in primigravida (74.36%) and only 25.64% cases were of multipara.

4. This disease is not a familial or hereditary disorder as evident by positive family history in only 7.69% cases.

5. The severity of placental insufficiency experienced by these fetuses is reflected in the higher foetal Hb%, increased incidence of thrombocytopenia and leucopenia. The degree of growth retardation was much greater than would have been anticipated by the duration of known maternal symptoms and signs and
suggested that the onset of uteroplacental compromise antedate the development of overt maternal signs and symptoms.

6. Weight of placenta does not seem to be affected by toxaemia but on morphological examination, 15.78% cases of infarction, 66.78% cases of retroplacental clots and several other cord anomalies were observed in toxaemia of pregnancy but none of these abnormalities were pathognomic of toxaemia of pregnancy.

7. Toxaemia of pregnancy leads to low birth weight as evident from 69.23% incidence of low birth weight in study group.

8. There was significant difference, observed in head circumference of newborns of toxaemic mothers as compared with control group. There was no significant difference in the length of newborns.

9. Regular antenatal care and antenatal monitoring of fetal growth by regular observation of fetal movement and ultrasound is very necessary to prevent prematurity and retarded fetal growth.