

PERINATAL OUTCOME FOLLOWING BREECH DELIVERIES

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SUMMARY

This is a study of 100 cases of breech presentation. Various factors such as neonatal morbidity, perinatal mortality, mode of delivery etc. have been analysed. 56 % of the babies delivered were low birth weight, 22% being premature. Perinatal mortality rate in breech delivery was as high as 148/1000 births as compared to 63.03/1000 births in the control population. Morbidity was very low amongst Cesarean deliveries as compared to vaginal deliveries. Also no mortality was observed amongst babies delivered by cesarean section.

Introduction

Liberal use of cesarean section is now advocated by most authorities in order to reduce the perinatal morbidity and mortality which was un-acceptably high amongst breech deliveries. On the other hand, indiscriminate use of cesarean sections may also lead to increase in maternal morbidity and mortality. Hence, barring complications such as fetopelvic disproportions and acute foetal distress, an obstetrician has to exercise great skill and judgement to decide on the mode of delivery. This is especially so because intrapartum deaths, neonatal deaths and neonatal morbidity is much more common in this presentation.

Material and Methods

100 cases of breech presentation

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admitted to the Goa Medical College between November 1986 to February 1988 were studied. These resulted in 101 births by breech presentation. There were 90 cases of singleton breech and 10 cases of twins as follows, 8-1st vertex, 2nd breech 1-1st breech, 2nd vertex, 1-1st breech, 2nd breech.

These cases were evaluated for gestational age, mode of delivery, perinatal morbidity and mortality.

Observations and Analysis

In the present study the distribution of cases age wise was as follows, age group 15-20 yrs-7%, 21-25 yrs, 35%, 26-30yrs-47%, 31-36 yrs - 6% and over 35 years - 5%.

Out of the 100 patients, 82 % were in the age group of 21-30 years and 75% were multiparous.

Parity wise Distribution (n=100)

Twenty five percent of patients were primigravide, 66% were para 1 to 3 and 9% of patients were over para 3.

Type of delivery (n=100)

Three patients delivered spontaneously vaginally, 52 patients had an assisted breech delivery and 45 patients were delivered by caesarean section, of these 21 cases underwent an elective c.section.

Table I shows a detailed list of indication for performing the C.section. It shows that over a third of these patients underwent a C. Section for fetopelvic disproportion and 13.33%, had a B.O.H. A footling presentation was a special feature for consideration of a C.section.

TABLE I
INDICATIONS FOR LSCS (N = 45)

Indications	No. of cases	%
BOH with precious pregnancy	6	13.33
Placenta previa	4	8.88
FPD*	16	35.55
Foetal distress	3	6.66
Previous LSCS with footling presentation	5	11.11
Postdatism with failed induction	1	2.22
Cordpresentation/prolapae	3	6.66
Primigravida with breech with PET	2	4.44

* Fetopelvic disproportion

The Apgar score of babies born to the 10 cases analysed is shown in Table II.

Perinatal mortality in relation to gestational age and birth is shown in Table III.

TABLE II
APGAR SCORE (N=101)

Apgar score	At 1 minute		At 5 minutes	
	No.	percentage	No.	percentage
0 - 4	16	15.84	7	6.93
5 - 7	32	31.68	14	13.86
8 - 10	53	52.47	80	79.20

TABLE III
PERINATAL MORTALITY (N=101)

Gestational age and birth weight	No.of Cases	Percentage	No.of perinatal deaths	Percentage
Term and weight more than 2.5Kg	45	44.5	2	1.98
Term and weight less than 2.5 Kg (dysmature)	34	33.66	4	3.96
Premature as well as premature and dysmature with weight less than 2.5 Kg.	22	21.78	9	8.91

The table clearly shows the perinatal mortality to be lowest amongst term babies weighing 2.5Kg or above; double that amongst dysmature babies, and 4.7 times higher in premature and small dysmature babies.

Neonatal morbidity in breech delivery is shown in Table IV.

Table V reveals detailed causes of perinatal deaths.

