

4. Management of Breech Presentation

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Introduction

These guidelines are to provide recommendations to aid General Practitioners and Obstetricians on treatment of women with **Breech Presentation**. This treatment could be initiated in a primary care setting or in centres with advanced facilities. The objectives of the guidelines are early diagnosis, investigating, counseling and treatment of mother with breech presentation.

4.1 Scope of the guideline

The scope is confined to decision-making regarding the route of delivery and choice of various techniques used during delivery.

The incidence of breech presentation decreases from about 20% at 28 weeks of gestation to 3–4% at term, as most babies turn spontaneously to the cephalic presentation. This appears to be an active process whereby a normally formed and active baby adopts the position of 'best fit' in a normal intrauterine space. Persistent breech presentation may be associated with abnormalities of the baby, incidence of low or high amniotic fluid volume, the placental localization (cornual or praevia) or unicornuate uterus. It may be due to an otherwise insignificant factor such as cornual placental position; tight abdomen, extended legs or it may apparently be due to chance.

There is higher perinatal mortality and morbidity with breech than cephalic presentation, due principally to prematurity, congenital malformations and birth asphyxia or trauma.^{3,4}

Caesarean Section for breech presentation has been suggested as a way of reducing the associated perinatal problems.^{4, 5} However, breech presentation, whatever the

mode of delivery, is associated with increased risk to mother as well as baby. This suggests that failure to adopt the cephalic presentation may in some cases be a marker for poor fetal outcome.

The obstetricians' aim is to;

- o Establish the diagnosis,
- o Investigate the cause,
- o Safe delivery.

4.1.1 Definition

Breech presentation occurs when the buttocks and/or the feet are the presenting parts of the fetus.

4.1.2 Types of breech presentation

- **Frank breech** (extended breech) presentation-occurs when both legs are flexed at the hips and extended at the knees. This is common amongst primiparae.
- **Complete breech** (flexed breech) presentation-occurs when both legs are flexed at the hips and knees. This is common among multiparae.
- **Footling breech** presentation-occurs when one or both legs are extended at the hip and the foot is at the lower pole of the uterus.

Extended breech is a good dilator of the cervix and difficult to do external cephalic version (ECV) and less likely to have cord prolapse or cervical entrapment. Flexed or footling breech is associated with higher incidence of cord prolapse and head getting stuck through a partially dilated cervix (cervical entrapment).

4.2 Aetiology

Factors predisposing to breech presentation:

- Preterm gestation (in preterm rupture look for breech presentation),
- High parity,
- Hydrocephalus / Anencephaly and fetal anomalies,
- Previous breech presentation due to uterine anomaly or contracted pelvis,
- Uterine abnormalities, Poly or Oligohydramnios, placenta previa, cornual placenta,
- Pelvic tumors (rare).

4.3 Diagnosis

4.3.1 Clinical

- Abdominal examination: The head of the fetus is in the upper part of the uterus, which is ballotable and can cause pain at right hypochondrium.
- Presence of an irregular knobby or big mass at the lower pole, which is less ballotable.
- Auscultation locates the fetal heart at a higher level than the level of the umbilicus.
- Vaginal examination: The buttocks and/or feet are felt. (no cephalic suture lines) Thick, dark meconium is normal in the presence of ruptured membranes in early first stage of labor. Should always look for cord prolapse.
- The type of breech presentation, presence of any anomalies, size, weight, extended head and placental location should be confirmed by Ultrasound scanning.

- Always should exclude twins when diagnosing breech presentation.

4.3.2 Ultra sound

Ultrasound examination to confirm the presenting part.

X-ray of the pelvis to confirm presentation or for pelvimetry is outdated.

4.4 Complications

4.4.1 Fetal complications

Fetal complications during breech delivery include:

- Asphyxia due to;
 - Cord prolapse/cord compression, hypoxia,
 - Poor progression, rapid delivery,
- Birth trauma as a result of;
 - Feto-pelvic disproportion,
 - Unskilled assisted breech delivery (undue pulling and trauma to the baby),

In addition there is higher perinatal mortality and morbidity with breech presentation due to **prematurity** and **congenital malformations**.

4.4.2 Maternal complications

- Tears of the genital tract (perineal or cervical tears, uterine rupture),
- Complications of LSCS, forceps, vacuum deliveries,
- Infection due to manipulations,
- Maternal anxiety.

4.5. Management

4.5.1 Informed decision making

Mother should be informed of the benefits and risks, both for the current and for future pregnancies, of planned Caesarean Section versus planned vaginal delivery for breech presentation at term. This will enable them to make informed decisions and choices about their clinical problem.

4.5.2 Antenatal management

Women with uncomplicated (extended or flexed leg) breech presentation at term should be offered a Caesarean after full discussion of the risks and benefits¹.

