

## Presentation And Outcome of Eclampsia in a Tertiary Centre

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### Abstract

**Aim & Objective:** Demographic datas like the patients age, gestational age, admission BP, blood and urine investigation, neuroimaging, Management, mode of delivery, neonatal and maternal outcomes were analysed in patients presenting with eclampsia in a tertiary care centre.

**Introduction:** The onset of convulsions in a woman with pre eclampsia that cannot be attributed to other causes is termed eclampsia. Eclampsia is a major cause of maternal and neonatal morbidity and mortality. Magnesium sulfate is the drug of choice for reducing the rate of eclampsia and also to prevent recurrent convulsions in eclampsia.

**Materials and Methods:** The study was conducted retrospectively on cases presenting with eclampsia in the OBG department, Government Rajaji Hospital for a period of 6 months from July 2019 to December 2019.

**Results:** During the 6 month study period, total 26 cases of eclampsia was reported out of 5843 deliveries (0.4%). Total 657 cases of hypertensive disorders of pregnancy (11.2%) was reported out of which 65 cases were severe pre-eclampsia (9.8%). 65% (11) of eclampsia presented as Ante partum eclampsia, 30.7%(11) cases presented as postpartum eclampsia, 3.8%(1) case as intrapartum eclampsia. One case presented as both antepartum and post partum eclampsia. No case of maternal mortality was reported during the study period.

**Conclusion:** Early detection of cases of pre-eclampsia and imminent eclampsia, proper evaluation and treatment with anti-hypertensives and Magnesium sulphate will reduce the occurrence of eclampsia. Multidisciplinary approach in a tertiary care centre can reduce the maternal mortality and morbidity. Proper knowledge of management of eclampsia can reduce the mortality. IV labetalol and its careful use is mandatory. Perinatal mortality is high mainly because of prematurity.

**Keywords:** Eclampsia; Pre Eclampsia; Magnesium Sulphate.

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## INTRODUCTION

The onset of convulsions in a woman with preeclampsia that cannot be attributed to other causes is termed eclampsia. Eclampsia is a major cause of maternal and neonatal morbidity and mortality. Magnesium sulfate is the drug of choice for reducing the rate of eclampsia and also to prevent recurrent convulsions in eclampsia.

## MATERIALS AND METHODS

The study was conducted retrospectively on cases presenting with eclampsia in the OBG department, Government Rajaji Hospital for a period of 6 months from July 2019 to December 2019. As ours is a tertiary care referral centre many cases were received after developing the eclamptic seizures from PHC, DHQH, Private hospitals. Demographic datas like the patients age, gestational age, admission BP, blood and urine investigation, neuroimaging, Management, mode of delivery, neonatal and maternal outcomes were analysed.

### *Inclusion criteria*

History of seizures at home, primary care centres, on the way to hospital or rarely in the hospital associated with high blood pressures and features of pre-eclampsia.

### *Exclusion Criteria*

Known case of Epilepsy, Cortical venous thrombosis, Encephalopathy, Meningitis, encephalitis.

### *Management*

1. All cases of Eclampsia are managed in Maternity ICU with multidisciplinary approach. Initial stabilisation of the patient taking care of Airway, Breathing and Circulation done. Lateral decubitus position, Nasal oxygen, IV access obtained, blood sample sent for investigation.
2. Magnesium Sulphate loading dose [Total 14 gm - 4 gm slow iv as 20% solution started + 5 gm (50% solution) deep im in both buttock], Pritchard regimen followed. Maintenance dose given after monitoring Respiratory rate, Patellar reflex, Urine output.
3. Blood pressure measured and as a first line drug Labetalol is started. In hypertensive crisis IV Labetalol given in intermittent dosage or as Labetalol infusion 20 mg / hour.
4. Injection dexamethasone 6 mg im given for lung maturity.
5. After stabilization and initial assessment delivery is initiated and mode of delivery depends on Bishop score, gestational age, severity of fetal growth restriction and CTG. Less than 24 weeks foley induction done.

Misoprostol kept after 6-8 hours.

