

Maternal Outcome in Women with Preeclampsia

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ABSTRACT

Aim: To determine the maternal outcomes in women presented with severe pre-eclampsia.

Study Design: Prospective/Observational

Place and Duration: Obs & Gynae department of Akhtar Saeed Medical and Dental College and Hospital, Lahore and Kausar hospital/Khairpur Medical College, Khairpur Mir's

Methods: Total 100 patients with ages 18 to 45 years presented with pre-eclampsia were included in this study. Patients detailed demographic including age, parity, gestational age, and body mass index were recorded after taking written consent. Patients complete blood picture was examined. Complications associated with preeclampsia were examined. Data was analyzed by SPSS 23.0.

Results: Out of 100 patients 23 (23%) were ages <20 years, 42 (42%) were ages 20 to 30 years, 30 (30%) were ages 31 to 40 years and 5 (5%) were ages above 40 years. 41 (41%) were primigravida while 59 (59%) were multigravida. Mean gestational age was 34.11±3.88 weeks. HELLP syndrome found in 21 (21%) patients, 11 (11%) patients had eclampsia, and 16 (16%) patients had placental abruption, coagulopathy found in 4 (4%) patients, 3 (3%) patients developed acute renal failure and 2 (2%) patients were died.

Conclusion: It is concluded that pre-eclampsia is highly associated with major maternal complications such as HELLP syndrome, eclampsia, placental abruption and maternal mortality.

Keywords: Pre-eclampsia, HELLP Syndrome, Placental Abruption, Eclampsia, Mortality.

INTRODUCTION

In pregnancy, there are four major hypertensive disorders: pre-eclampsia, hypertension that is chronic, pre-eclampsia that is chronic, and gestational hypertension. Usually, preeclampsia is to blame for hypertension and proteinuria in pregnancy, especially in the first trimester of pregnancy. While these findings are most commonly observed during pregnancy's final months, some women have symptoms in the second half of their pregnancy, after delivery or in the early postpartum period. It is possible to have mild or severe preeclampsia. As a result of severe illness, patients may experience severe hypertension as well as coagulopathy and thrombocytopenia. During a prenatal laboratory evaluation, hemoglobin/hematocrit and platelet count should be determined, along with liver function, as well as fetal health and growth.[1]

All hypertensive problems impact 5–10% of pregnancies. Maternal, newborn, and fetal mortality rates are increased in hypertensive diseases. Severe hemolysis, raised liver enzymes, and low platelet syndrome are among the most common complications [2].

Symptoms of severe preeclampsia include proteinuria, hypertension, and central nervous system dysfunction, as well as hepatic inflammation and liver damage. Stroke, thrombocytopenia, oliguria, pulmonary edema, a cerebrovascular accident, and severe intrauterine growth restriction were all symptoms of this condition. To confirm the diagnosis, assess the severity of the disease, monitor its progression, and try to stabilize it, women with severe preeclampsia must be hospitalized [3].

Presbyopia is a severe form of pregnancy-related hypertension that can cause major morbidity and mortality for both mother and child. These countries' maternal and perinatal mortality rates have declined in recent decades due to better understanding of the disease process. Mortality and morbidity rates remain high in other parts of the world [4].

A generalized tonic-clonic convulsion complicates preeclampsia, which is called eclampsia. A major cause of maternal illness and mortality worldwide, even though it is rare in developed nations [5, 6] Severe preeclampsia might cause abrupt blindness due to damage to the occipital brain or retina [6].

It is one of the rare consequences associated with severe preeclampsia and eclampsia.

Preeclampsia and eclampsia are responsible for 10–15 percent of all maternal deaths worldwide, respectively. In developing nations, eclampsia is the leading cause of death, while complications from preeclampsia are more common in developed countries. When severe preeclampsia occurs, pulmonary edema is a rare but significant issue.

Preeclampsia has no recognized cause. Numerous theories have been proposed to explain its pathogenesis, including immunology, cytokines, growth hormones, endothelial damage, platelet dysfunction, and genetics [8, 9].

The safety of the mother must always come first, followed by consideration for the best possible perinatal result. Delivering a baby is the only way to treat severe preeclampsia.

