MATERNAL MORTALITY IN ECLAMPSIA AT SHREE SAYAJI GENERAL HOSPITAL, BARODA—10 YEARS REVIEW

by

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In most of the unprivileged areas of the world, eclampsia continues to be an important cause of maternal and perinatal mortality. The mortality varies even with the identical management all over the world, indicating some basic difference in the obstetric population. In 1930, Stroganoff concluded that optimum treatment should reduce maternal mortality in benign uncomplicated cases to below 0.5 per cent and in severe cases between 2.5 to 4 per cent Since then everybody has tried to achieve these results some of them are successful with different drug regimens. Pritchard (1975) reported no maternal death in 154 cases of eclampsia treated only with magnesium sulphate, whereas Menon (1961) reported equally good results with lytic cocktail. Maternal mortality in eclampsia varies from 0 to 20 per cent.

Material and Methods

This is a retrospective analysis in relation to case mortality in 367 cases of eclampsia admitted in labour room of Shree Sayaji General Hospital, Baroda, India from 1st January 1970 to 31st December 1979. Cases are analysed in relation to sociodemographic data, condition on admission, other clinical features and response to therapy. Most of the patients were emergency admissions referred from Primary Health Centre, private practitioner or brought by relatives. Eclamptic patients were treated either with Morphine, Pathedine, Diazepam or Barbiturates. Sometimes Magnesium Sulphate was given.

Analysis and Discussion

Incidence of eclampsia (Table I) does not show any change over the period of 10 years. The incidence of eclampsia in great Britain is about 1:1000 liveborn births (Lewis, 1965). The incidence quoted from leading centres of India varies from 1.1 per cent (Mitra and Das Gupta, 1957) to 2.4 per cent (Mudaliar and Menon, 1972). In our series in 1970

TABLE I
Incidence of Eclampsia

Mitra and Das Gupta (1957)	1.1%
Mudalial and Menon (1972)	2.4%
Devi *et al* (1976)	.83 to 1.4%
Rao, B. (1971)	3.06%
Present Series (1970)	1.22%
Present Series (1979)	1.68%

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incidence was 1.22 per cent and in 1979, 1.68 per cent.

To overall maternal mortallity was 9.4 per cent (Table II). There is no improvement over a decade, Lahiri (1970) reported 8.3 per cent, maternal mortality. Deve *et al* (1976) reported uncorrected and corrected mortality 10.3 per cent and 8 per cent respectively.

TABLE II
Yearwise Maternal Mortality in Eclampsia

Year	Total cases of eclampsia	Maternal deaths	Percentage
1970	38	4	10.52
1971	33	5	15.15
1972	27	3	11.11
1973	20	3	15.1
1974	37	2	5.4
1975	33	1	2.9
1976	32	6	18.7
1977	44	6	13.6
1978	47	3	6.4
1979	54	6	11.1
Total	367	39	9.4

Lowest maternal mortality is in the age group of 26 to 30 years. Severity of the disease increases as the maternal age advances (Table III). Maternal mortality doesnot show any specific relation to the parity (Table IV). Out of 39 maternal deaths, 36 (92.3%) were emergency patients, indicating majority of the case mortality could have been prevented by simple antenatal services. Amongst 39 deaths 66.66% came from urban and 33.33% from rural area.

TABLE III
Relationship Between Age and Maternal Mortality

Age in years	% Mortality
Less than 20	12.5
21-30	9
More than 30	33.33

TABLE IV
Parity Versus Mortality

Gravida	Total cases	Maternal mortality	Percentage
Primi	297	23	9.9
Second	30	6	20
Third	16	7	25
Fourth	12	1	8.33
Fifth onwards	12	2	16.66
Total	367	39	

(Table V), In our series, intrapartum eclampsia has highest maternal mortality (42.63%). Menon (1961) reported 17.5% mortality in antepartum eclampsia. Out of 39 cases, 35% (14 cases) died within 12 hours of admission, 12 cases (30%) within 12.24 hours after admission and 13 cases (32%) died after 24 hours. There were 7 cases who died undelivered. Out of 39 cases mortality, 57.91% showed diastolic blood pressure less than 110 mg.Hg. 10.2% cases had highest recorded blood pressure between 110 to 120 mm of Hg. and 31.9% had diastolic blood pressure more than 120 mm of Hg.

TABLE V
Type of Eclampsia and Mortality

	Total No. of cases	Percentage
Antepartum	14	36.4
Intrapartum	17	42.63
Postpartum	8	20.97

Different methods used to terminate labour are shown in Table (VI). Nearly 49% delivered either spontaneously or ARM/Pitocin, whereas 7 patients died undelivered.

TABLE VI
Mode of Delivery

	Total cases	% mortality
Spontaneous	14	35.89
ARM with Pitocin	1	2.56
ARM followed by spontaneous delivery	4	10.26
L.S.C.S.	2	5.12
Ventous/Forceps	8	20.51
Destructive procedure	2	5.12
Home Delivery	1	2.56
Undelivered	7	17.95

It is difficult to give exact cause of death in absence autopsy findings, however an attempt is made to establish the cause of death on clinical grounds (Table VII. Cerebrovascular accident was found in 20.4% cases, pulmonary oedema in 12.7% cases. Peripheral circulatory failure in 16.3% cases and cardiac failure in 15.4% cases and death due to severe exhaustion was in 12% cases.

TABLE VII
Causes of Maternal Mortality

	Total cases	Percentage
Death due to severe exhaustion	5	12.82
Cerebrovascular accidents	8	20.51
Pulmonary oedema	5	12.82
Peripheral circulating failure	7	17.95
Cardiac failure	5	12.82
Renal failure	2	5.12
Hepatic insufficiency	2	5.12
Unknown	5	12.82

To reduce high maternal mortality, eclampsia cases should have special intensive care unit for management. The consultation of physician should be frequently used. It should be possible to prevent pulmonary oedema or cardiac failure if a close watch is kept on the case. There may be delay in interpretation of danger signals unless the attending doctor is vigilant. It is sad that medical/fraternity is not able to reduce deaths due to complications of eclampsia.

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