ECLAMPSIA—A REPORT OF 54 CASES

by

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Introduction

Eclampsia syndrome is unique to human gestation manifesting almost exclusively in the third trimester. Because of efficient antenatal care and proper management of pre-eclampsia, this syndrome has been eliminated from developed countries. However, in a developing country like ours, it continues to be a major obstetric problem and poses a threat to the life of the mother during pregnancy, labour and puerperium.

Material and Methods

A clinical report of 54 cases of eclampsia admitted in Jipmer hospital, Pondicherry, from January 1972 to June 1978 is presented. Majority of our patients were of low socio-economic status and from rural areas. Our patients were managed on the standard lytic cocktail regime described by Menon (1958). In addition all patients received injection Frusemide 40 mg. I.V. stat and subsequently 40 mg. daily for 3 to 4 days. Prophylatic antibiotics, injection streptopenicillin, 1 vial intramuscular daily was given for 7 days. Fluid requirements were regulated according to urinary output with an average of 1,000 to 1,500 ml. of 10% dextrose in 24 hours.

A thorough obstetric examination was carried out after sedating the patient. If the patient was in labour amniotomy was done. In patients with 37 weeks gestation and above, labour was induced by doing amniotomy and by giving syntocinon infusion, with 2.5 units of syntocinon in 540 ml. of 5% dextrose. Second stage of labour was cut short with low forceps under pudendal block, unless delivery was quick. After 48 hours all the patients received tablet phenobarbitone 30 mg. thrice daily for subsequent 3 to 4 days.

Observations

During this period out of 5,978 deliveries, there were 54 (0.9%) cases of eclampsia. The annual incidence remained more or less the same. In our study 50 (92.6%) of the cases did not have even a single antenatal check-up; 45 (83.3%) were 25 years and below. Twenty-eight (70%) cases were primigravidae, 12 (22.21%) were gravida 2 and only 7.4% were gravida 3 and above. Antepartum eclampsia was seen in 29 (53.7%), intra-partum in 12 (24.0%) and postpartum in 12 (22.2%) of the cases. In 4 (7.4%) patients intercurrent eclampsia and in I (1.85%) recurrent eclampsia was seen. In 46 (87%) of our cases all the 3 signs of pre-eclampsia were present in addition to convulsions. In 2

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(3.7%) of the cases blood pressure was normal, in 2 (3.7%) there was no pedal edema, and 3 (4.4%) cases did not show proteinuria. Maximum blood pressure recorded in our series was 220 mm Hg. systolic and 180 mm Hg. diastolic. In 21 (39%) cases diastolic blood prssure was 120 mm Hg. or more. 92.6% of our patients were admitted in an unconscious state, of which 27 (56%) were in deep coma. Twenty-seven (50%) had 4-10 fits, 10 (18.5%) more than 10 and 2 (3.7%) innumerable fits. In 48 (89%) of the cases eclampsia occurred during third trimester.

Obstetric Outcome: Out of 54 cases, 51 delivered; in 46 (90%) labour was spontaneous. In 24 (47%) labour was accelerated by doing amniotomy and 5 patients, in addition received syntocinon drip. In 21 (39%) cases, second stage of labour was completed by forceps and in 2 patients lower segment caesarian section had to be done. In 1 patient craniotomy was done for cephalopelvic disproportion with dead foetus.

TABLE I
Comparative Incidence of Perinatal Mortality

Author	Year	Sedative Regime	P.N.R. %
Menon	1961	Lytic cocktail	32
Pritchard & Pritchard	1975	IV Magnesium sulphate	15.4
Kawathekar	1976	Diazepam	16.6
Singh & Misra	1977	Lytic cocktail	14
Present series	—	-do-	34

There were 18 (34%) perinatal deaths out of 53 babies (51 deliveries with 2 sets of twins). There were 11 stillbirths and 7 neonatal deaths. Majority of the neonatal deaths were due to prematurity.

