

Maternal and Perinatal Outcome in Breech Presentation

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Summary

A total of 939 cases of Breech Presentation were studied over a 3 years period from April 1991 to March 1997, in a tertiary teaching hospital (attached to Seth G.S. Medical College, Mumbai, India). The antenatal, intranatal and postnatal management and maternal and perinatal outcome were studied.

It was seen that caesarean section helps in significantly lowering the perinatal mortality in primigravida with breech presentation. It was also seen that elective caesarean section significantly lowered the perinatal mortality in VI BW infants, where good NICU facilities were available.

The review of literature shows that, over the years, there has been a trend towards liberal caesarean sections for breech presentation, with a view to reduce the perinatal mortality and morbidity with high risk vaginal breech deliveries.

Introduction

Breech presentation, is the most common form of malpresentation found at term. Despite all the sophisticated facilities available to the obstetrician today, morbidity and mortality of breech presentation has continued to remain 3-5 times higher than that of cephalic presentation.

Breech presentation at delivery occurs in 3-4% of pregnancies (Oxorn Foote, 1986). However, prior to 28 weeks, the incidence is about 25%. As term approaches, the incidence decreases. In most cases, the foetus converts to cephalic presentation by 34 weeks. 8% of babies presenting by Breech are preterm (Oxorn-Foote, 1986).

Prognosis of Breech Presentation

1. For the mother. Genital tract lacerations and haemorrhage can be caused during vaginal breech

delivery, due to passage of the baby through a pelvis that is too small, or in which the soft tissues have not been sufficiently dilated.

2. For the foetus: The foetal mortality associated with vaginal breech delivery, is 3 times that of delivery with cephalic presentation. Factors influencing the perinatal mortality include:

- a) Prematurity
- b) Congenital anomalies
- c) Prolapse of umbilical cord
- d) Foetal asphyxia
- e) Foetal injury

There has thus been a gradual change in our thinking, on how best to manage a patient with breech presentation over the last decade. The clinician today is not only concerned with lowering the perinatal mortality, but also in improving the quality of life, so that no infant born should suffer the hazards attributable to the mode of delivery.

Material and Methods

The present study was undertaken in Nowrosjee Wadia Maternity Hospital, which is attached to the Seth G.S. Medical College, Mumbai, Maharashtra.

The study was done with a view to analyse the mode of delivery, criteria for caesarean section, intrapartum problems encountered, and the maternal and foetal morbidity and mortality associated with breech presentation.

Results, Analysis and Discussion

A total of 939 patients with breech presentation were studied over a span of 3 years.

Out of 939 patients, 908 (96.7%) were frank breech and 31 (3.3%) were other types of breech like

complete, footling and kneeling breech.

The overall incidence of breech presentation was 2.96%. 52.08% of our cases were primigravidas and 47.92% were multigravidas.

Table I gives the obstetrical complications encountered by us.

The presence of various high risk factor antenatally, or appearing during the course of labor weigh the decision of the attending obstetrician in favour of a caesarean section.

Table II gives the mode of delivery & Table III its relations to perinatal mortality.

The corrected perinatal mortality rate, after excluding preterm births and congenital malformations

Table I
Obstetrical Complications Associated with Breech Presentation

Sr. No.	Complication	Incidence in		Total
		Primi	Multi	
1	Preterm labor	82	95	177 (18.85%)
2	PROM	21	20	41 (4.37%)
3	IUGR	183	141	324 (34.5%)
4	Congenital malformations	11	11	22 (2.34%)
5	Oligohydramnios	6	5	11 (1.17%)
6	Polyhydramnios	1	1	2 (0.21%)
7	Placenta Praevia	2	7	9 (0.96%)
8	Cord Prolapse	4	3	7 (0.75%)

Table II
Mode of Delivery in Breech Presentation

Mode of Delivery	Incidence in		Total
	Primi	Multi	
Vaginal Breech	151	217	365 (39.19%)
Caesarean Section	336	235	571 (60.81%)

Table III
Relation of Perinatal Mortality to Mode of Delivery

Mode of delivery		Primi		Multi	
		FSB*	NND*	FSB*	NND*
Vaginal	Term	1	3	2	1
Breech	Preterm	10	9	11	7
Caesarean	Term	0	0	1	0
Section	Preterm	0	2	0	2

* FSB - Fresh still birth

NND - Neonatal death < 7 days after birth.

