

PRE-TERM BREECH DELIVERY

By

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SUMMARY

A retrospective study of 154 Preterm Breech Presentation cases were made. 98% of cases were delivered vaginally. There were 45 still births and 10 Neonatal deaths. Ten still births could have been avoided. A better equipped Neonatal unit can save more of these babies even when they are delivered vaginally. We think vaginal delivery of these infants does not cause any increased foetal loss. Better neonatal care will give better results.

Introduction

Breech delivery is a challenge to all obstetricians. But it becomes a nightmare when faced with a case of Breech Presentation in preterm labour. Obstetricians always want to purchase time if possible to allow the baby to grow a bit more. For many years various Tocolytic agents were tried to avert preterm labour. But none have so far fulfilled the expectations in all cases. There are series of encouraging results only to be followed by equally discouraging reports. When labour is established it is again a problem for the obstetrician to decide the mode of delivery—abdominal or vaginal. There is a feeling among the Obstetricians of the developed community, like Rovinsky *et al* (1973) to encourage abdominal delivery more frequently in Breech Presentation—more so in preterm cases as suggested by Brenner *et al* (1979) Goldenberg and Nelson

(1977). They have very well organised Neonatal unit to back up as such they can claim to have reduced Perinatal morbidity and mortality to a great extent. But our situation is different. Although the rate of Caesarean Section has gone up, specially at the teaching hospitals of this metropolis (anything between 12% to 15%) indiscriminate use of Caesarean Section cannot be allowed in our country for fear of future devastating consequences like rupture of uterus, as the rate of unbooked cases is still alarmingly high. Moreover, we do not have a well organised Neonatal unit, as present in the developed countries. Considering all these factors, we think, Assisted Breech delivery by the experts in Preterm Breech Presentations have a definite role in our way of obstetric practice, even today.

This article analyses 154 cases of Preterm Breech presentation managed at the department of Obst. and Gynae. of R.G. Kar Medical College and Hospital, Calcutta, during two consecutive years between January 1985 to December, 1986.

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Materials and Methods

Incidence

Total number of delivery in this period was 16,791 and total number of breech delivery was 540, giving an incidence of 3.2%; in 1985 the incidence being 3.4% and in 1986 it is 3.2%, compared to 3.19% in 1985 and 2.75% in 1986 at Eden Hospital, Calcutta. The incidence at other hospitals are, Chittaranjan Seva Sadan 2.84%, Wadia Maternity Hospital (1976) 1.7%. Safdarjang Hospital (1980) 3.1%. KEM Hospital (1976) 2.2%. Amongst these 540 cases, 154 were admitted before completion of 37th week.

Table: I shows the gestational age of the fetuses on the admission as calculated from the first day of the last menstrual period.

TABLE I
Gestational Age

Gestation in weeks	Number of Cases	Percent
37th Week	58	37.6
36th Week	24	78
35th Week	20	
34th Week	14	
33rd Week	20	
32nd Week	10	
Less than 32nd Week	8	18
		11.6

We had majority of the cases between 33 to 36 weeks, although patients in

37th week of pregnancy formed the single majority among others. The incidence of preterm labour as a whole in our hospital is 26.07% and the incidence of preterm Breech presentation in this series is 28.5% compared to 60% at the Safdarjang Hospital, as reported by Gupta *et al.*

TABLE II
Age Distribution

Age	Number of cases	Percentage
15-19	29	18.8
20-25	86	55.8
26-30	32	25.4

Majority of our patients were between 20-25 years (55.8%). The teen aged mothers formed 18.8% of our total cases. Sharma and Saxena 1982 from Jaipur reported maximum breech delivery in 21 to 25 age group and Gupta and Jalnawala 1984 from Delhi reported it to be maximum between 21 to 30, while Saha *et al* (1987) from a teaching hospital in Calcutta reported it commoner in the range of 26 to 35 years.

In our series Primigravidae were at the top of the list (42.8%) followed by 24.7% in 2nd gravida and 14.3% in 3rd gravida. At Sevasadan Hospital, Calcutta, Primipara accounted for 37.4%, 2nd gravida 36.9% and in 3rd gravida it was 14.7%. But at Safdarjang Hospital 61.40% were primigravida among the total Breech presentation.

