

MATERNAL AND FETAL OUTCOMES IN ANTEPARTUM ECLAMPSIA PATIENTS
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Maharashtra, India. DOI: <https://doi.org/10.5281/zenodo.21702265>**How to cite this Article:** Dr. P. Manisha Kiran (MS OBGY)*¹, Dr. Shamrao Wakode(DGO)², (2026). Maternal and Fetal Outcomes In Antepartum Eclampsia Patients Admitted In Tertiary Care Centre: A Prospective Observational Study. European Journal of Pharmaceutical and Medical Research, 13(8), 279–288.

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ABSTRACT

Background: Antepartum eclampsia is one of the most severe manifestations of hypertensive disorders of pregnancy and remains a major contributor to maternal and perinatal morbidity and mortality, particularly in developing countries. Despite improvements in antenatal surveillance and obstetric critical care, delayed diagnosis, inadequate antenatal care, and late referral continue to adversely affect maternal and fetal outcomes. Evaluation of the clinical profile and outcomes of antepartum eclampsia is essential to identify preventable risk factors and improve management strategies. **Objectives:** To evaluate maternal and fetal outcomes in women with antepartum eclampsia admitted to a tertiary care centre. To study the mode of delivery. To identify demographic and obstetric factors associated with adverse outcomes. **Materials and Methods:** This prospective observational study was conducted in the Department of Obstetrics and Gynaecology at a tertiary care teaching hospital over 18 months after Institutional Ethics Committee approval. A total of 258 women diagnosed with antepartum eclampsia beyond 28 weeks of gestation were enrolled. Women with seizures due to causes other than eclampsia were excluded. Detailed demographic, clinical, obstetric, laboratory, and outcome data were collected using a structured proforma. Maternal variables included age, parity, socioeconomic status, educational level, antenatal care, gestational age, blood pressure, number of convulsions, proteinuria, mode of delivery, maternal complications, ICU admission, and maternal mortality. Fetal variables included birth weight, gestational maturity, Apgar score, NICU admission, stillbirth, neonatal complications, and perinatal mortality. Statistical analysis was performed using Microsoft Excel. Quantitative variables were expressed as mean $\pm$ standard deviation, while categorical variables were presented as frequencies and percentages. A p-value <0.05 was considered statistically significant. **Results:** Among the 258 patients, the majority (52.33%) were aged 21–25 years, 70.54% were primigravidae, and 78.68% belonged to the lower socioeconomic class. Most women (62.79%) were illiterate, and 51.94% were from rural areas. Moderate-to-late preterm gestation (32–36.6 weeks) constituted 47.67% of cases. Irregular antenatal care was observed in 46.51% of women, while 7.36% had received no antenatal care. Two convulsive episodes occurred in 58.53% of patients, and severe hypertension ($\geq 160/110$ mmHg) was present in 35.66%. Moderate proteinuria (+2) was the most frequent finding (64.73%). Maternal complications included HELLP syndrome, disseminated intravascular coagulation, pulmonary oedema, acute kidney injury, postpartum hemorrhage, and ICU admission in severe cases. Fetal complications comprised prematurity, low birth weight, fetal distress, NICU admission, stillbirth, and neonatal mortality. Adverse maternal and fetal outcomes were more common among women with inadequate antenatal care, delayed referral, multiple convulsions, severe hypertension, and lower socioeconomic status. **Conclusion:** Antepartum eclampsia continues to be associated with significant maternal and fetal morbidity despite advances in obstetric care. Young primigravid women from socioeconomically disadvantaged backgrounds remain the most affected group. Early identification of hypertensive disorders through quality antenatal care, timely referral, prompt administration of magnesium sulphate and antihypertensive therapy, multidisciplinary management, and availability of intensive maternal and neonatal care can substantially improve pregnancy outcomes. Strengthening community awareness and referral systems is essential for reducing the burden of antepartum eclampsia and preventing avoidable maternal and perinatal deaths.

KEYWORDS: Antepartum eclampsia, maternal outcome, fetal outcome, hypertensive disorders of pregnancy, magnesium sulphate, tertiary care Centre, maternal morbidity, perinatal outcome.

INTRODUCTION

Hypertensive disorders of pregnancy are among the leading causes of maternal and perinatal morbidity and mortality worldwide, accounting for nearly 10–15% of all maternal deaths.

