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MODE OF DELIVERY AND PERINATAL OUTCOME IN BREECH PRESENTATION IN A TERTIARY CARE HOSPITAL A RECORD BASED STUDY

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ABSTRACT

Background: Because vaginal birth is linked with a higher risk of newborn death and morbidity, breech presentations are being delivered more frequently via Caesarean section. Even in low-income contexts when CD-associated maternal morbidity and death are a significant concern, vaginal birth is still advised.

Aim: The aim of this study is to identify the different variables, style of delivery, and perinatal outcome associated with breech deliveries.

Methods: A retrospective analysis was carried out on 191 pregnant patients who met the inclusion criteria and were brought to the hospital with a breech presentation after 28 weeks or longer. Age, parity, gestational age, type of breech presentation, mode of birth, perinatal and maternal outcome, and other factors will all be included in the analysis of the case data, which were all gathered from the medical records department and OT registries

Results: When comparing aided breech delivery to interval-specific congenic strains, the perinatal outcome resulting from breech delivery was higher in our study. The perinatal outcome of vaginal breech deliveries in multiparous women was also found to be better than that of vaginal breech deliveries in primiparous women; however, comparable safety for the baby can be achieved with caesarean section if skilled obstetricians actively participate in the process and implement the necessary management protocols.

Conclusion: Our results showed that assisted breech delivery resulted in a better perinatal outcome due to breech birth than interval-specific strains. Furthermore, it was noted that breech deliveries by multiparous women produced better perinatal outcomes than breech vaginal deliveries by primiparous women.

Keywords: Caesarean section, Interval-Specific Congenic Strains **[ISCS],** parity, gestational age, vaginal breech delivery.

INTRODUCTION

The presenting component of a breech presentation is the fetus's podalic pole, which is a longitudinal lying. It is the most prevalent malpresentation, occurring 3-4% of the time at term.[1] Breech presentation can have a variety of causes, including perinatal conditions like preterm, congenital abnormalities, chromosomal abnormalities, etc., and maternal factors like polyhydramnios, multiple pregnancies, uterine malformations, grand multiparity, etc. placental variables such as corneal implantation of the placenta (75%) and placenta previa.[2] Frank breech is the most common kind of breech, accounting for between 50 and 60 percent of breech presentations. Clinically, breech births can be categorized

as either straightforward or difficult depending on the underlying cause, such as preterm, placenta previa, constricted pelvis, twins, etc.[3]

Obstetrical problems have been associated with breech deliveries since ancient times. It is one of the main causes of fetal death, according to Sushrutha. Breech extraction, aided breech birth, spontaneous breech delivery, and caesarean section are some of the several breech delivery modes. The handling of breech presentation has been and continues to be a contentious topic worldwide.[4]

A research by the National Institutes of Health found that caesarean deliveries raised the risk of maternal mortality by two to four times. Five to sixty-two percent of patients had significant maternal morbidity associated with caesarean delivery (MMR)4.The number of intended vaginal births has significantly decreased after the Term Breech Trial (TBT) was published.[5]

Vaginal delivery is still advised, especially in low-income settings where CD-associated maternal morbidity and mortality are a serious consideration, even though Caesarean section delivery of breech presentations has become more common due to the neonatal mortality and morbidity associated with vaginal delivery. All obstetricians have a challenge when it comes to vaginal breech deliveries; it puts their training, expertise, and judgment to the test.[6]

The purpose of this study was to identify the numerous variables, delivery technique, and perinatal outcome associated with breech deliveries.

MATERIALS AND METHODS

The Obstetrics and Gynecology Department carried out a retrospective research. The study included all pregnant patients who met the inclusion criteria and were brought to the hospital with a breech presentation after 28 weeks or more throughout the course of the year.

The medical records department and OT registries will provide all case records, which will then be analysed for factors such as age, parity, gestational age, kind of breech presentation, mode of delivery, and perinatal and maternal outcome. Individuals who appear breech and are over 28 weeks gestation, as well as those who are hospitalized for vaginal or lower limb cerclage, are all included in this category. Pregnancy presenting with a cephalic presentation, transverse lying, and congenital abnormalities not compatible with life, intrauterine mortality, twin breech, severe preeclampsia, eclampsia, and fewer than 28 weeks of gestation are all considered high risk.

Data Analysis: SPSS was used to analyze the data that was gathered and entered into Microsoft Excel. Both inferential statistics and descriptive statistics, such as mean, SD, percentage, etc. Chi square test, to know the association t- test, to know the difference between mean for quantitative data, for categorical data other suitable statistical test was applied, the low s 5% is considered significant ($p<0.05$).

RESULTS

The majority of patients, or 48% of those in the reproductive age range, are between the ages of 21 and 25, according to the report. Of the 191 instances that were examined, 80 had breech presentations and had primi gravida, with an incidence of 42%; 71 had gravida 2, with an incidence of 37%; and 21 had gravida 3 and above, with an incidence of 21%. [Table 1]

The majority of patients in both primi gravida (incidence of 90%) and multi gravida (incidence of 96%), as seen in the above table, were older than 37 weeks.

