ACTIVE OBSTETRIC MANAGEMENT IN ECLAMPSIA

by

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Efficient antenatal care and proper management of pre-eclampsia has almost eliminated eclampsia in all the developed countries. Unfortunately in this part of the sub-continent efficient antenatal care is available to or availed by only a minute fraction of the entire population. Eclampsia, therefore, still remains a major obstetrical problem even today.

Since the etiology of eclampsia is obscure there is no specific therapy. Symptomatic treatment like controlling the fits and lowering the blood pressure by various drugs has been the main line of management. This toxic condition occurs only during pregnancy and a marked improvement is observed once the uterus is emptied of its content. The incidence and mortality of postpartum eclampsia are much less than those of antepartum eclampsia, 7 per cent as compared to 17 per cent (Menon, 1955). Menon (1961) had advocated early caesarean section in the obstetrical management of eclamptic patients and reported remarkable fall in the maternal and foetal mortality. These factors made us decide in favour of an "Active Obstetrical Management" in antepartum eclampsia.

It was decided, therefore, to deliver the cases of eclampsia either abdominally or vaginally as early as possible. The effect of the "fit-delivery" interval was observed on the mother and the foetus both.

Ninety-six cases of antepartum and intrapartum eclampsia were managed under this 'Active management' scheme during the period of 1972-1974. These cases belong to one particular unit only and do not represent the admission of the whole hospital. These were compared with our earlier cases managed conventionally during 1969-1971.

The following principles of treatment were laid down:

1. All cases on admission were given initial dose of ¼ gr. of Morphia I.M. and Largactil 50 mgm. Further sedations were used on the pattern of treatment advised by Menon (1961).

2. Detailed clinical examination was carried out and an assessment of patient's condition was made. They were categorized 'severe' or 'mild' according to the criteria laid down by the London Committee.

3. Vaginal examination was made to find out the stage and progress of labour and to know whether the cervix is ripe or not.

4. The management further varied according to the severity of the case and stage of labour.

A. *In mild cases*

(i) Sedatives were give as a routine,

(ii) A.R.M. was done and Syntocinon drip was started,

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(iii) Forceps or Vacuum extraction was used to further shorten the duration of labour,

(iv) Caesarean-section was carried out (a) If there was slow progress of labour or recurrence of fits occurred. (b) Unengaged head with uneffaced cervix.

B. *In severe cases*

(i) Sedatives—Morphia, Largactil, I.V. Pethidine were used,

(ii) A.R.M. and forceps delivery if patient was in 2nd stage or 2nd half of the first stage with cervix more than 6 cm. dilated,

(iii) L.S.C.S.—(a) When patient was not in labour. (b) Uneffaced cervix with high head.

5. Anaesthesia—(a) Local infiltration with I.V. drip of 200 mgm Pethidine and Calmpose 50 mgm. (b) Gas and O_2 inhalation.

Analysing our 96 cases it is found (Table I) that the maternal and foetal mortality depends on the severity of the cases. Fifty-six patients were of severe type and only 40 were mild cases.

There was no death in mild cases, and the 2 patients of severe cases who died were very severely anaemic.

Twenty-one cases were delivered by caesarean section without any death (Table II). Twelve patients delivered spontaneously while low forceps delivery was carried out in 63 cases.

No patient had recurrence of fits after caesarean section.

Foetal loss was 14 per cent including 10 stillbirths and 4 neonatal deaths due to prematurity and chest infection.

For a correct assessment of the value of our treatment a comparative analysis of the result of this 'Active management' and those of conventional treatment with conservative approach were made. These 136 cases were treated in the previous years.

It was observed from our earlier series of cases that the maternal mortality rate was directly proportional to the fit delivery interval (Table III).

This leaves no doubt in ones mind so as to make all efforts to shorten this interval to improve the results of any treatment.

