CHANGING TRENDS IN THE MANAGEMENT OF BREECH DELIVERIES THEN AND NOW

(A Review of 30 Years)

By

MADHURI T. NITWE, MANOHAR N. MOTWANI AND VANDANA R. WALVEKAR

SUMMARY

The incidence and management of breech deliveries were studied over 30 years from 1957 to 1986. The patients with breech presentation were grouped in six groups at five yearly distribution. The incidence of breech deliveries has not changed over 30 years and on an average is about 2.4%. Type of breech presentation, status at admission, parity distribution, duration of pregnancy at admission, etiology of breech, mode of delivery, indication of caesarean section, perinatal outcome and causes of perinatal mortality were studied. The caesarean section rate was highest for footling (32.58%) and complete breech (26.73%) as compared to frank breech (10.60%). The perinatal mortality has decreased over years in all the 3 type of breech presentation and was the highest in footling breech.

Introduction

The management of breech presentation continues to be a challenge to the obstetrician. The skill and the judgement of an obstetrician is tested to its maximum when faced with a patient with breech presentation and to a greater extent with a primipara.

It should be emphasised that the art of modern obstetrics lies not in skill or clinical showmanship, but rather in the ability to anticipate problems and prevent any injury to the mother and the neonate.

From: Nowrosjee Wadia Maternity Hospital Parel, Bombay-400 012.

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The prognosis for the breech is affected by increase in incidence of fetopelvic disproportion, prematurity, premature rupture of membrane and cord prolapse. Also antepartum and intrapartum deaths and low apgar scores are much more common with this presentation.

Material and Methods

Delivery of a patient with breech presentation with gestational age of more than 32 weeks were studied over 30 years. These patients were grouped at 5 yearly intervals into six groups. Type of breech presentation, status at admission parity distribution, duration of pregnancy at admission, etiology of breech

presentation, mode of delivery, indications for caesarean section, perinatal outcome and causes of perinatal mortality were studied.

Results

The incidence of breech deliveries has not changed over 30 years and is between 2.10% and 2.75%. The incidence of complete breech was highest in the years 1957 to 1976 (50.88%-65.11%) as compared to frank breech (18.49%-27.90%) and footling breech (12.71%-21.22%). In the years 1977-1981 the incidence of frank breech was highest (44.44%-56.17%) as compared to complete breech (36.15%-43.00%) and footling breech (7.68%-12.50%). The number of emergency cases have decreased over years in all 3 types of breech presentation from 30%-40% to 12%-15%. Multiparae had a higher (60%) incidence of breech presentation as compared to primiparae (40.00%). The gestational age was less than 36 weeks on an average in 25% of cases. The maximum incidence of prematurity was in the footling breech group (38.5%) and in the complete breech (27%) and least in the frank breech (15%). Etiology of breech presentation was not known in almost 70% of the patients. In the others prematurity, placenta previa, contracted pelvis, hydramnios, uterine anomalies and congenital malformations formed important etiological factors. The incidence of prematurity (16% to 26%) and uterine anamolies (0.31% to 1.29%) have increased over the years as etiological factors for breech presentation.

Table I gives an insight to the type and mode of delivery in the different types of breech presentations. It is seen that the incidence of breech extraction has decreased.

Table II shows the indications for caesarean section over 30 years. Primi with breech as an indication for caesarean section has been increasing over years because of increased foetal morbidity and mortality associated with vaginal breech deliveries. Contracted pelvis as an indication for caesarean section has decreased over years.

Forceps for aftercoming head in breech delivery reduces the sudden compression and decompression of the fetal head and this decreases the incidence of intracranial haemorrhage. It also prevents direct traction on shoulder and spine. With realization of this fact the incidence of forceps is higher in recent years (4-5%) than in the past (0.3%-1.4%).

Maternal complications were few in our study in the form of rupture uterus, APH & PPH. There were no cases of rupture uterus in the last 20 years. The incidence of APH & PPH was between 0.24% and 0.46% and may be due to sudden premature rupture of membranes associated with or without hydramnios.

Table III gives the incidence of congenital malformations which is one of the etiological factor in breech presentation.

