

Association of Breech Presentation with Fetal Abnormalities

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ABSTRACT

Aim: To study the association of fetal abnormalities associated with breech presentation.

Study design: Descriptive/Observational.

Setting: Department of Obstetrics and Gynaecology Unit 1, Holy Family Hospital, Rawalpindi.

Duration of study: One Year from January 2005 to December 2005.

Methods: Total 100 cases were taken. A specially designed proforma was used to collect data by nonrandom probability sampling.

Results: Mean age of patients was found to be 28.4 years. Regarding the Gestational age 29% were preterm and 71% were term breeches. 65% had normal liquor volume, 9% oligohydramnios, 6% oligohydramnios with IUGR and 3% with renal abnormalities, 13% polyhydramnios.

Conclusion: Breech presentation is quite common, major portion being term breech. There is a significant number of breech presentations associated with liquor volume abnormalities and a few cases were associated with fetal abnormalities.

Keywords: Breech presentation, fetal abnormalities.

INTRODUCTION

Breech presentation is one of the most common malpresentation of all. Mean age of occurrence was found to be 28.4 years. The incidence of breech presentation varies at different gestation, about 20% at 28 weeks and 3-4% at term. Fetal anomalies are observed in 17% of preterm and 9% of term breeches.

The incidence of breech presentation varies with gestational age being much more in preterm as compared to term breeches. In addition to it liquor volume also has also been associated with breech presentation. Although a fairly large number i.e., 65% showed a normal liquor volume nonetheless both increased and decreased liquor volume is observed in breech presentation. Fetal abnormalities like duodenal and esophageal atresia result in polyhydramnios whereas renal tract abnormalities and obstructions may be associated with oligohydramnios. Understanding of these associations with breech presentation has a definite effect resulting in better management and improved patient care

MATERIALS AND METHODS

It was a descriptive/Observational type of study carried out in Department of Obstetrics and Gynaecology Unit I of Holy Family Hospital, Rawalpindi from January 2005 to December 2005. All married women between eighteen and forty years of

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age presenting between 28 weeks to term were included in the study. Maternal conditions like Diabetes, Hypertention and Previous caesarean were excluded from the study. The sampling technique was nonrandom/probability sampling. The selection of 100 patients was done from Department of Obstetrics and Gynaecology. Both emergency and OPD patients were collected. A specially designed proforma was used to collect data like patient's profile including name, age, gravida, para, previous breech or caesarean delivery, mode of presentation and status (booked or unbooked). Findings of examination, Ultrasound and Doppler, Bishop score and fetal abnormalities were recorded all along the antenatal care in the same proforma.

RESULTS

Table-1 a & b show that the age of the patients ranged from 19 to 38 years whereby mean age of the patient was 28.27 years. 29% of the total were preterm i.e., between 28 – 37 weeks and 71% turned out to be term i.e., between 37–42 weeks (Table 2). Liquor volume was normal in 65%, Oligohydramnios in 9%, Oligohydramnios with IUGR 6%, Oligohydramnios with PROM 4% and Polyhydramnios in 16% (Table 3).

Table 1a : Distribution of cases by age (n=100)

N	VALID	100
	Missing	
Mean		28.27

Table 1b

Age	Frequency
19	2
20	2
21	2
22	9
23	5
24	1
25	5
26	5
27	3
28	12
29	14
30	14
31	1
32	10
33	3
34	2
35	8
36	1
38	1
Total	100

Table 2: Distribution of cases by gestational age (n=100)

Gestational age	Frequency	%age
Pre Term (28-37 weeks)	29	29.0
Term (37-42 weeks)	71	71.0

Table 3: Distribution of cases by amount of liquor (n=100)

Liquor Volume	Frequency	%age
Normal	65	65.0
Oligohydramnios	9	9.0
Oligohydramnios+IUGR	6	6.0
Oligohydramnios with PROM	4	4.0
Polyhydramnios	16	16.0

