VOLUME - 10, ISSUE - 09, SEPTEMBER - 2021 • PRINT ISSN No. 2277 - 8160 • DOI : 10.36106/gjra

Original Research Paper | Obstetrics & Gynaecology

A PROSPECTIVE OBSERVATIONAL STUDY OF BREECH PRESENTATION AT TERM PREGNANCY IN A TERTIARY CARE CENTRE

Chinmayan Goyal* Senior Resident, Department Of Obstetrics And Gynecology, M.G.M Medical College & M.Y. Hospital, Indore, Madhya Pradesh, India. *Corresponding Author

Akanksha Thora Assistant Professor, Department Of Obstetrics And Gynecology, M.G.M Medical College & M.Y. Hospital, Indore, Madhya Pradesh, India

Anupama Dave Professor, Department Of Obstetrics And Gynecology, M.G.M Medical College & M.Y. Hospital, Indore, Madhya Pradesh, India

ABSTRACT

BACKGROUND & METHOD: Breech presentation and delivery remains great challenge to the obstetrician. This study was done with the objective of studying the overall incidence of breech at term with mode of delivery in breech presentation and to compare the maternal and fetal outcome. Observational prospective study was conducted in Department of Obstetrics and Gynecology at M.G.M. Medical College and M.Y. Hospital Indore in women with breech pregnancy admitted from January 2018 to June 2019. The study group includes 679 patients with breech presentation whom were studied. All the patients who are diagnosed with breech adviced to go for USG with colour Doppler at term and their follow up till they deliver were recorded. **RESULT:** total number of cases delivered during the study time found to be 17,308 out of which 679 patient were breech, **so incidence of breech found to be 3.9 %.** Total number of breech admitted was 679 out of which maximum in the age group of 22-26 i.e. 49.6%. Maximum number of women 407(60%) were found be unbooked and 272 (40%) of women are booked. In particular time period of time total number of breech deliveries were found to be 679 out of which, 268(39.4%) delivered by assisted breech delivery, ceasarean section was done in 365(53.37%) cases,09 were delivered by normal vaginal delivery after external cephalic version, 37 women delivered vaginally still birth. Hence the section rate in our institute found to be 53.37%, in study among them 30 patient give consent for ECV and success rate for ECV found to be 30%. **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. It was concluded that External Cephalic Version is a valuable though under used option in the management of breech presentation at term. Vigilance for searching breech presentation and counselling after 36 weeks is important. Breech presentation is associated with higher incidence of mortality and morbidity irrespective of the route of delivery as compared to cephalic presentation. Any complications associated with breech presentation can be reduced by converting it to cephalic presentation by ECV.

KEYWORDS : External

INTRODUCTION

Breech presentation and delivery remains great challenge to the obstetrician. The incidence of breech presentation is related to gestational age, as 40% of fetuses present breech at 20 weeks but only 6-8% do so at 34 weeks breech presentation at term occurs in 3% to 4% of the term pregnancies[1] more common in nulliparous women and in preterm deliveries. Even if there is no underlying fetal or maternal abnormality, both mother and fetus face an increased risk of a complicated delivery.

Breech presentation, which occurs in approximately 3 percent of fetuses at term, describes the fetus whose presenting part is the buttocks and/or feet. Although most breech fetuses are normal, this presentation is associated with an increased risk for mild deformations, torticollis, and developmental dysplasia of the hip.

Following the publication of the Term Breech Trial, 2 there was a significant decrease in the number of women undergoing vaginal breech birth.[2] Overall cesarean delivery rate is higher in breech presentation at term, which is associated with a clinically significant decrease in perinatal/neonatal mortality and neonatal morbidity compared with vaginal delivery.[3] Efforts to prevent the first cesarean section often present obstetricians with the task of decreasing the number of cesarean deliveries they perform. One alternative to cesarean delivery is an external cephalic version (ECV)[4].

MATERIAL & METHOD

An observational prospective study was conducted in Department of Obstetrics and Gynecology at M.G.M. Medical College and M.Y. Hospital Indore in women with breech pregnancy admitted from June 2018 to Nov 2019 (18 Months) with sample size of 679 minimum 30 antenatal women meeting inclusion criteria during the study period were selected for external cephalic version.

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. Option of ECV given for some and Trial of vaginal delivery was given to the patients who gave consent for the same.

