

FOETAL OUTCOME IN BREECH PRESENTATION IN SAFDARJANG HOSPITAL—475 CASES

by
SUNANDA GUPTA,* M.B.,B.S., M.S.

and

S. F. JALNAWALA,** M.B.,B.S., M.R.C.O.G.

Introduction

For centuries, obstetricians have recognised that compared to infants in cephalic presentation, Breech infants delivered vaginally sustain significantly increased rates of perinatal mortality and morbidity. So, the management of a patient with breech presentation continues to be one of the most challenging problems in obstetrics. Caesarean section is being increasingly undertaken for breech as it is safer and ensures a healthy living baby as both the obstetrician and the patient do not wish to take risks. Also, comes the problem of medico-legal risk to the obstetrician. So, whatever method of delivery is undertaken, it should have no immediate or late effects on the new-born directly or indirectly.

Keeping this in mind, the present study was undertaken to evaluate the foetal outcome in spontaneous, assisted breech deliveries and caesarean sections for breech presentation.

*Lecturer in Obstetrics and Gynaecology, formerly Senior Resident in Safdarjang Hospital, New-Delhi.

**Professor and Head of the Department of University College of Medical Sciences (Safdarjang Hospital) New-Delhi.

Address for Correspondence:

38, Jhotwara Road, Behind Zenana Hospital, Jaipur-302 006.

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Material and Methods

It is a retrospective study of 475 breech presentations in Safdarjang Hospital, New Delhi in the year 1979-1980. Twin breech were excluded from the study. Foetal outcome was assessed in all foetuses delivered as breech and the perinatal mortality and morbidity were studied.

Results

Out of 15024, deliveries in a period of two years, there were 475 breech labours (excluding twins), an overall incidence of 3.1% of all deliveries. Maximum number of patients were between 21-30 years (320); 277 (61.40%) were primipara and 198 (38.60%) multipara. Two hundred were booked and 275 were emergency admissions.

Associated obstetrical complications encountered were: toxæmia of pregnancy in 15, postmaturity in 5, placenta previa in 3, accidental haemorrhage, jaundice and diabetes mellitus in 2 each, and severe anaemia in 1 patient.

Two hundred (42.00%) were footling breech, 175 (37%) frank or extended breech and 100 (21.00%) complete breech presentation.

Four hundred and five foetuses delivered vaginally, of these 302 (74.6%) required assistance for delivery and 70 were born by caesarean section; breech

extraction was performed in 7 patients (in 3 for foetal distress, 2 for cord prolapse, and 1 each for uterine inertia and prolonged second State of labour (Tables I and

II). Table III compares the caesarean section rate in primipara and multipara.

Out of 475 breech births, 285 fetuses were preterm (incidence of prematurity

TABLE I
Labour in 475 Breech Births

Nature of Delivery	Primipara (277)		Multipara (198)	
	No.	%	No.	%
1. Spont. vag. Del.	27	9.6	76	38.48
2. Assisted vag. Del.	195	70.3	98	49.49
3. Forceps to after coming head	2	0.7	—	—
4. Breech extraction	3	1.08	4	2.02
5. Lower segment CS.	50	18.05	20	10.10

TABLE II
Indications for Caesarean Section in Breech

Indications	No.	%
1. Elective L.S.C.S.	24	34.28
2. Borderline Pelvis	8	11.42
3. Bad Obstet. History	5	7.14
4. P.R.O.M.	5	7.14
5. Uterine dysfunction	5	7.14
6. Big baby	4	5.71
7. Cord prolapse	4	5.71
8. Postmaturity	4	5.71
9. Previous L.S.C.S.	3	4.28
10. Placenta previa	3	4.28
11. Elderly primi	2	2.85
12. Hyperextension of foetal head	2	2.85
13. Obstructed labour	1	1.42

TABLE III
Caesarean Section Rate According to Parity

Parity	Caesarean Section	
	No.	%
1. Primipara	50	71.30
2. Multipara	20	28.70

being 60.00%) and 190 (40.00%) term. There were 32 antepartum still-births, 73 fresh still-births (15.36%) and 43 first week neonatal deaths making a total perinatal mortality rate of 148 (31.20%) Table IV. Disparity in the total number of fresh still-births is because more than

TABLE IV
Foetal Outcome in Breech Presentation

Still Births	Pre Cong. mat.	mal.	Birth wt.	Obstet. comp.	Med. comp.	Cord prolapse	Un-known
1. *FSB (73)	50	25	11	8	2	6	1
2. **MSB (32)	14	1	—	7	4	1	5
3. ***NND (43)	28	2	8	3	2	—	—

* FSB — Fresh Still Births.

