Research Paper

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The Study of Various Factors Affecting the Perinatal Outcome in Breech Deliveries at a Tertiary Care Hospital.

Medical Science

KEYWORDS : Breech, Perinatal mortality

Dr Arti Shirsath Assistant Professor, OB&GY Dept, S.K.N.M.C &GH Narhe, Pune, Maharashtra-411041

ABSTRACT

ObjectiveThe aim of this study was to find out various factors affecting the perinatal outcome in breech deliveries so that steps can be taken to prevent and minimize the foetal losses due to complication of breech delivery.

Methods: This study was conducted over a period of 2 years from August 2007 to August 2009 in the Department of OBGY at S.C.B Medical College ,Cuttuck. All patients with breech presentation delivered during this period were included in the study.

Result: The incidence of breech delivery was found 2.11% in this study. There were 25(8%). perinatal death in this study. Perinatal mortality was found highest in 28-32wks of gestational age.(83%) and when birth weight was less than 2kg (64%).Mortality was higher in assisted breech deliveries(17%) than after ceasarean section.

Conclusion : Gestational age, birth weight, mode of delivery were important determinant of perinatal mortality in breech delivery.

Introduction:

Breech presentation has always been a subject of interest because of extremes of opinions on every aspect of its management.Breech presentation is the commonest malpresentation. It is associated with high perinatal mortality and morbidity, 5 to 10 times greater than vertex presentation. The causes for increased mortality in breech are prematurity ,birth asphyxia, birth trauma, cord accident ,congenital malformation .Extremes of opinion have been expressed on various aspects of management of breech presentation. Due to highly controversial views this study was conducted and various factors affecting perinatal outcome of breech deliveries were studied.

Methods:

This study was conducted in the Department of O&G, S.C.B Medical College Hospital, Cuttuck during the period from August 2007 to August 2009.The patients delivered with breech presentation during this period were included in the study. The new born babies were examined for sign of prematurity, signs of fetal distress, congenital anomalies. The neonates were closely observed till the completion of 7th postpartum day. In case of neonatal death, cause of death was tried to be ascertained clinically. Various factors affecting the perinatal mortality of these babies were studied in terms of gestational age, birth weight, mode of delivery. Perinatal period is defined as the period starting from 28 wks of pregnancy till 7 days postpartum.

Results:

The total number of deliveries during this study period was 15016, out of which breech deliveries were 312 (2.11%).Out of total 312 breech deliveries the number of vaginal birth were 120 (38.5%) and number of caesarean birth were 192 (61.5%).

There were 25(8%) perinatal deaths in this study out of which 13 were stillborn and 12 were first week deaths. There were 3 babies with congenital anomalies. The corrected perinatal mortality rate was 7.05%.

Perinatal Mortality was found to be highest in 28 to 32 wks of gestational age (83.3%) and least after 37 wks of gestation(2.3%).

Table-1

Gestational age	No. of cases	No. of deaths	Mortality Rate
28-32 wks	12	10	83.3%
33-37 wks	40	9	22.5%
>37 wks	260	6	2.3%
Total	312	25	

Perinatal Mortality rate was found to be highest when birth weight is less than 2kg(64.3%).Table-2

Birth Weight	No. of cases	No. of deaths	Mortality Rate
< 2 kg	28	18	64.3%
2 -2.49kg	118	4	3.4%
2.5- 2.9 kg	150	1	0.6%
>3 kg	16	2	12.5%

Perinatal mortality related to mode of delivery was found to be more with assisted breech deliveries(17.8%) than in caesarean section(1.6%).Table -3

Mode of delivery	No. of cases	No. of deaths	Mortality rate
Caesarean section	192	3	1.6%
Assisted breech	118	21	17.8%
Forceps to after coming head	2	1	50%

Table -4 reveals mortality rate was higher in primi delivered by vaginal route 36%.Mortality was low in babies delivered by caesarean section. Table-4

		No. of cases	No. of deaths	Mortality rate
Primi	C.S	125	1	0.8%
	Vaginal	25	9	36%
Multi	C.S	67	-	-
	Vaginal	95	15	15%

Relationship between gestational age and mode of delivery was further studied and mortality was found higher in preterm breech delivered vaginally(90%).Table-5

Table-5

Gestational age	Mode of delivery	No.of cases	No.of deaths	Mortality rate
28-32 wks	C.S	2	1	50%
	VD	10	9	90%
33-37 wks	C.S	26	1	3.8%
	VD	14	8	57%
>37wks	C.S	164	-	-
	VD	96	6	6.2%

Table-6 shows perinatal mortality rate related to birth weight and mode of delivery.

Birth wt	Mode of delivery	No.of cases	No. of death	Mortality rate
<2 kg	CS	7	1	14%
	VD	21	17	80%
2- 2.4kg	CS	79	-	-
	VD	39	4	10%
2.5-2.9kg	CS	95	-	-
	VD	55	1	1.8%
>3 kg	CS	11	-	-
	VD	5	2	40%

Various causes of perinatal death related to complication of breech delivery were further studied.

Table-7

Cause of death	No. of death	Incidence
Birth asphyxia	12	48%
Prematurity	3	12%
Arrest of after coming head	1	4%
Respiratory distress syndrome	7	28%
Cord prolapsed	2	8%

Table-7 shows highest number of perinatal mortality was due to birth asphyxia(48%) during vaginal delivery followed by respiratory complications occurring in the newborn within first week of life(28%).

Discussion

Gestational age and birth weight are important determinant of perinatal mortality in breech delivery. The fetal outcome improves with the increasing gestational age. Perinatal mortality is also influenced by the mode of delivery. Mortality is high with vaginal delivery when fetal weight is <2 kg (80%) and >3 kg (40%).In caesarean section group mortality was 14% when birth weight <2kg and there was no mortality when birth weight >2 kg. Birth asphyxia was found to be the leading cause of neonatal death during vaginal delivery(48%).

Conclusion

A healthy baby is the precious asset of every family hence all breech cases should be delivered in a well equipped unit with experienced obstetrician and paediatricians. Any complication actual or anticipated might justify decision of caesarean section.

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