



STUDY OF ECLAMPSIA IN A TERTIARY CARE HOSPITAL

Dr. Pratibha Patil	Associate Professor, Department of Obs and Gyn, RIMS, Raipur, Chhattisgarh
Dr Sanjay Patil*	Professor and HOD, Department of Obs and Gyn, RIMS, Raipur, Chhattisgarh *Corresponding Author
Dr Brajendra kumar	Professor and Dean, Department of Medicine, RIMS, Raipur, CG, India-

ABSTRACT Our study analyse the epidemiological factors associated with eclampsia and to assess the maternal and perinatal outcome. This is a retrospective study done in a tertiary care centre, between January 2016 to December 2017. Case records of all eclampsia patients admitted during this period were collected and analysed. This study showed that incidence of eclampsia in our hospital is 7.1 per 1000 deliveries. It is more common in the age group of 20 to 24 years (52.83%) and primigravidae (77.36%), 60.38% had irregular antenatal check-up and maximum patients had seizures before the onset of labour (69.81%), 45.28% eclamptic patients presented with seizures at ≥ 37 completed weeks. Commonest mode of delivery was caesarean section (60.38%). Out of 53 patients, 26 (49.06%) had complications. 73.58% cases delivered live babies but 9.43% had early neonatal death. Eclampsia is still one of the important and common obstetric emergencies, which has a significant role in maternal and perinatal outcome. Regular Antenatal Care (ANC), proper health education, improvements of socio-economic conditions and spreading of awareness in the community has major roles in prevention of eclampsia. Timely and appropriate intervention including primary management, early referral and judicious termination of pregnancy help in reducing morbidity and mortality of both mother and fetus.

KEYWORDS : Antenatal Care (ANC), Disseminated Intravascular Coagulation (DIC), HELLP - (Haemolysis Elevated Liver Enzymes Low Platelet Count), Lower Segment Caesarean Section (LSCS).

INTRODUCTION

Eclampsia is most common in the third trimester and becomes increasingly more frequent as term approaches. Approximately 1 in 2000 deliveries is complicated by eclampsia in developed countries, whereas the incidence in developing countries varies from 1 in 100 to 1 in 1700 cases. Although the incidence and mortality from eclampsia has fallen dramatically over the past decades due to better antenatal care, the associated maternal and fetal morbidity and mortality is still significant. Maternal mortality in eclampsia is very high. In India and varies from 2-30%, much more in rural hospital based hospital than in the urban counterpart. The perinatal mortality is very high to the extent of about 30-50%. Incidence of hypertensive disorders in India is found to be 10.08% as observed through the data collected by the National Eclampsia Registry (NER) (11,266 out of 1,11,725 deliveries) over the past 3 years with 2,554 patients out of this presenting with eclampsia. According to WHO report 2008, eclampsia accounts for 12% of all maternal deaths in developing countries. The onset of eclamptic convulsions can be antepartum (38-53%), intrapartum (18-36%), or postpartum (11-44%). The present study is done to assess the problem of eclampsia in our community, to study the various epidemiological factors of eclampsia and its effects on maternal and perinatal outcome.

MATERIAL AND METHOD

This retrospective analysis on eclampsia patients was carried out in the Department of Obstetrics and Gynaecology, from January 2016 to December 2017. A total number of 53 cases of eclampsia were admitted to the hospital during the study period. Objectives of the Study was to find out the incidence of eclampsia, to study the epidemiological factors associated with eclampsia in our region and to study maternal and perinatal outcome. Inclusion Criteria was 1. Patient with antepartum convulsions 2. Patient with intrapartum convulsions 3. Patient with postpartum convulsions. Exclusion Criteria was - Patient with convulsions due to causes other than eclampsia. On admission detailed history was taken from the patient or her relative accompanying her and detailed clinical examination was done.

RESULT

During the study period, a total of 7394 deliveries and 53 eclamptic patients were recorded. This gives an incidence of 7.1 per 1000 deliveries. Eclampsia was more common in the age group of 20-24 years (52.83%), 77.36% eclamptic patients were primigravidae. Most of the cases (60.38%) had irregular antenatal check-up. Antepartum eclampsia (69.81%) was more common among the study population. Majority of the patients (45.28%) developed eclampsia at ≥ 37

weeks. Majority of the patients (60.38%) had undergone Lower Segment Caesarean Section and maternal outcome was found to be better in these patients as compared to the patients who had delivered vaginally (alive - 93.75% vs 83.33%). Out of 53 patients 26 (49.06%) had complications and among them 7 (13.21%) died. Commonest complication was pulmonary edema (13.21%). The percentage of live birth and stillbirth in our study was 73.58% and 13.21% respectively. Patients from the tea tribe community contributed to the majority of eclamptic patients (60.38%).

