

# A Clinical Study on Eclampsia in a Referral Hospital

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## ABSTRACT

**Objective:** To analyze the cases of eclampsia in a referral hospital, like GGS Medical College, Faridkot, with special focus on booked/unbooked/referred, age, parity and antenatal care. Also fetomaternal outcome was seen in all the cases.

**Materials and methods:** All the cases of eclampsia referred from nearby rural areas, civil hospitals and CHCs sent here for specialist care were studied in this 2 years study from July 2003 to June 2005.

**Results and conclusions:** A total of 50 cases of eclampsia were admitted. The incidence came out to be 7.4%. Ninety-eight percent of cases were unbooked. Majority of the cases belonged to 21 to 30 years age group. Fifty-six percent of the cases were primigravida. Eighty-eight percent had no antenatal check-up at all. Thirty percent of babies were still born and 12% had early neonatal death. There were three maternal deaths. Antepartum eclampsia was most common seen in 68% of cases. We concluded that there is lack of antenatal care in rural areas and urban slums and this needs to be addressed to prevent this serious complication of pregnancy. Moreover, personnel at district hospitals and CHCs should be capable of administering magnesium sulfate, the anticonvulsant as none of the patient threw a fit after loading dose of magnesium sulfate.

**Keywords:** Eclampsia, Magnesium sulfate, Referral hospital.

**How to cite this article:** Kaur P. A Clinical Study on Eclampsia in a Referral Hospital. J South Asian Feder Obst Gynae 2012;4(2):113-115.

**Source of support:** Nil

**Conflict of interest:** None declared

## INTRODUCTION

Though by the end of twentieth century, eclampsia has become almost unknown to obstetricians in the developed countries, it still remains an important factor of maternal and perinatal morbidity and mortality in the developing countries, like India. It is estimated that every year eclampsia is associated with 50,000 maternal deaths worldwide most of which occur in developing countries.<sup>1</sup> The incidence of eclampsia is still high in referral hospitals though it is a preventable complication of pregnancy.<sup>2</sup> Without a doubt proper antenatal care is the most important part of prevention.

## MATERIALS AND METHODS

GGS Medical College is a referral Hospital. All cases from nearby rural areas, CHCs, civil hospitals and private nursing homes are sent here for specialist care. In this 2 years study, from July 2003 to June 2005, a total of 50 cases of eclampsia were admitted. All the cases were analyzed with special focus on booked/unbooked/referred, age, parity and antenatal care. Also fetomaternal outcome was seen in all the cases. On

admission, all cases were thoroughly examined and put on treatment.

- All the cases were put on Pritchard's regime giving magnesium sulfate 4 gm I/V bolus dose and 5 gm I/M in each buttock followed by 5 gm I/M in alternate buttock 4 hourly
- S/L Nifedipine was given for control of BP
- Supportive therapy in form of I/V line, suction SOS, continuous catheterization, oxygen inhalation and mouth gag, etc. was given
- After stabilization of patient, obstetrical management was carried out.

## OBSERVATIONS

The incidence of eclampsia came out to be 7.4%. Only one case in the study was booked (2%). Rest all cases were unbooked (36%) or referred (62%) from nearby CHCs, civil hospitals and private nursing homes (Table 1).

Majority of the cases had no antenatal check-up (88%) and were illiterate (96%). A large number of cases belonged to rural background (80%).

Maximum number of cases was between age groups of 21 and 30 years (62%). Twenty-six percent were below 20 years of age and 12% above 30 years.

Highest number of females was primigravida in this study (Table 2).

Antepartum eclampsia was the commonest variety (68%), followed by postpartum eclampsia (20%) and intrapartum eclampsia (12%) (Table 3).

Seventy-six percent of the subjects had vaginal delivery, 4% forceps delivery and 20% underwent lower segment cesarean section (LSCS).

**Table 1:** Booked/unbooked/referred cases

Booked/unbooked/referred	No.	%
Booked	1	2
Unbooked	18	36
Referred (from nearby CHCs, CH, Pvt nursing homes)	31	62

The one booked case was also advised admission on one of her earlier visit but she refused

**Table 2:** Antepartum/intrapartum cases

Antepartum/intrapartum	No. of cases	Age (%)
Primigravida	28	54
Multigravida	12	24
<b>Postpartum cases</b>		
Primipara	8	16
Multipara	2	4

**Table 3: Type of eclampsia**

Types	No. of cases	Age (%)
Antepartum	34	68
Intrapartum	6	12
Postpartum	10	20

In our study, none of the patient threw a fit after initiation of magnesium sulfate therapy which is a very important observation.

