

ROLE OF CAESAREAN SECTION IN ECLAMPSIA

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ABSTRACT

The disease "Eclampsia" is known since the birth of modern medicine and even before that. The Syndrome of pre-eclamptic toxemia is known for last 200 yrs. Still, the disease continues to hunt the obstetrician and with considerable severity. The clinical management of eclampsia 'has gone through' many changes and achieved good results with the introduction of new regimes. The present study is undertaken to find out/access the Role of Caesarean section in eclampsia and to study the outcome of caesarean section with reference to maternal mortality. Maternal morbidity, perinatal mortality and perinatal survival.

KEYWORDS

Caesarean Section, Eclampsia, Maternal Mortality, Maternal Morbidity, Perinatal Mortality, Perinatal Survival.

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INTRODUCTION

The term "Eclampsia" is derived from a Greek word meaning "like a flash of lightning" Alexander Hamilton (1791) described eclampsia as a disease, which always attended with the utmost hazard and frequently kills the woman like a fit of apoplexy.

Eclampsia is a life-threatening emergency that continues to be a major cause of maternal and perinatal mortality worldwide. Maternal mortality varies widely at different places with almost identical management indicating that there may be some important differences in socio-economic condition of the nation and the quality of obstetric care.

It is reported throughout the world that the incidence of Eclampsia is gradually declining, but it is still a menace in India and other developing countries. In India, maternal mortality and morbidity from eclampsia is very high. The figures range from 8-14%. A low maternal mortality of 2.2 was reported by Menon. The perinatal mortality ranges from 14.6% to 47.4%.

The clinical management of eclampsia 'has gone through' many changes and achieved good results with the introduction of new regimes.

The present study is undertaken to find out/access the Role of Caesarean section in eclampsia and to study the outcome of caesarean section with reference to maternal mortality. Maternal morbidity, Perinatal mortality and Perinatal survival (Eclampsia cases with reference to its).

- Incidence,
- Primigravida which is affected more,
- Management of choice - Caesarean section,
- Mode of delivery affecting maternal and perinatal outcome.
- Major maternal complication and mode of delivery.

- Eclampsia/imminent eclampsia as an indication for caesarean section, admission discharge interval and mode of delivery of eclampsia patients.

MATERIAL AND METHODS

A total no. of 118 cases of eclampsia admitted to RSCM, GMC, Kolhapur.

Inclusion Criteria

- Patients with antepartum convulsion.
- Patients with intrapartum convulsion.
- Patients with postpartum convulsion till 8 days.
- All patients referred to the hospital, and
- Patients on Pritchard's regime.

Exclusion Criteria

- Patients with convulsion due to a cause other than eclampsia. Eg. Epilepsy, Cerebral venous thrombosis.

On admission, detailed history was taken from the attendant and clinical examination was done. Particular reference was given to the following points-

1. Name, address, age, occupation of the patient, occupation of her husband, socio-economic status.
2. Detailed history regarding Registration of case, ANC check-up, previous history of PIH/PET/Eclampsia, PIH/PET/Eclampsia in this pregnancy was taken.
3. Duration of gestation.
4. Detailed history of eclampsia with reference to
 - a. H/O Labour pains
 - b. H/O PV Bleeding
 - c. H/O PV Leaking
 - d. Premonitory symptoms – Headache, Giddiness, Blurring of Vision, Nausea/Vomiting, Epigastric pain, Scanty urine.
 - e. Convulsions:
 1. Total no. of convulsions - after admission
 2. Time of onset of 1st convulsion
 3. Interval between convulsions
 4. History of loss of consciousness
 5. Period of loss of consciousness after convulsion.
 6. Interval between two convulsions.
 7. Any treatment outside.
 8. Time interval between 1st convulsion and admission.

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- A detailed obstetric history, menstrual history, past history, family history, personal history and contraception history were noted. A detailed history taken on obst exam.

INTERVENTION

- General nursing care, fluid and electrolyte balance were maintained, U/O was monitored with an indwelling catheter.
- Medical management.
 - Anticonvulsants: To keep the patient sedated and to prevent convulsion, MgSO4 therapy was used. Pritchard’s Protocol: (High dose regime).
 - Antihypertensive.
 - Antibiotics.
- Obstetric management.

An attempt was made in each case after the control fits to find out if the patient was in labour, whether the cervix was favourable for induction.

If the cervix was favourable and the CPD was r/o labour, was induced with either oxytocin drip, ARM, PGE, etc. and patient was allowed for vaginal delivery.

II stage was shortened by assisting the delivery by forceps or vacuum extractor whenever indicated. Lower segment caesarean section was done for eclampsia per se in cases of unfavourable cervix, status eclampticus and if the convulsions recurred and were not controlled in 10-12 hrs. after starting the treatment in favour of maternal condition.

Follow-Up

All the mothers were followed up for evidence of - Decrease in BP.

- Evidence of proteinuria.
- Any other complication of eclampsia.

All the babies delivered were followed up during neonatal period for complications.

Statistical Analysis: Has been done using the Chi- Square test. Where - O = Observed
E = Expected
The total no. of 5876 deliveries have been conducted, out of which 118 patients had eclampsia.