Among these disorders, eclampsia represents the most severe clinical manifestation and is characterized by the occurrence of generalized tonic–clonic seizures in a woman with preeclampsia that cannot be attributed to any other neurological condition. Antepartum eclampsia, defined as the onset of seizures before the onset of labour, is particularly associated with poor maternal and fetal outcomes because of its sudden onset, rapid progression, and potential for life-threatening complications.

Globally, the incidence of eclampsia has declined substantially in developed countries owing to improved antenatal surveillance, early diagnosis of preeclampsia, and timely obstetric intervention. However, it continues to remain a major public health challenge in developing countries such as India, where limited access to quality antenatal care, delayed referrals, socioeconomic inequalities, and inadequate health infrastructure contribute to increased disease burden. In India, the reported incidence of eclampsia ranges from 0.34% to 1.8%, with antepartum eclampsia accounting for the majority of cases. Despite advances in critical obstetric care, eclampsia continues to contribute significantly to maternal and perinatal mortality.

The pathophysiology of eclampsia is multifactorial and involves abnormal placentation, endothelial dysfunction, vasospasm, oxidative stress, and cerebral edema, culminating in seizures and multiorgan dysfunction. Maternal complications include HELLP syndrome, acute kidney injury, pulmonary edema, disseminated intravascular coagulation, intracranial hemorrhage, aspiration pneumonia, and maternal death. Fetal complications commonly include intrauterine growth restriction, prematurity, placental abruption, fetal distress, low birth weight, stillbirth, and neonatal mortality. These complications place a considerable burden on tertiary healthcare facilities and neonatal intensive care services.

Prompt administration of magnesium sulphate, effective blood pressure control, timely delivery, and multidisciplinary critical care have significantly improved survival in women with eclampsia. Nevertheless, prevention remains the most effective strategy. Regular antenatal care with early identification of hypertensive disorders, patient education regarding warning symptoms, and efficient referral systems are essential for preventing progression from preeclampsia to eclampsia.

Considering the persistent burden of antepartum eclampsia in resource-limited settings, this study was

undertaken to evaluate the maternal and fetal outcomes among women with antepartum eclampsia admitted to a tertiary care centre. The findings are expected to provide valuable evidence regarding disease characteristics, associated maternal complications, mode of delivery, and neonatal outcomes, thereby helping clinicians optimize management protocols and formulate strategies aimed at reducing maternal and perinatal morbidity and mortality.

MATERIALS AND METHODS

STUDY DESIGN AND STUDY SETTING

The present study was a prospective observational hospital-based study and was conducted in the Department of Obstetrics and Gynaecology, Dr. Shankarrao Chavan Government Medical College and Hospital, Nanded, Maharashtra, India.

Study Duration

The study was carried out over a period of 18 months from JAN 2024 to JUNE 2025.

Sample Size

The sample size was calculated using the standard formula for estimation of a population proportion.

Confidence level: 95% Population proportion (P): 62% Absolute precision: 6.2%

The calculated sample size was 238 participants. After considering a 10% allowance for incomplete data and possible exclusions, the final sample size was 258 women, all of whom fulfilled the eligibility criteria and were included in the study.

Inclusion Criteria

Pregnant women diagnosed with antepartum eclampsia
Gestational age of 28 weeks or more
Singleton or multiple pregnancy
Primigravida and multigravida women
Women willing to participate in the study and provide informed consent (or consent from a legally authorized representative in emergency situations)

Exclusion Criteria

Known epilepsy
Cerebrovascular accident
Intracranial space-occupying lesions
Meningitis
Encephalitis
Metabolic causes of seizure Organophosphorus poisoning, Seizures due to causes other than pregnancy
Intrapartum and postpartum.

STATISTICAL ANALYSIS

Collected data were entered into Microsoft Excel. Quantitative variables were presented as mean and standard deviation. Non-normally distributed data were expressed as median and interquartile range. Qualitative data were summarized using frequencies and percentages. Appropriate statistical tests were applied

based on the nature of the data. A p-value less than 0.05 was considered statistically significant.

