

COMPARATIVE EVALUATION OF MATERNAL AND FOETAL MOROBIDITY AND MORTALITY IN CAESAREAN SECTION/VAGINAL DELIVERY

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SUMMARY

150 cases of caesarean section and equal number of vaginal delivery cases were evaluated for maternal and foetal morbidity and mortality. It was concluded that highest maternal morbidity (37.8) was seen in complicated vaginal deliveries and maternal morbidity in emergency caesarean section (29%) was 3 times than that seen in elective caesarean sections. Perinatal loss in complicated vaginal deliveries (16.2%) was 8 times as compared to spontaneous vaginal deliveries (2.6%) and perinatal mortality in emergency caesarean section was double than that seen in elective caesarean section. However there was not much difference in the morbidity rate of babies delivered by caesarean section and vaginally.

INTRODUCTION

The incidence of caesarean section is considerably rising because of increased safety of this regards anaesthesia, blood transfusion and availability of wide range of antibiotics. It is often preferred to complicated vaginal deliveries where we expect trauma to birth canal, infection and we expect trauma to birth canal, infection and foetal jeopardy. The present study was aimed at elucidating the outcome, both maternal and foetal of the patients who underwent this operation as compared to those who delivered vaginally.

MATERIAL AND METHODS

300 cases admitted in Government Hospital for Women, Medical College, Amritsar were taken for study. They were divided into 2 groups.

Group I : 150 cases of vaginal delivery.

Group II : 150 cases of caesarean delivery.

A detailed history of the patient and her detailed labour record was kept. The mortality and morbidity pattern of all the mothers and infants were recorded and compared.

OBSERVATIONS AND DISCUSSION

During this study period the caesarean section rate was 29.1% which included both booked (37.3%) and unbooked (62.6%) cases. The ma-

majority of the cases (84.6%) in both the groups were between the age of 20-29 years. 54.6% of the cases were primigravidae and rest (45.4%) were multigravidae. 71.6% of them were between 38-40 weeks of gestation. The maternal morbidity in group - I (Table - I) was 9.3% in spontaneous and 37.3% in complicated vaginal deliveries. The puerperal pyrexia (25.3%) and urinary tract infection (18.6%) were commonest followed by wound dehiscence. (8.0%) Mitra et al (1981) had reported episiotomy wound infection in 7.2% and urinary tract infection 5.5% in cases in a similar study.

In group - II, the morbidity in emergency caesarean cases was almost thrice (29.3%) as compared to elective cases (10.7%). Wound infection in the former group (21.3%) was more than five times as compared to the latter (4.0%).

Puerperal pyrexia (22.6%) and urinary tract infection (17.3%) were also seen more often in the emergency caesarean cases. The overall morbidity rate of 10.7% and 29.3% in elective and emergency cases respectively, in our series, is comparable to 11.5% and 24.3% reported by Rajurkar and Sood, (1987). However Bryant (1967) had reported a lower rate of 8.4% in elective cases.

The morbidity rate of babies delivered in complicated vaginal group (38.9%) was about 3 times higher as compared to spontaneous vaginal group (13.3%). Jain et al (1988) had reported morbidity rate of 22% in complicated vaginal deliveries. The foetal morbidity was almost twice in emergency caesarean section (36.0%) as compared to elective cases (17.3%). Basak et al (1981) had also reported to these as 23.8% and

Table I
Maternal Morbidity Pattern

Cause	Vaginal Delivery Group - I		Caesarean Section Group - II	
	Spontaneous	Complicated	Elective	Emergency
1. Shock	-	2 (2.7)	-	3 (4.0)
2. Puerperal Pyrexia	5 (6.7)	19 (25.3)	5 (6.7)	17 (22.6)
3. Genital Tract Infection	2 (2.7)	7 (9.3)	3 (4.0)	5 (6.7)
4. Urinary Tract Infection	3 (4.0)	14 (18.6)	4 (5.3)	13 (17.3)
5. Wound infection/vulval Haematoma	-	2 (2.7)	3 (4.0)	16 (21.3)
6. Wound dehiscence/ Gaped Episiotomy.	1 (1.3)	6 (8.0)	-	7 (9.3)
7. Secondary PPH	-	3 (4.0)	-	2 (2.7)
* Total	7 (9.3)	28 (37.3)	8 (10.7)	22 (29.3)

The Figures within parentheses indicate percentage of cases.

* The discrepancy in the total is because of more than one form of morbidity in some instances.

Table II
Foetal Morbidity Pattern

Cause	Vaginal Delivery Group - I		Caesarean Section Group - II	
	Spontaneous	Complicated	Elective	Emergency
1. Fever	3 (4.0)	9 (12.0)	4 (5.3)	7 (9.3)
2. Conjunctivitis	4 (5.3)	6 (8.0)	2 (2.7)	3 (4.0)
3. Diarrhoea	5 (6.7)	8 (10.7)	3 (4.0)	7 (9.3)
4. Umbilical Sepsis	2 (2.7)	5 (6.7)	1 (1.3)	3 (4.0)
5. Respiration Infection	-	3 (4.0)	1 (1.3)	1 (1.3)
6. Oral thrush	1 (1.3)	2 (2.7)	1 (1.3)	1 (1.3)
7. Jaundice	2 (2.7)	10 (13.3)	4 (5.3)	11 (14.6)
* Total	10 (13.3)	29 (38.9)	13 (17.3)	27 (36.0)

* The Figures within parentheses indicate percentage of cases.

* The discrepancy in the total is because of more than one form of morbidity in some instances.

Table III
Perinatal Mortality

	Vaginal Delivery		Caesarean Section	
	Spontaneous	Complicated	Elective	Emergency
Still birth	2 (2.7)	11 (14.6)	1 (1.3)	7 (9.3)
Neonatal Death	-	3 (4.0)	4 (5.3)	2 (2.7)
Perinatal Mortality	2 (2.7)	14 (18.6)	5 (6.7)	9 (12.0)
Mean Perinatal Mortality	16 (9.9)		14 (9.3)	

18.1% respectively.

A perusal of table II reveals that the morbidity pattern was almost similar amongst the babies born vaginally and by caesarean section.

The overall perinatal mortality rate was almost

equal in caesarean babies and those delivered by vaginal route i.e. 9.3% and 9.9% respectively (Table III) Chowdhary (1981) also reported perinatal mortality in caesarean section as 7.5% whereas Basaketal (1981) observed that perinatal

mortality in caesarean babies was 4 times of that seen in vaginally delivered babies. Varawalla et al (1989) however, has put this figure at 1.8 times.

The perinatal loss in emergency caesarean section (12%) in our study in almost double as compared to elective cases (6.7%). Basak et al (1981) however reported it to be 10.2% and 2.88% respectively, thereby showing it to be nearly 4 times.

The perinatal loss was highest in complicated vaginal deliveries (18.6%), next higher in emergency caesarean sections (12%), followed by that elective caesarean section (6.6%) and lowest in spontaneous vaginal delivery (2.7%).

CONCLUSIONS

Highest maternal morbidity was observed in complicated vaginal deliveries which was even

more as compared to emergency caesarean sections. Infections were more often responsible for maternal or foetal morbidity in both the groups.

It is concluded that most of the cases of maternal and foetal morbidity can be avoided by timely decision in favour of caesarean section vis-a-vis complicated vaginal delivery and the infections should be energetically treated.

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