

# Study of Fetal and Maternal Outcome in Eclampsia

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## Research Article

**Abstract:** **Aim:** To Study the fetal and maternal outcome in patients with eclampsia. **Background:** In modern Obstetrics, the prevalence of eclampsia and its complication is high, so we decided to study pregnancy outcome in all eclampsia patients. **Methodology:** A Retrospective study carried out in department of Obstetrics and Gynecology in Bharati Medical College and Hospital, Sangli. Cases of eclampsia from May 2008 to May 2012 included in study. Analysis done regarding age of women, parity, gestational age, number of convulsion, time of convulsion, mode of delivery and fetal outcome. **Results:** 84.6% patients are primigravidas. 88.4% came with antepartum eclampsia. Only 15.3% patients had postpartum eclampsia. Fetal outcome being intrauterine death in 46.1% and preterm delivery in 26.9%. **Conclusion:** Our observation states Antepartum eclampsia is more common in primigravidas between age group 20-25 years. With gestational age between 24-28 weeks and 32 to 36 weeks with poor fetal and maternal outcome. In our study we found all cases were unbooked and not received Antenatal care indicating the failure of adequate health care delivery in rural areas of western Maharashtra. Fetal outcome is better in patients with early intervention by lower segment caesarean section.

**Keywords:** Eclampsia, Primigravida,

## Introduction

Eclampsia is one of the leading causes of maternal and perinatal mortality as well as morbidity throughout the world<sup>1, 2</sup>. It is defined as new onset of grand mal seizure activity and/or unexplained coma during pregnancy or postpartum in a woman with signs or symptoms of preeclampsia<sup>3</sup>. History goes back to 5<sup>th</sup> century. HIPPOCRATES defined "eclampsia as a disease associated with pregnancy with ominous signs as headache, convulsions and vomiting" Eclampsia is preceded by alarming symptoms and sign of pregnancy induced hypertension (PIH). Early detection of signs and symptoms by good antenatal care and initiation therapy will prevent occurrence of eclampsia. In UK, the incidence of eclampsia is 4.9/10,000 and in USA it is 4.3/10,000 deliveries<sup>4</sup>. Unfortunately, eclampsia still complicates much larger number of pregnancies in the world. In India, its incidence is reported to be 220/10,000 deliveries<sup>5</sup>. Incidence of eclampsia varies inversely with the quality of antenatal care. It is estimated that about 7% of maternal mortality is associated with hypertensive disorders of pregnancy, particularly eclampsia<sup>6</sup>.

## Aims and Objectives

To Study the maternal and perinatal morbidity and mortality in patients with eclampsia in our institute and its association with different variables like age, parity, period of manifestation of eclampsia and mode of delivery.

## Methodology

This study was conducted in Bharati vidyapeeth Medical College and Hospital, Sangli. A specially designed proforma was used to record the relevant data of each patient. It took into account the demographic variables such as age, parity, gestational age at presentation, time of onset of eclampsia, mode of delivery, and number of convulsions, maternal and perinatal outcome. All the patients admitted in the hospital during this period of 2 years with eclampsia were included in the study. Our sample size was 26 patients. It was a Retrospective study. In the study almost all patients were referred, unregistered and unbooked. To control the convulsion, magnesium sulphate was given as per Pritchard's regimen.

## Results

A total of 1625 deliveries were carried out during the period of study. Out of these 26 were diagnosed to be suffering from eclampsia and were treated accordingly. The incidence of eclampsia in our study, thus, turns out to be 1.6% deliveries. Considering these 26 patients, 50% of them fell into the age group of 20 to 25 years and 85% of them were primigravidas. In our study, 88% patients manifested with eclampsia in their antepartum period that too majority of them presented either in 24-28 weeks or 32 to 36 weeks that is 30%. And out of 15% of postpartum eclampsia cases, 50% presented within 2 hours of delivery and no patient presented after 48 hours of delivery. Maximum that is 53% patients presented with 1 convulsion followed by 5 or more convulsions that is 23%, which is quite a high number. In Contrast, 65% of them delivered vaginally and 35% underwent lower segment caesarean section. Where as perinatal complications were very high as there was high incidence of intrauterine dead babies that is 48%, 27% preterm babies, 8% died after birth and 4% were low birth weight

babies. Maternal complications were seen as DIC in 3.8%, blurring of vision in 7.6%, renal failure in 3.8%.

There was one maternal mortality during this period.