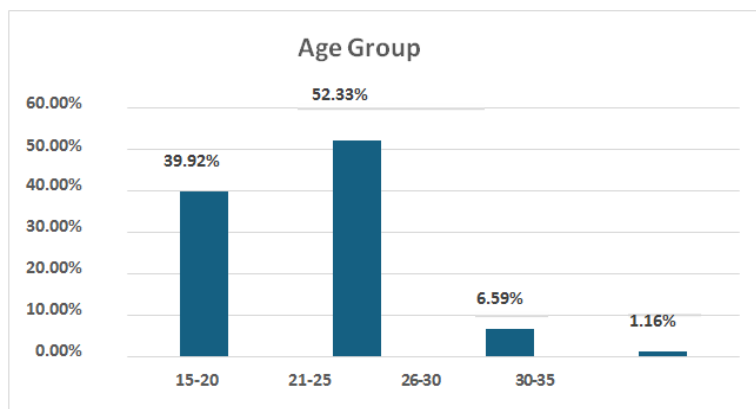
ETHICAL CONSIDERATION

The study was approved by the Institutional Ethics Committee of Dr. Shankarrao Chavan Government

Medical College and Hospital, Nanded. Written informed consent was obtained from all participants or their legally authorized representatives before enrolment.

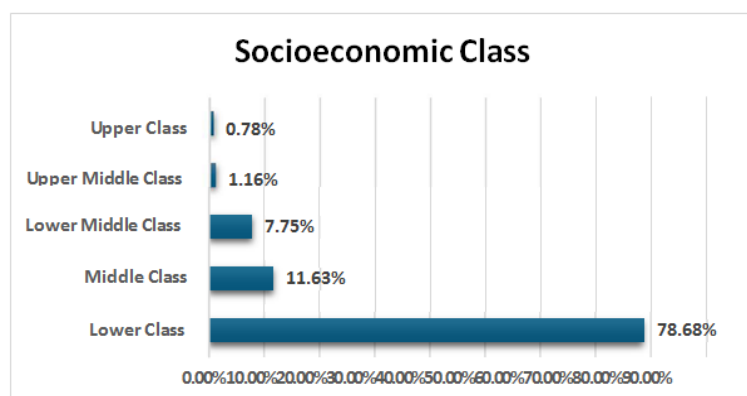
OBSERVATION TABLES AND RESULTS

Graph 1: Age.



This graph presents the age-wise distribution indicating that antepartum eclampsia is more prevalent

among younger women, particularly those 25 years of age or younger.



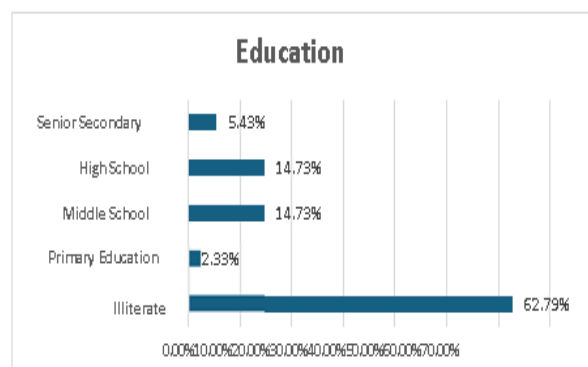
Graph 2: socioeconomic class.

This graph presents the distribution of antepartum eclampsia cases according to the B.G. Prasad socioeconomic classification), suggest a strong association between lower socioeconomic status and the prevalence of antepartum eclampsia.

Table 1: Rural/Urban Distribution.

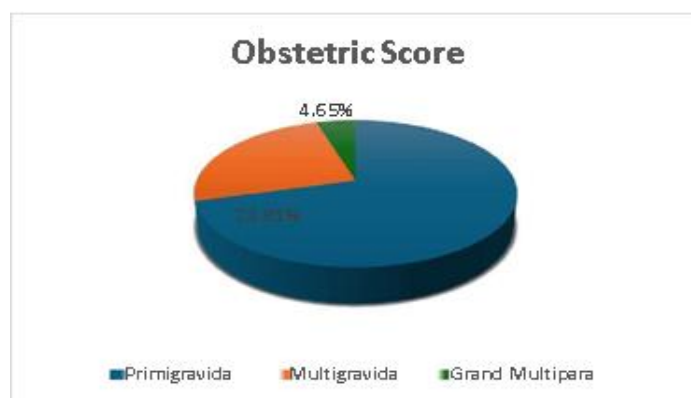
Rural/Urban	No. of Cases	Percentage
Rural	134	51.94%
Urban	124	48.06%
Total	258	100%

This table presents the rural and urban distribution of antepartum eclampsia cases with slightly higher burden was observed among women from rural regions.



Graph 3: Education.

Graph 3: Presents the distribution of antepartum eclampsia cases based on educational status suggest a strong correlation between low educational attainment and the occurrence of antepartum eclampsia.