Minimum of 30 cases were screened by ultrasound, then presentation were confirmed. All the patients who are diagnosed with breech advised to go for USG with colour doppler at term and their follow up till they deliver were recorded. Patients are followed up with regular ANC including BP measurement, urine examination for albumin, weight gain and other parameters in each visit until term or till the patients deliver or after admission in the hospital. USG Guided EXTERNAL CEPHALIC VERSION was done Normal & abnormal outcomes were noted. The abnormal outcome includes failure of ECV and any complication which result in difficult or abnormal delivery.

RESULTS

Table 1: Distribution of cases according to age group

Age interval	Number of cases	Percentage
18-22	147	21.60%
22-26	337	49.60%
26-30	158	23.26%
30-34	30	4.40%
34-38	7	1.00%
TOTAL	679	100%

In the present study the above table (1) shows that total number of breech admitted was 679 out of which maximum in the age group of 22-26 i.e 49.6%.

Table 2: Distribution of cases according to gravidity

Gravidity	No. of cases	Percentage
Primigravida	363	53.46%
Multigravida	316	46.53%
Total	679	100%

In the study primi breech incidence were more 53.46% as compared to multigravida breech(46.53%).

Table 3: Distribution of cases according to antenatal visit

Booking status	No. of cases	Percentage
Booked	272	40.00%
Unbooked	407	60.00%
Total	679	100%

In the present study above table and pie chart shows maximum number of women 407(60%) were found be unbooked and 272 (40%) of women are booked.

Table 4: Month wise Distribution of cases and incidence of breech

Month	Total no. of deliveries	Number of Breech	Number of ECV attempted
June-18	460	34	02
July-18	953	25	01
Aug-18	1124	44	02
Sep-18	1001	39	03
Oct-18	1121	32	01
Nov-18	1004	36	01
Dec-18	1100	35	02
Jan-19	1272	42	01
Feb-19	1262	31	01
Mar-19	1231	39	02
Apr-19	1217	41	03
May-19	717	30	01
June-19	1127	44	02
July-19	419	42	02
Aug-19	1442	36	02
Sep-19	1114	43	01
Oct-19	551	38	01
Nov-19	1293	48	02
Total	17308	679	30

The above table show month wise total no. of deliveries and breech admitted in the hospital, in study period total no. of cases delivered during the study time found to be 17,308 out of which 679 patient were breech, so incidence of breech found to be 3.9 %. Among them 30 patient give consent for ECV.

Table 5: Distribution of breech according to associated Risk Factors

Risk Factors	Number of Cases	Percentage
Pre-eclampsia	36	5.3%
Eclampsia	03	0.4%
Previous Section	30	4.0%
Footling Breech	44	6.4%
Big Baby	43	6.3%
Diabetic	00	00%
Polyhydramnios	07	0.1%
Oligohydramnios	46	6.7%
In Labour	277	40.8%
Abruption	13	19%
Without Any Risk factor	74	11%
Total	679	100%

In present study out of the 679 patients with breech 277 (40.8%) are in labour, some present with pre eclampsia (5.3%), eclampsia (0.4%), previous section(4.4%), footling breech(6.4%), Big baby (6.3%), polyhydramnios (0.1%), oligohydramnios (6.7%), abruption (19%), only 74(11%) cases are without any risk amongst them ECV was offered and only 30 give the consent.

Table 6: Outcome of external cephalic version

ECV Attempted	Total No. of Cases	Percentage
Successful	9	30%
Failed	21	70%
Total	30	100

In present study total number of ECV offered to 74 women with breech out of which 30 give consent. Out of 30 cases the procedure is found to be successful in 9 cases, hence the success rate for ECV for present study is 30%.

Table 7: Distribution of cases as per mode of delivery

Mode of delivery	Number	Percentage
Assisted breech delivery	268	39.46%
LSCS	365	53.37%
Normal vaginal delivery	09	1.3%
Still birth	37	5.44%
Total	679	100%

In particular time period of time total number of breech deliveries were found to be 679 out of which, 268(39.4%) delivered by assisted breech delivery, ceasarean section was done in 365 (53.37%) cases, 09 were delivered by normal vaginal delivery after external cephalic version, 37 women delivered vaginally still birth. Hence the section rate in our institute found to be 53.37%.

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%. In present study incidence of breech pregnancy was 3.9%.

In our study the incidence of breech pregnancy was highest (49.60%) in the age group of 22-26 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]

Vedpathak S G et al(2017)[8] found that the mean age of women in the study group was 24.44±3.8711 years. 80% patients are of age between 20-30 with average age 25. Which is quite similar to our study.