Table IV gives the perinatal mortality rate in breech deliveries over last 30 years which is on the decline. The perinatal mortality rate was least in frank breech. Table V & VI give the incidence of still births and neonatal deaths in complete, frank and footling breech over 30 years.

TABLE I

Type of Delivery in Different Types of Breech Presentation

Year	Complete breech				Frank Breech				Footling breech			
	Sponta. & Asst B. %	Breech Extrac. %	IPV with breech extra %	C.S. %	Sponta. & Asst. B.	Breech Extra %	IPV with breech Extra %	C.S. %	Sponta. & Asst. B. %	Breech extra %	IPV with breech extra %	C.S. %
1957-1961	608	27	06	21	350	05	—	08	251	16	02	07
	91.84	4.07	00.91	03.18	96.42	01.38	—	02.2	90.94	05.80	00.72	02.54
1962-1966	585	40	01	55	170	12	—	12	152	—	—	02
	85.65	05.86	00.15	8.34	87.63	6.19	—	6.18	88.37	—	—	11.63
1967-1971	521	36		52	198	19	—	5	105	15	—	01
	85.55	05.91		8.54	89.20	8.55	—	2.25	86.78	12.40	—	0.82
1972-1976	314	27	—	23	169	8	—	—	132	5	—	—
	86.03	7.40	0.27	6.30	95.48	4.52	—	—	96.35	3.65		
1977-1981	390	14	—	72	422	11	—	37	110	10	2	17
	81.52	2.94	—	15.13	90.24	2.24	—	7.52	79.14	7.19	1.44	12.23
1982-1986	295	12	—	112	575	7	—	69	51	7	2	29
	70.41	2.86	—	26.73	88.33	1.07	—	10.60	57.30	7.87	2.25	32.58

TABLE II

Indications for Casearean Section

Indication for C.S.	1957-1961 %	1962-1966 %	1967-1971 %	1972-1976 %	1977-1981 %	1982-1986 %
Total	36	69	58	23	126	210
Cephalo Pelvic disproportion	18 50	30 43.48	27 46.55	11 47.83	43 34.13	58 27.62
Placenta Previa	4 11.11	2 2.90	3 5.17	2 8.69	7 5.56	10 4.76
Accidental Haemorrhage	—	1 1.45	—	1 4.35	2 1.59	1 0.48
Cord prolapse/ presentation	2 5.55	5 7.25	3 5.17	1 4.35	7 5.56	15 7.14
Fetal Distress	5 13.89	11 15.93	6 10.34	2 8.69	13 10.32	26 12.38
Abnormal Uterine Action	1 2.78	1 1.45	2 3.45	—	8 6.35	7 3.34
Previous LSCS with Breech	3 8.33	5 7.25	2 4.45	1 4.35	17 13.49	25 11.90
BOH	1 2.78	3 4.35	1 1.72	—	2 1.59	4 1.90
Toxemia	—	1 1.45	1 1.72	—	2 1.59	5 2.38
Primi with Breech	1 2.78	7 10.14	9 15.53	4 17.39	20 15.86	57 27.14
Others	1 2.78	3 4.35	4 6.90	1 4.35	5 3.96	2 0.96

TABLE III

Incidence of Congenital Malformations in Breech Deliveries

Year	Complete Breech %	Frank Breech %	Footling Breech %
1957-1961	7 1.05	3 0.83	12 4.35
1962 1966	8 1.17	6 3.09	11 6.40
1967-1971	11 1.80	5 2.25	4 3.31
1972-1976	11 3.01	4 2.26	4 2.92
1977-1981	11 2.31	8 1.63	4 2.88
1982-1986	6 1.43	10 1.54	4 4.49

TABLE IV

Perinatal Mortality in Breech Deliveries

Year	Complete Breech	Frank Breech	Footling Breech
	Per 1000 Live-births		
1957-1961	201 303.63	44 121.21	74 268.11
1962-1966	244 357.25	54 278.35	51 296.51
1967-1971	162 266.00	55 247.74	32 264.46
1972 1976	93 254.79	38 214.68	37 270.07
1977-1981	99 207.98	91 184.95	37 266.90
1982-1986	58 138.42	102 156.59	18 202.14