Graph 4: Obstetric score.

GRAPH 4 presents the distribution of antepartum eclampsia cases according to obstetric score highlighting

a marked predominance of antepartum eclampsia in primigravida.

Table 2: Distribution based on Laboratory Investigations.

Laboratory Investigations	No. of Cases	Percentage
HB		
4.0 –7.0 g/dl	19	7.36%
7.0 – 9.9 g/dl	94	36.43%
10.0 -12.0 g/dl	145	56.2%
TLC		
4000-11000	81	31.4%
11001-15000	148	57.36%
15001-20000	25	9.69%
>20000	4	1.55%
Platelet Count		
< 50,000/mm ³	5	1.94%
50,000–99,999/mm ³	19	7.36%
100,000–149,999/mm ³	19	7.36%
≥ 150,000/mm ³	215	83.33%
Liver Function Test		
Within Normal Limits	242	93.8%
Deranged	16	6.2%
Kidney Function Test		
Within Normal Limits	243	94.19%
Deranged	15	5.81%
Coagulation Profile		
Normal PT (≤15 sec)	148	57.36%
Prolonged PT (>15 sec)	110	42.64%
INR Category		
Normal (≤1.2)	155	60.08%
Mild Coagulopathy (1.21–1.5)	100	38.76%
Moderate/Severe (>1.5)	3	1.16%

Table 3: Distribution Based on Fundoscopic Examination Findings.

B/L FUNDI	No. of Cases	Percentage
Normal	257	99.61%
HTN RTP	1	0.39%
Total	258	100%

Table 3 presents the findings of bilateral fundoscopic examination among patients with antepartum eclampsia. Nearly all patients, 99.61% (n=257), had normal fundi,

while 0.39% (n=1) showed evidence of hypertensive retinopathy (HTN RTP).

Table 4: Distribution Based on NCCT Brain Findings.

NCCT Brain	No. of Cases	Percentage
Normal Findings	240	93.02%
Press	17	6.59%
Infarcts	1	0.39%
Total	258	100%

Table 4 presents the findings of non-contrast CT (NCCT) brain scans in antepartum eclampsia patients. The majority of cases (93.02%, n=240) showed no significant abnormalities. However, 6.59% of patients

exhibited features of posterior reversible encephalopathy syndrome, 0.39% demonstrated evidence of cerebral infarction, representing a severe and potentially irreversible neurological insult.

Table 5: Distribution Based on Mode of Delivery.

Mode of Delivery	No. of Cases	Percentage
Preterm Vaginal Delivery (PTVD)	107	41.47%
Normal Delivery	28	10.85%
Caesarean Section (LSCS)	123	47.67%
Total	258	100%

Table 5 presents the distribution of antepartum eclampsia cases based on mode of delivery. And most common mode was caesarean section.

Table 6: Distribution of Cases Based on Maternal Outcome.

Maternal Outcome	No. of Cases	Percentage
Fully Recovered	198	76.74%
MICU Admission	24	9.3%
AKI	9	3.49%
ICU + Ventilator Support	7	2.71%
Maternal Mortality	5	1.94%
Aspiration Pneumonia	4	1.55%
HELLP Syndrome	3	1.16%
Chronic Hypertension	3	1.16%
Pulmonary oedema	3	1.16%
HTN Retinopathy	1	0.39%
Infarcts	1	0.39%
Total	258	100%

Table 6 outlines the maternal outcomes observed in antepartum eclampsia cases. A majority of patients

(76.74%, n=198) achieved complete clinical recovery with appropriate management.

Table 7: Distribution of Cases Based on Perinatal Outcome.

Perinatal Outcome	No. of Cases	Percentage
Good Condition	110	42.64%
NICU Admission – LBW	50	19.38%
NICU Admission	45	17.44%
NICU Admission – VLBW	27	10.47%
Intrauterine Death (IUD)	22	8.53%
↳ Prematurity (VLBW)	5	-
↳ Meconium Aspiration Syndrome	4	-
NICU Admission – MSL	4	1.55%
Total	258	100%

Table 7 presents the perinatal outcomes among babies born to patients with antepartum eclampsia. Overall, 42.64% (n=110) of newborns were delivered in good

condition, 57.36% required some level of medical intervention.

Table 8: Association Between Maternal Outcome and ANC Visits.