Received on 13-02-2021

Accepted on 09-06-2021

MATERIALS AND METHODS

This prospective/observational study was conducted at Obs & Gynae Department of Akhtar Saeed Medical and Dental College and Hospital, Lahore and Kausar Hospital/Khairpur Medical College, Khairpur Mir's. Total 100 patients with ages 18 to 45 years presented with pre-eclampsia were included in this study. Pre-eclampsia was defined as systolic blood pressure >160 mmHG and diastolic BP >110 mmHG and having significant proteinuria. Patients detailed demographic including age, parity, gestational age, and body mass index were recorded after taking written consent. Patients with cardiovascular disease, patients with chronic renal failure and patients with other abdominal surgeries were excluded from this study.

Patients complete blood picture was examined. Laboratory investigations were sent after assessment. Patients were managed as indoor patients according to unit protocols and were observed for eclampsia, abruption placentae, HELLP syndrome, Global complications such as heart failure, coagulopathy, renal and maternal mortality. In patients who developed these complications, pregnancy was terminated and the condition managed.

All the data was analyzed by SPSS 23.0. Mean±SD was done. Frequencies and percentages were recorded in tabulation form.

RESULTS

23 (23%) were ages <20 years, 42 (42%) were ages 20 to 30 years, 30 (30%) were ages 31 to 40 years and 5 (5%) were ages above 40 years. 41 (41%) were primigravida while 59 (59%) were multigravida. Mean gestational age was 34.11±3.88 weeks. Mean body mass index (BMI) was 21.08±1.68 kg/m². (Table 1)

Table 1: Characteristics of all the patients

Characteristics	Frequency No.	% age
Age (Years)		
<20	23	23
20 to 30	42	42
31 to 40	30	30
>40	5	5
Gravidity		
Primigravida	41	41
Multigravida	59	59
Mean Gestational Age	34.11±3.88	-
Mean BMI (Kg/m)	21.08±1.68	-

According to the complications, HELLP syndrome found in 21 (21%) patients, 11 (11%) patients had eclampsia, and 16 (16%) patients had placental abruption, coagulopathy found in 4 (4%) patients, 3 (3%) patients developed acute renal failure and 2 (2%) patients were died. (Table 2)

Table 2: Maternal complications among all patients

Variables	Frequency	% age
Complications		
HELLP	21	21
Eclampsia	11	11
Placental abruption	16	16
Coagulopathy	4	4
Acute renal failure	3	3
Died	2	2

DISCUSSION

Pre-eclampsia is a common gynecological and obstetrical disorder associated with high rate of morbidity and mortality [10]. We conducted this study to examine the major maternal complications associated with pre-eclampsia. In this regard we included 100 patients presented with pre-eclampsia. Majority of patients 42% were ages 20 to 30 years followed by 30% had ages 30 to 40 years. These results showed similarity to many of previous studies in which the average age of patients was 35 years [11,12].

In our study we found that 41 (41%) were primigravida while 59 (59%) were multigravida. Mean gestational age was 34.11±3.88 weeks. Mean body mass index (BMI) was 21.08±1.68 kg/m². A study conducted by E. Same findings were presented in previous study [13]

In present study, overall complications found in 57 (57%). Among all the complications the most frequent complication was HELLP syndrome and found in 21 (21%) patients followed by placental abruption in 16%, eclampsia in 11%, coagulopathy in 4%, and acute renal failure in 3% patients. A study conducted by Nankali A et al [10] reported that 22 cases (6.3 %) who had suffered from eclamptic seizures, 1 (0.3 %) patient was demonstrated to have HELLP syndrome. Placental abruption was obstetric complication in 7.7 % (27 cases). Women with severe preeclampsia and the HELLP syndrome were more likely to have a cesarean delivery than women without these conditions. Similar to a prior study, the most common reason for cesarean section was unreliable fetal status. [14] According to a prior study, just 2.8 percent of preeclamptic women experienced placental abruption. In general, patients with hypertension problems during pregnancy are more likely to undergo cesarean birth. [15]

Women's understanding of PE was likewise poor in previous studies. Only 14 percent of women in a research by You et al. in the United States were able to define PE appropriately [16].

In this study we found that 2 (2%) patients were died and 1 of them associated with acute renal failure and 1 had HELLP syndrome. These results were comparable to some previous studies [18-20].

CONCLUSION

Pre-eclampsia is highly associated with major maternal complications and these complications has major contribution to increase maternal and fetal mortality. We concluded from this study that HELLP syndrome was the most frequent complication followed by eclampsia, abruption and coagulopathy. The mortality rate was 1.82%. Also we concluded that proper and early management can helps to reduce the morbidity and mortality.

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