Perinatal mortality rates are compared in breech vaginal deliveries and general population. (Table VI)

Type of delivery (table III) :

Cesarean section was used liberally

TABLE IV
COMPARISON OF PERINATAL MORTALITY IN VAGINAL AGAINST CAESAREAN DELIVERIES

Etiology	Mode of delivery			
	Vaginal *		LSCS **	
	No.	%	No.	%
Prematurity	15	26.78	4	8.88
Birth Asphyxia	17	30.35	4	8.88
Birth Injuries	4	7.14	-	-
Congenital Anomalies	1	1.78	-	-
Septicemia	1	1.78	-	-

* Total vaginal deliveries 55 (56 babies), total

** Total cesarean section 45.

TABLE V
PERINATAL DEATHS - SHOWING DESCRIBED ANOLALIES

	No. of cases	Percentage
NEONATAL DEATHS		
RDS	7	6.93
Prematurity - Septicemia (10 cases)	1	0.99
HIE	2	1.98
Birth Asphyxia (Intrapartum)	2	1.98
Congenital Anomalies (CNS)	1	0.99
STILL BIRTHS		
Cord prolapse	1	0.99
Congenital anomalies (CNS)	1	0.99

RDS - Respiratory distress syndromme

HIE - Hypoxic Ischaemia Encephalopathy.

TABLE VI
PERINATAL MORTALITY RATE

	No. of births	Perinatal mort. per 1000 births
Present study (vaginal deliveries)*	15/101	148.51
General (control)	176/2792	63.03

* There was no mortality in cesarean section cases.

in cases of breech presentation (45%) as compared to 17% in all other cases in our department. Among the vaginal deliveries, there was only one breech extraction. The main indication for cesarean section was fetopelvic disproportion. (table IV).

Apgar Score

Apgar score was found to be low at birth (less than 7) in 48% cases however, it was more than 8 at 5 minutes in 80% cases as shown in table V.

Perinatal Mortality in relation to birth weight and gestational age

21.78% of the cases in this study were premature. Of the 78.21% cases which were mature, 33.66% were dysmature (table IV). It was noted that there were only two perinatal deaths amongst the term babies as compared to nine perinatal deaths in the preterm group.

Perinatal Morbidity in relation to mode of delivery (table VII)

Only 4 out of 45 babies delivered by cesarean section had morbidity (birth asphyxia) as these were preterm babies. In contrast 30.35% of the babies delivered vaginally had birth asphyxia and 7.14% had birth injuries.

Causes of perinatal death (table VIII)

Respiratory distress syndrome in the premature was the main cause of mortality (6.93%). There were 2 still births

in the present study of which one was due to cord prolapse.

Perinatal mortality rate. (Table IX)

There were 15 perinatal deaths amongst 101 babies delivered by breech i.e. 148.51/1000 births as compared to 63.03/1000 births in the general category.

Discussion

The cesarean section rate in this study is 45%. In a study of 168 cases of breech presentation by Mehta et al, (1987), 19% were delivered by cesarean section.

Fetopelvic disproportion was the main indication in our study, however, Susanta Sinha et al (1987) report that previous infertility was the main indication for the cesarean section in breech presentation. Only one patient out of 230 breech deliveries in their study was delivered by cesarean section, for fetopelvic disproportion.

29.4% cases of breech deliveries in the study by Mehta et al (1987), had birth asphyxia. 48% babies in this study had apgar score of less than 7 at birth, however, only 20% had a low apgar at 5 min.

Out of 22 preterm vaginal breech deliveries 9 babies died (40.9%). Similar statistics is quoted by Susanta Sinha, 1987), (50% mortality).

Intra cranial haemorrhage due to tentorial tears during vaginal deliveries is

one of the main causes of birth injury and birth asphyxia. (Myerscough, 1982). In our study 4 babies had birth injuries of which 2 had intracranial haemorrhage.

Perinatal mortality for all breech deliveries is reported at 1.5 to 25 times that of vertex deliveries. (Zuspan F.P., 1981). In our study the same was 2.35 times more than the vertex deliveries.

Conclusion

It is observed that liberal use of caesarean section in breech delivery will certainly reduce the perinatal morbidity and mortality though unnecessary caesarean section must be avoided to prevent concomitant increase in maternal morbidity.

Balanced decision about the mode of delivery by individualising each case will

go a long way in improving both foetal and maternal outcome.

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References

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