	ANC Visits			Total	P-
Maternal Outcome	Regular ANC (n, %)	Irregular ANC (n, %)	No ANC Visit (n, %)	(n, %)	Value
Stable	87 (43.94%)	100 (50.51%)	11 (5.56%)	198 (100%)	0.003
MICU Admission	10 (41.67%)	7 (29.17%)	7 (29.17%)	24 (100%)	
AKI	6 (66.67%)	3 (33.33%)	0 (0%)	9 (100%)	

ICU + Ventilator Support	3 (42.86%)	4 (57.14%)	0 (0%)	7 (100%)	
Maternal Mortality	4 (80%)	1 (20%)	0 (0%)	5 (100%)	
Aspiration Pneumonia	3 (75%)	1 (25%)	0 (0%)	4 (100%)	
HELLP Syndrome	1 (33.33%)	2 (66.67%)	0 (0%)	3 (100%)	
Chronic Hypertension	2 (66.67%)	1 (33.33%)	0 (0%)	3 (100%)	
Pulmonary Oedema	2 (66.67%)	1 (33.33%)	0 (0%)	3 (100%)	
Hypertensive Retinopathy	0 (0%)	0 (0%)	1 (100%)	1 (100%)	
Infarcts	1 (100%)	0 (0%)	0 (0%)	1 (100%)	
Total	119 (46.12%)	120 (46.51%)	19 (7.36%)	258 (100%)	

Table 8 presents the association between maternal outcomes and antenatal care (ANC) visit. The Chi-square test revealed a statistically significant association

($p = 0.003$) between ANC visit pattern and maternal outcome.

Table 9: Association Between Maternal Outcome and Gestational Age.

Maternal Outcome	Gestational Age		Term (n, %)	Total (n, %)	P-Value
	Very Preterm (n, %)	Moderate to Late Preterm (n, %)			
Stable	30 (15.15%)	112 (56.57%)	56 (28.28%)	198 (100%)	0.004
MICU Admission	6 (25%)	8 (33.33%)	10 (41.67%)	24 (100%)	
AKI	4 (44.44%)	1 (11.11%)	4 (44.44%)	9 (100%)	
ICU + Ventilator Support	2 (28.57%)	2 (28.57%)	3 (42.86%)	7 (100%)	
Maternal Mortality	1 (20%)	0 (0%)	4 (80%)	5 (100%)	
Aspiration Pneumonia	1 (25%)	0 (0%)	3 (75%)	4 (100%)	
HELLP Syndrome	1 (33.33%)	0 (0%)	2 (66.67%)	3 (100%)	
Chronic Hypertension	1 (33.33%)	0 (0%)	2 (66.67%)	3 (100%)	
Pulmonary Edema	0 (0%)	0 (0%)	3 (100%)	3 (100%)	
Hypertensive Retinopathy	0 (0%)	0 (0%)	1 (100%)	1 (100%)	
Infarcts	0 (0%)	0 (0%)	1 (100%)	1 (100%)	
Total	46 (17.83%)	123 (47.67%)	89 (34.50%)	258 (100%)	

Table 9 illustrates the association between maternal outcomes and gestational age.

The Chi-square test revealed a statistically significant association ($p=0.004$) between gestational age and maternal outcome.

Table 10: Association Between Maternal Outcome and Mode of delivery.

Maternal Outcome	Mode of Delivery			Total (n, %)	P-Value
	Preterm Vaginal Delivery (n, %)	Full-Term Vaginal Delivery (n, %)	Caesarean Section (n, %)		
Stable	80 (40.4%)	10 (5.05%)	108 (54.55%)	198 (100%)	<0.001
MICU Admission	8 (33.33%)	5 (20.83%)	11 (45.83%)	24 (100%)	
AKI	5 (55.56%)	3 (33.33%)	1 (11.11%)	9 (100%)	
ICU + Ventilator Support	5 (71.43%)	2 (28.57%)	0 (0%)	7 (100%)	
Maternal Mortality	3 (60%)	2 (40%)	0 (0%)	5 (100%)	
Aspiration Pneumonia	3 (75%)	0 (0%)	1 (25%)	4 (100%)	
HELLP Syndrome	2 (66.67%)	1 (33.33%)	0 (0%)	3 (100%)	
Chronic Hypertension	1 (33.33%)	2 (66.67%)	0 (0%)	3 (100%)	
Pulmonary Oedema	0 (0%)	1 (33.33%)	2 (66.67%)	3 (100%)	
HTN Retinopathy	0 (0%)	1 (100%)	0 (0%)	1 (100%)	
Infarcts	0 (0%)	1 (100%)	0 (0%)	1 (100%)	
Total	107 (41.47%)	28 (10.85%)	123 (47.67%)	258 (100%)	

Table 10 presents the association between maternal outcomes and mode of delivery. The Chi-square test

revealed a highly significant association ($p < 0.001$) between the mode of delivery and maternal outcome.