Table IV
Corrected Perinatal Mortality Rate in Breech

	Primi		Multi	
	Caesarean Section	Vaginal Breech	Caesarean Section	Vaginal Breech
Corrected (per 1000 births)	Nil	31	12.55	15.23

is shown in table IV.

The overall corrected perinatal mortality rate, from the present study was 10.89/1000 births. The perinatal mortality rate for primigravidas delivered by caesarean section was 0 and that for primigravidas delivered vaginally was 31/1000 births. This difference is highly significant statistically ($P < 0.001$). For multiparas, however, the difference is not statistically significant ($p > 0.5$).

Thus, it can be clearly seen that caesarean section helps in significantly lowering the perinatal

mortality associated with vaginal breech deliveries in primigravidas.

An overall meta-analysis of literature gives a neonatal mortality rate, which is 4 times higher after vaginal breech delivery than after caesarean section (Erk'ale 1996).

It is seen from Table V, that 33.9% of VLBW infants (< 1500 gms) delivered vaginally suffered severe birth asphyxia (APGAR < 4) and 42.86% suffered mild birth asphyxia (APGAR 5-7), whereas only 18.18% of VLBW infants delivered by LSCS suffered severe birth

Table V
Perinatal Outcome in relation to Birth Weights and Mode of Delivery in Breech Presentations (excluding congenital malformations)

Birth weight	Perinatal morbidity					
	Vaginal Breech APGAR			Caesarean section APGAR		
	< 4	5-7	8+	< 4	5-7	8+
< 1500 gms	33.9%	42.86%	23.2%	18.18%	22.73%	59.09
1500-2500 gms	1.08%	6.45%	92.4%	0.34%	2.41%	97.25
> 2500 gms	0.65%	18.95%	80.39%	0.36%	14.03%	85.61

Table VI
Perinatal Mortality in Relation to Birth Weights and Mode of Delivery in Breech (excluding congenital anomalies)

Birth Weight	Vaginal Breech	Caesarean Section
< 1500 gms	48-72%	9.09%
1500-2500 gms	5-26%	0.68%
> 2500 gms	0.65%	1.08%

Table VII
Maternal Morbidity in Breech Presentations

Sr. No.	Maternal Morbidity	Number of Cases
1.	Vulval haematoma	1
2.	3 rd perineal tear	2
3.	MRII	4
4.	Placenta praevia with obstetric hysterectomy	2
5.	Blood transfusions for excessive haemorrhage	4

as 10.5% and 12.7% suffered mild birth asphyxia. Plus, there is a considerable decrease in perinatal mortality in VI BW infants delivered by caesarean section compared to those delivered vaginally.

From Table VI, it is seen that the perinatal mortality in VI BW infants delivered vaginally is 48.72%, which is significantly more than VI BW infants delivered by C/S which is 9.99% (P= 0.001). In normal birth weight infants (>2500 gms) or in infants between 1500-2500 gms, there is no such significant differences.

Thus, we can conclude that caesarean section helps to significantly reduce the perinatal mortality associated with vaginal breech delivery in VI BW infants (>1500 gms) and preterm infants.

Maternal outcome with Breech Presentations

The maternal morbidity can be due to fetal or maternal trauma, occurring during a difficult vaginal breech delivery, or due to the increased incidence of caesarean sections associated with breech presentation. It can be decreased by a proper selection of cases for vaginal breech delivery and by meticulous technique.

References

1. Erkkola R. : J. Perinat. Med. , 24: 553, 1996
2. Oxorn Foote: Human Labour and Birth, 4th Edn 1986. Appleton-Century-Crofts, Norwalk, Connecticut. A publishing Division of Lence Hill Inc.