

ORIGINAL ARTICLE

Frequency and Outcomes of Eclamptic Patients Shifted to Intensive Care Unit

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ABSTRACT

Objective: To determine the frequency of eclamptic patients admitted to a tertiary care hospital's intensive care unit and their outcomes.

Patient and Methods: This was descriptive case series study and was took place at the civic Hospital Hyderabad's gynecology and obstetrics department for a year, from August 2015 to July 2016. This study comprised 85 extremely suffered eclamptic women who were admitted to the labour room and later transferred to the ICU. All the demographic information including maternal complications and mortality were gathered using a pre-made proforma.

Results: A total of 85 extremely unwell eclamptic women who were admitted to the obstetrics/gynecology department and subsequently transferred to the intensive care unit were studied. The patients' average age was 30.543.66 years. Most of the women 59(69.41%) were multiparous. Regarding the intervention required in ICU, (68.24%) women were on mechanical ventilation, (58.82%) were on inotropic support, blood transfusions were required in 23 of 85(27%) women. Renal failure was found in 35.29% women, disseminated intravascular coagulation (DIC) was in 30.59% women, and multiple blood transfusion were required in 40% cases and rate of mortality was 20%.

Conclusion: Maternal complications and mortality rate were observed to be higher among eclamptic women. It causes a lot of maternal and perinatal morbidity and death. As a result, we might conclude that our health-care system lacks the necessary resources to provide our expecting mothers with proper antenatal care.

Key words: Eclampsia, ICU, outcome

INTRODUCTION

Eclampsia, preeclampsia and HELLP syndrome are life-threatening hypertensive disorders that are major reasons for obstetric patients to be admitted to the ICU.¹ These are the cases with special needs whose care is complicated by the presence of the foetus, impaired parental physiology, and pregnancy-related disease that can lead to long term and adverse complications and necessitates close monitoring. Transfer to an intensive care unit (ICU) is one of the most recent advancements for saving mothers' lives.² Until she suffers a severe trauma, a pregnant woman is normally young and in good health. If she receives timely intensive care, her prognosis should improve.³ Every minute, one woman dies from childbirth somewhere around the world, accounting for almost 600,000 pregnancy - related deaths each year throughout the world, with 99 percent of these deaths reported in underdeveloped nations.³ In the underdeveloped world, critically unwell obstetric females account for up to 7% of ICU admissions.⁴ Hypertensive disorders of pregnancy appears to be one of the leading reasons for maternal mortality and morbidity, accounting for 10–15 percent of all maternal fatalities, particularly in underdeveloped countries. Eclampsia has been linked to a maternal death incidence of 0.5-10 percent, necessitating high-quality intensive care.⁵⁻⁷ Life-threatening complications and each mother's death, according to WHO. Understanding the lessons to be learnt can go a long way toward preventing such consequences.⁶ The 1st step toward preventing and hence reducing maternal and newborn morbidity and death is to have a better understanding of the spectrum, characteristics, and outcomes of diseases affecting this

group of patients.⁷ Just few studies are available on the prevalence, etiology, and consequences of obstetric women who needed urgent care owing to eclampsia. With this background in mind, the goal of my research was to determine the frequency of maternal outcomes in patients with eclampsia referred to the intensive care unit. This study gives current and regional statistics on maternal outcomes, emphasizing early care to overcome these maternal morbidities, and aids in the development of future efforts to prevent maternal deaths by identifying at-risk mothers and hypertension at an early stage.

MATERIAL AND METHODS

The descriptive case series study was done at department of Obstetrics and Gynecology, Civil Hospital Hyderabad during one year from August 2015 to July 2016. During pregnancy and the first 6 weeks after delivery, all eclamptic females hospitalized to the obstetric/gynecology department, regardless of age, parity, or number of fetuses, were sent to the intensive care unit (ICU). were included. All the ICU admitted patients without gynaecological issues, all gravid patients who remained vitally stable and cognizant throughout pregnancy and postpartum, as well as those who were admitted to the ICU for reasons other than eclampsia were excluded. Eclampsia is defined as the occurrence of new-onset convulsions and/or unexplained coma in the women during pregnancy or postpartum woman in the absence of any known or later confirmed neurological disorders, frequently in the setting of pre-eclampsia. Maternal morbidity was defined as any complication or illness that occurs in all mothers moved to ICU during antepartum, intrapartum, or postpartum, and

mortality rate of the mothers was defined as the death of a woman shifted to ICU. Informed consent was taken by patient' guardian. All the data was collected via pre-design proforma. All the data was analyzed through SPSS version 26.

