

Original Research Article

# ANTEPARTUM ECLAMPSIA AND PREGNANCY OUTCOME IN TERTIARY CARE HOSPITAL: A RETROSPECTIVE OBSERVATIONAL STUDY

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## ABSTRACT

**Background:** Antepartum eclampsia is one of the medical disorders complicating pregnancy and the leading cause of maternal and perinatal mortality as well as morbidity. **Aim and Objectives:** 1) To evaluate rate of eclampsia in antenatal women attending our hospital. 2) To analyse maternal and perinatal outcome in women with eclampsia.

**Material and Methods:** This retrospective observational study was carried out at a tertiary care institute from Sept 2023 to Feb 2024.

**Results:** Young primigravida is a major high-risk factor in eclampsia.

**Conclusion:** Eclampsia is a preventable risk factor if preeclampsia diagnosed in ANC.

**Keywords:** Eclampsia, Pregnancy Outcome, ANC Care.

## INTRODUCTION

The development of eclampsia appreciably raises the risk to mother and foetus. Worldwide eclampsia and pre-eclampsia account for about 63000 maternal deaths annually.

Preeclampsia that is complicated with generalised tonic-clonic convulsions is termed eclampsia. Eclampsia is associated with devastating maternal and foetal complications.

The incidence of eclampsia is decreasing in the developed countries; however, the incidence has been the same in the developing countries. In India the incidence of eclampsia has been quoted as 1.56%.<sup>[1]</sup> Majority of the cases of eclampsia are the patients who have not received proper medical attention during their antenatal period.<sup>[2]</sup>

In this study we analysed consecutive cases of eclampsia to determine the maternal and foetal outcomes and discuss ways to improve them.

## MATERIAL AND METHODS

This retrospective observational study was undertaken at a tertiary care hospital. The data for study was collected from Sept 2023 to Feb 2024. Patients with eclampsia managed in Koppal Institute of Medical Sciences were analysed. Other medical causes of convulsion and coma were excluded. Data included- obstetrics characteristics, gestational age, mode of delivery, intensive care unit admission, time of eclampsia in relation to labour and maternal and foetal complications. All patients were followed up from admission with eclamptic convulsions through discharge for the duration of their hospital stay.

## RESULTS

There was a total of 3058 deliveries during this study period of six months. A total of 36 patients with antepartum eclampsia who approached for emergency obstetric care in the Department of Obstetrics and Gynaecology, Koppal Institute of Medical Sciences, Koppal were recruited and analysed.

**Table 1: Mode of delivery of women with eclampsia**

Mode of Delivery	Number of Women (n=36)
Vaginal Delivery	05
Caesarean Sections	31
Instrumental deliveries	00

**Table 2: Obstetric status on admission**

Gestational Age (in weeks)	Gravida	
	Primi	Multi
Very Preterm (28-31+6)	05	00
Moderate Preterm (32-33+6)	03	00
Late Preterm (34-36+6)	09	03
Early term (37-38+6)	10	02
Full term (39-40+6)	04	00

**Table 3: Maternal and perinatal Outcome**

Perinatal Outcome		Maternal Outcome	
Birth asphyxia	03	HELLP	02
Low birth weight	17	Pulmonary Edema	01
SNCU admission	12	Abruptio placentae	02
IUD	01	Cardiomegaly	02
		PRES	01

## DISCUSSION

Eclampsia is a devastating complication of pregnancy. It is life threatening to the mother and fetus. In the western countries incidence of eclampsia has fallen due to the improved antenatal care. However, the incidence of eclampsia is still high in the subcontinent.

Eclampsia is a major obstetric problem constituting an average of 1.17 % of all deliveries. This is comparable to other Indian studies.<sup>[1,6]</sup> Majority of the patients were unbooked patients and did not have regular antenatal care. This indicates that a lack of awareness regarding the antenatal care was there in these patients. Young primigravida is a major high-risk factor for eclampsia. 86.11% were primigravida. This is similar to the other studies.<sup>[7,9,10]</sup> Major maternal complications included placental abruption in 2 cases (5-6%), neurological deficits, aspiration pneumonia, pulmonary edema in 1 case (2-3%), cardiomegaly (5-6%), AKI, HELLP (5-6%), PRES. Majority of patient had less than 5 convulsions. Dhananjay et al in his study correlated poor perinatal outcome with more than 5 convulsions.<sup>[6]</sup> Mostly seen in gestational age Early term (37-38+6 weeks). 50% foetuses were LBW, 35% foetuses required SNCU admission. Birth asphyxia was the major neonatal complication in this study. Perinatal outcome was poor in those babies who were less than 2 kgs. Perinatal deaths were least in those patients who delivered within 6 hrs of first convulsion. This emphasizes the importance of swift and prompt management of these cases. It also helps the obstetrician to decide the mode of delivery. This also emphasizes the importance of early delivery. Early delivery has been shown to correlate with reduced perinatal mortality in other studies.<sup>[11]</sup> Operative delivery opted for early delivery. C – section rate increased for salvageable babies to improve foetal outcome and decrease complications. C section is done in

almost 80% of cases. Other studies have reported a similar outcome with caesarean section in comparison to vaginal route.<sup>[13,14,15]</sup>

## CONCLUSION

Eclampsia is a preventable condition if pre-eclampsia is diagnosed by ANC, so mass awareness regarding the importance of ANC checkup for early diagnosis and prevention of eclampsia is required. Lack of knowledge, poor transport facilities, late referral, nulliparity, irregular ANC checkup are predisposing factors. Magnesium sulphate is an effective anticonvulsant drug leading to cessation of convulsions in 100% cases. Magnesium sulphate was found to be therapeutically effective and safe anticonvulsant with low fit recurrence. Improved access to prenatal care, earlier detection of antepartum eclampsia, and prophylactic use of magnesium sulphate is required. In the foetus preterm delivery, asphyxia and intrauterine growth restrictions are commonly associated with perinatal mortality.

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