Mode of Delivery	No. of Cases	%
A) Vaginal	68	57.62
Full term normal delivery	18	26.47
preterm	50	73.52
B) Lower segment caesarean section	50	42.37
Full term	26	52.00
Preterm	24	48.00

First Convulsion - Admission Interval	All Cases of Eclampsia	Maternal Mortality
(A) Vaginal		
0-6	55	-
7-12	11	1
13-18	2	1
19-24	-	-
>24	-	-
(B) Lower Segment		

Caesarean Section		
0-6	36	-
7-12	10	-
13-18	4	1
19-24	-	-
>24	-	-

It is observed that maternal mortality increases with increase in first convulsion - admission interval.

Maternal Mortality in Relation to Type of Eclampsia

Types of Eclampsia	All Cases		Maternal Mortality	
	No. of Cases	%	No. of Cases	%
A) Vaginal delivery				
Antepartum	35 (1 Postpartum has recurrence)	$\frac{35}{68} \times 100 = 51.47$	1	$\frac{1}{35} = 2.85$
Intrapartum	31 (1 Postpartum has recurrence)	$\frac{31}{68} \times 100 = 45.58$	1	$\frac{1}{31} = 3.32$
Postpartum	2	$\frac{2}{68} \times 100 = 2.94$	-	0
B) Caesarean Section				
Antepartum	26 (5 Postpartum has recurrence)	$\frac{26}{50} \times 100 = 52$	1	$\frac{1}{26} = 3.8$
Intrapartum	24	$\frac{24}{50} \times 100 = 48$	1	0
Postpartum	0	0=0	-	0

It is observed that there were 2 deaths in group A and 1 death in group B. Both these antepartum and intrapartum cases have postpartum recurrence.

Maternal Mortality in Relation with No. of Convulsions

No. of Convulsion	Mode of Delivery	Maternal Mortality	%
1	Vaginal 22	-	0
	C.S. 15	-	0
2	Vaginal 21	-	0
	C.S. 17	-	0
3	Vaginal 14	-	0
	C.S. 08	-	0
4	Vaginal 04	1	12.50
	C.S. 04	-	0
5	Vaginal 03	-	0
	C.S. 04	1	16.66%
6	Vaginal 02	-	0

	C.S.	-	0
7	Vaginal 01	-	0
	C.S.	-	0
8	Vaginal	-	0
	C.S. 02	-	0
9	Vaginal 01	1	100%
	C.S.	-	0
10	Vaginal	-	0
	C.S.	-	0

It is observed that maternal mortality is associated with increase in no. of convulsions.

Showing Causes of Maternal Mortality

There were 3 maternal deaths, each case due to multiple causes due to eclampsia.

No.	Mode of Delivery	Causes PPH	Shock	HELLP	DIG	CCF	Aspiration Pneumonitis
1	C.S.	√	√		√		
2	Vaginal	√		√			√
3	Vaginal	√	√	√	√	√	

Of the 3 maternal deaths all 3 had PPH, 2 developed shock, 2 developed HELLP, 2 developed DIG, 1 developed Aspiration pneumonitis.

Distribution of Perinatal Deaths in Eclampsia, Convulsion Onset-Delivery Interval

Convulsion Onset & Delivery Interval (hrs.)	No. of Cases	Vaginal Delivery	C.S.
<6	12	7	5
6-12	9	5	4
13-24	20	19	1
24	3	3	0

DISCUSSION

The incidence in the present study is 2% as against 2.79% and 1.85% reported by Arup Kumar Majhi (2001).¹ and Nobis P (2002).² respectively. The higher incidence in the present study is due to lack of proper antenatal care and also because the study is undertaken in a referral hospital.

In the present study, convulsion onset delivery interval is directly proportional to maternal and perinatal mortality. Similar observations have been made by Nanda Smita (1989).³ and Swain S (1993).

The perinatal mortality increases when the interval between the first fit and the delivery increases due to prolonged exposure to intrapartum asphyxia.

The rate of maternal and perinatal mortality in antepartum eclampsia are comparatively much lesser than the findings of Varawalla Nermee Y (1978).⁴

According to Datta and Biswas (1978).⁵ perinatal mortality rate in antepartum eclampsia was 49.4%, 32.9% in intrapartum.

Out of 118 cases 57.62% cases delivered vaginally, while 42.37% cases delivered by caesarean section. Maternal mortality of 11 2.94% was observed in vaginal delivery group, while it was 2% in caesarean section group.

There is no general agreement as to the mode of delivery in eclampsia. Menon (1961).⁶ and Worley (1984) recommended vaginal delivery in eclampsia reserving C.S. only for obstetrical reasons. On the other hand, Pritchard (1985), Chesley (1978) have favoured C.S. to reduce the maternal and perinatal mortality.

ABBREVIATIONS

- PPRC - Postpartum Recurrence of Convulsion.
- P - Preterm.
- LBW - Low Birth Weight Baby.
- IUGR - Intrauterine Growth Retardation.
- IA - Intrapartum Asphyxia.
- C.S. - Caesarean Section.
- Vag - Vaginal Delivery.
- UC - Uncontrolled Convulsion.
- CPD - Cephalo-Pelvic Disproportion.
- FD - Fetal Distress.
- UCx - Unfavourable Cervix.
- PC/CPD - Previous LSCS with CPD.
- AP - Abruptio Placentae.
- OC - Oblique lie.
- DIC - Disseminated Intravascular Coagulation.
- PPH - Postpartum Haemorrhage.
- APP - Aspiration Pneumonitis.
- CCF - Congestive Cardiac Failure.
- Uncon - Unconsciousness.

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