The study's above table indicates that while total breech was more prevalent in multigravida patients (incidence = 66.6%), prolonged breech was more common in primi gravida individuals (incidence = 60%). This research did not include any footling presentations. The aforementioned data shows that out of the 80 instances of primi, the majority (63%), had caesarean sections, and 30 cases (37%), were assisted breech deliveries. The majority of multigravida patients underwent caesarean sections (76%), but 24% of them required assistance with breech birth. [Table 2]

The aforementioned table indicates that, with a frequency of 84% and 16%, respectively, emergency caesarean sections were more prevalent than elective ones. Since the majority of patients in the emergency category were referred from outlying centres late in labor and went undetected. As per the above table, breech presentation was the most frequent reason for LSCS among primi patients—42 instances, or 84% of the total—while fetal discomfort accounted for 14% of the cases. Fetal distress was identified in 5 cases based on fetal bradycardia, 2 cases based on prom with liquid tinged with meconium, and 1 case (2% incidence) involving an elderly primi who presented breech. The aforementioned data shows that among multigravida patients, prior LSCS and fetal distress were the most frequent reasons for caesarean sections (18 instances total; an incidence of 34% and 21%, respectively). Fetal distress

was diagnosed on the basis of fetal bradycardia. 14 instances, or 17% of the total, have undergone two LSCS prior. Additional indicators were big infant (10 instances) and full breech (10 cases). [Table 3]

The perinatal prognosis was satisfactory for the majority of patients in both extended and full breech positions, with an incidence of 94% and 92%, respectively, as shown in the above table. With a 7% incidence, incomplete breech newborns were more likely to have an unsatisfactory result due to poor APGAR, LBW, and IUGR babies, all of whom were sent to the NICU.

Due to challenges in delivering a baby with an extended or full breech head, two prenatal fatalities resulted in intrapartum hypoxia. Both occurrences occurred in the second trimester as a result of delayed referrals and misdiagnosed breech births at the outlying health centres.

In this study, the perinatal outcome was satisfactory in LSCS, with an incidence of 94%; at the end of five minutes, the APGAR was low in three cases of assisted breech deliveries and eight cases of caesarean sections. Out of the 11 kids that were sent to the NICU, one baby, weighing 1.7 kg at delivery, passed away on the sixth postnatal day from preterm and RDS. The other 10 babies, seven of whom were IUGR babies, were returned to their mothers after making a full recovery. With a 17% frequency, it was shown that the perinatal result was more unsatisfactory when the birth weight was 1.5 to 2 kg. In babies weighing 1.5 to 2 kg at delivery, perinatal loss was also higher. [Table 4]

DISCUSSION

191 instances of randomly chosen pregnant women who presented breech and visited the labor room at the same institution were included in this research. Using parturition registers and case sheets, a thorough study was conducted. The results were compared to statistics provided by other writers. The incidence of breech deliveries was 2.92%, which was similar to the rates reported by Kerning K. H. and Bhang B. T. The age group between 21 and 25 years old had the highest prevalence in the current research; at 48%.It is connected to a research by Igwebo et al. that found that in the same age range, the incidence was 52%. In our analysis, there was a 55.5% frequency of full breech and a 44.5% incidence of extended breech.

We conducted a comparison between our study and the incidence of full and incomplete breech reported by Karning K.H. and Bhanu B.T. In our study, the proportion of multiparous women was higher, and among them, full breech births occur more frequently. The current study supports the findings of earlier authors' studies by demonstrating that perinatal death is elevated in assisted breech deliveries.

A research was carried out to ascertain if the lower likelihood of a poor perinatal outcome associated with a planned caesarean procedure in the term breech trial was caused by a decrease in labor and delivery issues or unrelated issues. A planned vaginal birth vs a planned caesarean section for a singleton fetus that presents breech at term in a randomised controlled study. Adverse perinatal outcomes were linked to a decreased incidence of planned caesarean birth.

A prospective research was carried out in two countries to characterize the newborn outcome for term breech deliveries based on the intended mode of delivery. In 138 French and 36 Belgian maternity institutions, 8105 pregnant women gave birth to singleton fetuses that were breech at term, making up the study population. Of the women scheduled for birth, 2526 (31.2%) had vaginal delivery and 5579 (68.8%) had caesarean delivery. 1796 women who were scheduled for vaginal delivery gave birth virginally, accounting for 71% of the total number of births. The planned vaginal and caesarean groups did not significantly vary from one another.

