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STUDY OF MATERNAL AND PERINATAL OUTCOME IN ECLAMPSIA

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ABSTRACT

Aims and objectives of the study: 1) To study the incidence of eclampsia at Grant Medical College & JJ Group of Hospitals. 2) To study the clinical profile,maternal and perinatal outcome in eclamptic patients 3)To study the effect of MgSo4 by Pritchard's regimen in eclampsia which is been used in our hospital.

Methods: - Analysis of case records of all eclampsia cases from the study period of August 2015 to December 2016.

Results : -There were a total of 5221 deliveries and 75 cases of eclampsia during the study period. Incidence of eclampsia was found to be 1.4% in our hospital .Majority of the patients were not registered 45%, 35% have some sort of registration at outside. 71% of patients were Primigravidas and 29% of patient where multigravida. 46 % of the patient in the age group of 21-25 years. Antepartum eclampsia was seen in 74% patients , intrapartum eclampsia in 16% patients and postpartum eclampsia in 10% patients. Vaginal delivery initiated by cerviprime induction with mechanical dilatation was a common mode of delivery, done in 56% patients, 44% patients had emergency caesarean section . 82% patient having convulsion delivery interval within 10 hours. 77.3% patients received MgSO4 by Pritchard's regimen . 8% patient developed HELLP syndrome and 4% patient landed up in the DIC and 10.6% patient had intracranial hemorrhage, pulmonary oedema developed in 2.6% patient. There were a total of 5.3% maternal deaths during the study period. Total percentage of perinatal deaths due to eclampsia was 14.6% and still birth were 10.6%, 32% of babies have NICU admission.

Conclusion : Eclampsia continues to be an important cause of maternal and perinatal morbidity and mortality.This is due to lack of proper antenatal care, low socioeconomic condition and lack of education. Regular antenatal checkup and timely diagnosis of preeclampsia .With a check on premonitory sign and symptoms such as headache blurring of vision ,vomiting, epigastric pain ,Haematuria ,Brisk DTR. Eclampsia can be prevented with proper control on blood pressure and decision of early termination of pregnancy. MgSo4 is the anticonvulsant of choice and Pritchard's regimen of Mgso4 is effective in the management of eclampsia.

KEYWORDS MGSO4-Magnesium sulphate, B.P-Blood pressure, Yrs-Years, DIC-Dissaminated intravascular coagulation

I. Introduction :-

Eclampsia is defined as the onset of seizure during pregnancy or postpartum in patients of preeclampsia with gestational age >20 weeks. Eclampsia is life threatening complication of pregnancy . The incidence of eclampsia in India has been quoted as 1.46% .Majority of cases of eclampsia are young primigravidas and unregistered . Though not all cases of eclampsia can be prevented , majority of cases can be prevented by early detection and effective treatment of preeclampsia, for which good antenatal services are needed.The two most widely used regimens of magnesium sulfate administration are the intramuscular (IM) regimen popularized by Pritchard's and the intravenous (IV) regimen recommended by Zuspan.

II. Materials and Methods: -

This is a retrospective study of all cases of eclampsia between the study period of august 2015 to dec 2016. Case records were reviewed. The Intervention strategy used for eclampsia patients in our hospital is as follows: 1)Inj. Mgso4 was the anticonvulsant used and 2)iv / oral labetalol was given at regular interval to achieve the desired level of systolic BP of < 140 mm of Hg and diastolic BP of < 90- 100 mm of HG 3) Once patient was stabilized , termination of pregnancy was planned . 82% patient having convulsion delivery interval within 10 hours.

III. Results:-

There were 75 cases of eclampsia in our series out of a total deliveries of 5221 The incidence of eclampsia in our hospital was found to be 1.4% deliveries.Eclampsia was found to be more common in young patients with age < 25 yrs .

Table 1 Age distribution

AGE GROUP	NUMBER OF PATIENT	PERCENTAGE OF PATIENT
<20yrs	20	26.6%
21-25 yrs	36	48%
26-30 yrs	13	17.4%
30-35 yrs	5	6.6%
>35 yrs	1	1.4%

In our study 48% patient were in age group of 21-25 years.

Table 2. Parity

	Total number of patient	Percentage of patient
Primigravida	52	69%
Multigravida	23	31%

Maximum patient 69% were pramigravida in our study.

Table 3. Timing of convulsion'

	Total number of patient	Percentage of patient
Antepartum	56	74%
Intrapartum	12	16%
Postpartum	7	10%

74% patient have antepartum eclampsia and only 10 % have postpartum.

Table 4. Gestational age distribution

Gestational Age	Number of patient	Percentage of patient
21-25 weeks	2	2.6%

26-30 weeks	6	8%
31-35 weeks	29	38.6%
36-40 weeks	39	52%
>40	1	1.3%

52% patient were in between gestational age group of 36-40

Table 5 .Convulsion delivery- interval

Convulsion –del interval	Number of patient	Percentage of patient
1hour-10hour	62	82.6%
>10 hourr	13	17.4%

Maximum patient (82.6%) has convulsion delivry interval between 1hur-10 hour.

