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Original Article

A Study on Feto-Maternal Outcome In Antepartum Eclampsia At GMH Sultan bazaar ,A Tertiary Care Hospital

Dr Salma khatun[1],Dr Suneetha devi. Allenki[1], Dr K.Rajyalakshmi[2]

[1]Professor and HOD, Department of Obstetrics and Gynaecology,GMH , sultan bazaar, Osmania medical college,
[2]Professor of OBGY and Superintendent, GMH, sultan bazaar, Osmania medical college, Hyderabad.

ABSTRACT

Eclampsia is defined as women with pre-eclampsia and a convulsion that cannot be attributed to other causes[1]. Eclampsia is one of the obstetric emergencies where resuscitation plays an important role and requires regular drills to optimise management. Hypertensive disorders of pregnancy has been one of the most important causes of morbidity and mortality worldwide in recent years[2, 3]. However in majority of the cases eclampsia is preceded by features of pre-eclampsia, imminent eclampsia and found to be more in rural population, young age, unbooked cases and primigravida[2,3,4].
The need of the hour is to educate the women and health care workers regarding regular antenatal checkups, frequent BP monitoring, a good knowledge about high-risk symptoms and signs for good pregnancy outcome and to avoid maternal and foetal complications. This can be done with the help of flipcharts, pictures, information reflex and educational videos. The strengthening of existing health care facilities, timely referral system and transportation facilities helps in reducing morbidity and mortality. Appropriate anti-hypertensive management, administration of MgSO4 before referral at any health care facility, timely delivery, fluid management will ensure a good outcome in eclampsia.

Key Words: *Eclampsia, Antenatal care, Maternal morbidity, Maternal mortality, Mgso4.*

***Corresponding Author**
Dr Suneetha devi. Allenki
Professor and HOD, Department of Obstetrics and Gynaecology,GMH , sultan bazaar, Osmania medical college

INTRODUCTION

Eclampsia is defined as women with pre-eclampsia and a convulsion that cannot be attributed to other causes[1]. It is an obstetric emergency where resuscitation plays an important role and requires regular drills to optimise management. Hypertensive disorders of pregnancyis animportant causeof morbidity and mortality worldwide in recent years[2, 3].Eclampsia is preceded bypre-eclampsia, imminent eclampsia and found to be more in rural population, young age, unbooked cases and primigravida[2,3,4].

According to WHO incidence of eclampsia is 0.3% globally. Eclampsia occurs in 1.9%-3% of pre-eclampsia patients. In developed countries eclampsia complicates 1 in 2000 deliveries[5]but in developing countries the prevalence varies from 1 in 100 to 1 in 1700[6, 7]. In India the incidence of eclampsia varies from 0.17% to 3.7%.Maternal mortality due to eclampsia varies from 2.2 to 23% of eclamptic women. The frequency of timing of eclampsia is 38%-53% antepartum, 15-20% intrapartum, 11-14% in the postpartum period. Primigravida are at higher risk of developing eclampsia and 90% occurs in third trimester. Eclampsia before 20wks is associated with molar pregnancy. Neurological evaluation, cerebral imaging should be done in cases with new onset seizures before 20wks, convulsion refractory to magnesium sulphate, prolonged coma[2].

Aims and Objectives:
To study sociodemographic status, feto-maternal outcome and their relationship in antepartum eclampsia cases in GMH, Sultan bazaar, Hyderabad.

Materials and methods:

A prospective clinical study was carried out on the ante-partum eclampsia patients,in the department of Obstetrics and Gynaecology, GMH, Sultan bazaar, Hyderabad. Sociodemographic status, feto-maternal outcome and their relationship were studied. 20 cases of antepartum eclampsia cases admitted through labour room and by referrals during the period of January 2023 to June 2023 were included in the study.

Inclusion criteria: Ante-partum eclampsia
Exclusion criteria: Intra-partum and postpartum eclampsia. Other causes of convulsions.

Results:

In GMH, sultan bazaar, out of 5368 deliveries, 20 cases i.e.0.37% were antepartum eclampsia. Majority of women were primigravida (60%),unbooked (95%),18-27yrs (90%)of age,>36wks(40%), 32-34wks(40%), <32wks (20%).45% of women reached hospital within 4hrs after convulsion, 45% reached within 4-7 hrs, 10%reached after 12hrs of convulsion. All the women received antihypertensives and MgSO4 after admission.65% of women had calcium channel blocker and 35% had i.v. labetalol followed by tablet labetalol as anti-hypertensive. In 90% of women convulsion-delivery interval was between 2-12hrs while in 10%it was >12hrs. All women delivered within 24hrs of onset of convulsion.

