A RETROSPECTIVE STUDY OF ECLAMPSIA IN A TERTIARY CARE CENTRE

P Mary Rohini

Pg, Dept of pharmacology,

MIMS

INTRODUCTION

- Eclampsia is defined as the occurrence of convulsions, not caused by any coincidental neurological disease such as Epilepsy, in a woman whose condition also meets the criteria for preeclampsia[1].
- In India the incidence of eclampsia has been quoted as 1.56% [2].
- Eclampsia may precede pre-eclampsia and an alternative view is that seizures are one of the ranges of signs and symptoms caused by the widespread endothelial cell damage secondary to an ischaemic placenta[3].

CONTINUED

- Hypertensive disorders are the most common medical complications of pregnancy (6-10%)[4] and a major cause of maternal morbidity and mortality(15%)[4] and foetal morbidity and mortality(22%)[4].
- Eclampsia is an acute obstetric emergency and swift treatment and prompt decision making is required to get the best maternal and foetal outcome.
- The present study aims to evaluate incidence,

  and determine maternal outcome and perinatal outcome of eclamptic mothers.

AIMS AND OBJECTIVES

- To estimate incidence,
- To study efficacy of medication used in eclampsia,
- To estimate perinatal & maternal outcomes associated with Eclampsia in our hospital setting.

METHODOLOGY

- This was a retrospective study of all cases of Eclampsia between June,2012 to June,2014.
- Case records were reviewed and information were collected and tabulated with respect to the following parameters: Age, parity, Antenatal care, Gestational age at presentation, Type of Eclampsia, Blood pressure,Time since convulsions and delivery

mode of delivery, perinatal outcome, maternal mortality and recurrence of fits.

- Data were entered in a format and analyzed manually.
- Results were reported as percentage.

- Management of eclampsia in the tertiary care hospital
- 1)The drug of choice for eclampsia was magnesium sulphate.
- 2. To prevent recurrence of fits, Prichard intramuscular magnesium sulphate regime was used.
- 4 gm of magnesium sulphate was given intravenously over 5-10 mins and 4 gm i.m. in each buttock

{total loading dose-12 gm} followed by maintenance dose of 4gm i.m. 4 hourly till 24 hrs after delivery or last fit.

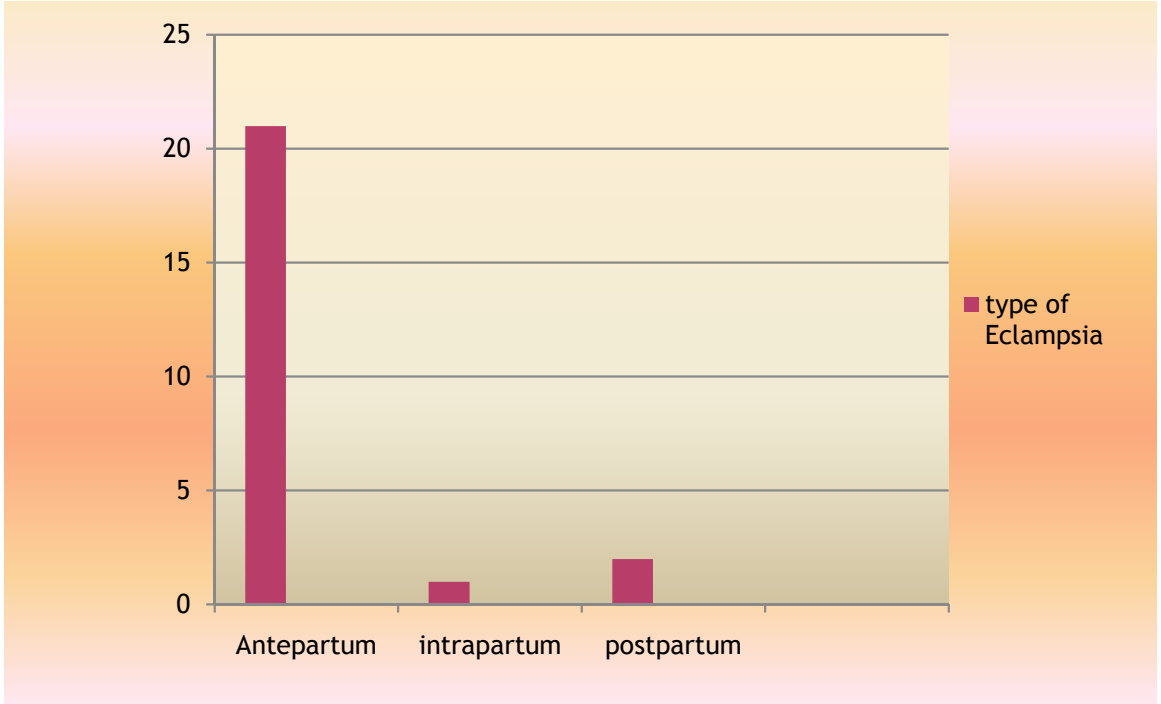
3. In order to continue magnesium sulphate, the patient should have a patellar reflex, urine flow more than 30 ml per hour and respiratory rate of 12/min .

