

A COMPARATIVE EVALUATION OF VARIOUS ANTICONVULSANT REGIMES IN ECLAMPSIA

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SUMMARY

This study was undertaken in the Dept. of Obst. & Gynae., G.S.V.M. Medical College, Kanpur to compare the efficacy of various anticonvulsant regimes in the management of Eclampsia, Menon's regime (1961) Pritchard and Pritchard's (1975) Mag. Sulph. regime and diazepam regime by Lean et al. (1968) were used on thirty, forty and twenty cases respectively during the year 1994. An antihypertensive drug Nifedipine was used if diastolic blood pressure remained above 100 mm Hg. Our study showed superiority of Magnesium Sulphate regime over Menon's and diazepam regime in control of fits and reduction of maternal and perinatal mortality and morbidity.

INTRODUCTION

As eclampsia is primarily a convulsive state, it would seem logical to use the most effective and safe anticonvulsant drug which is non depressive to mother and foetus both. Magnesium sulphate readily crosses the placenta but no evidence of magnesium toxicity is found in foetuses after delivery. Lytic Cocktail induces a state of artificial hibernation characterized

by hypothermia, hypotension, bradycardia, reduced respiration, amnesia, muscular relaxation and hypnosis. Diazepam drip also effectively controls the fits of eclampsia. Present study was done to compare the maternal and perinatal morbidity and mortality as well as the efficacy in controlling the convulsions and hypertension by all the three regimes.

MATERIAL AND METHODS

Ninety cases of eclampsia admitted in U.I.S.E. maternity hospital, Kanpur were

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included in this study. Out of them, thirty cases were put on Lytic Cocktail regime (Ist group), forty were put on magnesium sulphate regime (IInd group) and twenty were put on diazepam regime (IIIrd group). The usual dose schedules were adopted as advocated by respective authors. (1) Lytic Cocktail (Menon 1961), (2) Mag. Sulphate (Pritchard and Pritchard 1975) (3) Diazepam (Lean et al. 1968). Nifedipine was added where needed, if blood pressure was more than 110 mm Hg. diastolic. The above regimes were given for 24-48 hours. Depending upon the condition of the patient after control of fits, Vaginal examination was done and if the cervix was favourable labour was induced with A.R.M. and oxytocin drip. If cervix was closed and long LSCS was done, newborn was assessed for Apgar score and weight.

OBSERVATIONS

73.3% of our patients were primi gravida.

The mean age group in this study was 22.7 ± 6.8 years. 81.1% of the patients were of low socio economic status. 71.1% of patients were in gestational age of 34-40 weeks. The incidence of antepartum, intra partum and postpartum eclampsia was 46.67%, 40% and 13.3% respectively.

DISCUSSION

We found magnesium sulphate to be very effective in controlling the fits. Taking the failure of therapy to be defined as a convulsion occurring 15 minutes after initiation of treatment (Nagar et al. 1988). Our fit recurrence rate was 10% in magnesium sulphate therapy as compared to 1.3% of Bhat and Barfiwala (1985), 1.98% of Nagaret al. (1988), 12% of Pritchard and Pritchard (1984) and 9.5% of Sujata Mohanty et al. (1990). Such failure rates were much higher in lytic cocktail regime being 83.33% in our study, 86% in Sujata Mohanty et al. (1990), 28% in Bhat and

Table I
SHOWING CONTROL OF FITS

Time after Start of Treatment	Group I Lytic Cocktail		Group II Mag. Sulf regime		Group III Diazepam regime	
	No	%	No.	%	No.	%
0-4 hours	05	16.66%	36	90.0%	09	45%
4-8 hours	18	60.00%	04	10%	09	45%
8-12 hours	02	6.67%	-	0%	01	5%
> 12 hours	02	6.67%	-	0%	01	5%
Fits not Controlled	03	10.00%	-	0%	00	0%
Total	30	100.0%	40	100%	20	100%

Barfiwalla's (1985), 61.85% in Nagar et al. (1988), 30% in Devi et al. (1976) and 15% in Menon's (1961) series. Fit recurrence rate in Diazepam regime was equally disappointing 55%. In our study as compared to 51.6% in Ghosh et al. (1986), 13% in Bhat et al. (1985) study and 60.8% in study by Mohanty et al. (1990)

Maternal mortality in Magnesium sulphate therapy was 5% in our study as compared

to 0% shown by Pritchard and Pritchard (1975 & 1984) and 7.1% by Sujata Mohanty et al. (1990). Maternal mortality in lytic cocktail regime was 13.33% as compared to 8.16% shown by Nagar et al. (1988) and 2.2% by Menon (1961).

In Diazepam therapy, maternal mortality was 10% in our study as compared to 12.5% reported by Sujata Mohanty et al. (1988).

Table-II
SHOWING TYPE OF ECLAMPSIA

Type of Eclampsia	Group I		Group II		Group III	
	No.	%	No.	%	No.	%
Antepartum & Intrapartum cases	26	86.67%	35	87.5%	17	85%
Postpartum cases	04	13.33%	05	12.5%	03	15%
Total	30	100%	40	100%	20	100%

Table-III
SHOWING CONDITION OF FOETUS

Condition of Foetus	Group I		Group II		Group III	
	No.	%	No.	%	No.	%
i) Dead when first examined	05	19.23%	08	22.86%	03	17.65%
ii) Alive when first Examined	21	80.76%	27	77.14%	14	82.35%
a) Intrapartum death	01	3.84%	01	2.86%	01	5.88%
b) Born alive	20	76.92%	26	74.28%	13	76.47%
Total	26		35		17	

Table IV
FOETAL OUTCOME ACCORDING TO APGAR SCORE

Regime	Number	Apgar. Score		
		7-10	4-6	0-3
Lytic Cocktail	20	6 (30%)	10 (50%)	4 (20%)
Mag. Sulph.	26	7 (57.69%)	4 (26.9%)	(15.39%)
Diazepam	13	8 (61.54%)	2 (15.38%)	3 (23.08%)

In our study, intrapartum death of the foetus after starting the treatment was 4.7% in Menon's regime, 3.7% in Magnesium sulphate regime and 7.14% in Diazepam regime. Sujata Mohanty et al. (1990) and Nagar et al (1988) have reported higher mortality rate for foetus in all the three regime. Newborns had highest Apgar score with Mag. sulf. regime in our study.

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