It was mentioned that a safe alternative for planned vaginal birth of a singleton fetus in breech presentation at term is to provide it in settings where it is a frequent practice and stringent requirements are satisfied both before and during labor. For a subset of breech-presentation pregnancies, the TBT group carried out eight randomised trials to assess the policies for planned caesarean sections vs planned vaginal births. Random assignments were made to deliver the singleton fetus in a frank or full breech presentation in 2088 women, using either planned vaginal or planned caesarean sections. Mothers and newborns had six weeks of observation following delivery. The intended vaginal birth group had significantly higher perinatal or neonatal mortality than the planned caesarean surgery group.[9]

CONCLUSION

In contrast to interval-specific strains, aided breech delivery had a higher perinatal outcome as a result of breech birth in our study. Additionally, it was observed that multiparous women who delivered breech had better perinatal outcomes than primiparous women who delivered breech vaginally. However, comparable safety for the baby can be achieved with a caesarean section if experienced obstetricians actively participate in the process and apply the proper

management protocols for vaginal breech deliveries. If a breech presentation occurs, vaginal breech delivery is still appropriate in some situations, particularly for multiparous women.

REFERENCES

1. Cunningham et al. Breech presentation and delivery, chapter 24. In: Williams obstetrics 23 rd. EDN. Mcg raw hill books, USA pp548
2. 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;166:851-2.
3. Mudaliar and Menon .Pelvic presentation, chapterb 39, clinical Obstetrics 6th edition. Orient Longman private limited, Hyderabad pp. 495.
4. Studd J PIOneers in obstetrics and gynaecology 1: William Smellie. The DIplomate 1994;153 – 4
5. Catrin Claeson2 , Lone Krebs3 , Agneta Skoog Svanberg1 and Hussein Kidanto1,4 Breech delivery at a University Hospital in Tanzania Ulf Högberg1*
6. Impey LWM, Murphy DJ, Griffiths M, Penna LK on behalf of the Royal College of Obstetricians and Gynecologists. Management of Breech Presentation. BJOG 2017
7. Min su, Walter J. Hannah, Andrew willian, Susan Ross, Mary E Hannah. Planned caesarean section decreases the risk of adverse perinatal outcome due to both labor and delivery complications in the term breech trial. BJOG OCT 2004; 111:1065- 1074.
8. Francios Goffinet , Marion Carayol, Jean – Michet Foidart, Sophiw Alexander, Serge Uzan, Damien Substil. Is planned vaginal delivery for breech presentation a term still an option? Results of an observational prospective survey in France and Belgium. AJOG 2006;194:1002- 1011.
9. Hannah et al planned caesarean section versus planned vaginal birth for breech presentation at birth: a randomized multicentric trial. TBT collaborative group. Lancet 2000;356 (9239): 1375- 83.

TABLES

Demographic Parameters		N=191	%
Age In Years	<20	14	8
	21-25	92	48
	26-30	61	32
	31-35	17	9
	>36	7	3
Parity	Primi	80	42
	G_2	71	37
	G_3 and above	40	21

Table 1: Incidence of breech presentation according to age and parity

Parameters	Subgroup	Primi (80)		Multi (111)		Total (191)	
		No.	%	No.	%	No.	%
Gestational Age In Weeks	30-34	5	6.3	2	2	7	3.6
	35-37	3	3.7	2	2	5	2.4
	>37	72	90	107	96	171	94
Type of Breech	Complete	32	40	74	66.6	106	55.5
	Extended	48	60	37	33.4	85	44.5
Type of delivery	Assisted breech delivery	30	37	27	24	57	30
	Cesarean section	50	63	84	76	134	70

Table no 2: Relationship of gestational age, type of breech in relation to parity and incidence of mode of delivery.

Parameters for cesarean section	Incidence	N	%
Incidence of elective and emergency cesarean section	Elective	22	16
	Emergency	112	84
Indication for cesarean section	Primi with breech	42	84

among the primi (50)	Fetal distress	7	14
	Elderly primi	1	2
Indications for cesarean section among the multi gravida (84)	Previous LSCS	28	34
	Fetal distress	18	21
	Previous 2 LSCS	14	17
	Complete breech	10	12
	Large baby	8	9
	Placenta previa	6	7

Table no 3: cesarean section parameters

Parameters	Subgroup	No of cases	Perinatal outcome		
			Good	Low apgar	Died
Type of breech	Extended	85	80	4	1
	Percent		94	5	1
	Complete	106	98	7	1
	PERCENT		92	7	1
Mode of delivery	Assisted breech delivery	57	52	3	2
	Percent		91	5	4
	Lscs for breech	134	126	8	0
	Percent		94	6	0
Baby Weight in gms	1501-2000	17	12	3	2
	Percent		7	17	12
	2001-2500	30	28	2	
	Percent		93	7	
	2501-3000	77	77		
	Percent		100		
	3000-3500	33	33		
	Percent		100		
	>3500	7	7		
	Percent		100		

Table 4: relation of perinatal outcome to type of breech, mode of delivery and birth weight