OUTCOME OF LOW BIRTH WEIGHT BREECH BABIES AN ANALYSIS OVER 1 YEAR

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SUMMARY

From January 1st 1988 to December 31st 1988, a total of 11,700 babies were delivered at the Nowrosjee Wadia Maternity Hospital. Of these 262 were breech deliveries excluding twins and macerated still births.

37 babies were of low birth weight i.e. between 1500-2000 gms. Outcomes and management of this group was compared with that of the babies weighing 2500 gms and more.

Incidence of Caesarean section in the low birth weight group was 14%, while in the 2500 gms and more was 60%.

Perinatal mortality in the low birth weight was 160/1000 with birth asphyxia occuring in 50%.

LBW breeches should hence be considered an indication for caesarean section where adequate neonatal facilities are available.

Babies presenting by the breech pose many challenges to the obstetrician. Breech presentation is said to result in a three fold increase in perinatal mortality and morbidity according to Gimovsky and Paul (1982). The main contributors to this are prematurity, delivery related trauma and congenital anomalies associated with breech presentation. In an endeavour to improve the perinatal mortality, caesarean section has been resorted to increasingly. Wright (1959) even went to the extent of saying that "All viable breech infants must be delivered by caesarean section".

The low birth weight breech has become a common indication for caesarean section with a ten fold increase in the incidence of CS for this group the world over, in an effort to reduce the chances of head entrapment and cord prolapse commonly associated with this group.

Materials and Methods

A retrospective study was carried out on the modes of delivery of babies presenting by the breech in the year 1988. The outcome of the babies of birth weight 1.5 - 2 kg was compared with that of the 2.5 kg

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and more birth weight babies. The majority of babies in the 1st group were of gestational age 32-34 weeks while in the latter were 36 weeks and above. The incidence of caesarean section v/s vaginal delivery was determined in both the groups and the factors contributing to a poor outcome as judged from a low 5 minutes Apgar or perinatal mortality were determined. Care was taken to leave out the multiple pregnancies, macerated still births, babies with major congenital anomalies and the babies subjected to internal podalic version prior to breech extractions.

Observations

As seen from Table I, 262 breech deliveries were conducted at the NWMH in the year 1988, of a total of 11,700 deliveries. This included multiple presentations, macerated still births, internal podalic versions and babies with congenital anomalies. 37 babies were in the 1500 - 2000 gms. birth weight range and of gestational age 32 - 34 weeks and were selected for our study. 123 babies weighed 2500 gms or more at birth and were selected for comparison. The majority of this group was of gestational age 36 weeks or more. Babies of 2000-2499 weight were not considered, since these fell in the in between group with some being premature and some being term babies. Table II clearly shows that no LSCS was performed for babies weighing less than 1500 gms. The incidence of LSCS showed a dramatic increase with increase in birth weight

TABLE - I

Weight Range	No. of deliveries	(%)
Less than 1000 gm	9	(3.44%)
1000 - 1499 gm	30	(11.45%)
1500 - 1999 gm	37	(14.20%)
2000 - 2499 gm	63	(24.05%)
2500 and more	123	(46.95%)
Total	262	

TABLE - II
OUTCOMES OF BREECH DELIVERIES

Weight Range	LSCS	ABD	BE	SBD	Total
Less than 1 kg.	0	7	0	0	9
1000 - 1499 gm	0	25	2	3	30
1500 - 1999 gm	5	30	2	0	37
2000 - 2499 gm	23	36	3	0	62
2500 gm +	75	47	2	0	124
Total	103	145	9	5	262

ABD : Assisted Breech Delivery
BE : Breech Extraction
SBD : Spontaneous Breech Delivery

showing a reluctance to perform an LSCS on smaller babies. The total caesarean section rate at our hospital in the year 1988 was 6%. Breech presentation constituted an important part of the total number of caesarean sections. But the incidence for term breech babies was 62% i.e. 10 times the general caesarean rate and far more than the rate for low birth weight (1500-2000) breeches which was 14% (Table III). Thus most of the LBW breeches were subjected to a vaginal delivery, while most of the term breeches were delivered abdominally. The majority of caesarean sections were performed in primis with breech presentation followed by the group of previous LSCS with breech (Table IV).