- Diazepam drip-{40 mg in 5% dextrose}at 20 drips/min was given as an alternative, if magnesium sulphate regime was contraindicated.
- 4. Nifedepine orally was given at regular interval to achieve the desired level of diastolic blood pressure of 90 mm hg or less and a trace of albumin or no albumin in urine (usually 50-100 mg of nifedipine per day) .
- 5. Termination of pregnancy once the patient is stabilized.

RESULTS:

- There were 24 confirmed cases during the time period among 9000 total deliveries, i.e. incidence was 2.6/1000 total deliveries.
- All these patients were treated with Magnesium sulphate by Prichards regime.
- 1)Gravida : Among 24 patients,14 patients were primigravida, 6 patients were gravida 2 and 4 patients were gravdia 3 or more.
- 2)Age Distribution: 5 cases were less than20 years old, 16 were between the age group 20-25years and 3 patients were between the age group ≥26 years.

- Eclampsia was found to be more common among young and adolescent women(16patients,66.66%).
- 3) Only 14 patients had some form of antenatal care [58.33%],whereas 10 patients had no antenatal check up [41.66%].
- **Figure1. Type of eclampsia:**



- Majority of patients developed fits before the onset of labour.
- **Figure 2. Gestational age at the onset of fit:**
- Most patients presented with convulsion at term pregnancy.

