ejpmr, 2021,8(5), 429-432

SJIF Impact Factor 6.222

EUROPEAN JOURNAL OF PHARMACEUTICAL AND MEDICAL RESEARCH

www.ejpmr.com

Research Article

ISSN 2394-3211

EJPMR

BREECH PREGNANCIES IN A TERTIARY CARE HOSPITAL: A PROSPECTIVE OBSERVATIONAL STUDY

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Article Received on 25/02/2021 **Article Revised on 17/03/2021** **Article Accepted on 07/04/2021**

ABSTRACT

Background: Breech presentation is commonest malpresentation with an incidence of 3-4% at term. Incidence is about 20% at 28 weeks of pregnancy and drops to 5% at 34 weeks. Common etiological factors associated with breech pregnancy are prematurity, multiple pregnancy, congenital foetal and uterine malformation, foetal growth restriction, contracted pelvis, placenta praevia etc.[2] The management of breech delivery continues to be debatable. **Methodology:** This prospective study was carried out in Lalla Ded Hospital, Department of Obstetrics and Gynaecology, GMC Srinagar for a period of 8 months from 1st September 2018 to 31st April 2019. 175 Cases of Breech Pregnancy were studied. **Results:** In the present study incidence of breech pregnancy was 3.6%. Authors observed the highest incidence of breech pregnancy in the age group of 20 to 25 years. Maximum (60%) cases delivered after 37 weeks of gestation. In our study 60% cases were primigravida and 40% were multigravida. Majority of cases (77.14%) delivered by caesarean section. **Conclusion:** Authors need to study and analyse all cases of breech pregnancy individually to decide the management and mode of delivery depending on cases to case basis and expertise of the staff available. Delivery of breech foetus should be conducted by experience obstetrician after appropriate consent from pregnant women and her relatives.

KEYWORDS: Breech presentation, Caesarean section, Maternal outcome, Mode of delivery, Perinatal outcome, Vaginal delivery.

INTRODUCTION

Breech presentation is commonest malpresentation with an incidence of 3-4% at term. Incidence is about 20% at 28 weeks of pregnancy and drops to 5% at 34 weeks.[1] Common etiological factors associated with breech pregnancy are prematurity, multiple pregnancy, congenital foetal and uterine malformation, foetal growth restriction, contracted pelvis, placenta praevia etc.[2] The management of breech delivery continues to be debatable. In 2015 recent Cochrane review published more than 90% reduction in perinatal mortality and neonatal morbidity in a planned caesarean section.[3] In 2000 Lancet published the results of term breech trial. This clearly concluded that planned caesarean section is better than planned vaginal birth for the term foetus with breech presentation in terms of neonatal outcomes.[4] However, an attempt to improve the neonatal outcome has resulted in the following effects as well. Firstly, there has been decline in the number of obstetricians able to conduct a vaginal breech delivery and it has also resulted in higher caesarean section rate and its complications. To conclude there is a need to evaluate above observations in the context of available resource settings.

METHODOLOGY

This prospective study was carried out in Lalla Ded Hospital, Department of Obstetrics and Gynaecology, GMC Srinagar for a period of 8 months from 1st September 2018 to 31st April 2019. 175 Cases of Breech Pregnancy were studied.

Inclusion criteria

- Primigravida or multigravida
- Booked or unbooked cases
- Patients admitted in labour room or antenatal wards who delivered with clinical or ultrasound diagnosis of breech pregnancy after 20 weeks of gestation.

Exclusion criteria

- Patients with diagnosis of breech pregnancy at 20 or less than 20 weeks of gestation.

A detailed study of all cases was done. Each patient was asked for detailed menstrual and obstetric history, history regarding antenatal care and number of visits. A careful general physical examination and systemic examination was carried out in all the patients. Per-abdominal examination included fundal height, abdominal girth, foetal presentation, engagement, foetal heart sounds and

uterine contractions. Per-vaginal examination was done and position, effacement and dilatation of cervix was noted. Presence of bag of membrane, presenting part, station and adequacy of pelvis was also noted. Routine investigation like haemoglobin, urine sugar, urine albumin was done. Women having obstetric indication for caesarean section like foetopelvic disproportion, hyper extension of foetal head, footling presentation and associated medical complications were assigned to the caesarean section group. Plan of delivery was discussed with patients and attendants. Trial of vaginal delivery was given to the patients who gave consent for the same.

Statistical analysis

The data obtained was analyzed and then presented in simple descriptive statistics using tables after collection. The results were presented as number and percentages.

RESULTS

This study includes 175 cases of breech pregnancy to study maternal and neonatal outcome. Table 1 shows that the incidence of breech pregnancy was highest (68.57%)

The analyzed data was further compared with different studies and discussed thereafter. between 21-25 years of age group, as in India maximum number of women who conceive fall in this age group because of early marriage and early pregnancy. After age of 30, incidence of breech pregnancy decreases because lesser number of females conceive after age of 30.

Table 1: Maternal Age.