(Grade X)

A Caesarean Section is safer than vaginal breech delivery and is recommended in following indications:

4.5.2.1 Absolute indications for Caesarean Section

- Feto-pelvic disproportion,
- When the fetal weight is estimated to be 3.8 kg. or more,
- Major degree placenta praevia,
- Pelvic or uterine tumors preventing descent of presenting part,
- Major degrees of pelvic deformities.

4.5.2.2 Relative indications

- Intrauterine growth restriction,
- Previous uterine scar,
- Hyper-extension of the fetal head (Star gazer),
- When the head cannot be flexed,
- Small pelvis and suspicious pelvic adequacy,
- Footling breech,
- Gestation less than 34 weeks.

Women with uncomplicated breech at 37 to 40 weeks should be offered external cephalic version (ECV) to increase the likelihood of cephalic presentation and vaginal birth, **(Grade X)**

Before and after external cephalic version, electronic fetal monitoring (EFM) is recommended. After the procedure look for fetal distress, rupture of membranes or per vaginal bleeding.

External cephalic version (ECV) prior to 36 completed weeks is not recommended.¹

Women with uncomplicated breech at 37 to 40 weeks may be offered tocolysis (with Nifedipine) to increase the success of external cephalic version (ECV) ¹.

(Grade Y)

5.3 External cephalic version (ECV)

- When-after 36 weeks
- Where-facilities should be available for intrapartum fetal monitoring and Caesarean Section.
- By whom-by a trained and skilled hand having good intrapartum judgement.
- Preparation-
 - US confirmation,
 - Mother in bed, completely relaxed mentally and physically,
 - Cardiotocography (CTG) before and after external cephalic version (ECV),
- Use of tocolytics:
 - Fasting from midnight,
 - Nifedipine 20mg (slow release) 12 hourly ,
 - 9a.m. perform Cardiotocography (CTG) and then external cephalic version (ECV),
 - ✓ If successful, Cardiotocography (CTG) soon after and again in 2 hours,
 - ✓ If unsuccessful, repeat external cephalic version (ECV) 2 hours later.,
- Check for bleeding per vaginum,abdominal pain,
- Rhogam injection for Rh negative mother,
- Past lower segment Caesarean Section for non-recurrent indication-not a contra-indication to external cephalic version (ECV),
- Contraindications for ECV
 - Contracted pelvis,
 - Placenta praevia,
 - IUGR with reduced liquor,
 - Fetal anomalies.

There is no strong evidence to recommend ultrasound estimation of fetal weight in women with breech presentation planning vaginal birth.¹ **(Grade Y)**

Radiological pelvimetry, for women with breech presentation is not recommended.

There is insufficient evidence to recommend Caesarean or vaginal breech birth for preterm breech.¹Each individual case must be assessed according to its own merit.

Breech presentation should be identified antenatally and arrangements made for the woman to give birth in an appropriate facility, where possible.

4.5.4 Delivery

4.5.4.1 Vaginal delivery

- There should be immediate access to Obstetrician/Paediatrician and Caesarean facilities. **(Grade X)**
- When a breech presentation is identified, the informed choice and consent process should be clearly documented.
- Continuity of care should be maintained wherever possible.
- The presentation should be either frank (hips flexed, knees extended) or complete (hips flexed, knees flexed but feet not below the fetal buttocks). If the baby's trunk and thighs pass easily through the pelvis simultaneously, fetopelvic disproportion is unlikely!
- Women should be informed that, as most birth attendants are experienced with vaginal breech birth in the dorsal or lithotomy position, and thus this position is favourable/recommended.

In active labour with uncomplicated flexed or extended breech presentation at term, it is recommended that:

- Labour augmentation is not recommended. **(Grade X)**
- Epidural analgesia is useful but women should have a choice of analgesia during breech labour and birth.²

However, augmentation of established labour is controversial as poor progress in established labour may be a sign of fetopelvic disproportion. In established labour augmentation is invariably associated with adverse perinatal outcome.²

- Artificial rupture of membranes may be performed, when cervix is fully effaced, OS 3-4 cm. Look for meconium, cord prolapse and type of breech presentation.
- Medio-lateral episiotomy should be performed when indicated to facilitate delivery at the ascending or 'climbing' of the perineum (crowning).

The infant's heart rate monitoring is done by either intermittent auscultation every 15 to 30 minutes in active 1st stage of labour and after each contraction in 2nd stage,

(Grade X)

Or

by Continuous electronic fetal heart rate monitoring.

(Grade Y)

The essential elements of vaginal breech birth are to prevent trauma and delay of delivery of the after coming head. (which is with associated hypoxia). Therefore:

- Breech extraction is not recommended.
- Active labour positions (standing and lateral recumbent positions improve uterine contractions thus enhancing progress of labour) that facilitate the birth of the infant's body and head should be encouraged.

