

# The Prevalence of Breech Delivery in Rangpur Medical College Hospital

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DOI: [10.36347/sjams.2021.v09i01.019](https://doi.org/10.36347/sjams.2021.v09i01.019)

| Received: 28.12.2020 | Accepted: 13.01.2021 | Published: 19.01.2021

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## Abstract

## Original Research Article

**Objective:** In this study our main goal is to evaluate the prevalence of prevalence of breech delivery in a Rangpur medical college hospital. **Method:** This prospective observational study was carried out at Rangpur medical college hospital. From January 2020-June 2020 where 51 singleton uncomplicated breech presentation admitted for delivery were included in the study. **Results:** During the study, total 899 babies were delivered. Among them 51 (5.67%) were in breech presentation and the rest 848 (94.33%) were other presentations. Among the breech presentation cases, 32 (62.7%) underwent LUCS, either emergency or elective and rest of the 19 cases (37.3%) underwent vaginal delivery. Among the vaginal delivery group, 31.6% of babies were born spontaneously and rests (68.4%) were born with assistance. 29 (90.6%) had undergone emergency caesarean section. Primi breech (34.4%) was the highest number of indications. **Conclusion:** From our study we can conclude that, policy of planned delivery method is substantially better for singleton fetus in breech presentation at term with lower perinatal mortality and morbidity rates.

**Keywords:** Breech delivery, vaginal delivery.

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## INTRODUCTION

Delivery is breech presentation is still associated with increased fetal and maternal mortality and morbidity worldwide [6]. Although vertex is the usual presentation at the time of parturition, breech presentation comprises 3-4% of all deliveries [1-3].

Some 12000 women die every year from birth-related complications in Bangladesh. Three-quarters of these maternal deaths occur during labor, child birth or in the postpartum period [4]. Breech delivery contributes significantly in these maternal deaths. Neonatal mortality and morbidity are another major concern in delivery with breech presentation due to high perinatal insults reported [5]. This high death toll and morbidities from breech deliveries warrants proper attention from all level.

So, breech presentation is a special matter in managing safe delivery practice. New researches are carried out in this subject in developed countries, but very few studies have been done in our country till date.

In this study our main goal is to evaluate the prevalence of prevalence of breech delivery in a Rangpur medical college hospital hospital.

## OBJECTIVE

- To assess the prevalence of prevalence of breech delivery in a Rangpur medical college and hospital.

## METHODOLOGY

### Study design

- This was a prospective observational study.

### Study Population

- Term singleton uncomplicated breech presentation admitted for delivery.

### Study Place

- Study was done in a single maternity unit of Rangpur Medical College Hospital which is a tertiary care hospital.

**Duration**

- Total study period was around 6 months (January 2020-June 2020)

**Sampling method**

- Purposive

**Study tool**

- The patients or relatives were interviewed using self-administered structured questionnaires at admission.

**Sample size**

- With the desired precision and level of confidence, the calculated sample size would be bigger. Due to limitation of time, 51 cases were taken for conducting the study.

**Sampling technique**

- Samples would be selected considering inclusion and exclusion criteria among the pregnant women presented with breech presentation. Those who gave informed written consent were finally enrolled in this study.

**Inclusion criteria**

- Breech presentation from 37 to 42 weeks of gestation.
- Breech without any complications

**Exclusion criteria**

- Multiple pregnancies
- Intra-uterine death (IUD)

**Data collection procedure**

- After admission, patients were enrolled in this study after written informed consent. History was taken from the patient or her attendance which was applicable. Breech presentation was confirmed by clinical examination and/or ultrasonography. All the relevant physical and clinical information was noted in the structured questionnaire. Maternal and fetal condition was monitored carefully throughout the delivery. After the delivery, mother and the baby were followed up till discharge. Necessary data were noted.

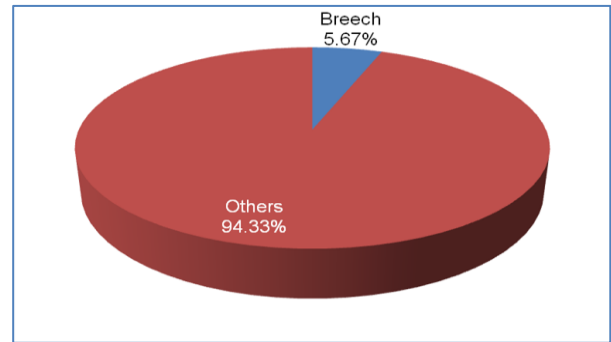
**DATA ANALYSIS**

- Data were analyzed by SPSS version 12.0. Qualitative data were analyzed as rate &

percentage. Quantitative data were analyzed by mean & standard deviation.