TABLE V

Incidence of Still Births in Breech Deliveries

Year	Complete Breech		Frank Breech		Footling Breech	
	F.S.B.	M.S.B.	F.S.B.	M.S.B.	F.S.B.	M.S.B.
	Per 1000 Live-births					
1957-61	72 108.76	62 93.66	18 49.59	12 33.06	22 79.71	23 83.33
1962-66	92 134.70	77 112.74	11 56.70	14 72.16	12 69.77	12 69.77
1967-71	46 75.53	57 93.59	17 76.57	18 81.08	12 99.17	08 66.11
1972-76	34 93.15	26 71.23	13 73.44	09 50.84	10 72.99	14 102.18
1977-81	35 73.52	20 42.01	37 75.20	25 50.81	14 100.74	10 71.94
1982-86	21 50.11	17 40.57	44 67.59	34 52.23	10 112.35	2 22.47

TABLE VI
Incidence of Neonatal Deaths in Breech Deliveries

Year	Complete Breech	Frank Breech	Footling Breech
	Per 1000 Live-births		
1957-61	67	14	
	101.21	38.57	105.07
1961-66	75	29	27
	109.81	149.48	156.98
1967-71	59	20	12
	96.88	90.09	99.17
1972-76	33	16	13
	90.41	90.39	94.69
1977-81	44	29	13
	92.43	58.94	93.52
1982-86	20	24	06
	44.73	36.87	67.41

Table VII gives the etiological factors for perinatal mortality.

The incidence of prematurity, corgenital malformations, have increased over years whereas that of birth asphyxia cord prolapse and birth injuries has decreased over 30 years as a etiological factor for perinatal mortality.

Conclusion

A multifactorial etiology has caused a change in the management of breech deliveries. It starts from the advent and availability of antibiotics, facilities for

TABLE VII
Causes of Perinatal Mortality

Causes of perinatal Mortality	1957-1961 %	1962-1966 %	1967-1971 %	1972-1976 %	1977-1981 %	1982-1986 %
Prematurity	169	160	123	92	138	118
	52.98	45.85	49.40	54.76	60.79	66.30
Cord prolapse	09	20	08	07	04	05
	2.83	5.73	3.21	4.17	1.76	2.81
Birth Asphyxia	66	70	54	19	20	08
	20.69	20.06	21.69	11.31	08.81	04.49
Congenital	22	25	20	19	23	20
malformations	06.90	7.16	08.03	11.31	10.13	11.24
Birth injury	23	29	14	07	15	04
	07.21	08.31	05.62	04.17	06.62	02.25
Intracranial	12	11	06	07	05	06
haemorrhage	03.76	03.15	02.41	04.17	02.20	03.37
R.D.S.	18	16	14	12	08	10
	05.64	04.58	05.62	07.14	03.53	05.62
Septicemia	06	12	08	04	09	05
	01.88	03.44	03.22	02.38	03.96	02.81
Others						
Rh isoimmunisation	—	01	—	01	01	—
		00.29		00.59	00.44	
Toxemia	—	02	—	—	01.00	01
		00.57				00.56
Medical disorders	—	—	01	—	00.44	—
			00.40			
Accidental	01	02	01	—	00.44	—
haemorrage	00.31	00.57	00.40			
Post datism	—	01	—	—	02	01
		00.29			00.88	00.56
Total	319	349	249	168	227	178

blood transfusion, early antenatal registration and better antenatal care. The concept of active management of labour and close monitoring of the maternal and fetal well being by biophysical methods during the antenatal and intrapartum period have individually and collectively brought about this change.

The challenge to the modern day obstetrician should be to anticipate problems and prevent injuries or death in both the mother and the fetus. This is to be achieved by reviewing individually each case on its own merit and no overall rate holds true. The difficulty we now face is that however well trained and competent the obstetrician, an occasional bad result from a breech delivered vaginaly will be definitely faced. This could be a major hazard for the neonates and this opens the door to medicolegal problems if these babies do not function at optimal levels.