- Spontaneous birth of the infant's body including the thorax should occur by maternal effort where possible.
- During the delivery of the buttocks and thorax, the birth attendant is recommended to keep the infant's back in the anterior position, but be aware of cord prolapse.
- Extended legs should be delivered by Pinnard Manoeuvre.
- The Lovset manoeuvre, using gentle traction should be used to deliver extended or nuchal arms.
- Controlled birth of the after-coming infant's head is achieved by:
 - Mid cavity forceps,
 - Mauriceau-Smellie-Veit (MSV) grip or Burn Marshal's Technique (these techniques should be practiced on a pelvis and a dummy fetus)

Factors regarded as unfavourable for vaginal breech birth include the following: **(Grade X)**

- Other contraindications to vaginal birth (e.g. placenta praevia, compromised fetal condition),
- Clinically inadequate pelvis,
- Footling or kneeling breech presentation,
- Large baby (usually defined as larger than 3800 g),
- Growth-restricted baby (usually defined as smaller than 2000 g),
- Hyper-extended fetal neck in labour (diagnosed with ultrasound or X-ray where ultrasound is not available),
- Lack of presence of a clinician trained in vaginal breech delivery,
- Previous Caesarean Section.

4.6 Special Circumstances

4.6.1 How should delayed second stage of labour be managed?

Caesarean Section should be considered if there is delay in the descent of the breech at any level in the second stage of labour². Failure of the presenting part to descend may be a sign of relative Feto-pelvic disproportion (do not pull).

4.6.2 How should delayed delivery of the arms be managed?

The arms should be delivered by sweeping them across the baby's face and downwards or by the Lovset manoeuvre (rotation of the baby to facilitate delivery of the arms).

There is no evidence to indicate which method should be attempted first.

4.6.3 How should delayed engagement in the pelvis of the aftercoming head be managed?

Suprapubic pressure by an assistant should be used to assist flexion of the head. The Mauriceau-Smellie-Veit manoeuvre should be considered, if necessary, displacing the head upwards and rotating to the oblique diameter to facilitate engagement.

4.6.4 How should delivery of the obstructed aftercoming head be managed?

If conservative methods fail, symphysiotomy or Caesarean Section should be performed or perforation of the skull if the fetus is dead.

4.6.5 Management of the preterm breech and twin breech

4.6.5.1 How should preterm babies be delivered?

Routine Caesarean Section for the delivery of preterm breech presentation should not be advised. The mode of delivery of the preterm breech presentation should be discussed on an individual basis with the mother and her partner. Where there is head entrapment during a preterm breech delivery, lateral incisions of the cervix should be considered or internal podalic version or breech extraction may be performed by experienced VOG.^{6,7}

4.6.5.2 How should a first twin at term be delivered?

Women should be informed of the benefits and risks both for the current and for future pregnancies. These include reduced perinatal mortality of planned Caesarean Section for breech presentation. Women should be advised that planned Caesarean Section for breech presentation carries a very small increase in serious immediate complications for them compared with planned vaginal birth.

Interlocking occur only once in 817 twin pregnancies where the first twin was breech and the second cephalic. The attendant should be aware of this possible diagnosis if the delivery of the trunk is delayed and be prepared to displace the head of the second twin upwards or to perform rapid Caesarean Section.^{8,9,10}

4.6.5.3 How should a second twin be delivered?

Routine Caesarean Section for twin pregnancy with breech presentation of the second twin should not be performed. The presentation of the second twin at delivery is not always predictable. The chance of cephalic delivery may be improved by routinely guiding the head of the second twin towards the pelvis during and immediately after delivery of the first twin.^{11,12,13,14}

4.7 References

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General Guidelines

Asepsis and Universal Precautions

Sepsis contributes significantly to maternal and neonatal morbidity and mortality. All possible efforts should be made to minimize sepsis during labour and surgical procedures.

Working in the labour suite, operating theatre exposes the labour room staff to the risk of infection following contamination with infected body fluids. Staff should take necessary precautions to safeguard themselves from such occupational hazards.

Recommendation

All steps in the management of labour and surgical procedures should be carried out under aseptic conditions. Members of the staff should adhere to universal precautions at all times.

(Grade X)

Documentation

Meticulous documentation of all events would improve the quality of patient care and will be useful for future reference. Fetal heart tracings and other relevant reports should be attached to the bed head ticket.

Recommendation

All steps in the management of labour and surgical procedures should be documented in the bed head ticket of the patient. Such records should have the time, the observations, any decisions made and the name of the responsible health care attendant.

(Grade X)

Quality assurance

Quality assurance is an integral part of maintaining a good health care delivery system. Measures taken on this regard would contribute to institutional development as well as improvement in the standard of care in the country.

Internal clinical audit, institutional conferences and basic research activities are useful in improving standards of an institution.

In-service training in relevant areas and opportunities for continuous medical education should be made available to all grades of staff.

Recommendation

Regular audit cycles of the quality of labour ward practices and operating theatre procedures should be an important aspect of the functions of an obstetric and gynaecological unit.

(Grade Y)