

CAESAREAN SECTION IN ECLAMPSIA

By

K. C. DE

SUMMARY

A study was conducted about the effectiveness and safety of caesarean section in eclampsia, from March 1977 to March 1982 in a Sub-divisional Hospital where average 89 Eclamptic patients were admitted per year.

Total 449 eclamptic cases were followed in this 5-year period. Antenatal and Intranatal cases were 66.46% and 18.56% respectively. Most of the patients were primigravidae and between 36 weeks to term pregnancy. All patients were treated by lytic cocktail and pelvic examination was conducted in each case 1 hour after sedation. Cervical dilatation less than 5 cm after 1 hour of sedation was considered for LUCS. 282 LUCSs and 97 vaginal deliveries were conducted with only 5 maternal deaths in caesarean section group, all were unrelated to operation, and 29 maternal deaths in the vaginal delivery group.

Birth weight of the babies were more than 2.6 kg in 255 cases of LUCS and 54 cases in vaginal delivery.

Caesarean section was found to be more effective in eclampsia than vaginal delivery.

Introduction

Eclampsia is still an important obstetric emergency in our country. Though it is preventable, still it is the 3rd common cause of maternal death in our country due to lack of proper nutrition, basic medical care and lack of other facilities. I had studied eclampsia cases in a State Hospital from March 1977 to March 1982 and its annual confinements were 2977 (average) out of them 89 (average) cases were admitted with eclampsia with average incidence 1 in 33 or 2.33%.

I had studied 449 eclamptic cases during the 5 year period and found that

caesarean section gave better result than the vaginal delivery in respect of maternal mortality and total salvage.

Distribution of Cases

Eclamptic patients admitted in this Hospital during March 1977 to March 1982 were taken into consideration in this study. Total 449 cases were followed-up during this 5 year period. Most of the patients were between the 20 to 32 years with maximum 35 years to minimum 17 years. Maximum number of cases were found between September to November months.

Table I shows the annual incidence of that period.

Table II shows the type of Eclampsia

TABLE I
Annual Incidence from March 1977 to March 1982 in S.D. Hospital, Rampurhut

Year	Patient admitted for confinement	No. of Eclampsia patients	Percentage
1977-78	3040	96	3.16
1978-79	3115	98	3.08
1979-80	3002	91	3.03
1980-81	2815	78	2.77
1981-82	2913	86	2.95
Total No. of patients:	14885	449	3.3

Average 2977

Average 89

TABLE II
Type of Eclampsia, During the Period March 1977 to March 1982 Admitted in S.D. Hospital (Rampurhut)

Period	Year									
	1977-78		1978-79		1979-80		1980-81		1981-82	
Total No. of ET patient	96		98		91		79		86	
	No.	%	No.	%	No.	%	No.	%	No.	%
ANTENATAL Eclampsia	66	68.75	65	66.33	61	67.03	54	68.35	53	61.83
INTRANATAL Eclampsia	17	17.71	19	19.39	20	21.98	13	16.46	15	17.44
POST PARTUM Eclampsia	13	13.54	14	14.29	10	10.99	12	15.19	18	20.93

Average Antenatal Case 66.44%

Average Intranatal Case 18.57%

Average Post Partum Case 14.99%

TABLE IIIA
Total No. of Ante and Postnatal, Postpartum case and incidence in relation to parity

TABLE IIIB
Total No. of Ante and Post Partum Case and Its Relation to the Duration of Pregnancy

Year	Total No. of Ante and Intra-natal Eclampsia	P 0 + 0		P 1 + 0		P 2 + 0		P 3 + 0 or more		28 weeks to 32 months		33 weeks to 36 months		37 weeks to term	
		No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
1977 to 1978	83	75	90	Nil	—	3	3.6	5	6.02	4	4.82	17	20.48	62	74.75
1978 to 1979	84	78	92.86	1	1.19	2	2.38	3	3.57	2	2.38	22	26.19	66	78.57
1979 to 1980	81	75	92.59	Nil	—	2	2.47	4	4.94	5	6.17	5	6.57	71	87.65
1980 to 1981	70	63	90	1	1.43	3	4.29	3	4.29	2	2.86	6	8.57	62	88.57
1981 to 1982	63	58	92.06	Nil	—	1	1.59	4	6.35	5	7.94	1	1.59	57	90.47

during admission. Antenatal and Intra-natal took the major share, with average incidence of 66.46% and 18.56% respectively. Post Partum eclampsia was 14.99%.

Table IIIA shows the parity and duration of the pregnancy of Antepartum and Intrapartum eclampsia. It was found that primiparity was the major contributor from 90 to 92% and minimum in those patients who had a term pregnancy from 0 to 1.42% and there was slight increment in incidence in nullipara i.e. parity 3 or more.

Table IIIB shows that more patients were found after the 36 weeks of pregnancy than 28 to 32 weeks of pregnancy.

Material and Methods

Most of them were admitted without any first aid through emergency and were partially exhausted. After routine examination, the lytic cocktail given to control the convulsion i.e. 25 mg largactil and 100 mg pethidine in 5% glucose I.V., then 25 mg largactil and 25 mg phenargan I.M. with 10% glucose drip and 100 mg pethidine. After controlling the fits, patients were examined thoroughly and P/V examination done to assess the feasibility of vaginal delivery.

Table IV shows the examination result in combined antenatal and intranatal eclampsia after 1 hour. Most of the patients found with cervical dilatation less than 5 cm which was the cut off line in my study for LUCS and vaginal delivery. About 67 to 83.82% patients showed the cervical dilatation less than 5 cm. About 66.67 to 79.41% of the patients had cervical effacement less than 50%, lower pole-1 and above in 72.89 to 77.94% and cephalopelvic disproportion in 2.38 to 6.17%.