RESULTS

The researchers looked at 85 extremely unwell eclamptic women who were admitted to the obstetrics/gynecology department and subsequently transferred to the intensive care unit. The patients were 30.54±3.66 years old on average. The majority of the women (59.41%) were multiparous, with a mean parity of 3.84±1.95. In terms of the ICU intervention, 58 of the 85 females (68.24 percent) were on mechanical ventilation. The mean length of stay in the ICU for the females was 2.121.4 days. In terms of ICU intervention, 58 of 85 (68.24 percent) women required mechanical ventilation, 50 of 85 (58.82 percent) needed inotropic support, and 23 of 85 (27 percent) needed blood transfusions as shown in Table.1

Renal impairment was identified in 35.29 percent of the women, DIC was detected in 30.59 percent of the women, and repeated blood transfusions were necessary in 40% of the cases, with a 20% death rate. Table.2

Table.1 Descriptive statistics of age, gestational age and parity n=85

Variables	Statistics	
Age	30.54±3.66 years	
Parity	3.84±1.95	
Gestational age	2 nd trimester	33(38.82%)
	3 rd trimester	52(61.18%)
Intervention required in ICU in term of mechanical ventilation	Yes	58(68.24%)
	No	27(31.76%)

Table.2 Maternal outcome n=85

Outcome	Statistics	
Disseminated intravascular coagulation (DIC)	Yes	59(69.41%)
	No	40(30.59%)
Renal failure	Yes	30(35.9%)
	No	55(64.71%)
Mortality	Yes	17(20.0%)
	No	68(80.0%)

DISCUSSION

Eclampsia, a major consequence of preeclampsia, is still a life-threatening illness for expecting mothers. It is responsible for 12% of maternal fatalities and 16–31% of perinatal deaths worldwide.⁸ most eclampsia-related deaths occurred in low-resource settings. The majority of hypertension-related maternal fatalities occur during labor or shortly after delivery due to preventable and treatable reasons.^{9,10} In this study, the patients' average age was 30.54±3.66 years and most of the women 59(69.41%) were multiparous and average of parity was 3.84±1.95. In comparison to our results, study by Adekanle DA et al¹¹ reported that most women 71 (69.9%) were within the age range of 20–24 years and 7 (6.8%) in less than 19 years and seventy-three (70.9%) were primipara while 30 (20.9%) were multipara. On other hand Atashkhoei S et al¹² also reported that the average age of the study subjects was 29.36±5.30 years, the average gestational age was 36.7±5.2 weeks and most of the cases 57.2% were

multiparous.

In this study, regarding the intervention required in ICU, 68.24% women were on mechanical ventilation and the mean length of stay in the ICU for females was 2.121.4 days, while 68.24% women were on mechanical ventilation, 58.82% were on inotropic support and blood transfusions were required in 27% women. Renal failure was found in 35.29% women, disseminated intravascular coagulation (DIC) was in 30.59% women, and multiple blood transfusion were required in 40% cases and rate of mortality was 20%, although most of the patients were brought late with high-risk factors like increasing age, high parity, a state of unconsciousness, un-booked status, multiple seizures. In comparison to our results, another study by Shahzad N et al¹³ reported that in their study, Thirty eclamptic mothers (30 percent) had complications such as pulmonary edema (11 percent), CVA in (2 percent), renal failure (2 percent), DIC (4 percent), and 11 percent had abnormal LFT's, along with one incidence of HELLP syndrome. Another study by Nessa K et al¹⁴ demonstrated that the in the eclampsia ward, 18 (51.42 percent) patients improved following rigorous treatment, whereas 14 (40 percent) needed ICU assistance and 3 (8.57%) died. Similarly, study by Jamil M et al¹⁵ observed that complications were developed maogn 25.9% of cases, and 18 (15.5%) died, followed by two cases (1.7%) departed the ICU as per medical recommendation, and two (1.7%) were conveyed to a nephrologist for advice, s ix (5.2%) study subjects experienced acute tubular necrosis (ATN), five (4.3%) acquired disseminated intravascular coagulation (DIC), and four (3.45%) experienced abruptio placentae, septicemia and HELLP syndrome respectively. although acute renal failure (2.6 percent) and postpartum hemorrhage were two further problems (2.6 percent). Tabassum N et al¹⁶ reported In their study, that the 14.7 percent of the participants died, while overall, 23% of cases had at least one complication, with the remaining 67 percent having more than one, the infection was in 29.4% of the cases, DIC, and acute renal failure, hemorrhage was in 23.5% of the study cases with cerebral oedema, and CVA, pulmonary embolism was in six patients (17.6%), abruptio placentae were (11.7%) of the cases and the same number had HELLP syndrome. Consistently in the study of Rojas-Suarez J et al¹⁷ reported that the multiple organ impairment was detected in more than 70% of all mothers admitted to intensive care, but it was significantly more prevalent in the cases having HELLP syndrome and HEEH (p = 0.001). There have been 5(2.3%) maternal mortality rate mostly due to intracranial hemorrhage, pulmonary complications and the intra-abdominal bleeding.

CONCLUSION

Eclamptic women have a high rate of maternal death, which is accompanied by a higher risk of complications. Eclamptic patients' mortality rate was 20%, with DIC, renal failure, and numerous blood transfusions being the most common sequelae. A significant maternal and perinatal morbidity and mortality are caused by it. As a result, we might conclude that our health-care system lacks the necessary infrastructure to deliver adequate antenatal care to our expectant women.

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