Table 11: Association Between Mode of Delivery and Antenatal Care (ANC) Visits.

Mode of Delivery	ANC Visits			Total (n, %)	P-Value
Preterm Vaginal Delivery (PTVD)	Regular ANC (n, %)	Irregular ANC (n, %)	No ANC Visit (n, %)	107 (100%)	0.002
	59 (55.14%)	39 (36.45%)	9 (8.41%)		
Full-Term Vaginal Delivery (FTVD)	18 (64.29%)	8 (28.57%)	2 (7.14%)	28 (100%)	
Caesarean Section (LSCS)	42 (34.15%)	73 (59.35%)	8 (6.5%)	123 (100%)	
Total	119 (46.12%)	120 (46.51%)	19 (7.36%)	258 (100%)	

Table 11: explores the association between mode of delivery and antenatal care (ANC) visit. The Chi-square test revealed a statistically significant association ($p =$

0.002) between ANC visit frequency and mode of delivery.

Table 12- Association Between Comorbid Factors and Maternal Outcome.

Comorbid Factor	Maternal Outcome		Total (n, %)	P-Value
Present Absent	Stable (n, %)	Complicated (n, %)	37 (100%)	0.642
	30 (81.08%)	7 (18.92%)		
	168 (76.02%)	53 (23.98%)		
Total	198 (76.74%)	60 (23.26%)	258 (100%)	

Table 12 presents the association between the presence of comorbid factors and maternal outcomes. The Chi-square test yielded a p-value of 0.642, indicating that there was

no statistically significant association between the presence of comorbid conditions and maternal outcome.

Table 13: Association Between Maternal Outcome and Age Group.

Maternal Outcome	Age Group				Total (n, %)	P- Value
	≤20 years (n, %)	21–25 years (n, %)	26–30 years (n, %)	>30 years (n, %)		
Stable	77 (38.89%)	105 (53.03%)	15 (7.58%)	1 (0.51%)	198 (100%)	<0.001
MICU Admission	14 (58.33%)	10 (41.67%)	0 (0%)	0 (0%)	24 (100%)	
AKI	3 (33.33%)	6 (66.67%)	0 (0%)	0 (0%)	9 (100%)	
ICU + Ventilator Support	3 (42.86%)	4 (57.14%)	0 (0%)	0 (0%)	7 (100%)	
Maternal Mortality	2 (40%)	1 (20%)	1 (20%)	1 (20%)	5 (100%)	
Aspiration Pneumonia	1 (25%)	3 (75%)	0 (0%)	0 (0%)	4 (100%)	
HELLP Syndrome	1 (33.33%)	2 (66.67%)	0 (0%)	0 (0%)	3 (100%)	
Chronic Hypertension	1 (33.33%)	2 (66.67%)	0 (0%)	0 (0%)	3 (100%)	
Pulmonary Oedema	1 (33.33%)	1 (33.33%)	0 (0%)	1 (33.33%)	3 (100%)	
HTN Retinopathy	0 (0%)	0 (0%)	1 (100%)	0 (0%)	1 (100%)	
Infarcts	0 (0%)	1 (100%)	0 (0%)	0 (0%)	1 (100%)	
Total	103 (39.92%)	135 (52.33%)	17 (6.59%)	3 (1.16%)	258 (100%)	

Table 13 analyses the association between maternal outcomes and maternal age.

The Chi-square test revealed a highly significant association ($p < 0.001$) between maternal age and outcome, indicating that age plays an important role in determining prognosis in eclamptic patients.

DISCUSSION

The present prospective observational study evaluated the maternal and fetal outcomes among 258 women with antepartum eclampsia admitted to a tertiary care Centre. The findings reaffirm that antepartum eclampsia continues to be a major obstetric emergency associated with considerable maternal and perinatal morbidity despite advances in antenatal care and critical obstetric management.

