Original Article

Perinatal Outcome in Patients with Preeclampsia

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ABSTRACT

Objectives: To describe perinatal outcome in patients with preeclampsia.

Design: Descriptive Hospital based study

Place and Duration of Study: Department of Obstetrics and Gynecology, Nishtar Medical College/Hospital Multan from September 2007 to September 2008.

Materials and Methods: Patients admitted through the outpatient department and labour ward with gestation age >20 weeks and diasystolic blood pressure of ≥ 90mmHg on more than one occasion 6 hours apart and proteinuria ≥ 300mg/24 hours or two mid stream or catheter specimens of urine with ≥++ proteins on reagent strip testing were included in the study. Besides detailed clinical history, complete blood count, renal function tests, liver function tests, coagulation screen and 24 hours urine protein were done. After the baseline obstetrical ultrasound, two weekly growth scans were done, growth charts were maintained along with umbilical artery Doppler studies, Patients were counseled for planned hospital delivery and time and mode of delivery was decided. Babies were managed by the Pediatricians and if needed shifted to neonatal intensive care unit. The babies were followed for 7 days after birth.

Results: 73 patients were managed during the study period. 22 patients had intrauterine growth restriction (IUGR) 23 babies were born preterm, 13 preterm babies had IUGR and 10 out of these were admitted to neonatal intensive care unit. There were 5 deaths (4 still births 1 early neonatal death).

Conclusions: IUGR and preterm births are the most frequent perinatal complications in preeclamptic patients. Health education of masses and regular antenatal care can improve the pregnancy outcome.

Keywords: Preeclampsia, IUGR, Preterm birth.

INTRODUCTION

Preeclampsia is a complex multi system disorder which is characterized by metabolic changes, endothelial dysfunction, activation of coagulation cascade and increased inflammatory response[1.] Preeclampsia complicates approximately 6-8% of pregnancies [2] and is associated with adverse perinatal outcome as IUGR, small for gestational age, birth asphyxia, meconium aspiration syndrome, stillbirth, preterm delivery and early neonatal death. [3,4] Adverse infant outcome is predominately influenced by gestational age.[5] Iatrogenic prematurity is an important cause of high perinantal mortality and morbidity associated with preeelampsia.[6] We conducted a study to find out perinatal outcome in preeclamptic patients which is a common complication in our pregnant women.

MATERIALS AND METHODS

Patients admitted through the outpatient department and labour ward with gestation age >20 weeks and diasystolic blood pressure of ≥ 90mmHg on more than one occasion 6 hours apart and proteinuria ≥ 300mg/24 hours or two mid stream or catheter specimens of urine with ≥++ proteins on reagent strip testing were included in the study. Besides detailed clinical history, complete blood count, renal function tests, liver function tests, coagulation screen and 24 hours urine protein were done. After the baseline obstetrical ultrasound, two weekly growth scans were done, growth charts were maintained along with umbilical artery Doppler studies, Patients were counseled for planned hospital delivery and time and mode of delivery was decided. Babies were managed by the Pediatricians and if needed shifted to neonatal intensive care unit. The babies were followed for 7 days after birth.

RESULTS

Out of 73 patients of Preeclampsia, 28 (38.36%) patients were less than 20 years of age and 2 (2.73) were over 40 years of age (Table 1). 44(60.27%) patients were primigravidia and the rest were multigravida. Gestational age at the time of diagnosis of preeclampsia was noted. 11 (15.07%) patients had gestational age <34 weeks and 62 (84.93%) patients had gestational age greater than 34 weeks (Table 2). 22 (30.13%) had IUGR. 9 patients had IUGR at term and 13 patients had preterm IUGR. 10 preterm IUGR babies were admitted to neonatal intensive care unit. There were 4 still births, 3 among preterm and I term baby and 1 preterm early neonatal death. Overall 23 (31.50%) babies were born preterm (before 37 completed weeks) and 50 (68.49%) were born at term (table 3).

Table No. I: Age Distribution

Total No. of patients	73
Less than 20 years	28 (38.3%)
20-35 years	43 (58.9%)
40-45 years	2 (2.7%)

Table No.2:Gestational Age at the time of Diagnosis of Pre eclampsia

Less than 34 weeks	11(15.07%)
Greater than 34 weeks	62(84.93%)

Table No.3:Perinatal outcome

1. Intrauterina Grwoth Restriction (IUGR) a. Term IUGR Babies b. Preterm IUGR babies	22(30.13) 9(40.9%) 13(59%)
2. Total Preterm Births	23(31.50%)

DISCUSSIONS

Preeclampsia, a pregnancy specific syndrome of hypertension and proteinurea is one of the leading causes of perinatal morbidity and mortality[7]. Preeclampsia also puts the mother at the risk of complications and is responsible for about 60000 maternal deaths every year mainly in the poor countries[8]. In our study majority of the patients were young primigravidia which is in agreement with local and international literature.[9-12]

Gestational age is a variable that is the strongest predictor of fetal mortality and morbidity especially at less than 30 weeks of gestation.[13] In our study worst perinatal outcome was in babies <34 weeks of gestation with complications like IUGR and preterm birth.

CONCLUSION

Preeclampsia remains a major cause of maternal and perinatal morbidity and mortality, contributing to significant economic and health care burden. However, the pregnancy outcome can be improved with health education of masses; regular antenatal care, prompt diagnosis of high risk patients and timely referral to tertiary centers.

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