DISCUSSION

Breech presentation is defined as a noncephalic presentation where the presenting part is fetal buttocks. It can be subcategorized as extended, flexed or footling breech. Breech presentation comprises of a sizeable percentage of women attending the hospital. Its quiet common and is associated with not only maternal but also fetal comorbidities and therefore needs to be dealt with appropriately to improve outcome. Our study highlighted the association of fetal abnormalities with breech presentation 11. In many cases it is associated with fetal morbidity. Breech presentation is considered as a high risk pregnancy and is associated with maternal and fetal abnormalities or risk factors leading to increased maternal and perinatal morbidity and mortality 9. Mean age of the women was 28.4 years. A comparative study carried out by Oswald Jonas and David Roder on Breech presentation in South Australia showed that babies presenting as breech had significantly more neonatal

morbidity and perinatal mortality due to increased incidence of congenital anomalies. They showed higher rates of suspected intra uterine growth retardation, prematurity, low birth weight, low apgar scores and higher incidence of congenital anomalies 1&2. The poor outcome of very low birth weight babies is mainly related to complications of prematurity 10. These results are comparable to our studies as 9% of the cases were associated with oligohydramnios, 6% oligohydramnios with IUGR. 16% of breeches were associated with Polyhydramnios and it has been observed with earlier studies that two or more risk factors may be present leading to breech presentation like oligohydramnios and IUGR 3. Abnormal amount of liquor volume is associated with breech. Lesser amount of liquor volume as in oligohydramnios, below 10th centile or less than 400ml results in either restricted mobility of the fetus and failure of natural version to cephalic presentation, leading to persistent breech presentation 4. Oligohydramnios is also associated with renal abnormalities PROM and IUGR fetus. PROM may be associated with independent risk factors and apart from oligohydramnios and its inherent sequelae is also associated with prematurity and its associated morbidity and mortality. Excessive amount of fluid greater than 1500 to 2000ml, above 90th centile leads to increased mobility of the fetus, leading to breech presentation and unstable lie 5. There is an increased incidence of breech in premature fetus leading to increased adverse perinatal outcome due to relatively small fetal size, excess amniotic fluid and globular shape of the uterus 6. Moreover primigravidae have less space in the uterus for the fetus to undergo spontaneous version, while in multipara spacious environment of the uterus poses to malpresentation like breech presentation and abnormal lie 7. Fetal Renal abnormalities may be associated with breech like Potters Syndrome, Fetal Alcohol Syndrome and Muscular Dystrophies like talipes equinovarus 8.

On the basis of this and other studies it is beyond doubt henceforth that there is a convincing evidence of enormous morbidity associated with breech presentation both maternal and fetal. It occurs in early reproductive age group mean age of occurrence is 28.4 years. Most of the cases were term breech i.e., 71% although preterm breeches were also not uncommon being 29%. Which shows that breech has a quite high incidence at the outset but as the pregnancy advances its incidence decreases mainly secondary to spontaneous version.

Although a large number i.e., 65% of cases showed a normal liquor volume, polyhydramnios was found to be associated with 16% of breech presentations, 9% showed oligohydramnios, 6%

oligohydramnios with IUGR and 4% were associated with oligohydramnios secondary to PROM.

In a nutshell therefore the importance and significance of breech presentation cannot be over emphasized. Its association with both maternal and fetal causes is well established and it is associated with both maternal and fetal morbidity. Treatment should be in accordance with guidelines to improve fetomaternal outcome. Regular antenatal visits for early detection of fetal and maternal conditions and their appropriate management is highly recommended. Moreover patient awareness of such prevalent condition is a must and constitutes the prime responsibility of a health care professional.

CONCLUSION

Breech presentation is very common and can occur at any gestational age. It is associated with enormous fetal and maternal morbidity and mortality. Its diagnosis is clinical as well as ultrasonographic the later being the mainstay as it not only confirms the type of breech but also picks up maternal and fetal conditions associated with it. It is quiet evident that breech presentation needs early diagnosis and appropriate management in accordance with good practice to improvise fetomaternal outcome.

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