



CLINICAL STUDYING OF ECLAMPSIA IT'S MATERNAL AND PERINATAL OUTCOME

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ABSTRACT Eclampsia continues to be a major problem in developing countries like India contributing to significant maternal and perinatal morbidity and mortality. We conducted a study to establish the clinical profile and the associated maternal and perinatal outcomes among eclamptic patients admitted to our center. A prospective study of all women presenting with eclampsia was performed from January 2022 to August 2022. Forty five primigravida patients presented with eclampsia out of a total 525 deliveries during the study period. Majority of the patients were unbooked (63.4%). Antepartum eclampsia accounted for most of the cases (63.4%). Of those cases, 53.4% presented beyond 36 weeks gestational age. There were a total of 4 maternal deaths and 21 perinatal deaths in the present study. Perinatal deaths were caused by prematurity and birth asphyxia. The high incidence of eclampsia and its complications during this study indicate the need for early identification of risk factors and timely intervention to improve maternal and perinatal outcome.

KEYWORDS : Eclampsia, Maternal complications and Perinatal outcome

INTRODUCTION

- The term eclampsia was derived from greek word flash of lightening. 80% of the cases of eclampsia are preceded by severe preeclampsia. Preeclampsia complicated by generalised tonic clonic convulsions or coma is called eclampsia. Eclampsia appreciably increases the risk for both mother and fetus.
- It may occur quite abruptly without any warning manifestations. Maternal mortality in eclampsia is very high in India about 2 – 30% depending upon the severity of complications and type of eclampsia. Perinatal mortality is also very high to the extent of 30 – 50% depending on the gestational age, intrauterine growth restriction and mode of delivery.
- Depending on the occurrence of convulsion eclampsia is designated as antepartum, intrapartum and postpartum. Eclampsia is most common in young primigravida

MATERIALS AND METHODS

- This is a prospective study of 45 cases of eclampsia admitted in RMC,GGH,KAKINADA during a period of 8 months from Jan 2022 to Aug 2022. Detailed history was taken for all the cases from the time of antenatal registration (both booked and unbooked) regarding age, socioeconomic status, parity, gestational age, time of onset, number, duration of convulsions etc as per the proforma. Thorough clinical examination was done including general and obstetric examination.
- Necessary investigations were done including ultrasound examination on emergency basis. Control of convulsions was done by MgSo4 regimen which is continued 24hrs after delivery while Alpha methyl dopa, labetalol and nefedipine were used as antihypertensives given at regular intervals till systolic blood pressure < 160mm Hg, diastolic blood pressure – 90-100 mm Hg. After stabilising the patient, termination of pregnancy was planned. Early decision taken for termination of pregnancy according to clinical findings for vaginal/caesarean section. Maternal and fetal outcomes were assessed.

Inclusion Criteria:

- Primigravida with > 28 weeks of gestation age
- Antepartum, Intrapartum and postpartum eclampsia

Exclusion Criteria:

- Patients with epilepsy/other causes of seizures
- Multigravida with eclampsia

OBSERVATIONS AND RESULTS

AGE DISTRIBUTION

AGE	NO OF CASES	%
<20	12	26.7
21-25	21	47.8
26-30	9	21.2
>30	3	4.5

45 cases of primigravida with eclampsia were studied

Among 45 cases majority of cases (21) belonged to 21- 25 years age group followed by 12 cases in less than 20 years of age group,

ANTENATAL CARE

	NO OF CASES	%
BOOKED	17	36.7
UNBOOKED	28	63.4

Most of the cases were unbooked , referred from private hospitals, CHC's or admitted direct from home .

GESTATIONAL AGE AT THE ONSET OF CONVULSIONS

GESTATIONAL AGE	NO OF CASES	%
>28-32WEEKS	5	11.2
33-36WEEKS	16	35.6
>36 WEEKS	24	53.4

Most of the eclampsia were near to term that is more than 36 weeks of gestation

TYPE OF ECLAMPSIA AND OUTCOME

	NO OF CASES	%
ANTEPARTUM	28	63.4
INTRAPARTUM	12	20
POSTPARTUM	5	5.5

Majority of cases were antepartum eclampsia.

