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Breech: Malpresentation of Foetus

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ABSTRACT

Foetus moves into delivery position a few weeks prior to birth, with the head moving closer to the birth canal. When this fails to happen, the baby's buttocks and/or feet would be positioned to be delivered first. This is referred to as "breech presentation."The normal process of parturition relies in part, on the physical relationships between the fetus and maternal bony outlet. The most common relationship between foetus and mother is the longitudinal lie, cephalic presentation. A breech fetus also is a longitudinal lie, with the fetal buttocks as the presenting part. Breech foetuses also are referred to as malpresentations because of the many problems associated with them.

1. Introduction

When any part of the fetus other than the vertex presents, the case is one of malpresentation. Breech is the most common form of malpresentation occurring in 3—4% of all women at the onset of labour at term. There are three types of breech presentation:[1]

1. Complete breech — both legs flexed
2. Frank breech — both legs extended
3. Footling or incomplete breech — one of the legs is extended

The frank breech is the most frequent, occurring in about 50—60% of breech presentations, and is by far the more usual variety in primigravidae. The complete breech is most likely to be encountered in the multiparous woman.

Aetiological factors associated with breech presentation[2]

- Prematurity, multiple pregnancy, congenital fetal malformations, fetal growth restriction, contracted pelvis, Mullerian anomalies, placenta praevia, cornuo-fundal placenta, hydramnios, oligohydramnios, female sex, nulliparity, extended legs etc.

Aetiology

Prematurity is associated with a higher incidence of breech presentation. At 28 weeks gestation, the breech presents in 1 out of every 4 pregnant women. At about 34 weeks, the fetus in the majority of cases turns a somersault and the cause of the persistent breech presentation, therefore, is presumed to be something that prevents this spontaneous version. The time-honoured conditions such as contracted pelvis, placenta praevia and space-occupying lesions in the pelvis are found in only about 7% of breech presentations, and prematurity may be an allied factor in these conditions.

Congenital uterine anomalies promote malpresentations due to abnormal shape of the uterus and breech presentation has been reported in 46—61% pregnancies in anomalous uteri like the bicornuate uterus.[3,4]

Fetal malformations are commoner in fetuses which present as breech. Roberts et al[5] reported an incidence of fetal anomalies as 4.2% in breech as compared to 1.7% in cephalic presentations. Small for gestational age (<10th percentile) fetuses have a significant association both with term[5] and preterm breech deliveries.[6] Female fetus and nuiliparous births, which tend to have a lower birth weight have also been correlated with a higher risk of breech presentation.[5] Abnormalities of amniotic fluid volume, both oligohydramnios and hydramnios predispose to breech presentation.

2. Dangers of Breech Delivery

The inherent dangers of adverse outcome in a pregnancy with breech presentation are significantly greater than cephalic presentation. The risks are much more to the fetus and the newborn than to the mother, the fetus being liable to considerable damage.

Fetal/Neonatal Risks

- The risk of antenatal death is nearly three times more in breeches.
- Prematurity and congenital anomalies contribute significantly to the perinatal mortality and morbidity of breech.
- Vaginal delivery and emergency caesarean section resulted in a seven-fold increase in low Apgar score, a three-fold increase in birth trauma and a two-fold increase in perinatal mortality when compared with the results of planned caesarean section.[7]
- An increased incidence of neurological disorders and neonatal mortality in the vaginally delivered breech infants.[8,9]

The recommended selection criteria[10] for a trial of breech vaginal delivery mandate a pre- or early- labour ultrasound to exclude the following:

- Presentation other than frank or complete breech
- Hyperextended or deflexed head
- Cord presentation
- Fetal growth restriction or macrosomia

- An estimated fetal weight less than 4000 g. The upper limit for Indian women for a safe breech delivery can be taken as 3500 g.

Therefore, a trial of vaginal delivery can be offered to women with no contraindications (as above) and clinically adequate maternal pelvis

Maternal Risks

Immediate risks: mainly due to the increased operative interference in breech vaginal deliveries and caesarean sections.

Long-term risks: Long-term maternal morbidity and mortality because of the increased caesarean sections for all breech pregnancies in the last five years is now surfacing and slowly being recognized.

Perinatal Morbidity and Mortality

- Asphyxia,
- Intracranial haemorrhage (due to the head being delivered too quickly),
- Intracranial injury,
- Birth trauma - fractures of the femur and humerus, nerve palsies (most commonly Erb's palsy), fetal gonads may suffer haemorrhage and oedema in male child,
- Death.

3. Antenatal Management

External Cephalic Version: during late pregnancy or early labour aims to reduce the incidence of women going into labour with breech presentation, and thereby reduce fetal and maternal risks.

Contraindications: Contraindications to external cephalic version include vaginal bleeding in late pregnancy, oligohydramnios, ruptured membranes, fetal malformations, and conditions that preclude trial of vaginal delivery like contracted pelvis, placenta praevia, and previous classical caesarean section.[11]

Complications: The most common complication is a transient abnormal fetal heart pattern occurring in about 5%,[12] which may rarely persist to necessitate intervention. Other risks include vaginal bleeding, placental abruption and rupture of membranes leading to premature labour.