Vaginal delivery (45%), emergency caesarean section (45%) and assisted vaginal delivery(10%).Few maternal complications were HELLP syndrome (10%), acute kidney injury(5%), massive transfusion (5%), maternal near miss (10%), maternal mortality (0%). Perinatal mortality(10%), IUFD (10%).

One patient in the study developed exudative retinal detachment in both eyes with complete loss of vision. After 1 week on conservative management. she started to regain vision and after 4 weeks there was complete resolution of retinal detachment. one patient has massive blood transfusion, while one patient had acute kidney injury landing the patient in maternal near miss.

Table 1.Gravida and parity distribution.

Gravida/parity	No of patients	%
primigravida	12	60%
multigravida	8	40%

Table 2. Booked/ Unbooked status.

Booked/ unbooked	No of patients	%
Booked	1	5%
unbooked	19	95%

Table 3. Age distribution

Age(yrs)	No of patients	%
<20yrs	2	10%
20-25yrs	16	80%
>25yrs	2	10%

Table 4. Socioeconomic status

Category	No of patients	%
Upper class	Nil	Nil
Upper middle class	Nil	Nil
Lower middle class	2	10%
Upper lower class	6	30%
Lower class	12	60%

Table 5. Gestational age

Gestational age	No of patients	%
<32wks	4	20%
32-34wks	8	40%
>36wks	8	40%

Table 6. Convulsion delivery interval.

Interval	No of patients	%
2-12hrs	19	95%
>12hrs	1	5%

Table 7. Mode of delivery

Mode of delivery	No of patients	%
Vaginal	9	45%
Caesarean section	9	45%
Operative vaginal	2	10%

Table 8. Maternal complications.

Complications	No of patients	%
HELLP syndrome	2	10%
Maternal near miss	2	10%
Acute kidney injury	1	5%
Massive transfusion	1	5%
Maternal mortality	nil	nil

Table 9. Birth weights

Weight in kg	No of babies
>2.5kg	6
<2.5kg(LBW)	6
1-1.5kg(VLBW)	4
<1kg(ELBW)	4

Table 10. Fetal outcome.

outcome	no
SNCU	5
Perinatal mortality	2
IUFD	2

DISCUSSION:

Maternal mortality in India is 97 per 1,00,000 live birth in 2018-20 as per sample registration system (SRS) by Registrar general of India. About 50,000 maternal deaths are attributed to pre-eclampsia and eclampsia[8] while 6,00,000 total deaths occur due to pregnancy related complications worldwide[9]. Maternal mortality has reduced since the introduction of Mgso4 for prevention and treatment of eclampsia[10, 11].In India majority of population lives in rural areas with poor access to transportation and health care facilities. These cases reach hospital very late adversely affecting maternal outcome due to complications already set in.

In the present study, most of the patients were between 20-25yrs. It relates to Parmeet Kaur study and Rowshan et al study. Primigravida are more prone to develop eclampsia. In this study it was observed that majority(60%) of patients are primigravida similar to other studies like Dutta et al, Shaheen B et al.In the current study majority of patients were found in lower class and upper lower class similar with the findings of Dlamini study[12].

A study which specifically studied the effect of fit-delivery interval on maternal and fetal outcome, concluded that an interval of 10-15hrs had good maternal and fetal outcome. In one study when incidence of mode of delivery and complications were analysed, more complications were noted in the vaginal delivery route than caesarean section which is likely due to prolonged time taken for vaginal delivery[13].

CONCLUSION:

The need of the hour is to educate the women and health care workers regarding regular antenatal checkups, frequent BP monitoring, a good knowledge about high risk symptoms and signs for good pregnancy outcome and to avoid maternal and foetal complications. This can be done with the help of flipcharts, pictures, information reflex and educational videos. The strengthening of existing health care facilities, timely referral system and transportation facilities helps in reducing morbidity and mortality. Appropriate anti-hypertensive management, administration of MgSO4 before referral at any health care facility, timely delivery, fluid management will ensure a good outcome in eclampsia. It is necessary to prevent severe pre-eclampsia, eclampsia and thus reduce the mortality by good perinatal care as show in developed countries[14,15].

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