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# FACTORS ASSOCIATED WITH BREECH DELIVERY AT TERM



## DR. ASLAM MAHMOOD MALIK, FCPS

Assistant Professor of Obs & Gynae  
Quaid-e-Azam Medical College  
Bahawalpur

## DR ASIA AZIZ, MBBS

Department of Community Medicine  
Quaid-e-Azam Medical College  
Bahawalpur

## DR ABIDA RIAZ, MBBS

Obs & Gynae Unit I  
Bahawal Victoria Hospital  
Bahawalpur

## Dr. Capt (R) Ijaz Ahmad Shah, M.Phil

Professor of Community Medicine  
Quaid-e-Azam Medical College  
Bahawalpur

**ABSTRACT ... Objectives:** To assess the various factors associated with breech delivery at term. **Design:** Case control study. **Period:** Apr 2004 to Sep 2004 **Setting:** Department of Obstetrics & Gynaecology unit-I, Bahawal Victoria Hospital Bahawalpur. **Materials & Methods:** This case control study was carried out in women with the age group 20-40 years. Various risk factors (Parity, multiple pregnancy, placenta Previa, amount of liquor and congenital abnormalities) associated with breech (50 cases) at term (37-42 completed weeks) were compared with vertex (50 controls) after matching. **Results:** Different factors associated with breech were oligohydramnios 44% vs control group, placenta previa 34% vs control group, primiparity 46% vs control group, multiple pregnancy 14% vs control group and congenital abnormalities 18% vs control group. **Conclusion:** Our study concluded that factors associated with breech delivery were oligohydramnios, placenta previa, multiparty, multiple pregnancy & congenital abnormalities.

## INTRODUCTION

The breech presentation occurs when fetal buttocks or lower extremities present into the maternal pelvis. The incidence of breech deliveries is variable between different centers<sup>1</sup>. It complicates 3-4% of deliveries. The incidence of breech presentation is approximately 25% before 28 weeks of gestation, 14% at 29-32 weeks and 2.2-3.7% at term, 5% at 40 weeks<sup>2</sup>. The occurrence of breech presentation decreases with advancing gestational age<sup>3,4,5,6</sup>. So the breech presentation is prevalent among pre-term deliveries<sup>7</sup>. The predisposing factors -for breech presentation are<sup>8</sup> fetal abnormalities, placenta previa, cornual placenta, short length of

umbilical cord<sup>9</sup>, malformations of uterus, multiple pregnancies, multiparty, elderly primigravidity<sup>10</sup>, use of anti convulsant drugs. This study was carried out to know the common risk factors responsible for breech presentation.

## MATERIALS & METHODS

This case control study was conducted at the department of obstetrics & Gynaecology unit-I Bahawal Victoria Hospital, Bahawalpur. 50 cases presenting with breech at term (37-42 weeks) and 50 controls (vertex) were included in the study after matching.

Ultrasonography was performed in both cases and controls to know the position of placenta and amount of liquor. Diagnostic criteria for both cases and controls for all suspected factors except parity were based on ultrasonography while parity was recorded through questionnaire after verbal consent. Chi square test was applied as the test of significance.

## RESULTS

Table I shows the relationship of parity (number of pregnancies) and the lie of fetus (cases & controls). 23 out of 50 vs 12 out of 50 controls were primigravidas. The difference noted was statistically significant. Nulliparity is one of the risk factors which is associated with breech presentation.

Among the 50 breech subjects normal liquor was found in 15(30%) patients, abnormal liquor i.e. oligohydramnios in 22(44%) patients and polyhydramnios in 13 (26%) patients (Table .II). So oligohydramnios was found in 44% of cases. It is one of the important risk factors which is associated with breech presentation.

No of pregnancies	Cephalic	Breech
Ist	12	23
Subsequent (2-10)	38	27
Total	50	50

*Chi Square = 5.3, P Value = < 0.05 Odds ratio = 1 : 1.2*

Amount of Liquor	Cephalic	Breech
Normal	32	15
<b>Abnormal Liquor</b>	<b>18</b>	<b>35</b>
*. Oligohydramnios	06	22
*. Polyhydramnios	12	13

*Chi Square = 12.58, P Value = < 0.5, Odds ratio = 1 : 4.1*

There is association of number of fetuses either singleton or multiple with breech presentation. Table III

shows that number of multiple fetuses with breech presentation were 7 as compared to 3 in cephalic group.

No. of Fetuses	Control (Vertex)	Cases (Breech)
Single	47	43
Multiple	3	7
Total	50	50

*Chi Square = 1.76, P Value = > 0.05, Odds ratio = 1 : 2.55*

Congenital malformation	Cephalic	Breech
Yes	6	9
No	44	41
Total	50	50

*Chi Square = 0.70, P Value = > 0.5, Odds ratio = 1 : 1.6*

Placenta previa	Cephalic (Control)	Breech (Cases)
Yes	7	17
No	43	33
Total	50	50

*Chi Square = 5.4, P Value = < 0.5 Odds ratio = 1 : 3.16*

Nine cases with breech presentation had fetal congenital malformations as compared to 6 cases with cephalic presentation (Table IV).

Seventeenth cases out of 50 in breech presentation had placenta previa while 7 cases out of 50 in cephalic group had placenta previa. The difference noted was statistically significant (Table V).

## DISCUSSION

In our study various risk factors affecting breech presentation were studied as compared to controls. The risk factors associated with breech presentation i.e. placenta previa (34%), oligohydramnios(44%), multiple

pregnancies with first breech presentation(14%) were comparatively more as compared to vertex presentation.

The results of our study are consistent with those of Richard Fisher<sup>11</sup> and Andrew Jenis<sup>12</sup>. They concluded that fetal malformations and multiple gestation increase the likelihood of breech presentation. Carpenter<sup>13</sup> found lethal renal malformations with breech presentation (48% vs 04%). Andrew Jenis observed congenital abnormalities in 09% of term gestations with breech presentation. Our study revealed this ratio as 18% vs 12%. So there is significant association of congenital anomalies with persistent breech presentation<sup>14,15</sup>. Congenital anomalies like hydrocephalus makes it more difficult to make the final shift to cephalic presentation. Our results agree with that of conducted by Roberts<sup>16</sup> in which primary parity was one of the important predictors of breech presentation at term. Multiple fetuses due to less space in the uterus may position themselves head to foot. Hydramnios may allow the free movement of fetuses, contrary to that oligohydramnios may impede the final shift of the fetuses to cephalic presentation.

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