

A FIVE YEAR ANALYSIS OF ECLAMPSIA

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SUMMARY

In the five year period from 1st January 1982 to 31st December 1986 there were 84 cases of eclampsia amongst a total of 46,969 deliveries, at the Nowrosjee Wadia Maternity Hospital, Bombay. Thus the incidence of eclampsia was 0.179%. Thirtyeight (45.2%) of the cases were unregistered, while the rest had only 1 or 2 antenatal visits. Fifty seven (67.9%) were primigravidae. Seventy six (90.4%) cases were of antepartum eclampsia and 4 (4.8%) each of intrapartum and post-partum eclampsia. Thirty two (38.1%) patients had an induced labour with an amniotomy and an oxytocin infusion. A caesarean section was done in 22 (26.3%) cases. Forceps were applied to cut short the second stage in 16 (19%) cases, while 14 (16.7%) had a normal delivery. Thirtysix (42.9%) delivered before completion of 37 weeks of gestation. The perinatal mortality rate was 32.1%, all the perinatal losses occurred in cases of antepartum eclampsia and 17 (63%) occurred in the unregistered cases. Eclampsia was responsible for 1.2% of the total perinatal mortality during this period. There were three maternal deaths, two due to pulmonary oedema and one due to acute renal failure. Thus the maternal mortality rate was 3.56%, with eclampsia being responsible for 9.09% of the total number of maternal mortalities in this period.

Introduction

Obstetricians the world over have realised that eclampsia is a preventable disease. Efficient antenatal care and proper management of preeclampsia has almost eliminated eclampsia from many parts of the developed world. Unfortunately in India, efficient antenatal care is available only to a minute fraction of the population and eclampsia still continues to be an important obstetric problem.

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Material and Methods

All cases of eclampsia during a five year period from 1st January 1982 to 31st December, 1986 at the Nowrosjee Wadia Maternity Hospital were analysed with respect of the following factors: (i) Antenatal registration, (ii) Parity, (iii) Type of eclampsia, (iv) Mode of delivery, (v) Perinatal outcome, (vi) Maternal Mortality.

Observations

During this five year period there were 84 cases of eclampsia amongst a total of 46,969 deliveries. Thus our incidence of eclampsia was 0.179%.

(i) Antenatal Registration: 38 (45.2%) cases were unregistered while the remaining 46 (54.8%) had had only 1 to 2 antenatal visits.

(ii) Parity: As expected 57 (67.9%) patients were primigravidae.

(iii) Type of eclampsia: The majority of cases i.e. 76 (90.4%) were of antepartum eclampsia. There were 4 (4.8%) cases each of intrapartum and Postpartum eclampsia.

(iv) Mode of delivery: This is shown in Table I.

TABLE I
Mode of Delivery

Mode of Delivery	No.	%
A.R.M. with Oxytocin Induction	32	38.1
Cesarean Section	22	26.3
Operative Vaginal Delivery	16	18.9
Normal Vaginal Delivery	14	16.7
	84	100.0

(v) Perinatal Outcome: There were 27 perinatal losses, with a perinatal mortality rate of 32.14%. All these mortalities occurred in the antepartum eclampsia group. In the registered cases the perinatal mortality was 37% as compared to 63% in the unregistered cases. The total perinatal mortality rate for this period was 4.8% and eclampsia was responsible for 1.2% of all the perinatal losses during these five years. 36 (42.9%) cases delivered before completion of 37 weeks of gestation.

(vi) Maternal Mortality: There were 3 maternal mortalities, with a Maternal Mortality Rate of 3.6%. All the 3 maternal deaths occurred in unregistered cases and they all belonged to the group of antepartum eclampsia. 2 patients died of pulmonary oedema and in 1 case the cause of death was acute renal failure. The total maternal

mortality rate for this period was .07% and eclampsia was responsible for 9.1% of the total maternal deaths during these five years.

Discussion

The incidence of eclampsia as reported by other Indian Series during this period varies from 0.88% (Jain *et al*, 1988) to 4.6% (Goswami and Goswami, 1984). This variation is mainly due to the location of the centre. Hospitals serving a predominantly rural population have a manyfold higher incidence of eclampsia. Our incidence of 0.179% is amongst the lowest reported in India. This is mainly because our hospital serves a predominantly urban population and most of our patients receive antenatal care. In our series 45.2% of all cases were unregistered. This is lower than that reported by other Indian authors, where the proportion of unregistered patients ranges from 71.6% (Deshmukh and Anjaneyelu, 1980) to 98% (Sarkar, 1986).

The emptying of the uterine cavity has classically been an important part of the management of eclampsia. In patients who are already in labour, acceleration with an amniotomy and oxytocin infusion may be recommended as a routine. In patients who are not in spontaneous labour, an induction of labour may be attempted in cases with a favourable Bishops Score, however if the cervix is unripe a recourse to cesarean section may have to be made. The morbidity and mortality associated with a cesarean section in an eclamptic is more than that in a vaginal delivery, but under modern conditions the sinister reputation of a cesarean section delivery is unjustified. In severe antepartum eclampsia with an unripe cervix it may be preferable. But it must be remembered that the etiopathological processes of eclampsia continue after expulsion

of the uterine contents for an unpredictable length of time. Thus delivery does not always result in a cessation of convulsions and patient recovery. The cesarean section rates in eclampsia vary from 68% (Lean *et al*, 1968) to 2.19% (Dutta and Biswas, 1978).

The prognosis for both mother and baby is more favourable in cases of postpartum and intrapartum eclampsia as compared to antepartum eclampsia. In our series the perinatal mortality in antepartum eclampsia was 35.5% but there was no death in 4 cases each of intra and post partum eclampsia. Dutta and Biswas (1978) reported a 49.4% perinatal mortality rate in antepartum eclampsia and 32.9% and 15.2% in intrapartum and postpartum eclampsia respectively. Also the maternal mortality rate in antepartum eclampsia has been found to be much higher than that in post partum eclampsia (Yadav and Nayak, 1980, Bhowse, 1964; Menon, 1961; Dutta and Biswas, 1978 and Deshmukh and Anjaneyulu, 1980).

The perinatal mortality rate in eclampsia reported by various Indian authors ranges from 14.6% (Singh and Misra, 1977) to 47.4% (Devi *et al*, 1976). While the maternal mortality rates vary from 2.2% (Menon, 1961) to 19.6% (Goswami and Goswami, 1984). These wide variations suggest that the severity of eclampsia varies

not only in different parts of the world but also to some extent between different parts of the same country. Besides inherent regional differences, there also remain major differences in the Obstetric and medical management of these cases.

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