6. In cases of HELLP, Abruption, DIC immediate termination of pregnancy done with ongoing correction of coagulation abnormality with platelet transfusion, FFP and cryoprecipitate transfusion.
7. Post delivery careful monitoring of vitals, Urine output done. Blood pressure monitored carefully for first 48 hours. Oral Labetalol 100 mg is used as a first line drug if BP is more than 150/100 mm of Hg. Careful fluid management is done at a rate of 75 ml per minute. Thromboprophylaxis with Inj Heparin 5000 U sc bd.

## RESULTS

During the 6 month study period, total 26 cases of eclampsia was reported out of 5843 deliveries (0.4%). Total 657 cases of hypertensive disorders of pregnancy (11.2%) was reported out of which 65 cases were severe pre-eclampsia (9.8%). 65% (11) of eclampsia presented as Ante partum eclampsia, 30.7%(11) cases presented as postpartum eclampsia, 3.8%(1) case as intrapartum eclampsia. One case presented as both antepartum and post partume clampsia. No case of maternal mortality was reported during the study period.

### *Presentation of Eclampsia*

65%(17) presented as antepartum eclampsia, 30.7%(11) post part umeclampsia, 3.8%(1) intrapartum eclampsia. One case presente das both AP and post partume clampsia.

### *Age wise distribution*

The mean age at presentation is 20.3 years. (17-40 yrs). One teenager was unwed. (17 yrs) Parity-65.3% were nulliparous, 34.6% were multi parous.

Gestational age at presentation - 69.2%were less than 34 weeks, 30.8% were 34 weeks and above.

BP at admission-30.7%(8) had Hypertensive crisis, BP> 160/110 mmHg, 4 required intermittent dose of IVI abetalol, 3 required Labetalol in fusion for the first 12 hours, one case required NTG dripto mainta in the optimum BP. 7%(2) cases of Antepartum eclampsia had BP of 130/80 mmHg, 61.5%(16) had a BP of 150/100 to 140/90mmHg requiring oral anti-hypertensive agents. of IV labetalol, 3 required Labetalol infusion for the first 12 hours, one case required NTG drip to maintain

the optimum BP. 7%(2) cases of Antepartum eclampsia had BP of 130/80 mm of Hg , 61.5%(16) had a BP of 150/100to 140/90mm of Hg requiring oralantihypertensive agents.

Mode of delivery - Ante partum eclampsia-17, Emergency LSCS-13 (76%), Normal vaginal delivery-1 (5.8%), Spontaneous expulsion (IUD)-3 (11%), Intrapartum eclampsia-1, Normal vaginal

delivery-1, Post partum eclampsia-8, Normal vaginal delivery-4, LSCS-2, Spontaneous expulsion -2

### CONCLUSION

Early detection of cases of pre-eclampsia and imminent eclampsia, proper evaluation and treatment with anti-hypertension and Magnesium

Symptom / Sign	Frequency	Percentage
Seizures	26	100
Headache	19	73
Visual disturbances	8	30.7
Vomiting	7	26.9
Pedal edema/Generalised Edema	16	61.5
Unconscious state	4	15
Drowsy/postictal state	6	23

#### Presenting Symptoms and Signs at Admission

Medical condition	Frequency	Percentage
Anemia	6	23
Rheumatoid Arthritis	1	3.8
Gestational Diabetes	2	7.6
Chronic Hypertension	2	7.6

#### Associated Comorbidities

Complication	Frequency	Percentage
Placental Abruption	2	7.6
HELLP	6	23
DIC	2	7.6
Acute Pulmonary Edema	4	15.3
Acute Kidney Injury	4	15.3
Cerebral Edema	6	23.07
Massive Blood Transfusion	1	3.8
Intracranial Hemorrhage	nil	nil

#### Maternal Complications

Neonatal Outcome	Frequency	Percentage
Still birth	5	19.3
Early neonatal death	3	11.5
NICU admission	16	61.5
Hospital discharge	18	69.2

#### Neonatal Outcome

Sulfate will reduce the occurrence of eclampsia. Multi disciplinary approach in a tertiary care centre can reduce the maternal mortality and morbidity. Proper knowledge of management of eclampsia can reduce the mortality. Availability and its careful use is mandatory. Perinatal mortality is high mainly because of prematurity.

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