Maximum number of patients presented in third trimester of pregnancy (96%) except 4% who had gestation of less than 28 weeks.

Maternal complications occurred in the form of DIC, postpartum pyrexia, oliguria and postpartum hemorrhage (PPH), etc. (Table 4). The complication rate came out to be 38%.

Maternal mortality in present study came out to be 6% (Table 5).

There were 56% alive births, 30% still-births and 12% early neonatal deaths (Table 6).

**Table 4: Maternal complications**

Complications	No. of cases	Age (%)
DIC	2	4
Postpartum pyrexia	3	6
PPH	6	12
CVA	2	4
Psychosis	1	2
Oliguria	3	6
Bed sores	1	2
Accidental hemorrhage	1	2
Total	19	38

**Table 5: Cases of maternal mortality**

<i>Maternal mortality: Three of our cases died because of following reasons giving maternal mortality rate of 6%</i>	
Acute renal failure	1
Pulmonary edema	1
Cerebrovascular accident	1

(a) Three patients who died were referred from areas >50 km away from our institution so delayed hospitalization is one main factor for maternal death

(b) All the cases had antepartum eclampsia, thus proving that antepartum eclampsia has more serious consequences

**Table 6: Fetal mortality**

Fetal outcome	No. of cases	Age (%)
Still-birth	15	30
Early neonatal death	6	12
Live	28	56
Undelivered	1	2

## DISCUSSION

The incidence in our study came out to be 7.4% which is high as compared to other studies. The incidence seems high as compared to reported incidence in Indian referral hospitals. The reason may be that all the normal uncomplicated deliveries are being conducted at Civil Hospital, Faridkot.

Sixty-two percent of the cases were referred from nearby civil hospitals, CHCs and private nursing homes in present study which is nearly same as reported by Shaheen B et al (66.2%).<sup>3</sup>

Large number of cases in our study was from rural background, illiterate, unbooked with no antenatal check-up. Similar findings were reported by Samal S et al, Khanum M et al and Chandra and Bhardwaj.<sup>4-6</sup>

Majority of the cases in present study were primigravidas. Sheraz S et al (69.1%), Datta MR et al (66.0%) and Shaheen B et al (69%) also reported maximum occurrence of eclampsia in primis.<sup>3,7,8</sup>

Maximum number of cases were between 21 and 30 years of age which is comparable to Sarma HK (71.79%) and Sheraz S et al (78.2%).<sup>7,9</sup> In our study, prevalence of antepartum eclampsia came out to be highest which is comparable to the studies of Sarna HK (69.23%), Sheraz S et al (67.3%) and Shaheen B et al (62%).<sup>3,7,9</sup>

Most of our subjects presented with fits at term pregnancy (72%). Similar findings were reported by Choudhary P.<sup>10</sup>

Maternal mortality of 6% in present study is comparable to that of Sheraz S et al (3.6%),<sup>6</sup> Gaddi and Somegowda (5.4%)<sup>11</sup> but less as reported by Nobis PN (11.54%).<sup>12</sup> Maternal mortality was high but comparable to that reported by Nobis PN (42.96%).<sup>12</sup> Others have reported less maternal morbidity. Perinatal mortality in this study came out to be 44% which is quite high but also reported by Gaddi, Somegowda (39.3%) and Khanum M et al (38%)<sup>5,11</sup>

In our study, none of the patient threw another fit after receiving loading dose of magnesium sulfate. Same findings were seen by Samal S et al<sup>4</sup> where as some reported 2% recurrence rate.<sup>7</sup>

## CONCLUSION

We concluded that there is lack of antenatal care in rural areas and urban slums and this needs to be addressed to prevent this serious complication of pregnancy. The personnel at district hospitals and CHCs should be capable of administering magnesium sulfate. Eclampsia is a largely preventable complication of pregnancy provided the pregnant women get proper health education and regular antenatal care. Toward this goal, early antenatal booking, careful and regular follow-up, knowledge of associated risk factors and an effort to detect this condition early are essential.

As it is associated are high maternal morbidity and mortality and poor perinatal outcome, so proper management of PIH and timely referral to higher center is important step. The unbooked cases going directly to community centers, civil hospital, and private doctors should be referred after giving preliminary treatment in form of magnesium sulfate, the anticonvulsant as delay in start of treatment means more complication rate.

## ACKNOWLEDGMENT

The author is grateful to Dr Harkiran Kaur, Professor and Head, Department of Obstetrics and Gynecology, GGS Medical College and Hospital, for her support and guidance.

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