

DIAZEPAM NIFEDIPINE REGIME IN ECLAMPSIA

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SUMMARY

Twenty nine patients of eclampsia were managed on diazepam (sedative) and nifedipine (antihypertensive). With diazepam 40 mg I/V slowly at zero hour fits were effectively controlled. None of the patients had fits after admission. The patients were conscious and responding to verbal stimuli within 24-48 hours of last dose of diazepam. There were 2 maternal deaths (6.8%). Overall perinatal mortality was 55.1%. However, in babies over 2 kg weight, PNM was 21.5%.

Introduction

Eclampsia, which has become a rarity in the west, still continues to be a major problem in our country. The patients usually reach the hospital after a number of fits at home and the mortality remains high as the lethal complications cerebral haemorrhage, renal failure etc.) have already occurred when the patient reaches the hospital.

Material and Methods

All the patients of eclampsia admitted in Medical College Hospital in the Department of Obstetrics and Gynaecology Unit-I from January 1, 1987 to December 1987, were included in the study. A total of 29 patients formed the study group. They were managed by Diazepam (anti-convulsant) 40 mg diluted in 20 cc of 5% dextrose given slowly I/V on admission. If blood pressure was more than 160/110

at any time then capsule nifedipine 10 mg sublingually was given and the blood pressure monitored every 10 minutes. The usual supportive measures like nursing in a quiet room, suction, intermittent oxygen inhalation and antibiotics, care of bowel, bladder, mouth etc. were carried out.

Observations

Age: Age ranged from 18 to 40 years. Majority of the patients (27) were less than 25 years. One patient was between 25 and 30 years and only one was above 40 years.

Parity: Twenty two patients were primigravida (75.8%) Four patients (10.7%) were para 1-2 and one patient (3.4%) was para-5.

Gestational Age: Twenty (69%) of the patients had eclampsia at less than 37 weeks period of gestation. Nine (31%) patients had reached 37 weeks or more.

Type of eclampsia: There were 21 patients (72.4%) of antepartum, 3 pati-

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ents (10.3%) of intrapartum and 5 patients (17.3%) of postpartum eclampsia.

Investigations

Haemoglobin estimation: In twenty four patients (82.7%) haemoglobin was 10 G% or more and only 5 (17.3%) patients were found to be moderately anaemic (8.5-10 G%).

Fundus examination: Fundus showed Grade I hypertensive changes in 9 (31%) patients. Two (6.8%) patients had hypertensive retinopathy and in the remaining 18 (62%) no change was found.

Serum uric acid: Serum uric acid was between 5-10 mg% in 16 (55.6%) patients and between 10.5-15 mg% in 7 (24.1%) and between 15.5 to 20 mg% in 6 (20.6%) patients.

Serum creatinine: was between 1-2 mg% in 20 patients (68.9%), between 2-5 mg% in 7 (24.1%) patients and more than 5 mg% in 2 patients (6.8%). These two patients had blood urea > 200 mg% and required dialysis while in the rest blood urea report was normal.

Maternal Outcome: The total dose of diazepam required for sedation during labour and 24 hours postpartum to keep the patient free of seizures ranged from 40 to 200 mg in 48 hours. All the patients were responding to oral stimuli within 48

hours of admission/delivery. The majority of the patients received between 40-100 mg of diazepam (40 mg I/V at admission and 5 mg S.O.S. whenever patient was found to be restless). The total dose of Nifedipine required ranged from 20 mg to 100 mg in the 48 hours.

There were 27 vaginal deliveries (5 at home in case of postpartum eclampsia) and 22 in the hospital aided by ventouse/outlet forceps. Two patients (6.8%) had LSCS both for papilloedema with unfavourable cervix. There were 2 maternal (6.8%) deaths, both in antepartum cases who had delivered vaginally. The clinical diagnoses was massive aspiration in one patient and ? cerebral haemorrhage in the second. Both the patients with renal failure survived.

Both the LSCS patients did well, one baby died in early neonatal period while second baby was alive and well at the time of discharge.

Neonatal outcome: The birth weight and outcome is shown in Table I. Out of 29, 15 (51.7%) babies were less than 2 kg and out of these only one survived (6.6%) 14 Babies (48.3%) were more than 2 kg in weight and out of these 11 (78.5%) survived. Out of these 29 babies 1 (3.4%) had anencephaly (malformation incompatible with life). So the corrected perinatal mortality was sixteen out of 29 (55.1%).

TABLE I
Neonatal Outcome

Birth wt. (kg.)	1-1.499	1.5-1.999	2.0-2.499	2.5-2.999	3.0-3.499
Alive & well	—	1	4	4	3
ENND	1	2	1	—	—
FSB	6	5	—	1	—
MSB	—	—	1	—	—

Discussion

The lytic cocktail regime has come under criticism recently as none of the drugs used is anticonvulsant in action. Pethidine and largactil cause respiratory depression and sedate the patient too much. The same happens if diazepam is used alone and given every time that the blood pressure shoots up. By combining anticonvulsant action of diazepam with antihypertensive action of Nifedipine, patients can be kept convulsion free and at a safe

level of sedation so that risk of aspiration pneumonia is greatly lowered.

Another point to be highlighted is that although all the patients were unbooked, from poor socio-economic strata, the haemoglobin levels were normal in majority of the cases. This points to a severe decrease in plasma volume and increased haematocrit in such patients. Therefore, unless specifically indicated (e.g. pulmonary edema), diuretics should not be used.