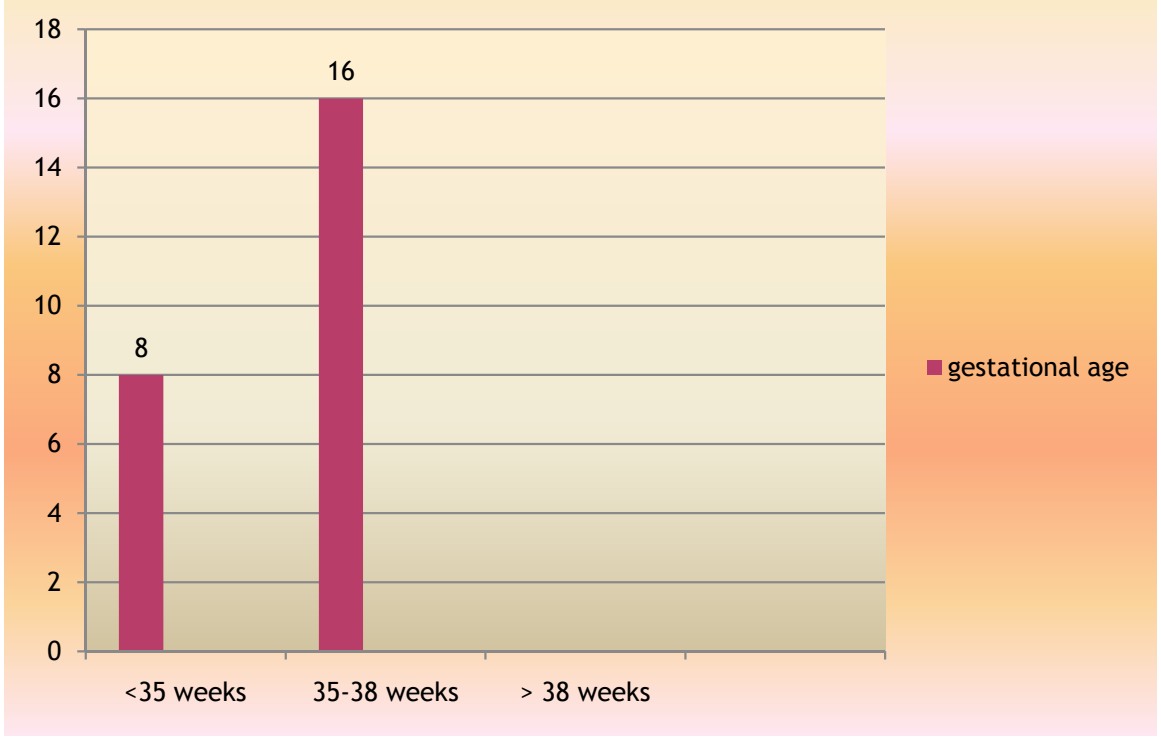
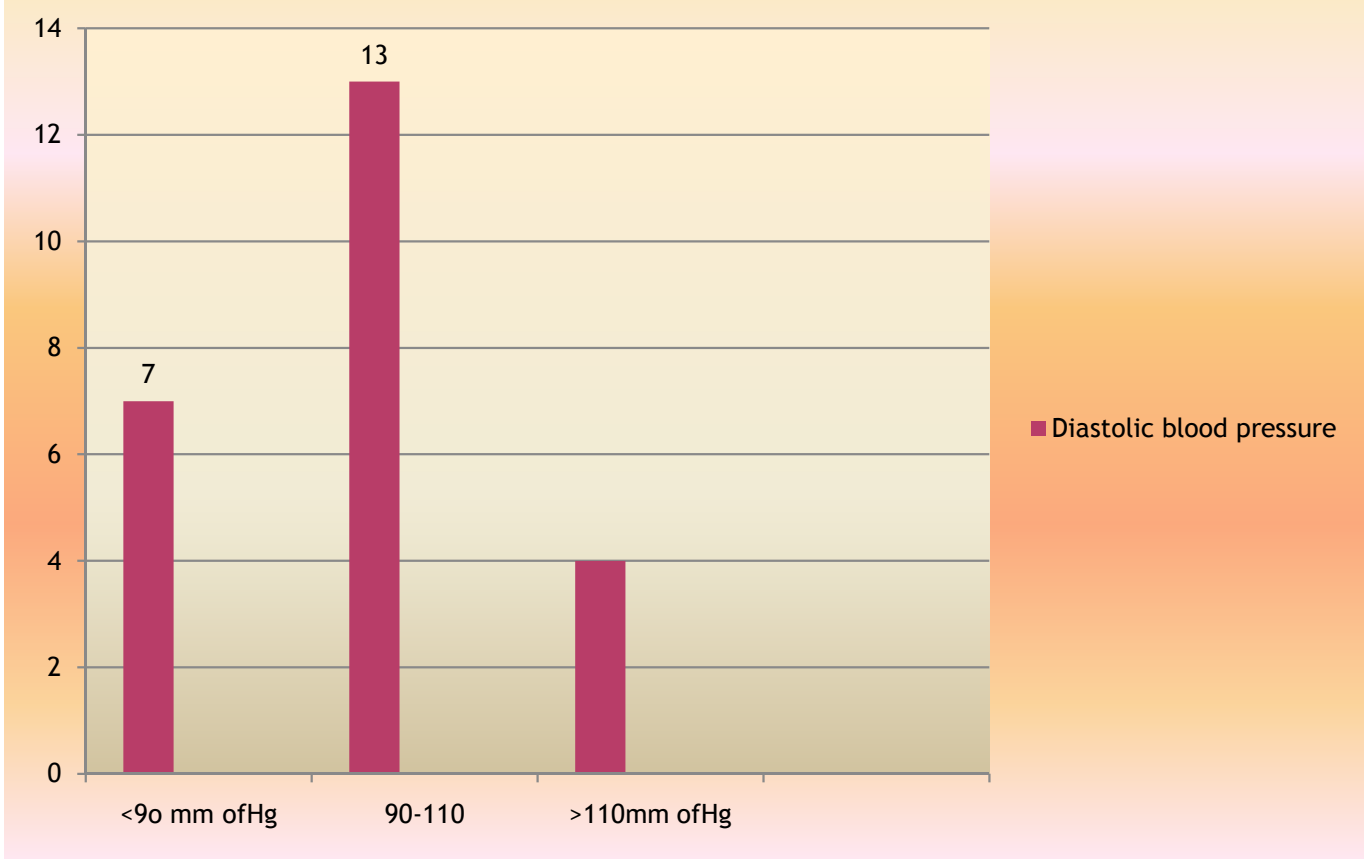