MODE OF DELIVERY

	NO OF CASES	%
VAGINAL	29	64.5
CAESAREAN	16	35.56

Out of 45 cases of eclampsia ,29 cases (64.5%) delivered vaginally and 16 cases(35.5%) delivered by caesarean section.

INDICATION FOR LSCS

Indication	No Of Cases	%
UNFAVOURABLE CERVIX WITH FAILED INDUCTION	14	33.33
FETAL DISTRESS	8	16.67
IUGR WITH ABNORMAL DOPPLER	7	15.56
MALPRESENTATION	3	6.67
MULTIPLE GESTATION	2	4.45
APH	4	8.89
OBSTRUCTED LABOUR	1	2.3

Most common indication for LSCS in eclampsia is unfavourable cervix with failed induction followed by fetal distress. 15% of

caesarean section is due to IUGR and abnormal Doppler. In many cases there were more than one indication for caserean section.

Maternal Complications

MATERNAL COMPLICATIONS	No Of Cases	%
ABRUPTIO PLACENTA	4	8.89
ARF	4	8.89
HELLP	8	18.89
CEREBRAL HAEMORRHAGE	2	4.44
PULMONARY OEDEMA	4	8.89
RESPIRATORY FAILURE	1.5	3.33
COMA	1	2.22
PPH	3	7.78
SHOCK	1.5	3.33
DEATH	2	4.44

Other than above complications there were respiratory infections (11 – 12.22%), anaesthetic complications like aspiration pneumonia in 3 cases(7.78%) and post eclamptic blurring of vision in 2 cases(4.44%).

Most of the cases had more than one associated complication.

Birth Weight

BIRTH WEIGHT	NO OF CASES	%
<2KG	7	16.67
2-2.4 KG	15	35.55
2.5-3.0 KG	20	45.56
3-3.5 KG	3	2.22

Perinatal mortality was more in low birth babies less than 2kg.

Perinatal Outcome

	No Of Cases	%
LIVE BIRTHS	34	76.67
STILL BIRTHS	4	7.78
NEONATAL DEATHS	5	10
IUD	2	5.56

Perinatal Morbidity

	NO OF CASES	%
LOW APGAR	7	15.55
NEONATAL RESUSCITAION	15	34.44
NICU ADMISSION	9	22.22

Causes Of Perinatal Morbidity

	NO OF CASES	%
BIRTH ASPHYXIA	6	13.4
JAUNDICE	5	11.12
RDS	9	21.11
NEONATAL CONVULSIONS	1	2.22
MECONIUM ASPIRATION	5.4	12.22
PREMATURITY	10	23.33

Commonest complication in eclampsia is RDS in 9 cases (21.1%) because of prematurity, hypoxia and meconium aspiration. A few babies admitted to the NICU had multiple complications affecting perinatal outcome.

DISCUSSION

Eclampsia was more commonly seen in young primigravida. In the present study, eclampsia was more commonly seen in primigravida in age group of 20-25 years with 21 cases(47.8%) while in less than 20 years of age group there were 11 cases(26.7%). Eclampsia was more prevalent in unbooked cases i.e in 27 cases (63.4%) referred from other peripheral centers. It reflects the lack of proper antenatal care, lack of availability of health care facilities in rural and semi urban areas as one of the important risk factor for eclampsia. 14 cases(33%) of eclampsia cases were booked. It has been established that good antenatal care prevents eclampsia. The cause of eclampsia in booked cases might be due to atypical presentation: a) sudden progress of disease to severe preeclampsia, b) failure to detect severe signs of preeclampsia, c) development of convulsions while receiving prophylactic MgSO₄ or onset of convulsions less than 48 hrs after delivery. Eclampsia is most common in the last trimester and becomes more frequent as term approaches. In our study that included 45 cases of preeclampsia 27(63.4%) cases presented in antepartum period while another 9 cases (18%) presented in intrapartum period and 3 cases (5.5%) presented in postpartum period which is similar with the study of Edgar M

Ndaboine et al.

