

## A Study of 100 Cases of Breech Pregnancy at a Tertiary Centre

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### ABSTRACT

**Introduction:** Breech pregnancy refers to the condition where podalic pole over lies pelvic brim. It constitutes 3% of all pregnancies. It is of two types complete and incomplete. It is more in multigravidas. Most common cause of breech is prematurity. Incidence of breech before 28 weeks is 7% and 1-3% at term.

**Methodology:** This is a prospective study in our hospital over a period of one year July 2017-sep 2019

**Results:** Incidence of breech in our study was 3.4%.

Breech was more in multigravidas, most common cause of breech was prematurity. Most common type of breech in our study was complete breech. Main mode of delivery was lscs. Fetal complications in our study was low birth weight babies followed by prematurity.

**Conclusion:** Breech pregnancy is considered as high risk pregnancy, but it can be reduced if antenatal cases are properly registered and planned mode of delivery instituted for them.

**Keywords:** breech, prematurity, complete, multigravidas.

### INTRODUCTION

Breech pregnancy refers to the condition when podalic pole overlies the pelvic brim. It is the most common malpresentation. Breech constitutes 3% of all pregnancies at term<sup>(1)</sup>. Breech is of two types;

- 1) Complete breech.
- 2) Incomplete breech: Frank breech, footling, knee presentation

Complete breech is more common in multiparous and incomplete breech more in primipara. The most common cause of breech is prematurity because of small baby and large liquor most of the babies spontaneously revert back to cephalic position till term. Persistent breech is because of many obstacles that prevent reversion<sup>(2)</sup> this includes; prematurity, being commonest, others being hydrocephalus, placenta previa, cornu fundal attachment of placenta, fetal and uterine anomalies, polyhydramnios, oligohydramnios<sup>(1)</sup> Incidence of Breech before 28 weeks is 7% and this reduces to 1-3% at term<sup>(1)</sup>. Prematurity, fetal structural anomalies, hypoxia and trauma associated with vaginal breech delivery are responsible for increased perinatal mortality and morbidity.<sup>(1)</sup> Breech especially footling and knee presentation leads to early rupture of membranes with cord prolapse. Incidence of Cord prolapse in Breech is 4-5%. It is high in footling presentation.<sup>(3,4)</sup>

There is a considerable debate regarding mode of delivery in case of breeched presentation. In spite of good antenatal care and modern hospital facilities vaginal breech is still considered as a high risk delivery as it is associated with major complications. American college of Gynaecologists and obstetricians (RCOG UK) 2001 guidelines recommends elective cesarean section for all term breech (ACOG committee opinion No.265<sup>(5)</sup>, RCOG Green top no.20<sup>(6)</sup>). In 2006 both ACOG and RCOG recommended certain circumstances where only trial of labour is justified in Breech (ACOG committee opinion no.340<sup>(7)</sup> RCOG guidelines no.20b<sup>(8)</sup>)

In case of footling and knee presentation there are high chances of cord prolapse, so early rupture of membranes should be avoided, even if rupture of membranes occurs p/v should be done to exclude cord prolapse<sup>(3,4)</sup>. If footling is diagnosed during pregnancy, pregnancy should be terminated by lscs irrespective of gestational age. If vaginal delivery is allowed to take place in breech there are high chances of prolonged labour because breech acts as a slow cervical dilator resulting

in prolonged labour. vaginal breech delivery is also associated with significant maternal and perinatal morbidity. Breech pregnancy is associated with Fetal complications that include, prematurity, cord prolapse, birth asphyxia, fetal injury and intracranial hemorrhage. Among maternal complications are injury to perineum and sepsis in case of vaginal delivery and anaesthetic complications in case of lscs.

## METHODOLOGY

This is a prospective Observational study done in our hospital over a period of one year July 2017- september 2018

## RESULTS

Total no. of deliveries conducted=5000 Breech deliveries=170

Incidence of breech=3.4%

Association of Breech with Parity Total Breech deliveries=170

No. of primi patients=68(40%)

No. of multiparous patients=102(60%)

Thus multiparous patients were more than primipara s in our study

### Types of Breech

Types of breech.	No.of patients
1. complete breech.	85 (50%)
2. Frank breech.	51 (30%)
3. Knee presentation.	17 (10%)
4. Footling presentation.	17(10%)

Thus most common breech in our study was complete breech followed by frank, while as knee and footling had same frequency.