Most of these babies, it was observed, were 2000 gms or more and were considered to have a good chance of survival as they were mature and because the adequacy of the maternal pelvis was not previously tried. Most of the LBW breeches were given a vaginal delivery even in primis as their survival was considered doubtful and as the maternal pelvis was assumed to be adequate for the smaller baby. Thus LBW breech per se is not being considered as an indication for caesarean section in our set up. Table V shows that the LBW breech babies delivered by caesarean section did much better than their counterparts who were given a vaginal delivery. The indication for CS in these babies was cord pro-

TABLE - III
CAESAREAN SECTION AND VAGINAL DELIVERY RATES

	LSCS		Vaginal Delivery	
Total LSCS	788/11,700	(6%)		
LBW Breech (1500 - 2000)	5/7	(13.51%)	30/37	(86.49)
More than 2,500 gms breech	75/124	(60.48%)	49/124	(39.52%)

TABLE - IV
INDICATIONS FOR LSCS IN BREECH PRESENTATION

		≥ 2.5	1.5-2
1.	Primi with breech	68	52	
2.	Previous LSCS with breech	12	8	2
3.	BOH with breech	5	3	
4.	Cord Prolapse	4	2	2
5.	Footling breech	4	2	
6.	Foetal distress	3	2	1
7.	Breech with hyperextended head	2	1	
8.	Non progress of Labour	2	2	
9.	Placenta praevia	2	2	
10.	Prolonged leak PV	1	1	
	Total	103	75	5

TABLE - V
1 MINUTE APGAR SCORES OF LBW BREECHES

Less than 4	0	8
4 - 7	1	11
More than 7	4	13
Total	5	32

TABLE - VI
PERINATAL MORTALITY

	LSCS	Vaginal Delivery
2500 gm and more	Nil	5/124 (40/1000)
1500 - 200	Nil	6/37 (162/1000)

TABLE - VII
CAUSES OF MORTALITY IN LBW BREECHES

Causes	Incidence	%
Birth Asphyxia	3/6	50%
Prematurity with RDS	2/6	33%
Septicaemia	1/6	17%

lapse in 2, Previous LSCS in 2 and foetal distress in 1. The perinatal mortality in the mature breech group was 5 out of 123 i.e. 40 per 1000, while in the premature group was 6/37 or 162/1000. Both these mortality rates were more than the general perinatal mortality rate at the NWMH for 1988 i.e. 123/11,700 or 11/1000 (Table VI). Further the perinatal mortalities all occurred in the babies delivered vaginally by the breech while there was no mortality in the babies delivered by caesarean section. The major cause of mortality in LBW breech was birth asphyxia related to the mode of delivery and was observed in 50%, while prematurity leading to mortality was the cause in only 33% (Table VII).

Discussion

Breech presentation poses many a challenge to the obstetrician and its management is a subject of many debates. A premature breech delivery in addition to other problems posed the possibility of head entrapment due to the relatively large size of the head which comes last after the small body has slipped through an incompletely dilated cervix (Green et al. 1982). Moreover premature breeches are believed to be more susceptible to trauma during vaginal delivery. According to Lyons and Pabsin (1982), management of breech has undergone a revolution over the last few years with caesarean section and vaginal delivery changing roles. They suggested a CS for all babies with breech presentation with 1 or more complicating obstetric factors. Goldenburg and Nelson (1977) in their study performed prophylactic caesarean section for all premature breech foetuses. They found that perinatal mortality and morbidity

can be decreased at no significant cost in terms of maternal mortality and morbidity.. Retrospective studies by Deunholter et al (1979) and Ingemalter et al (1978) suggested dramatic improvements in survival and also a lessening of neurological sequelae among infants presenting by breech, delivered by caesarean section. Our study clearly indicates better outcomes in terms of Apgar and perinatal mortality for breech babies delivered by caesarean section. The group of study i.e. 1500-2000 gms chosen by us consists of salvagable babies. These babies are capable of surviving with our current neonatal facilities, inspite of prematurity and the major cause of losing these babies was the asphyxia suffered during the process of a vaginal delivery. Thus while the world over, low birth weight babies presenting by breech constitute an important indication for caesarean section and people are even beginning to perform sections for the very low birth weight babies between 1000-1500 gms it is time we started giving at least the 1500 gms or more babies a fair chance of surviving and leading a good quality of life, by giving them an abdominal delivery.

Conclusion

To avoid the possibility of head entrapment, cord prolapse and birth trauma; to all of which a premature breech baby is more susceptible, it is advisable to deliver abdominally all viable premature breech babies.

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