



MATERNAL AND PERINATAL OUTCOME IN ECLAMPSIA

Obstetrics & Gynecology

Gupta Mona* Dept Of Obstetrics And Gynaecology Gmc Shivpuri. *Corresponding Author

Gupta Pankaj Dept Of Obstetrics And Gynaecology Gmc Shivpuri.

ABSTRACT

INTRODUCTION: Eclampsia is defined as seizure activity or coma unrelated to other cerebral condition in an obstretical patient with preeclampsia. Incidence of eclampsia in India varies from 0.5% to 1.8%. This study sought to determine the patterns & characteristics of the disease with a view to making recommendations towards improving outcome.

AIMS & OBJECTIVES: 1. To evaluate the patient identification data in relation to eclampsia patient. 2. To evaluate the role of referral centres in relation to eclampsia patients. 3. To evaluate role of early management with MgSo4 therapy in improving the maternal & perinatal outcome. 4. To evaluate the role of early termination of pregnancy in improving maternal prognosis in cases of eclampsia.

MATERIAL & METHODS: All the patients managed for eclampsia at the Obstetrics & Gynaecology department of the District Hospital, Shivpuri, M.P. between Sept 2019 to Feb 2020 were reviewed. It was a prospective study included 106 cases of eclampsia.

RESULT AND CONCLUSION: the incidence of eclampsia is higher in un-booked cases. 81% of cases in present study were un-booked cases. 63 out of 106 belonged to rural areas i.e. 59%. Also those belonging to urban areas, majority belonged to suburban parts. In our study we found that 63 out of 106 belonged to rural areas i.e. 59% also those belonging to urban areas, majority belonged to suburban parts. In our study it was found that 49 cases were referred from primary health centres while 57 cases came directly to hospital i.e. 54%. This shows the underutilization of the health services at the peripheral level. In our study 86 cases out of 106 cases were admitted to hospital without receiving any treatment i.e. 81%. This shows amount of morbidity which can be decreased if staff at peripheral health centres is educated regarding the management of eclampsia patients before referring them to higher centres. To conclude, the improvement in maternal & perinatal salvage in eclampsia start from the prevention of the disease in the first place. This can be achieved by developing a vigilant medical & paramedical staff at peripheral health centres & subcentres. Promotion of antenatal care & early referral of high risk cases to tertiary centres is the need of hour.

KEYWORDS

I. INTRODUCTION

Eclampsia is defined as seizure activity or coma unrelated to other cerebral condition in an obstretical patient with preeclampsia. It is one of the leading causes of maternal & perinatal mortality as well as morbidity throughout the world. While the incidence has been decreasing & its outcome improving in the developed countries where special management protocols have been employed its incidence is still high in developing countries such as India.

Incidence of eclampsia in India varies from 0.5% to 1.8%. 70% of the Indian woman marry before the age of 19 years. This is one of the reason why India is the huge contributor to the world quantum of eclampsia & also maternal mortality.

This study sought to determine the patterns & characteristics of the disease with a view to making recommendations towards improving outcome. Data on socio demographic characteristics as well as clinical management & outcome was extracted.

II. AIMS & OBJECTIVES

1. To evaluate the patient identification data in relation to eclampsia patient.
2. To evaluate the role of referral centres in relation to eclampsia patients.
3. To evaluate role of early management with MgSo4 therapy in improving the maternal & perinatal outcome.
4. To evaluate the role of early termination of pregnancy in improving maternal prognosis in cases of eclampsia.

III. MATERIAL & METHODS

All the patients managed for eclampsia at the Obstetrics & Gynaecology department of the District Hospital, Shivpuri, M.P. between Sept 2019 to Feb 2020 were reviewed.

It was a prospective study included 106 cases of eclampsia There were total 10083 admissions & 997 deliveries with 106 cases of eclampsia with an incidence of 1.05%.

The essential criteria for case selection were :

1. Pregnancy induced hypertension with / without proteinuria & oedema.
2. Convulsion in a hypertensive pregnancy without any prior h/o seizures.

CRITERIA FOR EXCLUSION :

1. Coincidental hypertension in pregnancy:

Essential hypertension – h/o documentation of hypertension prior to pregnancy. Hypertension present before 20 wks of pregnancy.