In the present study, the majority of women (52.33%) were aged 21–25 years, and 70.54% were primigravidae. These findings are consistent with studies by **Aruna Rani et al. (2018)**, **Negi et al. (2024)**, and **Mahale and Gadappa (2019)**, which also reported a predominance of antepartum eclampsia among young primigravid women. The increased susceptibility of primigravidae has been attributed to abnormal placentation, immunological maladaptation to paternal antigens, and endothelial dysfunction, all of which play a central role in the pathogenesis of preeclampsia and eclampsia.

Nearly 78.68% of patients belonged to the lower socioeconomic class, 62.79% were illiterate, and more than half resided in rural areas. Similar observations have been reported by **Das and Biswas (2015)** and **Adinma (2013)**, highlighting the influence of poor socioeconomic status, inadequate health awareness, and limited access to quality antenatal care on disease occurrence. Although almost half of the women had attended regular antenatal visits, the occurrence of eclampsia despite antenatal care suggests deficiencies in risk identification, monitoring, or timely referral, emphasizing the need to improve the quality of antenatal services rather than merely increasing coverage.

Most women presented during 32–36.6 weeks of gestation, indicating that antepartum eclampsia commonly develops in the late preterm period. Similar gestational age distributions have been described by **Negi et al. (2024)** and **Ghimire (2016)**. Early recognition of severe preeclampsia during this period allows timely intervention and may reduce maternal and fetal complications.

A majority of patients experienced two or more convulsions, while severe hypertension ($\geq 160/110$ mmHg) was observed in over one-third of women. Moderate to severe proteinuria was present in almost all cases. These findings reflect delayed presentation or referral and agree with reports by **Dixit et al. (2023)** and **Rabiu et al. (2018)**, who demonstrated that prolonged

intervals between seizure onset and definitive treatment significantly increase maternal complications and mortality.

Maternal complications observed in this study included HELLP syndrome, disseminated intravascular coagulation, pulmonary oedema, acute kidney injury, postpartum hemorrhage, and ICU admission. These complications are well documented in studies by **Mahale and Gadappa (2019)** and **Negi et al. (2024)**, confirming that eclampsia remains a multisystem disorder requiring prompt multidisciplinary management. Universal administration of magnesium sulphate, aggressive blood pressure control, and timely obstetric intervention remain the cornerstones of successful treatment.

Adverse fetal outcomes such as prematurity, low birth weight, NICU admission, fetal distress, stillbirth, and neonatal mortality were common in the present study. These findings are comparable with those reported by **Aruna Rani et al. (2018)** and **Dixit et al. (2023)**, where prematurity and uteroplacental insufficiency were the major contributors to poor neonatal outcomes. The high proportion of preterm deliveries reflects the necessity of early termination of pregnancy to safeguard maternal health.

Overall, the present study demonstrates that young primigravid women from socioeconomically disadvantaged backgrounds remain at the highest risk for antepartum eclampsia. Strengthening antenatal surveillance, improving community awareness, ensuring early referral, and providing timely multidisciplinary care at tertiary centers are essential to reduce preventable maternal and perinatal morbidity and mortality.

CONCLUSION

Antepartum eclampsia remains a major cause of maternal and perinatal morbidity, particularly among young primigravid women from low socioeconomic backgrounds. Early diagnosis, quality antenatal care, timely referral, prompt magnesium sulphate therapy, blood pressure control, and multidisciplinary management at tertiary care centers are essential to improve maternal and fetal outcomes.

LIMITATIONS OF STUDY

The study was conducted at a single tertiary care Centre; therefore, the findings may not be generalizable to the entire population.

Most patients were referred cases, which may have resulted in a higher proportion of severe maternal and fetal complications.

Long-term maternal and neonatal follow-up was not carried out, as outcomes were assessed only until hospital discharge.

The study did not include a comparison (control) group, limiting direct comparison with normotensive pregnancies or preeclampsia without eclampsia.

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Conflict of Interest: The authors declare that there is no conflict of interest.