TABLE I
Type of Severity

No. of cases	Type of severity	Blood pressure		Maternal mortality	Foetal mortality
		Highest	Lowest		
56	Severe	230/160	160/120	2	6
40	Mild	170/120	130/90	Nil	4

TABLE II
Mode of Delivery

Mode of delivery	No. of cases	Maternal mortality	Foetal mortality	
			Still birth	Neonatal death
L.S.C.S.	21	Nil	2	Nil
Low forceps	63	1	1	1
Normal delivery	12	1	7	3

TABLE III
Fit/Delivery Interval and Maternal Mortality

Time	Maternal Mortality
0 — 4 hours	10%
4 — 8 hours	16%
8 — 12 hours	24%
12 — 38 hours	38%

The maternal and foetal mortality rate of the control series was also studied (Table IV).

Maternal and foetal mortality of 16.9% and 27.8% respectively in comparison to the present series (Table II) speaks for itself and calls for a change in our attitude towards obstetrical management of eclamptic patients.

There were only 7 caesareans in 136 cases (Table IV) and few of these were mild cases. Only 2 patients were delivered by caesarean section in severe cases.

TABLE IV
Maternal and Foetal Mortality in Control Series

Severe cases	Maternal mortality		Foetal mortality	
86	19	16.9%	30	27.8%
50	4		8	

TABLE V
Mode of Delivery in Control Series

No. of cases	Mode of delivery	Maternal mortality	Foetal mortality
43	Normal delivery	9	14
80	Forceps delivery	7	20
7	L.S.C.S.	Nil	1
6	Undelivered	3	3

Comments

Although exact etiology of eclampsia is not known more and more evidence has accumulated to prove that placenta is the main factor responsible for this toxic condition. Remarkable improvement has always been observed following delivery or intrauterine death which ultimately leads to placental death. There is unanimity of opinion amongst the obstetricians regarding the termination of pregnancy in severe cases of toxaemia to ward off eclampsia but once eclampsia sets in delivery by caesarean section is supposed to be very dangerous. Although for a long time it was believed that emptying the uterus would improve the prognosis, as Macpherson, 1951 (quoted by Dickman, 1952) stated "When a convulsion occurs let us empty the uterus without delay"; yet because of the high maternal mortality (44%) resulting from forceps delivery in these cases, caesarean-section or rather any form of interference remained condemned till the fits subsided for 24 hours. Stroganoff (1926) and Dewar (1947) followed conservative line of obstetrical management but recommended A.R.M. or C.S. in cases where fits were not controlled by sedation. On one side it is advocated not to interfere till fits are controlled and on the other side to interfere or terminate in uncontrolled cases. If termination helps in someway in severe cases then why wait and withhold till the toxaemia has caused damage to liver, kidney and brain. It may be that the high

maternal mortality attributed to caesarean section is because the section was carried out only as a last measure and in late stages. Looking back it appears that in principle every one agrees with the beneficial role of termination of pregnancy or emptying the uterus but the conservative approach in the management of eclampsia was advocated because of the high maternal mortality following caesarean section. With the advent of modern anaesthesia, antibiotics, improvement of surgical skill with better knowledge of postoperative physiopathology and human dynamics the maternal mortality of caesarean section has been brought down to almost nil. It is high time we should revise our approach to the management of eclampsia. Menon (1955 & 1961) advocated very strongly for more active obstetrical management and thus brought down the maternal mortality and foetal mortality from 17.5 per cent and 38 per cent to 3.3 per cent and 25 per cent respectively. Following this approach he reported only 1 death in 42 caesarean sections performed for eclampsia. Stimulated by his experience and in view of our own clinical experience we tried this approach in 96 cases. The results were very encouraging and as the time rolled by our confidence and conviction increased in doing caesarean section in eclampsia cases. Even if the fits are controlled, if the patient is left only on conservative line, life of the foetus is certainly jeopardised.

The dramatic recovery that is observed even in moribund cases with the improvement in urinary output, cessation of convulsions and gradual diminution of pulmonary oedema speak very highly in favour of favour of this regime.

Prompt emptying of the uterus is the only way to stop deleterious effects of placental toxins on the mother and the foetus, and caesarean section is a safe part of this regime.

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