2. Coincidental seizures in pregnancy :

h/o epilepsy prior to pregnancy
Space occupying lesion in brain
Trauma to brain
Hyperpyrexia .

3. Renal hypertension.

STATISTICAL ANALYSIS:

For descriptive statistics Bar diagram, Pie chart and Frequency table were used.

FINANCIAL INPUTS AND FUNDING:

There was no additional financial burden either on the patient or on the institution.

ETHICAL CONSIDERATIONS:

The thesis was approved by the Research Review Committee of district hospital shivpuri.

IV. OBSERVATIONS

Table : 1

Booking Status

	No. of Cases	%
Booked	21	19%
Emergency	85	81%

Table : 2

Age distribution

Age Group	Number	%
10-20	8	7%
20-30	87	83%
30-40	11	10%
40-50	0	0

Table : 3 Distribution regarding whether Referred or Not

	No. of Cases	%
Referred	49	46%
Direct admission to hospital	57	54%

Table : 4 Distribution of cases according to rural & urban group

	No. of Cases	%
Rural	62	59%
Urban	44	41%

Table : 5 Distribution according to Prior treatment received or not

	Number	%
Received prior treatment	20	18.86%
No treatment received till admission	86	81.13%

Table : 6 Parity Distribution

No. of Living Status	No. of cases	%
0	67	44.3%
1	21	29.24%
2	13	14.19%
≥ 3	05	12.3%

Table : 7 Type of Eclampsia

	No. of Cases	%
Antipartum	82	77.3%
Intrapartum	11	10.37%
Postpartum	13	12.26%

Table : 8 According to Gestational Age

Weeks of Gestational	No. of Cases	%
< 24 weeks	4	3.77%
24-28 weeks	17	16.03%
29-32 weeks	23	21.7%
33-36 weeks	17	16%
> 36 weeks	32	30%

Table : 9 According to No. of Convulsions

No. of Convulsions	No. of Cases	%
1-3	80	75.5%
4-6	18	17%
7-10	7	6.6%
> 10	1 status Eclampticus	0.9%

Table : 10 Systolic & Diastolic Blood Pressure

Systolic BP	No. of Cases	Diastolic BP	No. of Cases
120-148 mm Hg	22	90-98 mm Hg	15
150-178 mm Hg	58	100-108 mm Hg	35
180-200 mm Hg	22	110-118 mm Hg	25
> 200 mm Hg	4	≥ 120 mm Hg	31

Table : 11 Proteinuria

Proteinuria	No. of Cases
Traces	17
1+	54
2+	26
≥3+	16

Table : 12 Duration Between 1st convulsion & admission

Duration	No. of cases
<6hrs.	66
12 hrs.	27
24 hrs.	6
≥ 48 hrs.	7

Table : 13 Investigation

Haemoglobin	< 6.5 gm %	6.5-8 gm %	> 8 gm %
Percentage of Cases	18	12	70
Platelet	< 1 lac/mm ³	1-2.5 lac/mm ³	> 2.5 lac/mm ³
Percentage of Cases	14	69	17
Liver Function Test	Normal		Deranged
Percentage of Cases	46		54
Renal Function Test	Normal		Deranged
Percentage of Cases	43		57

Table : 14 Mode of Delivery

Mode of Delivery	No. of Cases	%
Vaginal	90	85 %
Spontaneous	12	
Dinoprostone induced	43	
Pitocin Accelerated	15	
MP induced	20	

Forceps	5	
Ventouse	2	
Assisted Breech	2	
LSCS	16	15 %

Table : 15 Neurological signs & symptoms

Neurological signs & symptoms	No. of cases
Headache	92
Visual Disturbance	21
Drowsiness	96
Focal Neurological Deficit	3

Table : 16 Maternal Complications

Maternal Complications	No. of Cases
Anaemia	102
Abruption	17
Renal Failure	22
Pulmonary Edema	5
Hematuria	22
PPH	5
Maternal Mortality	4
DIC	2

Table : 17 Parinatal Outcome

Parinatal Outcome	No. of Cases	%
Live birth	52	63%
Still birth	40	26%
ENND	20	11%

Table : 18 Treatment Protocol

Treatment Given	No. of Cases	%
Pritchard regime	88	83%
Low dose MgSO ₄	12	11.3%
Anti Hypertensive	16	15%
Sedatives	2	1%
Antibiotics	106	100%
Blood Transfusion	36	34%
Other(phenytoin)	4	3.7%

V. DISCUSSION

106 patients of eclampsia were studied.