TABLE IV
Result of Examination of 1 Hour After the First Aid and Sedation of Eclamptic Patient (Antepartum and Intrapartum) During the Period March 1977 to March 1982

Year	1977-78		1978-79		1979-80		1980-81		1981-82	
Total No. of Ante and Intra Partum cases	No.	%	No.	%	No.	%	No.	%	No.	%
Cx dilatation (less than 5 cm)	56	67.47	58	69.05	60	74.02	51	76.12	57	83.82
Lower Pole — 1 and above	60	72.29	55	65.48	62	76.54	48	71.64	53	77.94
Less than 50%	60	72.29	56	66.67	61	75.31	50	74.63	54	79.41
Any gross LPD	3	3.13	2	2.38	5	6.17	3	4.48	2	2.94

TABLE V
Mode of Delivery

Year	Vaginal delivery with assistance by forceps		LUCS		Total Ante and Intra Partum Patients
	No.	%	No.	%	
1977-78	27	32.53	56	67.47	83
1978-79	26	30.95	58	69.05	84
1979-80	21	25.93	60	74.07	81
1980-81	16	23.88	51	76.12	67
1981-82	11	16.18	57	83.82	68
Total:	101	26.37	282	73.63	383

TABLE VI
Maternal Death

Year	Vaginal delivery	Maternal death	Lucs	Maternal death
1977-78	27	6	56	Nil
1978-79	24	7	58	2
1979-80	21	6	60	1
1980-81	16	8	51	2
1981-82	11	2	57	Nil
Total		29		5

TABLE VII
Comparative Fetal Result (During the Period March 1977 to March 1982)

Mode of delivery	Total Number	Birth below 2.5 kg.	Birth above 2.5 kg.	Still birth
Vaginal	82	28	54	30
LUCS	282	27	255	2

Lower uterine caesarean sections were performed in those patients who had less than 5 cm cervical dilatation 1 hour after first aid and sedation. LUCS was done under general anaesthesia and induction with gas and oxygen were sufficient in most of the cases. The same agents were used to maintain the anaesthesia. After LUCS, in addition to the treatment mentioned, 50 mg of pethidine given for the reduction of painful reflexes. Caesarean

section done in case of primi not in labour, cervical dilatation less than 5 cm after 1 hour of sedation, and uncontrollable fits. Multigravida not in labour and cervix unfavourable for surgical induction i.e. ARM. In 6 cases of grand nullipara LUCS was done without any hesitation.

Vaginal delivery was conducted in those patients who have had the cervical dilatation more than 5 cm and efface-

ment more than 50% without any gross cephalopelvic disproportion. To cut short the 2nd stage of labour forceps was applied routinely.

Results

LUCS was done in eclamptic patients to increase fetal salvage and reduce the maternal mortality and morbidity due to persistent high blood pressure and repeated convulsions which seems to be provoked by the placental tissue and distended uterus. In this 5-year study, 282 LUCS were done compared to 97 vaginal deliveries. Incidence of LUCS was 73.63% and vaginal delivery 26.37%.

There were only 5 maternal deaths in LUCS group and none of them due to the surgical intervention. 3 of them died on the third post-operative day due to cerebral haemorrhage and 2 of them died due to pulmonary oedema on the 8th day. 29 maternal deaths occurred in vaginal delivery group and 15 of them died undelivered (10 of them due to cerebral haemorrhage, 3 due to heart failure and 2 due to renal failure). 14 patients died after the delivery of the baby. 9 of them due to cerebral haemorrhage after 3 to 5 days of confinement, 3 others died due to puerperal sepsis after 5 to 7 days of confinement and one patient died due to renal failure on the 7th post partum day.

About the foetal salvage, LUCS showed the increased incidence of live birth more than 2.5 kgs. in 255 cases and 27 less than 2.5 kgs. There were only 2 still births.

Vaginal delivery was conducted in 97 cases, amongst them 15 mothers died undelivered; in the remaining 82 cases, there

were 28 babies with birth weight less than 2.5 kgs. and 54 had the birth weight more than 2.5 kgs. and still birth occurred in 30 in this group.

Discussion

The major yardstick in the management of eclampsia is to reduce the maternal morbidity and mortality, and increase fetal salvage.

Morris and Dewer (1947) during their trials with Bromomethol in eclampsia, advocated caesarean section in cases when vaginal delivery delayed by weak response of uterus after artificial rupture of membrane that was obvious by vaginal assessment.

Menon (1961) reviewed 174 maternal deaths among 1,151 cases treated and found that antepartum eclampsia had the highest mortality i.e. 17% as against 9% in postpartum and 6% in Intrapartum eclampsia. He also noted that longer time interval of onset of first convulsion and delivery greater the maternal mortality. He performed 42 caesarean sections with one maternal death, unrelated to the operation.

Lean and co-workers (1968) advocated caesarean section at the end of 1 hour of starting treatment. In that study, 38 patients were delivered by LUCS (68%) with one maternal death, unrelated to operation.

In the present study, 282 caesarean sections were done with only 5 maternal deaths and all unrelated to operation and there were only 2 still births.

Conclusion

- (1) Termination of pregnancy by

caesarean sections decreases the maternal death.

(2) Timely LUCS increases the fetal salvage.

(3) LUCS is not a problem nowadays due to advancement of Antibiotic therapy and safety of Anaesthesia.

References

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