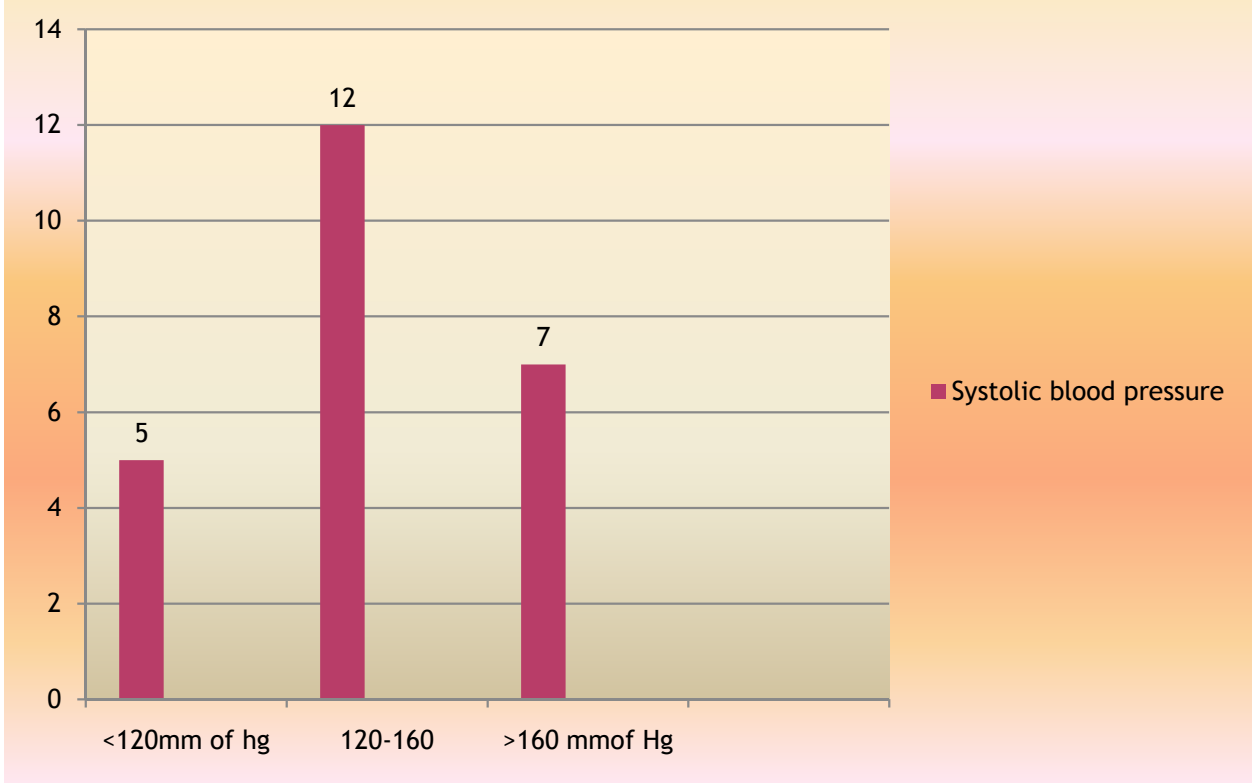