Almost without exception, preeclampsia precedes the onset of eclampsia. Majority of eclamptic women experience symptoms of headache (80%), visual disturbances(20%). Eclampsia is more common in antepartum period predominantly in last trimester when it reaches term. In our study 53.4% (23) cases developed eclampsia near term i.e > 36 weeks of gestation. 35.6% (15) cases were seen in 33-36 weeks of gestation which is nearly similar to study done by Sunita et al 2013 in which 53% , 26%, 18% of eclampsia cases were seen in *Clinical study of Eclampsia and outcome in a tertiary care centre DOI: 10.9790/0853-14114106109 www.iosrjournals.org 109 | Page*

antepartum, intrapartum and postpartum periods respectively. In United Kingdom 44% of eclampsia were seen in postpartum period. Pathogenesis of postpartum eclampsia is expected due to release of FDP after separation of placenta during postpartum period. The definitive treatment of eclampsia is delivery irrespective of gestation age to reduce risk of maternal morbidity and mortality. Eclampsia is considered an absolute contraindication to expectant management. Sibai and Barton 2007 reviewed recently that expectant management may lead to severe maternal complications. After maternal stabilization, factors considered to decide the mode of delivery are gestation age, bishop score, patient in labour, fetal condition. Prostaglandins are used to obtain cervical ripening for induction and ARM for augmentation of labour. Pregnancy should be terminated within 24 hrs. Cases remote from term i.e <32 weeks of gestation are successfully delivered vaginally. Vaginal delivery is preferable from maternal consideration in our study.

Eclampsia per se is not an indication for Caesarean section. Mode of delivery had no significant effect on outcome of eclampsia as per Ibrahim et al. In our study 64.5% (29) cases were delivered by vaginal route while 35.5 % (15) cases underwent caesarean section. It is compared with following studies. Eclampsia is complication of severe preeclampsia. Depending upon severity of preeclampsia it leads to major maternal complications. In our study 8 cases(19%) developed HELLP syndrome. 4cases(9%) developed abruptio while acute renal failure was seen in 2 cases (6.79%), cerebral haemorrhage in 1 cases (4.4%), pulmonary oedema in 1 cases(2.4%), coma in 1 cases(2.4%) and ventricular failure and DIC were seen each in 1 case as shown in table . There were 4 maternal deaths. Perinatal mortality mainly depends on gestational age, severity of preeclampsia, birth weight, IUGR, prematurity, birth asphyxia which was similar to the study done by MacKay et al4. In study by Sunita et al there were 19 perinatal deaths while in our study there were 21 perinatal deaths as shown in table.

CONCLUSION

Good antenatal care, early identification of preeclampsia and its complications, timely intervention, good obstetric care units with ICU facilities, availability and utilization of intensive care facilities at tertiary care centres or referral centres like good ventilator support, dialysis for renal failure, availability of blood products to tackle DIC etc are Because of limited accessibility, critical care services at referral centres influence the outcome of eclampsia. Lack of technical people, limited accessibility to health care services and inadequate health care providers are the major contributing factors influencing outcome of eclampsia. Limited transport facilities delays the treatment As eclampsia is preventable complication of preeclampsia, early identification of high risk cases and early referral might reduce morbidity and prevent mortality. Early identification of risk factors for preeclampsia and severe preeclampsia and prompt initiation of treatment plays critical role. Many unbooked cases referred from other centres were critically ill having high rates of morbidity and mortality. Early identification of severity of preeclampsia and timely intervention is important to prevent complications of eclampsia in mother. Better equipped HDU and more specialized new born care units are essential to get better outcome of eclampsia to reduce the maternal and perinatal complications.

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