For A Singleton Breech Presentation Vaginal Delivery Should Be an Option 
A Review Over One Year in A Tertiary Hospital

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ABSTRACT

Introduction: Breech is commonest malpresentation, with incidence ranging from 3 to 4% in term gestations. Perinatal mortality is increased 2-4 fold with breech presentation regardless of mode of delivery. Offering a trial of vaginal breech delivery to a well counselled strictly selected patients remains an appropriate option.

Aims and Objectives

1. To study the maternal complications like genital tract trauma after term breech delivered vaginally.
2. To study the neonatal complications in terms of perinatal mortality, apgar score at 5 minutes, and neonatal trauma in all singleton term breech delivered vaginally.

Material and Methods: Hundred patients with singleton term breech presentation delivered vaginally during the year 2015, were studied retrospectively, for maternal and neonatal complications. maternal complications include genital tract trauma and neonatal complications include perinatal mortality, apgar score at 5 minutes, and neonatal trauma

Results: Hundred patients with singleton term breech presentation admitted and delivered vaginally were studied retrospectively. All were unbooked cases in labour. 90% were multigravidae and 10 % were primigravidae. An apgar score of ≥8 at 5 minutes was observed in 91% of cases while 4% had apgar score <8 at 5 minutes. there were 5 still births and 2 neonatal deaths. None of the baby had birth trauma. Only 2% of mothers had genital tract trauma (cervical tears).

Conclusion: Offering a trial of vaginal breech delivery to selected and well counselled women is an appropriate option without compromising perinatal and maternal outcome. Thus contributing in decreasing the rising caesarean section rate.

Introduction

Breech is commonest malpresentation, with incidence ranging from 3 to 4% in term gestations. It is a condition in which the baby, at the time of birth, exits the mother’s pelvis buttocks- or feet-first. Based on the relation between the baby’s lower limbs and the bottom, breech presentation can be classified as: complete (the baby’s hips and knees are flexed so that the baby is sitting with feet beside the bottom), and incomplete breech (the baby’s legs are folded flat up against the chest); most breech babies are in the incomplete breech position, with bottom coming first. Other types of incomplete breech presentation are the kneeling breech and footling breech. Factors that have been associated with breech presentation include nulliparity, uterine abnormalities, low insertion of placenta, polyhydramnios,
oligohydramnios, multiple pregnancy, prematurity, decreased fetal activity, fetal abnormalities and fetal death. Moreover, there is increased risk of recurrence of this type of presentation in subsequent pregnancies.

Management of breech presentation remains an area of intense controversy. Various options available are external cephalic version (ECV), Planned caesarean section and planned vaginal delivery.

Perinatal mortality is increased 2-4 fold with breech presentation regardless of mode of delivery. The higher perinatal mortality and morbidity associated with breech presentation is principally due to prematurity, congenital malformations, birth asphyxia and trauma.

In 2000, the results of a randomized multicenter trial, the Term Breech Trial (TBT) were published in the Lancet. The trial reported significantly lower perinatal mortality, neonatal mortality, or serious neonatal morbidity in the planned caesarean section arm (1.6%) versus in the planned vaginal delivery arm (5.0%). After this the ACOG Committee on Obstetric practice in 2001 recommended that planned vaginal delivery of a term singleton breech was no longer appropriate.

Offering a trial of vaginal breech delivery to a well counselled strictly selected patients remains an appropriate option. Vigorous intra partum monitoring and proper technique of breech delivery have been established as the most important determinant for successful outcome without compromising fetomaternal wellbeing and decreasing the caesarean section rate.

Aim of this study is to determine the maternal and neonatal complications in terms of genital tract trauma to the mother, perinatal mortality, APGAR SCORE at 5 mins and neonatal trauma in all term breech cases delivered vaginally.

2) To study the neonatal complications in terms of perinatal mortality, apgar score at 5 minutes, and neonatal trauma in all singleton term breech delivered vaginally.

Material and Methods

Hundred patients with singleton term breech presentation admitted and delivered vaginally at our hospital during the year 2015 were studied retrospectively, for maternal and neonatal complications.

Inclusion criteria
- Singleton term breech (complete or frank).
- In Spontaneous labour
- Clinically adequate pelvis
- Estimated fetal weight <3.5kg

Exclusion criteria
- Gestational age <37 weeks and >41 weeks.
- Previous caesarean section
- Contracted pelvis.
- Estimated fetal weight >3.5kg
- Footling presentation.
- IUGR.
- Hyperextended fetal head.
- Obstetric and medical complications.
- PROM
- Multiple pregnancy.
- Antepartum IUD.

Method

Complete history, general physical examination detailed obstetric examination and labour details of 100 Term breech patients fulfilling the inclusion criteria was analysed. Maternal factors recorded include maternal age, gestational age, mode of delivery (assisted breech delivery), perineal trauma. Neonatal factors that were analysed include apgar score of neonate at 5 mins, weight of baby, neonatal injuries (if any).

The data thus collected analysed statistically.

