

# INFLUENCE OF PARITY ON SINGLETON BREECH PRESENTATION

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## SUMMARY

Breech presentation is the commonest of all malpresentations. Two hundred and forty two cases of breech presentation with singleton pregnancies among total 3577 deliveries from August 1986 to July 1987 was studied at the Postgraduate Institute of Medical Education and Research, Chandigarh. Preterm labour (primi-23.08%, multi 34.4%), diabetes mellitus and congenital uterine anomalies were more common in multigravida. Difference of preterm labour in two groups was statistically significant ( $p < 0.05$ ). Though there was no significant difference in the incidence of caesarean section (primi-57.2% multi 50.4%), the indication in primigravida was mainly pregnancy induced hypertension, whereas in multigravida it was foeto-pelvic disproportion or non-progress of labour. The overall perinatal mortality rate was 21.6% in multigravida and 15.3% in primigravida which indicates that apparently multigravida with breech presentation are at greater risk of perinatal loss. However, the figures are not statistically significant ( $p > 0.05$ ).

### Introduction

An Obstetrician faces a number of problems with breech presentation. In fact, it has been quoted that competency of any obstetric unit is inversely proportional to the perinatal mortality of breech delivery conducted in the unit. Experience is required to decide the mode of delivery in each case.

There are no data to suggest that primigravidas are at more risk than parous women, in fact most of the available data suggests that the opposite may be true

(Cruikshank, 1986; Kaupilla, 1976).

The present study is aimed to find out whether it is true or if multigravida breech presentation poses as much risk as primigravida.

### Material and Methods

Study was conducted in Nehru Hospital attached to Postgraduate Institute of Medical Education and Research, Chandigarh. Women admitted to this hospital with singleton breech presentation from 1st August 1986 to 31st July 1987 were included in the study.

Two hundred and forty two breech presentations were studied. Of these 117 were primigravida and 125 were multi-

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gravida. Antenatal complications and investigations such as radiological examination and ultrasonographic examination were recorded. Decision regarding mode of delivery was taken by consultant. Neonatologist attended all the deliveries as this is a practice in this hospital. In the event of perinatal death, autopsy was done in most neonates to ascertain the causes of death.

**Results**

The total number of deliveries during the period of study was 3577. Incidence of breech presentation at delivery was 6.76%. Table 1 shows the age distribution of the primigravida and multigravida. It has been found that about 13.6% of multigravida were in the age group of 31-35 years whereas only 2.56% of primigravida belonged to the same group.

TABLE I  
Distribution of Patients According to Age

Age	Primi N	Gravida (%)	Multi N	Gravida (%)
≤19	6	(5.1)	1	(0.8)
20-25	83	(70.9)	55	(44)
26-30	24	(20.5)	17	(13.6)
31-35	3	(2.56)	46	(36.8)
>35	1	(0.85)	6	(4.8)
Total	117		125	

Gestation at deliveries are shown in Table II. In primigravida and multigravida incidence of preterm deliveries were about 23.08% and 34.4% respectively.

TABLE II  
Distribution According to Gestational Age

Gestation in weeks	Primi Gravida	Multi Gravida
≤28	1	4
29-32	8	16
33-36	18	23
37 or more	90	82
Total	117	125

\* Preterm Labour. 27 (23.08%) 43 (34.4%)

Incidence of pregnancy induced hypertension was high in primigravida and diabetes was more common in multigravida. There was no significant difference in the incidence of placenta pnaevia or other causes of antepartum haemorrhage. Postdatism was more common in primigravida whereas congenital uterine anomalies were seen more often in multigravida. There was no significant difference in incidence of intrauterine growth retardation and premature rupture of membrane between the two groups (Table III).

TABLE III  
Comparison of Antenatal Complication in Primigravida and Multigravida

Antenatal Complications	Primigravida		Multi Gravida	
	N	(%)	N	(%)
1. Diabetes	1	(.85)	6	(4.8)
2. Pregnancy induced hypertension	39	(33.3)	28	(22.4)
3. Placenta Praevia	6		5	
4. Other causes of Antepartum haemorrhage	2		3	
5. Intrauterine growth retardation	13		12	
6. Postdated pregnancy	12	(10.25)	4	(3.2)
7. Premature rupture of membrane	16		19	
8. Uterine anomalies	0		4	(3.27)
9. Cord Prolapse	0		1	

Table IV shows the type of deliveries. Incidence of lower segment caesarean section in primigravida was about 47.2%. Whereas in multigravida is about 50.4%

Indications of caesarean section in term breech presentation is shown in Table V. In primigravida, pregnancy induced hypertension was the indication in 31.66% cases whereas in multigravida it was in 9.25% cases.

Foeto-pelvic disproportion accounted for 31.66% caesarean section in primigravida and 18.5% in multigravida. None of the primigravida required a caesarean section for non-progress of labour whereas this was the indication in 14.8% of

multigravida. No difference was observed in the indication like intrauterine growth retardation and premature rupture of membrane (Table V).

Among 117 breech deliveries in primigravida, congenital anomalies seen in 5 cases (4.27%) and in 16 cases among 125 multigravida breech deliveries (12.8%) (Table VI).

There are 12 stillbirths (7 fresh and 5 macerated) in primigravida and 22 stillbirths (14 fresh and 8 macerated) in multigravida (Table VII).

In 1000-1500 gm birth weight group stillbirths are most common (Primi-7, multi-10). Next common group was the 1500-2000 gm group (4 in primi, 6 in multi).