4. Management of Breech Delivery

- Proper selection of patients.
- Assessment of pelvis: for its adequacy although a multipara who has delivered decent size babies, pelvic capacity is less likely to be a problem.
- An ultrasound is useful to estimate the fetal weight (in addition to clinical estimation), the type of breech, and to exclude hyperextension of fetal head. Fetal weight between 2000 and 3500 g, and a frank or complete breech is favorable for vaginal breech delivery.
- Elderly and primigravidae are usually considered for elective caesarean section.
- Severe intrauterine growth restriction, bad obstetric history or previous history of birth trauma, are conditions for caesarean section. Continuous intrapartum electronic fetal heart monitoring is recommended.[10]
- Induction of labour is not recommended for breech presentation.

Breech delivery can be classified into the following depending on the level of assistance required to deliver the baby:

- Spontaneous breech delivery
- Total breech extraction
- Assisted breech delivery

Spontaneous Breech Delivery

- Without any assistance,
- Found in very low birth weight or dead babies.

Total Breech Extraction

- Manual extraction of the baby with no part of delivery being spontaneous.
- It is associated with significantly higher perinatal morbidity and mortality, and is rarely performed nowadays except sometimes for the delivery of the second twin.[13]

Assisted Breech Delivery

- The first stage of labour is managed normally. Poor progress in the first stage may indicate an underlying fetopelvic disproportion, and an emergency caesarean section should be performed.
- There is often difficulty in knowing when a woman enters the second stage since the pointed breech may protrude some distance through a cervix insufficiently dilated to allow the head to pass later. The second stage should be therefore considered only when the anterior buttock is well and truly visible.
- The woman is encouraged to make voluntary expulsive efforts in any position most comfortable to herself. She should not be put into the lithotomy position until the posterior buttock is seen to be distending the perineum.
- Episiotomy is given routinely for almost all breech vaginal deliveries

Burns-Marshall technique

The most commonly used method to assist delivery of the head is by the Burns-Marshall technique. The baby is allowed to hang by its own weight from the vulva, the woman being in the lithotomy position. This in itself will encourage flexion of the head and the body is seen to drop slowly, aided if necessary, by some suprapubic pressure to help its descent.

Alternative Brachi method of delivery

The difference here is that the mother is not put in the lithotomy position but remains in the dorsal position. This technique can of course be used with the patient in the lithotomy position as long as the principle of resisting the

downward pull of gravity is maintained, the baby being allowed to arch up over the maternal symphysis pubis by uterine and maternal forces. The difference here, be it noted, is that there is no leaving the baby to hang downwards by its neck until the hairline at the nape is visible.

Pinard's maneuver

It is done by intrauterine manipulation to convert a frank breech to a footling breech. In this technique the middle and the index fingers are carried upto the popliteal fossa of fetus. It is then pressed and abducted so that the fetal leg is flexed. The fetal foot is then grasped at the ankle and breech extraction is accomplished.

5. Complications during Breech Delivery

- Delay in descent of breech
- Extended arms
- Difficulty with aftercoming head
- Birth trauma to neanate

6. Conclusion

Breech delivery in carefully selected women is as safe as elective caesarean section for breech presentation. A pre-labour ultrasound should be done to assess the type of breech, fetal weight and exclude extended fetal neck. Pelvic adequacy should be assessed clinically in women assigned to trail of vaginal delivery, although progress of labour is best parameter to exclude fetopelvic disproportion. Induction of labour is not recommended in breech presentation. Continuous fetal monitoring should be offered during labour. In case of poor progress of labour caesarean section should be performed.

References

1. Misra Renu (2014), Practical Obstetrics problems – Malpresentation, Wolters Kluwer, 7th edition, P.N.514-525.
2. Dutta DC (2004), Text book of Obstetrics – Malpostion, Malpresentation & cord prolapsed, New Central book agency Kolkatta, 6th ed., reprint, P.N. 374-376.
3. Michalas SP. Outcome of pregnancy in women with uterine malformation: evaluation of 62 cases. Int. J Gynaecol Obst 1991 July; 35(3):215-219.
4. Stein AL, March CM. Pregnancy outcome in women with mullerian duct anamolies. J Repord Med 1990, April, 35 (4):411-414.
5. Roberts CL, Algert Cs, Peat B, Henderson-Smart D, Small fetal size: a risk factor for breech birth at term. Int. J Gynaecol Obst 1999 Oct; 67(1):1-8.
6. Sherer DM, spong CY, Minor VK. Increased incidence of fetal growth restriction in association with breech presentation in preterm deliveries<32 weeks. Am J Perinatol 1997 Jan; 14(1):35-37.
7. Rieterberg CC et al.. Term breech presentation- mortality and morbidity in relation to the modeof delivery of infants. Br J Obstet Gynaecol 2003 June; 110(6),:604-609.
8. Herbst A et al., Mode of delivery in breech presentation at term:increased neonatal morbidity with vaginal delivery: Acta Obstet Gynaecol scand 2001 Aug;80(8):731-737.
9. Golifier et al., Planned vaginal delivery verses elective caesarean section in singletonterm breach presentation:a study of 1116 cases. Eur J Obstet Gynaecol Reprod biology 2001 Oct; 98(2): 186-192.
10. Vaginal delivery of breech presentation. SOGC clinical practice guideline No. 226, JOGC, June 2009.
11. Stitely ML et al., Labour with abnormal presentation and position. Obstet Gynaecol with Clin North Am 2005 June 32(2):165-179.
12. Collaris RJ, Oei SG. External cephalic version: a safe procedure, a systemic review of version-related risks. Acta Obstet Gynaecol Scand 2004 June; 83(6):511-518.
13. Smith SJ, Zebrowitz J, Lata RA. Method of deliveryof non vertex second twins: a community hospital experiences. J Matern Fetal Med 1997 May-June; 6(3): 146-150.