** MSB — Macerated Still Births,

*** NND — Neonatal Deaths.

one cause of death was present in many foetuses. As the gross perinatal mortality rate is very high (31.20%), the corrected perinatal mortality rate has been evaluated (excludes antepartum still-births, pre-term fresh still-births, congenital malformations, cord prolapse, certain obstetrical and medical complications, and first week neonatal deaths not attributable to breech labour). The corrected Perinatal mortality rate is 6.32%.

Discussion

A study of 475 breech presentations revealed interesting data in Safdarjang Hospital, New Delhi, the incidence of breech being 3.10% of all deliveries. Reported incidences by Mehta and Mehta (1961), Kohiyar and Masani (1964), Mirchandani (1973), Kaupilla (1975), Singh and Marwah (1979), Gupta *et al* (1979), Telivala *et al* (1979) and AMBIYE and Vaidya (1981) are 1.5%, 1.1%, 5.1%, 3.6%, 3.5%, 2.13%, 2.6% and 2.45% respectively. Breech presentation has been found to be more frequent in primiparous mothers as compared to multiparous. Similar have been the findings of Singh and Marwah (1979) and AMBIYE and Vaidya (1981). Maximum (42.00%) were footling breech as also reported by other authors.

In the present series, assistance in delivery was required in 74.6% of cases (In Singh and Marwah series of 1979—5.8%). The L.S.C.S. rate was 20.00% in the present series. Obstetricians now recommend L.S.C.S. increasingly for breech. The basic question is how safe is caesarean section for breech? In circumstances in which no compromising maternal disease or infection exists, L.S.C.S. is definitely the safer for the mother than is vaginal delivery for the breech presenting foetus. The caesarean section rate as reported by Hay (1959), Roy Choudhary (1964),

Potter *et al* (1960), Koyihar and Masani (1964), Morris (1976), Singh and Marwah (1979), Telivala *et al* (1979) and AMBIYE and Vaidya (1981) are 16%, 8.6%, 8.8%, 2.3%, 2.5%, 2.2%, 10.7% and 6.1% respectively. In primipara, the L.S.C.S. rate is three times more than in multi, because primiparous breech labour is more hazardous than multiparous breech labour. Similar have been the reports of AMBIYE and Vaidya (1981).

The prematurity rate in the present series is 60.00%. The prematurity rates as reported by Mehta and Mehta (1961), Koyihar and Masani (1964) and Singh and Marwah (1979) are 44.4%, 27.5% and 39.6% respectively. A 20-47% incidence of prematurity has been reported by Dass *et al* (1964), Mirchandani (1973) and Brans and Cascady (1975).

The gross perinatal mortality rate of 31.2% compares favourably with that reported by Rajani and Pathak (1964)—40.00% and AMBIYE and Vaidya (1981)—36.00%. The corrected perinatal mortality rate of 6.2% is similar to that of Koyihar and Masani (1964)—8.6% and AMBIYE and Vaidya (1981)—7.6%. However, a higher perinatal mortality rate of 11.1% has been reported by Rajani and Pathak (1964).

The Perinatal mortality rate in the present series has been influenced by:

1. *Obstetrician's Skill*: The corrected perinatal mortality rate P.N.M.R. is more if the obstetrician's experience is less than 5 years (Table V).

2. *Parity*: The corrected P.N.M.R. was 1.5 times higher in primiparous breech labour as compared to multiparous breech labour (Table VI). Koyihar and Masani (1964) have also reported a P.N.M.R. of 12.5% in primi and 6.1% in multi. In AMBIYE and Vaidya's series,

TABLE V

Corrected Perinatal Mortality Rate According to Skill of the Obstetrician (Vaginal Delivery Only)

Obstetrician experience	Perinatal Mortality	
	No.	%
1. Less than 5 years	18	66.66
2. More than 5 years	9	33.34

TABLE VI

Corrected Perinatal Mortality Rate According to Parity

Parity	Perinatal Mortality (27/405 births)	
	No.	%
1. Primipara	19	6.8
2. Multipara	3	4.04

the P.N.M.R. in primi and multi is 14.44% and 7.6% respectively.