Results

There were total of 5975 deliveries during the year 2015, Of which there were 186 vaginal breech delivery (incidence is 3.11%). 100cases
were analysed retrospectively for the study. All were unbooked cases, 90% of were multigravidae and 10% were primi, most between 21 to 30 years of age. Gestational age of Most of the women who delivered vaginally were between 39-40 weeks. The mean birth weight was 2.75kg. Ninety one percentage of the babies that were born had an APGAR SCORE of >/8 and 5% had < 8. There were 5 still births and 2 neonatal deaths. None of the babies had Birth trauma. Maternal genital tract trauma was seen in 4%. 1 lateral vaginal wall tear, 2 cervical tears, 1 had third degree perineal tear.

Table 1: Gravidity

| GRAVIDITY | No. of Cases(n) | PERCENTAGE(%) |
|-----------|----------------|---------------|
| Primigravidae | 10             | 10            |
| Multigravidae | 90             | 90            |

Table 2: Age distribution

| Maternal age (years) | No. of cases(n) | Percentage(%) |
|----------------------|----------------|---------------|
| <20                  | 7              | 7             |
| 21-25                | 35             | 35            |
| 26-30                | 35             | 35            |
| 31-35                | 22             | 22            |

Table 3: Gestational Age in weeks

| GA in weeks | No. of cases(n) | Percentage(%) |
|-------------|----------------|---------------|
| 38-39       | 39             | 39            |
| 39-40       | 54             | 54            |
| 40-41       | 7              | 7             |

Table 4: Birth weight in kgs

| Birth weight in kg | No. of cases(n) | Percentage(%) |
|-------------------|----------------|---------------|
| <2.5              | 14             | 14            |
| 2.5-3             | 62             | 62            |
| 3.1-3.5 kg        | 24             | 24            |

Table 5: Neonatal outcome.

| APGAR SCORE at 5min | No. of cases | Percentage(%) |
|---------------------|--------------|---------------|
| 0                   | 5            | 5             |
| 4                   | 2            | 2             |
| 6                   | 2            | 2             |
| 8                   | 91           | 91            |

Discussion

Incidence of breech delivery in our study was 3.1%, which is comparable to Ile-Ife³ and Ilesh³ studies but incidence is more as compared to Sokoto⁴ study(1.7%) and Calabar¹ studies ( 1.4%). Mean age group was 21-30 years in our study which is in comparasion with Sokoto⁴ study which is 26.9 years. Fawole⁶ and Usmanu Sokoto¹ studies reported incidence of breech presentation more among primigravida but in our study incidence of breech is more among multigravida (90%) which is comparable to Abasiattai AM¹, Aisien AO⁵ studies. In our study there were 5 / 100 perinatal mortality where as in sokoto⁴ study it was 410/1000 deliveries, still perinatal mortality can be reduced if patients come well in advance and if they undergo a planned vaginal delivery. In our study Apgar at 5 minute was > 7 in 91 % cases where as only 44.3% cases had apgar >7 in sokoto⁴ study. In our study average birth weight was 2.75 kg which is comparable to Isha Gutgutia study (2.58 kg). In 2006, the RCOG and ACOG replaced their restrictive 2001 breech guidelines with new versions supportive of selected vaginal breech birth.⁸,⁹ Outcome of our study well supports the Society of Obstetricians and Gynecologists of Canada (SOGC) revised recommendations 2009¹⁰ which stated “Planned vaginal delivery is reasonable in selected women with a term singleton breech fetus and careful case selection and labor management in a modern obstetrical setting may achieve a level of safety similar to elective Caesarean section”. Y Berhan analysis¹⁶ has also shown that the AR of birth trauma in vaginal breech delivery was <1%, which was compareable to the AR of birth trauma in vaginal cephalic deliveries of babies who had shoulder dystocia, a birthweight >3.5 kg and instrumental delivery.¹²-¹⁵ Hannah et al. found that planned CD for breech presentation did not reduce serious morbidity in newborns in high-PMR countries as much as in low-PMR countries. They recognized thepossibility of the caregivers being more experienced inbreech deliveries in the low-PMR countries, which traditionally have low CD rates¹¹. The data reflected in our study have shown that with careful selection of patients, incidence of caesarean section can be reduced in breech presentation without increasing perinatal morbi-
dity and mortality. Experienced obstetrician, care full assessment of events in labor careful feto-maternal assessment, monitoring of fetal well-being, experienced paediatrician provides comparable fetal outcome by elective caesarean section.

**Conclusion**

We conclude that in proper assessment of individual case and selection and in well managed cases the risk to the fetus is minimal following vaginal breech delivery. Offering a trial of vaginal breech delivery to selected and well counselled women is an appropriate option without compromising perinatal and maternal outcome. Thus contributing in decreasing the rising caesarean section rate.

**Implication**

Experienced obstetrician, care full assessment of events in labor careful feto-maternal assessment, monitoring of fetal well-being, experienced paediatrician provides comparable fetal outcome by elective caesarean section. For vaginal breech delivery to guide best practice it is necessary to set eligibility criteria at the national level. A comparative study on vaginal cephalic and vaginal breech delivery & with comparision caesarean section for breech is recommended.

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