Figure 3. Diastolic blood pressure at the time of admission

Majority of eclamptic patients presented with mild to moderate hypertension [54.16%]



- **Figure 4. Systolic blood pressure at the time of admission**
- Half of the patients had mild to moderate hypertension [50%]



- **Table 1.time since convulsions and delivery**:
- Among 21 antepartum cases most patients were delivered within 24 hrs.

Time	No. of patients(%)
<6 hrs	4 (19.04%)
6-24 hrs	13 (61.9%)
>24 hrs	4 (19.04%)

- **Table 2. Type of delivery**

Type of delivery	No. of patients
Spontaneous vaginal delivery	6 (25%)
Induced vaginal.delivery	4 (16.66%)
Caesarian section	14 (58.33%)

- Caesarean section was the common mode of delivery among eclamptic patients.
- **Table 3. Recurrent fits**

Number of fits	Number of patients
none	19 (79.66%)
1-2	3 (12.5%)
3-4	1 (4.16%)
5-6	1 (4.16%)

- Only 5 patients had recurrent fits even after starting intervention.

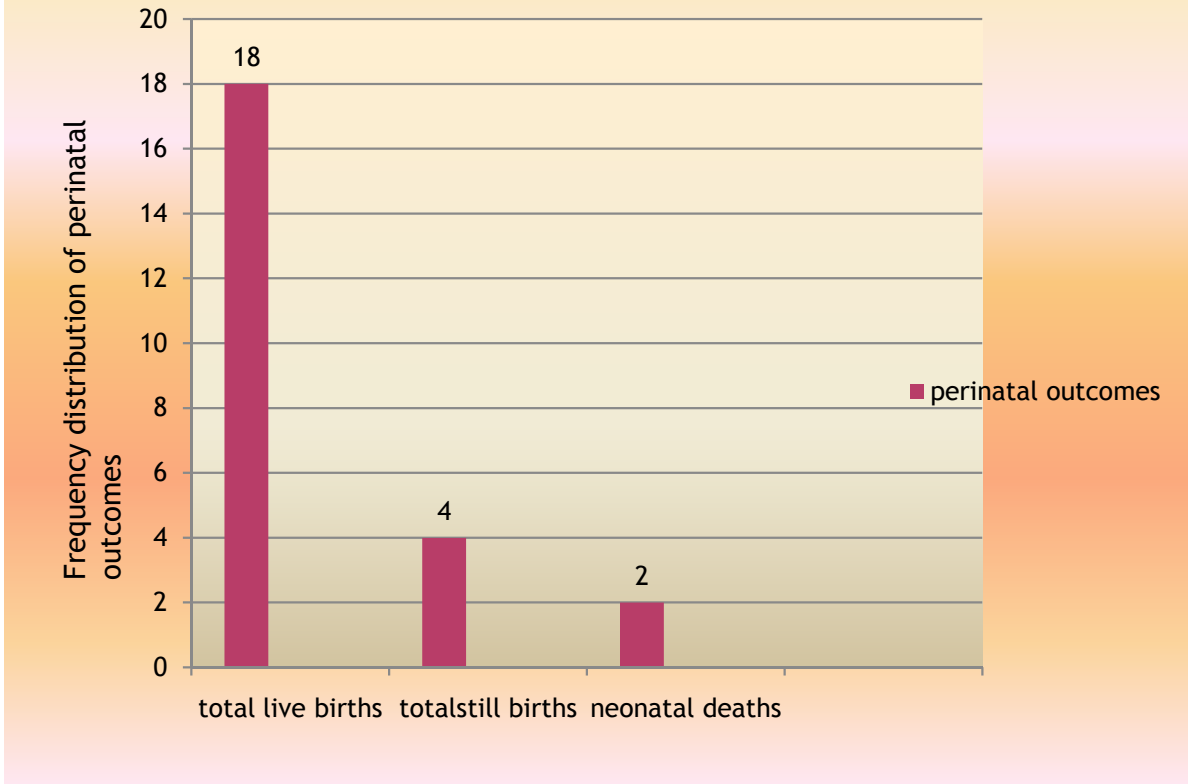
- Birth weight: Majority of babies born to eclamptic mothers were of low birth weight babies.weight of 13 babies was <2.5kg.(54.16%).