The following are the findings :

Booking Status

From the observation table one it is clear that incidence of eclampsia is higher in un-booked cases. 81% of cases in present study were un-booked cases.

Age

In the current study most of the eclamptic patients were in the age group of 20-30 years.(82%).

Parity

From the observation table 6 it is clear that most of the cases of eclampsia are nulliparous (67 out of 106 patients i.e. 63.3%).

Residential Status

In our study we found that 63 out of 106 belonged to rural areas i.e. 59% also those belonging to urban areas, majority belonged to suburban parts.

In our study it was found that 49 cases were referred from primary health centres while 57 cases came directly to hospital i.e. 54%. This shows the underutilization of the health services at the peripheral level. In our study 86 cases out of 106 cases were admitted to hospital without receiving any treatment i.e. 81%. This shows amount of morbidity which can be decreased if staff at peripheral health centres is educated regarding the management of eclampsia patients before referring them to higher centres.

Proteinuria & Eclampsia

Observation table 11 shows that in current study all the eclamptic patients had proteinuria which ranges from traces in 16 % to ≥ 3 + in 15% of patients.

Investigations

Observation Table no. 13 shows that 23.33% of eclamptic patients were either moderately or severely anaemic. 14 patients have platelet

count less than 1 lakh / cu. mm. Platelet count keeps on falling with increasing severity of the disease.

Mode of Delivery

Delivery is cure for severe PIH & eclampsia. Labour should be induced & when ever it appears that labour induction will not succeed, caesarean delivery is indicated.

In present study majority of patients, 85 % delivered vaginally and only 16 cases required LSCS.

Neurological signs & symptoms

It is clear from Table 15 that 96 out of 106 cases presented in the state of drowsiness, 92 cases presented with headache while 21 out of 106 cases presented with visual disturbance.

TREATMENT

In our study anticonvulsant was given to all eclamptic patients. $MgSO_4$ given according to Pritchard's regimen remains the agent of choice (88%). Sibai et al (1990) found that magnesium sulphate is the ideal anticonvulsant in eclampsia. Antihypertensives are given to all patients in the form of Labetulol & nifedipine.

PERINATAL OUTCOME

In current study total perinatal deaths were 8 i.e. 26% out of which 5 were fresh still birth, 3 macerated still births & 7 early neonatal death.

VI. SUMMARY & CONCLUSION

To conclude, the improvement in maternal & perinatal salvage in eclampsia starts from the prevention of the disease in the first place. This can be achieved by developing a vigilant medical & paramedical staff at peripheral health centres & subcentres. Promotion of antenatal care & early referral of high risk cases to tertiary centres is the need of the hour.

The role of immediate termination of pregnancy in improving the maternal morbidity due to eclampsia should not be underestimated. Eclampsia being a disease of pregnancy can be curtailed from developing disastrous complications by an immediate termination. Labour to be induced in all cases & more liberal use of caesarean section which must be seriously considered in cases with reasonable fetal mortality & weight.

Thus patient education, frequent antenatal visits, definite management protocols & last but not the least a supportive peripheral staff can go a long way in decreasing incidence of eclampsia & improving the maternal & perinatal outcome.

This study also recommends obstetrics ICUs in district & tertiary hospitals for effectively managing eclampsia patients & thus improving outcome.

REFERENCES:

1. Cockburn J, Moar V.A, Ounsted M, Redman CWG. Final report of study on hypertension during pregnancy. The effects of specific treatment on the growth and development of children. *Lancet* 1982;1:647-9.
2. Borghi C, Esposti DD, Cassani AJ, Immordini V, Bovicelli L, Ambroisio E. The treatment of hypertension in pregnancy. *Journal of hypertension* 2002;20:S52-S56
3. Podymow T, August P. Update on the use of antihypertensive drugs in pregnancy. *Hypertension* 2008;51:960-69