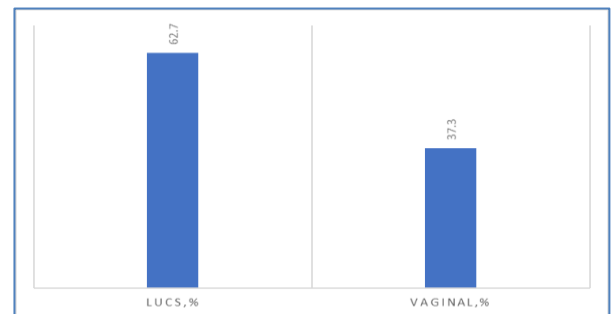
**RESULTS**

In figure-1 shows percentage of breech presentation at term during study period. During the study period, total 899 babies were delivered. Among them 51 (5.67%) were in breech presentation and the rest 848 (94.33%) were other presentations. The following figure is given below in detail:



**Fig-1: Percentage of breech presentation at term during study period**

In figure-2 shows distribution of different modes of delivery in breech presentation. Among the breech presentation cases, 32 (62.7%) underwent LUCS, either emergency or elective and rest of the 19 cases (37.3%) underwent vaginal delivery. The following figure is given below in detail:



**Fig-2: Distribution of different modes of delivery in breech presentation.**

In table-1 shows age distribution of the study subjects where the mean age of the patients delivered by caesarean section was 25.50±4.9 and vaginal delivery was 25.53±5.2 respectively. The following table is given below in detail:

**Table-1: Frequency distribution of age and different modes of delivery**

Age Group (Years)	LUCS (n=32)			Vaginal (n=19)		
	Number	Age (%)	Mean± SD	Number	%	Mean± SD
≤20	5	15.6	25.50±4.9	3	15.8	25.53±5.2
21-25	12	37.5		10	52.6	
26-30	8	25.0		3	15.8	
31-35	4	12.5		2	10.5	
≥36	3	9.4		1	5.3	

In table-2 shows comparison between gestational age and different modes of delivery. The mean gestational age of the caesarean section group was

38.41±1.5 weeks and for vaginal group 38.52±1.4 weeks respectively. The following table is given below in detail:

**Table-2: Comparison between gestational age and different modes of delivery**

Gestation (weeks)	LUCS (n=32)			Vaginal (n=19)		
	Number	Percentage (%)	Mean± SD	Number	Percentage (%)	Mean± SD
37-40	31	96.9	38.41±1.5	17	89.47	38.52±1.4
>40	01	3.1		2	10.53	

In table-3 shows distribution of the patients according to different aspects of delivery design. Among the vaginal delivery group, 31.6% of babies were born spontaneously and rests (68.4%) were born

with assistance. 29 (90.6%) had undergone emergency caesarean section. Primi breech (34.4%) was the highest number of indications. The following table is given below in detail:

**Table-3: Distribution of the patients according to different aspects of delivery design**

Delivery design	Parameters	Number of patients	Percentage
Modes of delivery (n=51)	LUCS	32	62.7
	Vaginal	19	37.3
Types of vaginal delivery (n=19)	Spontaneous	06	31.6
	Assisted breech	13	68.4
	Breech extraction	00	00
Types of LSCS (n=32)	Elective	03	9.4
	Emergency	29	90.6
Indication of LSCS	Primi breech	11	34.4
	Fetal distress	07	21.9
	Big baby	06	18.7
	Previous LSCS	04	12.5
	Others	04	12.5

## DISCUSSION

During this study period, total number of deliveries in that maternity unit was 899. Among them, 51 (5.67%) were in breech presentation and the rest 848 (94.33%) were in other presentations. It indicates that the percentage of breech delivery in this study was 5.67% that was comparable with the findings of some other accepted observations where it was 3-4% at 38-40 weeks of gestation [1, 6].

Among the cases of breech presentation, 32 (62.7%) underwent LSCS (Lower Uterine Caesarean Section), either emergency or elective, and rest of the 19 cases (37.3%) underwent vaginal delivery. So, in this study, percentage of total caesarean section and vaginal delivery were 62.7% and 37.3% respectively.

The evaluation of patients' baseline characteristics showed that the mean age of the patients delivered by caesarean section was 25.5±4.9 years and vaginal delivery was 25.53±5.2 years. Comparable results are seen in a study where the mean age of pregnant mothers was 28.7±5.1 years versus 28.2±4.7 years respectively [7]. Breech delivery is more common among the women aged less than 30 years in some other studies too [8, 9]. The reason for this young age is the relative increased gravidity and parity at a younger age in our society.

In addition, percentage of vaginal breech delivery is more in another study of 1040 breech deliveries where vaginal breech delivery was predominant (56.3%) [10]. But in another study in 2000 from 121 centers in 26 countries among 2083 women with singleton complete breech presentation showed the ratio of LSCS 71.7% versus vaginal delivery 28.3% [3]. Here the caesarean section was the preferred method of delivery among the breech presentation that is comparable to our findings in this study.

The higher ratio of caesarean section in this study is probably due to inadequate or no antenatal care and lack of pre-delivery assessment of the patients for the trial of planned vaginal breech delivery and also due to lack of standard protocol for breech delivery currently in our hospital.

## CONCLUSION

From our study we can conclude that, policy of planned delivery method is substantially better for singleton fetus in breech presentation at term with lower perinatal mortality and morbidity rates.

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