Apgar score:

Apgar score	(N)
0	4
<8 after 5minutes	10
>8 after 5minutes	10

- Apgar score was less than 8 in majority of new borns.

- **Figure 5. Perinatal outcome:**



- There were 6 perinatal deaths among eclamptic patients.

DISCUSSION

- This study was done to evaluate incidence, management, perinatal & maternal outcomes.
- The present study revealed the incidence of Eclampsia as 2.6per1000 deliveries i.e. 0.26% comparable to that from Patan hospital (0.24%)[5].
- Present study findings were lower compared to reports from other developing countries- 2.2%[6], 0.93%[7], and higher than that of developed countries like UK, where eclampsia complicates 0.05% of total deliveries [3].
- Eclampsia was found to be particularly common in adolescents and young pregnant women (66.66%) and primigravidas (58.33%).

•Acharya G et al, 1991 reported that primigravidas were mostly affected (71.42%) though Eclampsia was commonest in 20-24 years of age group (42.85%)[5].

•In the present study 10 patients had no antenatal care (41.66%) while 14 had some antenatal care either in maternity hospital or outside (58.33%).

•Lack of antenatal care has been documented by several studies as risk factor for Eclampsia-93.99% patients had no antenatal care (S,Jain,et al,1988)[8], 76.66% had no antenatal care (S.Swain et al,1992)[6].

- In majority of patients, type of eclampsia was antepartum, which was commonest at term pregnancy (66.66%) in this study.

- A study conducted in the UK showed relatively higher proportion of post partum Eclampsia (44%) [3],and in terms of gestation more cases occurred before 37 completed weeks(44%) [3].

- Majority of patients had mild to moderate hypertension.

- Commonest mode of delivery was caesarian section

- The most important maternal morbidity recognized among Eclamptic patients was recurrence of fits. With current intervention strategy, only 5 patients had recurrence of fits after intervention(20.82%).
- All patients received magnesium sulphate regime.
- In general, aim of treatment in Eclampsia is prevention of further fits as it is the recurrent fits that leads to significant cerebral anoxia and associated with adverse outcome.
- The greater efficacy of magnesium sulphate compared to diazepam or phenytoin for prevention of recurrence of fits is now accepted worldwide [9,10,11].

- There was no maternal death recorded in hospital
- There were 6 perinatal deaths among eclamptic patients, comparatively lower than that reported of Patan hospital 31.25%[5] still higher than that reported by developed countries-5.42% [3].
- Late arrival of patients after onset of fits results in severe intrauterine hypoxia and intrauterine death. Eclampsia occurring preterm necessitates preterm delivery-8 .
- Available neonatal care facilities also determines the perinatal outcome.

CONCLUSION

- Eclampsia is a life threatening complication of pregnancy, in our study there was no maternal mortality but perinatal outcome still needs to be improved.
- However an improvement in antenatal care, upgrading the neonatal facilities and early delivery by caesarean section can improve the perinatal outcome.



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