TABLE IV  
Comparison of Type of Delivery

Type of Delivery	Primi Gravida		Multi Gravida	
	Term	Preterm	Term	Preterm
Assisted Breech Delivery	30	20	27	33
Breech Extraction	0	0	0	2
Emergency lower segment caesarean section	32	5	23	8
Elective lower segment caesarean section	28	2	31	1
Total Caesarean section	67	(57.2%)	63	(50.4%)

TABLE V  
Indications of Lower Segment Caesarean Section in Term Pregnancies

Indications	Primigravida		Multigravida	
	N	(%)	N	(%)
1. Diabetes	0		5	
2. Pregnancy induced Hypertension	19	(31.66)	5	(9.25)
3. Bad obstetrical history	1		2	
4. Placenta Praevia	5		2	
5. Previous LSCS	0		9	(16.66)
6. Other causes of antepartum haemorrhage	2		2	
7. Premature rupture of membrane	3		2	
8. Foeto-pelvic disproportion	19	(31.66)	10	(18.5)
9. Non-progress of labour	0		8	(14.8)
10. Footling Presentation	3		2	
11. Intrauterine growth retardation	5		6	
12. Postdated Pregnancy	1		1	
13. Acute foetal distress	2		0	
Total	60		54	

TABLE VI  
*Comparison of Congenital Anomalies in Primigravida and Multigravida*

Congenital anomalies	Primigravida	Multigravida
1. Hydrocephalous	1	4
2. Anencephaly	0	2
3. Ambiguous genitalia	0	2
4. Polydactyly	1	1
5. Telipes equivarous	0	2
6. Multiple congenital anomaly of hand and face	1	1
7. Meningocele	1	0
8. Microcephaly	0	1
9. Cleft Palate	0	1
10. Congenital dislocation of hip	0	1
11. Exomphalous major	1	1
12. Ectopic anus	1	0
Total	5 (4.27%)	16 (12.8%)

TABLE VII

Stillbirths	Primi	Multi
Fresh	7	14
Macerated	5	8
	12	22

\* Among 12 stillbirths in primigravida, in one case there was congenital anomaly.

Among 22 stillbirths in multigravida in 6 cases there were congenital anomalies.

Early neonatal death also most commonly occurred in 1000-1500 gm group (4 in primi and 1 in multi).

Overall perinatal mortality was 15.3% in primigravida whereas in multigravida it was 21.6% (Table VIII).

Discussion

Incidence of breech presentation is about 3-4% of all deliveries. In our study the incidence was high (6.76%), which can be explained by ours being a referral centre.

Higher number of multigravida in age group of 31-35 years is quite expected.

Preterm deliveries in multigravida was significantly high (primi-23.08%, multi-34.4%) in our study. Higher incidence of pregnancy induced hypertension in primigravida and more number of diabetes in multigravida was also expected.

Postdatism was more common in primigravida in our study, where as premature

TABLE VIII  
*Birth Weight in Relation to Perinatal Death*

Birth wt. in gms.	Still born		Neonatal death		Perinatal death	
	Primi	Multi	Primi	Multi	Primi	Multi
1000-1500	7	10	4	1	11	11
1501-2000	4	5	0	2	4	8
2001-2500		1	2	1	2	2
2501-3500	1	4	0	1	1	5
>3500	0	1	0	0	0	1
	12	22	6	5	18(15.3%)	27(21.6%)

rupture of membranes and intrauterine growth retardation were found in equal proportion in each group. Uterine anomalies in the form of bicornuate uterus or arcuate uterus was found more among multigravida.

Mode of delivery (caesarean section rate) was similar in both groups. There was no difference in the incidence of elective or emergency caesarean section in two groups.

Though the overall caesarean rate between the two groups were similar, the indications for caesarean section differed significantly between two groups in term pregnancies whereas indication were similar in preterm pregnancies. It has been seen that in multigravida caesarean was done for non-progress of labour in 12.7% of patients and in primigravida not even one patient had caesarean section for non-progress of labour. The reason is, one tends to be more liberal in deciding for an elective lower segment caesarean section in primigravida with slightest doubt regarding the pelvis, whereas multigravida is considered relatively safer to have a vaginal delivery and caesarean section is done only after the complication of non-progress occurs in this type of cases.

Congenital anomalies in the foetus were more frequent among multigravida, one reason may be the increasing age.

Stillbirths also were more common in multigravida in comparison to primigravida, but number of congenital anomalies is also high in multigravida.

Interestingly, most of the stillbirths and neonatal deaths were in the weight group of 1000-1500 gm and next common group was 1500-2000 gms. Higher perinatal mortality in multigravida are mainly due

to congenital anomalies of the foetus and prematurity.

### Conclusion

This study has clearly demonstrated that multigravida with breech presentation is not at relatively low risk group but the reverse may be true.

Incidence of preterm labour is significantly high, which is a major cause of perinatal mortality in breech presentation. This difference in the incidence of preterm labour is statistically significant ( $p < 0.05$ ).

Relatively high incidence of diabetes and non-progress of labour is seen in multiparous women.

Higher incidence of stillbirths is also seen in this group along with high incidence of congenital anomalies of the foetus.

The overall perinatal mortality rate was 21.6% in multigravida and 15.3% in primigravida. This indicates that apparently multigravida with breech presentation are at greater risk of perinatal loss. However the figures are not statistically significant ( $p > 0.05$ ).

The data presented in this study indicates that one should not be complacent in the management of breech presentation in multigravida patients because of the associated risks present in the multigravida.

### References

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