Table 6. B.P at the time of presentation

B.P at the time of presentation	Total no.of patient	Percentage of patient
140/90	6	8%
150/100	8	10.7%
160/100	10	13.3%
>160/100	51	68%

Most of the patient (68%) present with b.p >160/100

Table 7 : Mode of delivery and maternal outcome

Mode of delivery	Number of patient	Percentage of patient
LSCS	30	40%
Vaginal	42	56%
Instrumental	3	4%

Vaginal delivey was the common mode of delivery in 56% of the patient.

Table 8: Maternal outcome

Maternal complication	Total number of patient	Percentage of patient
DIC	3	4.5%
HELLP	6	9%
PULMONARY OEDEMA	2	3%
Intracranial hemorrhage	8	10.6%

Total maternal death were 5.3 %

Table 9: Perinatal outcome

Perinatal outcome	Total number of birth	Percentage of birth
Total live birth	67	89.3%
Total still birth	8	10.7%

Out of 75 babies 89.3% babies were live born and 10.7% were still born out of 89.3% babies 16.5% babies had neonatal death.

IV. Discussion:

The incidence of eclampsia in our study was 1.4 %, which was more than that described by prabhakar et al (1.09 %), a study conducted in a teritiary hospital in Solapur, Our hospital has large number of patients referred from urban health centers, primary health centers, rural hospitals, sub district hospitals and also from private hospitals.

Eclamptic seizures often induce a fetal bradycardia that usually resolves after maternal stabilization and correction of hypoxia. It is very important to stabilize the mother before any attempt is made to deliver the infant. Induction of labour or cesarean birth during the acute phase may aggravate the course of the disease. Once hypoxia is corrected, convulsions controlled, and the diastolic blood pressures brought down to the 90- to 100-mm Hg range, delivery should be expedited. Eclampsia was more commonly seen in young pregnant women upto 25yr (75%) and primigravidas (69%) which is similar to a study done by Acharya G et al (71.42%) (10). . 35% of patients were not registered and around 45% of patients had some sort of antenatal care at outside and subcentre and 10% were booked and registered either at our hospital or other tertiary care or private hospital .Lack of antenatal care is one of the important risk factors for the development of eclampsia which is proved by many studies(1,2,6) . In developing countries , the preventable causes of eclampsia contribute to most cases of eclampsia because of poor ANC services . 74% of eclampsia were Antepartum, 16% were intrapartum and 10% were postpartum. (11)In the UK, 44% of eclampsia were postpartum and had lower incidence of antepartum eclampsia which could be due to good ANC surveillance. (12)Ecalmpsia was seen in 52% of patients at term gestation in our study which is similar to a study done by Marinakhanum et al ie 53% . At term gestation and 43% at near term gestation 13. 92%of patients had hypertension at presentation, 8% patients had normal BP recording at presentation.(13) Mattar F et al quoted 16 % of the patients had no hypertension ,20% -54% had severe hypertension and 30%60% had mild hypertension. Hypertension is considered to be the hallmark for the diagnosis of eclampsia.The diagnosis of eclampsia is usually associated with proteinuria(at least 1+ on dipstick).In our series 18% of patients had 4+, 50% had 3+, 16% had 2+, 10% had 1+ and 6% had trace which is similar to the study done by Mattar F et a(l14). Vaginal was a common mode of delivery in our series(56%) which is similar to study done by Sibai BM et al (15).Eclampsia per se is not an indication for cesarean section and mode of delivery had no significant effect on the outcome of the eclamptics as per Ibrahim A et al .(16) Judicious and timely selection of cases for either vaginal delivery or cesarean section is going to improve the maternal and perinatal outcome. All our patients received Mgso4 as per pritchard's regimen to prevent convulsions. Recurrence of fits increases the maternal morbidity .(17)Efficacy of Mgso4 in prevention and treatment of eclamptic convulsions is time tested , however, protocols and dose of Mgso4 are not evidence based and narrow therapeutic index and toxicity is still a major concern in clinical use. Respiratory rate, patellar reflex, urine output should be monitored strictly. (18. There were 5.3% maternal death due to eclampsia, the most common causes of maternal death are HELLP , acute renal failure secondary to abruption placentae, DIC , intracranial bleeding.. There were 10.7% still born and out of 89.3% live babies 16.5% babies had neonatal death.The most common causes of perinatal death are prematurity,fetal growth restriction , fetal asphyxia and acidosis .

V. Conclusion:

Eclampsia continues to be an important cause of maternal and perinatal morbidity and mortality.This is due to lack of proper antenatal care, low socio economic condition and lack of education. MgSo4 is the anticonvulsant of choice and Pritchard regimen of Mgso4 is effective in the management of eclampsia. According to the Royal College of Obstetricians and Gynaecologists(RCOG) good antenatal services will detect and treat preeclampsia and thus reduce the incidence of eclampsia .Prompt and timely treatment of eclampsia will reduce the maternal and perinatal morbidity and mortality.

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