TABLE III
Parity Distribution

	Primi	2nd	3rd	4th	4th & above
No. of Cases	66	38	22	12	16
Percentage	42.8%	24.7%	14.3%	7.8%	10.4%

Socio-economic Status

Lower economic group	114 cases	74%
Low middle class group	34 cases	22.1%
Middle class group	6 cases	3.9%

In this series people from lower-economic group were at the top (74%). The people from low middle class group and middle class group were 22.1% and 3.9% respectively.

Unbooked Cases

Out of 154 cases we had 130 cases who were referred from District and Sub-divisional Hospitals. Only 24 cases either attended our A.N.C. or a clinic in some other Hospital. irregularly for 2 to 3 times only.

Multiple Pregnancies

In this series there were 33 cases of twin pregnancies of which:

- 1st baby presenting as breech was 12
- 2nd baby presenting as breech was 17
- both babies presenting as breech were 3.

Special Features on Admission

1. Spontaneous rupture of membranes 109, including all cases of Twins.
2. A.P.H. 4 cases.
3. I.U.F.D. for 4 to 7 days—3 cases.
4. Previous history of Preterm Labour 20 cases.
5. Known cervical incompetence—4 cases.
6. No abnormality excepting Breech Presentation 14 cases.

Tocolytic Agents

Only in group 4, 5 and 6 (38 cases) Duvadilan, i.v. drip were started soon after admission to labour wards. In 14 cases pregnancy could be prolonged by 7-12 days; but it failed in rest of the cases including 4 from cervical incompetence group, who had cervical encircilage operation done earlier in pregnancy. The sutures were removed following established labour.

Mode of Delivery

Out of 154 cases 151 (98%) had vaginal delivery and Caesarean Section was done in 3 cases only, who were all in 37th weeks of gestation; of these 3, one had major degree placenta praevia, and two had previous Caesarean Section.

TABLE IV
Mode of Delivery

	Vaginal Delivery	Caesarean Section
Singleton	118	3
Twin	33	NIL

Foetal Outcome

In this series nearly 71% were live born and nearly 29% were still born as shown in the following table.

In our series live babies were more common in twin pregnancies in comparison to singleton pregnancy. Among 45 still birth, 3 were dead antenatally, for 4 to 7 days before onset of labour and the rest died intranatally due to extreme prematurity or intranatal asphyxia or due to congenital abnormality.

TABLE V
Foetal Outcome

	Live Born	Percentage	Still Born	Percentage
Singleton Pregnancy	82	69.4	39	30.6
Twin Pregnancy	27	81.8	6	18.2
Total	109	70.7	45	29.3

TABLE VI
Birth Weight of Still Born Babies

Birth Weight in Gms.	Number of Babies	Percentage
Between 400 to 900	11	24.4
Between 901 to 1499	12	26.6
Between 1500 to 1980	22	49

Above Table shows that more than 50% still birth were among the babies weighing less than 1.5 kgs.

TABLE VII
Gestational Ages of Still Birth Babies

Gestation in weeks	Number of cases	Number of still birth	Percentage
37	58	NIL	0
36	24	3	12.5
35	20	5	25
34	14	8	57.1
33	20	12	60
32	10	9	90
Below 32	8	8	100

Majority of Still birth (37 out of 45 i.e., 82.2%) occurred among women upto 34 weeks of gestation. Gradually rate of still birth fell as pregnancy advanced and at 37 weeks there were no still birth.

Neonatal Death

Early neonatal death among 109 live births in this series is as follows:

Low birth weight	3	} 10
Birth trauma	1	
Pulmonary atelectasis	2	
Septicaemia	4	

So early neonatal death rate for preterm breech is 9.17% compared to 32.6% early neonatal death rate for all babies, in our hospital. PNMR in this series is 35.7% compared to 32.2% at Safdarjang Hospital for preterm Breech presentation.

Discussion

Patience and watching—are the two key words for a Breech delivery. Unnecessary hurry spoils the art and often kills the baby. This is a very specialised job. It requires a perfect obstetric judgement. It is far more difficult and thus challenging, if it is a preterm Breech presentation. Our problems are aggravated by two factors; one, most of our cases are not only unbooked but they never had any (or hardly any) medical check-up ever, and secondly we do not have a well equipped and organised Neonatal Unit to care for the very low birth weight babies.