In our study 53.46% cases were primigravida and 46.53% were multigravida. This result was similar to the study done by **Panda R et al** were 52.56% cases were primigravida.[6,12]

In our study majority of cases (53.37%) were delivered by caesarean section. In our study cases with previous caesarean section were 4%. In our study 11% cases were eligible for ECV.

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. The final mode of delivery should be decided on case to case basis.

In present study total number of ECV offered to 74 women with breech out of which 30 give consent. Out of 30 cases the procedure is found to be successful in 9 cases, hence the success rate for ECV for present study is 30%.

Deepika N, Kumar A et al 2017[9] found the success rate of ECV in the present study was 54.54%.This is comparable to 50-60% success rate in most studies. Vedpathak S G et al (2017)[8] success rate of almost 60%.

Success rate is low in our institute as there is multiple factors social factors patient have anxiety regarding the procedure and family members are illiterate and refuses to give consent for the procedure. Also there referral cases and patients coming in advace labour are more[10].

Natalie Kew et al 2017[11] study found that Rate of success of ECV for breech presentation at term at the Royal Women's Hospital Australia was 37%. Even though several previous studies have assessed the economics of ECV, investigators did not incorporate quality of life as outcome measures in their findings.

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. It was concluded that External Cephalic Version is a valuable though under used option in the management of breech presentation at term. Vigilance for searching breech presentation and counselling after 36 weeks is important. Breech presentation is associated with higher incidence of mortality and morbidity irrespective of the route of delivery as compared to cephalic presentation. Any complications associated with breech presentation can be reduced by converting it to cephalic presentation by ECV.

REFERENCES

1. William's book of obstetrics 25th edition section 8 chapter no.28 page no.539.
2. Hannah ME, Hannah WG, Hewson SA, Hodnett ED, Saigal S, willan AR. Planned ceasaren section Versus planned vaginal birth of breech presentation at term: a randomized multicenter trial. Term Breech TraialColloborative Group. Lancet 2000 Oct 21;356(9239):1375-83.
3. Doyle NM, Riggs JW, Ramin SM, Sosa MA, Gilstrap LC 3rd. Outcomes of term vaginal breech delivery. Am J Perinatol 2005;22:325–8.
4. LWM, Murphy DJ, Griffiths M, Penna LK on behalf of the Royal College of Obstetricians and Gynaecologists. External Cephalic Version and Reducing the Incidence of Term Breech Presentation. BJOG 2017; DOI: 10.1111/1471-0528.14466.
5. Hickok DE, Gordon DC, Milberg JA, Williams MA, Daling JR. The frequency of breech presentation by gestational age at birth: a large population-based study. Am J Obstet Gynecol. 1992;166(3):851-2
6. Panda R, Jena P. A study on fetomaternal outcome of breech presentation in a tertiary care hospital. J Med Sci Clin Res. 2016;6(12):703-8.
7. Singh A, Mishra N, Dewangan R. Delivery in breech presentation: The decision making. J Obstet Gynecol India. 2012;62(4):401-5
8. Vedpathak SG, Korde Nayak VR, Panigrahi PP. Outcome of external cephalic version (ECV) in singleton pregnancy with uncomplicated breech presentation at term in a tertiary rural hospital. Int J Reprod Contracept Obstet Gynecol 2017;6:3528-32.
9. Deepika N, Kumar A. External cephalic version at 36 weeks and its outcome. Int J Reprod Contracept Obstet Gynecol 2017;6:4602-7.
10. Jonathan M Tan, Alex Macario, Brendan Carvalho, Maurice L Druzin, Yasser Y El-Sayed. Cost-effectiveness of external cephalic version for term breech presentation. BMC Pregnancy and Childbirth 2010;10:3.
11. Natalie Kew, Jacobus DuPlessis, Domenic La Paglia, and Katherine Williams, "Predictors of Cephalic Vaginal Delivery Following External Cephalic Version: An Eight-Year Single- Centre Study of 447 Cases," Obstetrics and Gynecology International, vol. 2017, Article ID 3028398, 6 pages, 2017.
12. Westgren M, Edvall H, Nordstr€om L, Svalenius E, Ranstam J. Spontaneous cephalic version of breech presentation in the last trimester. Br J Obstet Gynaecol 1985;92:19–22