REFERENCES

1. Bartal MF, Sibai BM. Eclampsia in the 21st century. *Am J Obstet Gynecol*, 2022; 226(2): S1237-S1253.
2. Sibai BM. Diagnosis, The sample size was calculated using the standard formula for estimation *Obstet Gynecol.*, 2005; 105(2): 402-410.
3. Duley L. The global impact of pre-eclampsia and eclampsia. *Semin Perinatol*, 2009; 33(3): 130-137.
4. The Magpie Trial Collaborative Group. Do women with pre-eclampsia, and their babies, benefit from magnesium sulphate? The Magpie Trial: a randomised placebo-controlled trial. *Lancet*, 2002; 359(9321): 1877-1890.
5. Brown MA, Magee LA, Kenny LC, et al. Hypertensive disorders of pregnancy: ISSHP classification, diagnosis and management recommendations. *Pregnancy Hypertens*, 2018; 13: 291-310.
6. Magee LA, et al. The incidence of pregnancy hypertension in India and associated maternal outcomes. *Pregnancy Hypertens*, 2022; 27: 24-31.
7. Negi N, et al. Maternal and perinatal outcome in eclampsia: A prospective observational study. *Int J Reprod Contracept Obstet Gynecol*, 2024; 13: 1-6.
8. Esike COU, et al. Maternal and perinatal outcomes of eclampsia in a tertiary hospital. *Niger J Clin Pract.*, 2017; 20(9): 1120-1126.
9. Rabiou KA, et al. Pregnancy outcome among women with eclampsia in a tertiary hospital. *Niger Med J.*, 2018; 59(2): 37-42.
10. Chibber R, et al. Maternal and perinatal outcome of eclampsia in a teaching hospital. *J Obstet Gynaecol*, 2016; 36(2): 215-220.
11. Das R, Biswas S. Fetomaternal outcome in

- eclampsia: A prospective study. *J Obstet Gynecol India*, 2015; 65(4): 246-251.
12. Mahran A, et al. Maternal outcome in antepartum eclampsia. *BMC Pregnancy Childbirth.*, 2017; 17: 435.
 13. Mooij R, et al. Severe hypertensive disorders in pregnancy and maternal outcome. *Pregnancy Hypertens*, 2015; 5(4): 287-293.
 14. Laskowska M. Biomarkers and prediction of preeclampsia. *Diagnostics (Basel)*, 2023; 13(15): 2450.
 15. Sunita TH, Desai RM. Clinical study of eclampsia and maternal outcome. *J Obstet Gynecol India*, 2013; 63(2): 123-127.
 16. Ghimire S. Fetomaternal outcome in antepartum eclampsia. *Nepal J Obstet Gynaecol*, 2016; 11(1): 35-40.
 17. Steegers EA, von Dadelszen P, Duvekot JJ, Pijnenborg R. Pre-eclampsia. *Lancet.*, 2010; 376(9741): 631-644.
 18. Mol BW, Roberts CT, Thangaratinam S, et al. Pre-eclampsia. *Lancet*, 2016; 387(10022): 999-1011.
 19. Roberts JM, Hubel CA. The two-stage model of preeclampsia. *Placenta*, 2009; 30(A): S32-S37.
 20. Phipps E, Prasanna D, Brima W, et al. Preeclampsia: Updates in pathogenesis, definitions, and guidelines. *Clin J Am Soc Nephrol*, 2016; 11(6): 1102-1113.
 21. Mol BW, Roberts CT, Thangaratinam S, et al. Pre-eclampsia. *Lancet*, 2016; 387(10022): 999-1011.
 22. Roberts JM, Hubel CA. The two-stage model of preeclampsia. *Placenta*, 2009; 30(A): S32-S37.
 23. Phipps E, Prasanna D, Brima W, et al. Preeclampsia: Updates in pathogenesis, definitions, and guidelines. *Clin J Am Soc Nephrol.*, 2016; 11(6): 1102-1113.
 24. Mol BW, Roberts CT, Thangaratinam S, et al. Pre-eclampsia. *Lancet*, 2016; 387(10022): 999-1011.
 25. Roberts JM, Hubel CA. The two-stage model of preeclampsia. *Placenta*, 2009; 30(A): S32-S37.
 26. Phipps E, Prasanna D, Brima W, et al. Preeclampsia: Updates in pathogenesis, definitions, and guidelines. *Clin J Am Soc Nephrol*, 2016; 11(6): 1102-1113.
 27. Mol BW, Roberts CT, Thangaratinam S, et al. Pre-eclampsia. *Lancet*, 2016; 387(10022): 999-1011.
 28. Roberts JM, Hubel CA. The two-stage model of preeclampsia. *Placenta*, 2009; 30(A): S32-S37.
 29. Phipps E, Prasanna D, Brima W, et al. Preeclampsia: Updates in pathogenesis, definitions, and guidelines. *Clin J Am Soc Nephrol*, 2016; 11(6): 1102-1113.