Mode of Delivery

This is the most complicated and probably controversial part of the whole pro-

blem. As mentioned earlier it is evident that our obstetric and neonatal units are far different from those of our western counterparts. What is possible and thus rational in their obstetric practice is neither possible nor rational in our country, excepting few exceptions. So we consider delivery by the vaginal route is our choice for Preterm Breech presentation. On admission the pelvis is assessed in all cases and following onset of good pains all patients received Pentazocaine (30 mg) I.M. with Inj. Diazepam 10 mgm. in some cases. All cases had assisted Breech delivery following episiotomy, conducted usually by the senior Doctors (Not necessarily by the Consultants). Only in 10% cases outlet forceps were applied to the after-coming head. rest were delivered by Mauriceau-Smellie-Veit method. The rate of vaginal delivery for Preterm Breech Presentation in this series is 98% while Karp (1978) reported 71.2% and (1979) in 1979 reported 82.6% vaginal delivery for Preterm Breech Presentation. But in all cases of Breech presentation (Pre-term and term pregnancies combined) vaginal delivery is 86.2% in our hospital compared to 95% and 85.2% as reported by Saha *et al* 1987 and Gupta 1984 respectively.

Place of Caesarean Section in Preterm Breech Presentation

Bowes (1979) although noting a significant reduction in number of perinatal deaths among breech infants weighing less than 1.5 kg. when delivered by Caesarean Section, admitted that the lower P.N.M. were due to relatively higher birth weight of infants delivery by Caesarean Section and improved neonatal care, rather than the difference in mode of delivery. Karp (1978) after studying 66 preterm breech deliveries found no significant difference

between caesarean section born babies and vaginally delivered babies, neither Apgar Scores nor P.N.M.R. were improved in the group (27.2% of total cases) that had Caesarean Section. Crowley and Hawkins (1980) extensively reviewed the various studies on Preterm Breech deliveries and concluded that survival rate for infants weighing more than 1.5 kg is not affected by the mode of delivery and infants weighing less than 1.5 kg, the advantage of Caesarean Section is largely dependent on the facilities available in a particular neonatal unit. Duignan (1982) in 1982 after analysing the world literature on Breech presentation clearly says "there is no place at present for the routine use of Caesarean Section to delivery a Preterm Breech". In our series the rate for Caesarean Section in Preterm Breech presentation is 2% and all the babies were at or above 1750 Gm.

Foetal loss

The old saying "the proof of the pudding is in eating" holds good in obstetrics. Whatever method we follow, it is the foetal outcome, avoiding maternal morbidity and mortality, that will judge the merit of a particular method. Total still births in this series is just over 29%, compared to 22.4% at Safdarjang Hospital and 24.4% at State Zanana Hospital, Jaipur. 6 cases of twin still birth were in the extreme premature group, birth weight ranging between 400 to 600 Gm. Of the 39 still birth in singleton pregnancy, there were 17 babies (including 3 with congenital abnormality) whose birth weight were below 1.5 kg and of the remaining 22 cases 3 mothers had I.U.F.D. So the corrected Still birth rate comes to 12.3%. Mehta, A. (1977) has reported prematurity is directly responsible for 17-20% intranatal or neonatal deaths. These 19 still born infants had their gestational ages between 33 to 36 weeks

as mentioned in Table VII above. Facilities for better intranatal foetal monitoring could have reduced the still birth rate. As we do not have the convention to perform post-mortem examinations, we are at present not in a position to accurately ascertain the exact causes of still birth. However, the probable causes are:

- | | |
|---|---------|
| (a) Cord prolapse and subsequent cessation of cord pulsation before admission. | 5 cases |
| (b) Attempt to deliver before full dilatation of cervix causing entrapment of the head. | 6 cases |
| (c) Prolonged rupture of membranes (more than 24 hours) with intrauterine infection. | 4 cases |
| (d) Congenital abnormality— | |
| Hydrocephalus | 2 |
| Anencephalus | 1 |
| Exomphalus | 1 |
| | 4 cases |

We think that 10 still birth totalling in Group (2) and Group (c) could have been avoided if both the patient and her Doctor would have been a bit careful. If we were able to avoid these 10 still birth the further corrected still birth rate will be 6.4%, excluding Twin still birth; babies at birth weight below 1.5 kg, cord prolapse and congenital malformations.

Early Neonatal Death

Among 109 lives babies in this series, there were 10 early neonatal deaths. So,

the early N.N.D. rate for preterm breech presentation is 9.1%. The P.N.M. rate in this series is 35.7% compared to 32.2% P.N.M.R. for preterm breech presentation at the Safdarjang Hospital and the Neonatal mortality were 52.1% for the same condition at State Zenana Hospital at Jaipur.

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