Age	No. of cases	%
<21	10	5.71
21-25	120	68.57
26-30	35	20.00
>30	10	5.71

Table 2 shows that maximum number of cases (60%) delivered after 37 weeks of gestation. 14.28% of cases delivered before 34 weeks of gestation.

Table 2: Gestational age at delivery.

Weeks of gestation at delivery	No. of cases	%
<34	25	14.28
34-37	45	25.71
>37	105	60.00

Table 3 shows that maximum number of patients 60 % were primigravida. Out of all primigravida with breech pregnancy, 84.9% were delivered by caesarean section. While as, 71.1% of second gravida were delivered by caesarean section. This shows that caesarean section as a mode of delivery is much common in primigravida as compared to second gravida. Out of all multigravida, 42 were second gravida, 18 were third gravida, 6 were fourth gravida, 3 were fifth gravida, and one each were sixth and seventh gravida. The reason for breech presentation in multi gravida is poor tone of uterine musculature in multi gravida favouring malrotation and subsequent breech presentation.

Table 3: Gravidity.

Gravida	No. of cases	%
Primi	105	60.00
Second	42	24.00
Third	18	10.28
Fourth	6	3.40
Fifth	3	1.71
Sixth	1	0.57
Seventh	1	0.57

Table 4 shows the overall incidence of caesarean section in this study was 77.14% and of vaginal delivery was 22.85%. Out of all caesarean deliveries 68.3% were primigravida, 22 % were second gravida and 7.3% were third gravida. In addition, 41.7% of all vaginal deliveries were primigravida, 30.6% were second gravida and 13.9% were third gravida. So, patients with breech presentation in labour should be given trial for vaginal delivery especially if they are multigravida.

Table 4: Mode of Delivery.

Mode of delivery	No. of cases	%
Vaginal delivery	40	22.85
LSCS	135	77.14
membrane		

Table 5: Associated Factors.

Factor	Number of cases	%
Previous one caesarean section	14	8.00
Intra uterine foetal death	12	6.80
Anaemia	56	32.00
Pregnancy induced hypertension	12	6.80
Twin pregnancy	6	3.42
Previous two caesarean section	4	2.28
Antepartum eclampsia	4	2.28
Sickle cell anaemia	2	1.14
Premature rupture of	20	11.42

Table 5 shows that in present study 32% cases were having anaemia, 8% were previous one caesarean section, 2.28% were previous two caesarean section, 6.8% cases were having intra uterine foetal death and 3.42 % cases were twin pregnancy with first baby with breech presentation. No patients with history of previous caesarean section delivered vaginally. 11.42% of cases were having premature rupture of membrane. Out of total 6.8% of pregnancy induced hypertension cases 3.1% were having severe pregnancy induced hypertension and 3.8% were having mild pregnancy induced hypertension. Three cases of antepartum eclampsia and two cases of sickle cell anaemia were also noted. One case of triplet pregnancy was seen with first baby having breech presentation. One case each of maternal asthma, hypothyroidism and post-partum haemorrhage was noted.

DISCUSSION

Breech presentation is defined as a foetus in a longitudinal lie with buttocks or feet closest to the cervix. The percentage of breech deliveries decreasing with advancing gestational age from 22% of birth prior to 28 weeks of gestation to 7% of birth at 32 weeks of gestation and further to 1-3% of births at term.5 The incidence of breech pregnancy is 3-4%.[1]

In our study the incidence of breech pregnancy was highest (68.57%) in the age group of 21-25 years. A similar conclusion was drawn in study done by Panda R et al, in which maximum (47.4%) occurrence of breech pregnancy was seen in the age group of 20-25 years and the incidence was 47.5% in the same age group as per study done by Singh A et al.[6,7] In our study most of cases (60%) delivered at more than 37 weeks of gestation. In the study done by Singh A et al, 73.4% cases delivered between 37-42 weeks of gestation. Similarly, in the study done by Panda et al majority of cases (78.35%) delivered at more than 36 weeks of gestation.6 In our study 60% cases were primigravida and 40% were multigravida. This result was similar to the study done by Kavita et al, where primigravida constituted 62% and Panda R et al were 52.56% cases were primigravida.[6,8] In our study majority of cases (77.14%) were delivered by caesarean section. Similar results were observed by Goffinet et al, were 77.8% cases were delivered by caesarean section and Hannah et al were 66.7% cases delivered by caesarean section.[9,10]

In our study 11.42% cases were having premature rupture of membrane which correlates with study by Panda et al R in which 9.2% of cases were having premature rupture of membrane.[6] Vaginal breech deliveries provide us an opportunity to train obstetricians to conduct vaginal breech deliveries and also prevent uterine scar and its future complications. Caesarean section for breech presentation has been suggested as a way of reducing the associated perinatal problem.[11] The final mode of delivery should be decided on case to case basis.

CONCLUSION

To conclude mode of delivery should be decided based on individual case and the training level of the available staff. Vaginal breech delivery should always be conducted after explaining all the benefits and risks involved to the cases and obtaining due consent from the pregnant female and her relatives. Also, whenever a trial of vaginal breech delivery is offered arrangement should be made for an emergency caesarean section in case of failure of vaginal delivery.

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