DISCUSSION

Our study showed a high incidence of eclampsia (7.17 per 1000 deliveries). The high incidence of eclampsia in our study is because of high referral rate from nearby urban and rural areas. It also indicates that still in some section of our society, there is lack of sensitization on eclampsia and they are out of reach of the available health benefits. Factors like poverty, lack of education, superstitious beliefs and bad communication delay most of the patients to reach health care provider. In the study, eclampsia was more prevalent in young pregnant woman in the age group of 20-24 years (52.83%) which is comparable to the other studies. Majority of the patients (77.36%) were primigravidae, which is comparable to other studies. It indicates that primigravidae are the main the victim for eclampsia. Majority of the eclamptic patients (60.38%) had irregular antenatal check-up. Hemkanta et al., Prabhakar et al. Pradeep et al. and Chaudhury reported similar results. But on the other hand, in 1994 Douglas and Redman reported that women with less frequent antenatal visits were not significantly different from those with standard antenatal care in terms of the type of first seizure, where it occurred, or the gestational age at which it occurred and also that 85% women had been seen by a doctor or midwife in the week before their first convulsion. Choudhury P also reported that out of 47 eclampsia patients 26 (55.31%) had antenatal care. In the study, 69.81% patients developed antepartum eclampsia, 9.43% had intrapartum eclampsia and 20.75% had postpartum eclampsia. Similar observation was found in studies by Hemkanta et al., Chaudhury, Probhakaret al., Pradeep and Manjusha et al. where antepartum eclampsia was the commonest type (56.67%, 70.21%, 77.47%, 87% and 86.95% respectively). Recent years have shown an increase in the incidence of postpartum eclampsia probably due to better prenatal care and prophylactic use of magnesium sulphate in severe preeclampsia during antepartum and intrapartum period. This has been a finding in a study by Chamesetal. who found that with improved antenatal care, early detection of pre-eclampsia and prophylactic use of magnesium sulphate, there has been increasing

shift in the incidence of eclampsia towards the postpartum period. In our study, highest numbers of eclamptic patients were found in the gestational age ≥ 37 weeks (45.28%) followed by below 37 weeks gestation (30.19%). Only 3.77% eclamptic patients were found in gestational age less than 28 weeks. Similarly, Probhakaretal. Chaudhury and Sunithaetal. also found highest number of eclamptic patients in gestational age ≥ 37 weeks. The definitive treatment of eclampsia is delivery, irrespective of gestational age. Therefore, the patient must be delivered within 24 hours in case of severe pre-eclampsia, and within 12 hours in a patient with eclampsia. Lower segment caesarean section was the common mode of delivery in our study (60.38%). Similar observation was found in studies by Manjushaetal. and Choudhury. But in a study by Khanumetal. (71%) eclamptic patients had NVD and 25% had LSCS and the rest were craniotomy and forceps delivery. In our study the patients, who were delivered by caesarean section, the maternal outcome was better as compared to those patients who had vaginal delivery. As per Ibrahimetal. there is no significant difference in maternal outcome between those who delivered through spontaneous vaginal delivery and those who had caesarean section. Major complications of eclampsia include placental abruption (7-10%), DIC (7-11%), HELLP syndrome (9.7-20%), acute renal failure (5-9%), pulmonary edema (3-5%), aspiration pneumonia (2-3%), cerebral haemorrhage and cardiopulmonary arrest (2-5%)²². In our study 13.21% eclamptic patient had pulmonary edema. The percentage of cerebrovascular accident and postpartum psychosis was 5.66% each in our study. The percentage of hepato-renal failure, hypoxic encephalopathy, HELLP syndrome, abruptio placentae and septicaemia was 3.77% each in our study. Other complications were DIC (1.89%), aspiration pneumonia (1.89%) and need for ventilation support (1.89%). There was no case of cardiopulmonary arrest. In our study, 73.58% eclamptic cases had live birth, 30.19% had premature delivery, and 13.21% had stillbirth. The percentage of early neonatal death and respiratory distress syndrome was 9.43% each. These observations are similar to the studies of Choudhury and Pradeepetal.

CONCLUSION

Our study reveals that eclampsia is still an important obstetric emergency in the community contributing to significant maternal and perinatal morbidity and mortality. Certainly the high incidence of eclampsia can be reduced by proper antenatal care, diagnosing, admitting and treating the mild and severe pre-eclampsia cases. However, eclampsia can occur bypassing the pre-eclamptic state and as such, it is not always a preventable condition. Antenatal care, early diagnosis, primary management and referrals need to be improved.

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