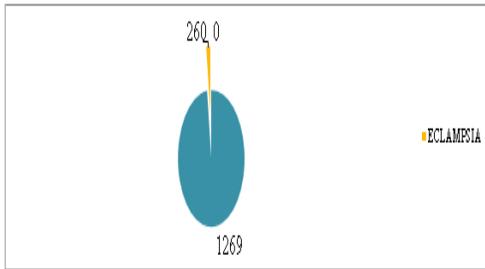


Figure 1: Incidence of eclampsia in our institute

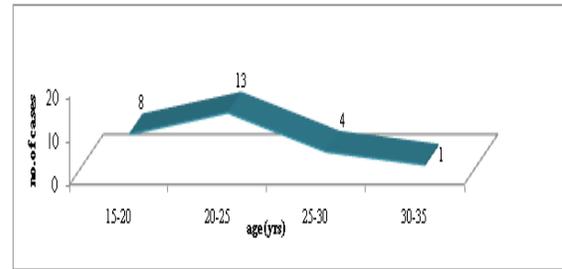


Figure 2: Relation of age

Age group (years)	Bad Perinatal outcome
15-25	70%
25-35	30%

Figure 3: Relation of age group and perinatal outcome

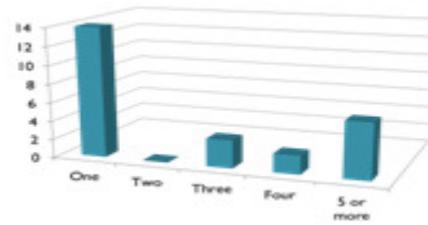


Figure 4: Number of convulsions

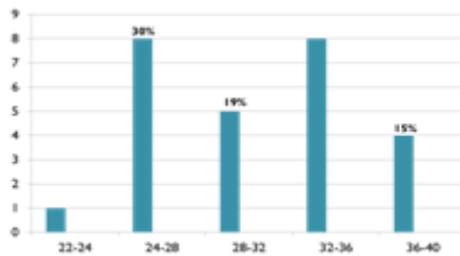


Figure 5: Patients with antepartum convulsions

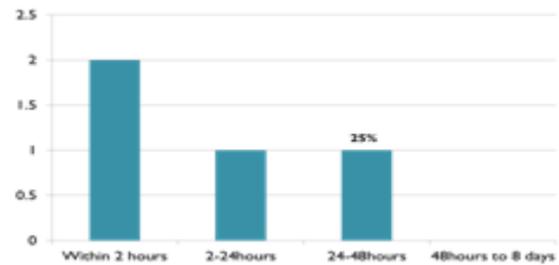


Figure 6: Patients with postpartum convulsion



Figure 7: perinatal outcome

## Discussion

Incidence of eclampsia in developing countries is 0.94 % to 1.8%<sup>7</sup>. Maximum numbers of women were primigravidas. The incidence of eclampsia is very low within developed countries with a range of 0.29% - 0.75%, due to the provision of standard antenatal care for most pregnant women in these countries.<sup>8, 9, 10</sup> Morbidity and mortality among eclamptic patients admitted to our hospital was similar to that of eclampsia-associated morbidity and mortality seen in other developing countries. However, many of the maternal complications seen in the eclamptic patients appeared to arise from delays in the timely management of pre-eclamptic

patients.<sup>11</sup> While limited resources present a major challenge to taking care of the critically ill patient, patients presented to our facility already critical or moribund stages because of delays in seeking health care by the patient themselves, providers failure to recognize and manage a critical situation at peripheral health facilities, and poor infrastructure preventing the timely transport of patients to a higher level facility.<sup>12,13</sup> Countries that have greatly reduced their maternal mortality appear to be those with not only adequate resources to manage critically ill patients but also provide such services in a timely fashion.<sup>14</sup> The majority of pregnant women in our study had eclamptic seizures

before term and caesarean section was a leading mode of delivery, which is comparable to other studies.<sup>15, 16</sup> In this study, patients underwent caesarean section due to an unfavourable cervix remote from delivery and foetal distress. The presence of eclampsia alone was not an indication for caesarean delivery, but the decision to perform a caesarean delivery was based on multiple factors which included foetal gestational age, foetal status, the stage of labour, and cervical Bishop score.<sup>14</sup> A significant number of low birth weight neonates might have been the result of the high number of preterm deliveries among the eclamptic patients. Similar findings have been reported in the literature that links the incidence of low birth weight infants with preterm deliveries in eclamptic patient.<sup>15, 17, 18.</sup>

### Conclusion

High complication rates in countries with limited resources have sometimes been understood in the context of the three delays model. These delays include the delay in seeking medical care, delay in arriving at the facility, and delay in receiving standard care at the healthcare facility. Hence, eclampsia remains a continuing problem in developing countries and leading cause of foetal and maternal mortality. Coordinated efforts of medical and paramedical staff and close involvement of community is required to fight with this dreadful disease.

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