### Mode of Delivery

Mode.	No.of patients
Lscs.	119(70%)
Vaginal.	51(30%)

Thus main mode of delivery of breech in our study was lscs.

### Distribution of Patients according to Etiology of Breech Presentation

Causes.	No.of patients
Prematurity.	85(50%)
Multiparity.	34(20%)
Polyhydraminos.	8(4.7%)
Oligohydramino.	4(2.3%)
Uterine anomalies.	4(2.3%)
Hydrocephalus.	5(2.96%)
(Short cord.	8(4.70%)
Idiopathic.	22(12.94%)

Thus main cause of breech in our study was prematurity...

Fetal complications in breech delivery Complications.No. of patients

1. Low birth weight.	90 (52.95%)
2. Prematurity.	73(42.95%)
3. Birth asphyxia.	0
4. Intracranial hemorrhage.	1(0.58%)
5. Fetal injuries.	1(0.58%)
6. congenital anomalies.	5(2.94%)

Thus main fetal complication causing NICU admission was low birth weight of babies,, followed by prematurity

## DISCUSSION

The incidence of breech in our study is 3.4%.

This is similar to 3% incidence in study done by Saira Das et al, 4.2% in cameroonian, 2.1% in study done by Abha Singh et al<sup>(1,9,10)</sup>. Incidence in Parkland hospital USA is between 3.3%- 3.9% during past 30 years<sup>(3)</sup>

In our study incidence of Breech was more in multiparous 60%. This study is similar to study done by Abha Singh et al<sup>(10)</sup>, Saha and Nandi<sup>(11)</sup>. The increased incidence of breech in multiparas is because of lax abdominal wall that facilitates

breech presentation.

In our study the commonest type of breech is complete breech (50%) followed by frank (30%) knee (10%) and footling presentation (10%)

In our study 70% of patients underwent lscs while as 30% of patients were delivered vaginally, this is similar to study done by sanjivini et al where incidence of lscs was 74%<sup>(12)</sup>, and kerbs and weber where incidence of lscs was 79.4%<sup>(13)</sup>. In study done by Weisman and Hugay lscs was.

seen in 63.6% of patients<sup>(14)</sup>. The increased incidence of lscs in our hospital was because of liberal use of cesarean section for breech in order to reduce perinatal mortality and morbidity. Among the various etiological factors of breech in our study the most common factor is prematurity (50%), followed by multiparity ((20%) polyhydramnios (4.7%) and oligohydramino (2.3%) In study done by sonali oligohydramino was seen in 3% of patients<sup>(2)</sup>, Uterine anomalies are seen in 2.3% of patients, hydrocephalus in 2.96%, idopathic in 12.94% and short cord in 4.7%. Short cord is also a cause of breech presentation as shown by Adinma's study in which 1000 cases were observed to have a short cord<sup>(15)</sup>. Since Breech is also associated with fetal anomalies, oligohydramino, polyhydramnios, short cord, uterine anomalies so it is important to look for all these conditions either by USG or at the time of lscs.

Lscs in our institute was more among primi paras, vaginal delivery was mostly in multiparous patients with preterm babies. Due to liberal use of lscs neonatal mortality was less similar to study by sanjivini et al<sup>(12)</sup> Hannah ME et al<sup>(16)</sup> has also proposed liberal use of lscs for breech to decrease perinatal mortality and morbidity. This was further supplemented by ACOG recommendation for lscs for singleton breech in 2001<sup>(17)</sup>.

The most common fetal complication responsible for NICU admission in our study was low birth weight of babies, this was followed by prematurity. Other complications were intracranial hemorrhage, fetal injuries, and congenital anomalies, there was none case of birth asphyxia. Only two babies died of intracranial hemorrhage and birth injuries. This decreased perinatal mortality is because of liberal use of cesarean section in our study

## CONCLUSION

Breech pregnancy is considered as a high risk pregnancy because of maternal and fetal complications Associated with it, that can be significantly reduced if all antenatal case's are properly registered, followed and a planned mode of delivery instituted for them. For all breech deliveries we should have 24 hour facility of cesarean section with a skilled obstetrician and NICU facility available. Thus ideally all breech deliveries should be conducted at a tertiary institute.

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