TABLE II
Comparative Incidence of Maternal Mortality

Author	Year	Sedative Regime	M.M.R. %
Menon	1961	Lytic cocktail	2.2
Pritchard & Pritchard	1975	10 Magnesium sulphate	0
Kawathekar	1976	Diazepam	3.3
Singh & Misra	1977	Lytic cocktail	2.1
Present series	—	Lytic cocktail	7.4

Maternal Mortality: There were 4 (7.4%) maternal deaths, of which 3 had ante-partum eclampsia and 1 post-partum eclampsia. Two of our patients died of pulmonary edema and another 2 died of shock. In 1 patient shock was due to septicaemia and in the other case primary cause of shock was not known.

Thirty-eight (70.4%) of our patients were anaemic, of which 31.5% had haemoglobin below 6 gms%. In 20 (37%) patients, optic fundii showed grade 2 changes. Rise of temperature was noted in 24 (44.4%) of the cases during their hospital stay. None of our patients had hyperpyrexia. One patient had accidental haemorrhage and delivered a live baby following induction of labour. One patient had jaundice with serum bilirubin raised to 11 mg%. Two (3.7%) of our cases developed puerperal psychosis and both improved after treatment. In 7 (13%) patients urinary tract infection was noted which was treated with appropriate antibiotics after doing urinary culture and sensitivity test. In 4 cases hypertension and in another 4 cases proteinuria persisted 22 days following delivery.

Discussion

Effective system of antenatal care has been credited with marked reduction in the incidence (0.1%) of eclampsia in

developed countries (Lewis 1964). By diagnosing and treating pre-eclampsia in antenatal period eclampsia can be prevented. In our study, 92.6% of cases did not have even a single antenatal check-up. Similarly Mitra and Dasgupta (1957) reported that 90% of their cases were emergency admissions. It is obvious from the various studies that it is essentially a disease of young primigravida, occurring in the third trimester and has a tendency not to recur in subsequent pregnancies. In our study 83.3% of patients were below 25 years which is almost similar to that reported by Kameshwari *et al* (1976).

Although in 89% of cases eclampsia occurred after 28 weeks of gestation, the earliest period of gestation recorded was 24 weeks in 2 of our cases. Lind-Heimer and Spargo (1974) have reported eclampsia at 16 weeks of gestation in a 28 years old third gravida, nulliparous woman. One (1.85%) patient in our study had eclampsia twice in the first and third pregnancy and this incidence is almost similar to that noted by Chesley et al (1968) as they recorded recurrent eclampsia in 1.35% of 300 cases of eclampsia.

Effectiveness of successful management of eclampsia is judged by the reduction in the maternal and perinatal mortality rates. Although, it is recognised that termination of pregnancy is the only cure of the disease process, a conservative approach was adopted in our cases. Pritchard and Pritchard (1975) by inducing labour after controlling fits brought down perinatal mortality to 15.4% and maternal mortality to zero. Singh and Misra (1977) also reduced perinatal mortality to 14% and maternal mortality to 21% by doing active obstetric management and with increased use of caesarean section; 22% of their patients were delivered abdominally. Menon (1955) advocated early caesarean section in obstetric management and noted a remarkable fall in maternal mortality from 20% to 5.3%.

The fit recurrence rate in our cases was higher i.e. 27.5% than that observed by Menon (1961) i.e. 15% with the same sedative regime. Kawathekar (1976) reported fit recurrence rate of 3.3% in a study of 30 cases treated with diazepam.

It is concluded that addition of Valium in the management may reduce the recurrence of fits and active management of labour and increased resort to caesarean section may improve the maternal and foetal outcome.

Summary

Fifty-four cases of eclampsia treated with Lytic cocktail regime are reviewed. The overall importance of prenatal care to prevent eclampsia and active management of labour with increased use of caesarean section to reduce maternal and perinatal mortality has been emphasized.

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