3. *Booked/Unbooked*: In the present series, maximum number of corrected perinatal deaths were because patients had poor antenatal care and came as emergency admissions (Table VII).

TABLE VII

Corrected Perinatal Mortality Rate According to Booked/Unbooked Cases

Booked/Unbooked	Perinatal Mortality (30/475 births)	
	No.	%
1. Booked (200)	6	3.00
2. Unbooked (275)	24	8.72

4. *Mode of Delivery*: From Table VIII, it is clear that infants delivered vaginally had nine times more incidence of birth asphyxia and trauma than those who required L.S.C.S. for breech. Birth trauma was seen in 25 infants (11 died) delivered vaginally and in only 2 infants delivered by L.S.C.S. (incisional wound due to surgical blade). Kapur and Kaur

TABLE VIII

Corrected Perinatal Mortality Rate According to Mode of Delivery

Cause of Mortality	Nature of Labour with No. of cases (30/475)	
	Breech del.	L.S.C.S.
1. Obstructed Labour	—	1
2. Umb. Cord Prolapse	5	1
3. Birth Trauma	11	—
4. Arrest of after coming head	5	—
5. Foetal distress	3	1
6. Obstet. Complications	4	—

(1969) and Rovinsky *et al* (1973) are also of the opinion that Corrected P.N.M.R. is 0 in term infants delivered by caesarean section. Wright (1959) and Greenhill (1874) advocate caesarean section for breech presentation in primigravida routinely.

5. *Period of Gestation*: The P.N.M.R. in preterm babies is higher than in term. The gross P.N.M.R. of preterm babies in the present series is 32.2% and of term babies is 29.8%. Similar have been the reports of the above authors.

6. *Birth Weight*: Corrected P.N.M.R. was higher in low and large Birth weight babies. Since grossly preterm babies were not included in this study, large birth weight took the maximum toll in Breech labour. (Table IX).

TABLE IX

Corrected Perinatal Mortality According to Birth Weight of Foetus

Birth weight in gms.	Perinatal Mortality (30/475)	
	No.	%
1. 2000-2499	6	20.00
2. 2500-2999	9	30.00
3. 3000 +	15	50.00

The Perinatal morbidity rate in the present series is 5.26%. As a result of increased Perinatal morbidity, vaginal breech delivery exacts a large additional toll on many fetuses who survive it. Morbidity rates as reported by Johnson (1970) and Ohleson (1975) are 10% and 6% respectively in vaginal deliveries. The perinatal morbidity (like mortality) also increased with prematurity, primiparity, large birth weight and vaginal breech delivery. Our congenital malformation rate of 5.26% compares with that reported by Mirchandani (1973)-6.9%. Table X shows the Perinatal morbidity rate in vaginal breech labour.

TABLE X
Perinatal Morbidity in Breech Vaginal Delivery

Perinatal morbidity	No.	%
1. Brachial and Erb's Palsy	4	16.00
2. Convulsions	6	24.00
3. Cong. Malformations	4	16.00
4. Trauma to Sub-cut. tissue	3	12.00
5. Injury to skeletal muscle	2	8.00
6. Intra-cranial haemorrhage	3	12.00
7. Postnatal aspiration	2	8.00
8. Fracture Humerus	1	4.00

Summary and Conclusions

It is evident that modern obstetrical care in breech should contain several elements to minimise perinatal mortality, morbidity and medico-legal risk to the obstetrician because a handicapped child may result in spite of the use of pelvimetry, films for determining foetal attitude, ultrasonography and breech scoring index (Zatuchni Andros 1965). In one small community, we are aware of 2 cases of vaginal breech delivery, one in a primi and the other in a multi, in whom all recognised precautions were taken, but, because of difficulties in delivery of aftercoming head, severe neonatal asphyxia occurred. As a result, law-suits were filed on behalf of

the infants. Such is the importance of breech labour.

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