Case 22 A 32-year-old woman with a fetus in the breech position at 37 weeks' gestation

Mrs Alvares is 37 weeks' pregnant, this is her first pregnancy. She comes to the antenatal clinic as she saw her community midwife last week and although all was well her midwife thought her baby may be breech. Her routine antenatal check is reassuring but the baby does seem to be in a breech presentation.

What will you tell Mrs Alvares?

Instead of the normal head down position her baby seems to be presenting 'bottom first'. This is not uncommon, about 20% of babies are breech at 28 weeks but they usually turn on their own so only about 3–4% are breech at term.

The baby may still turn on its own but if it does not the options include turning the baby to face head down (external cephalic version [ECV]), elective caesarean section or vaginal breech delivery.

What investigations are required?

An ultrasound scan should be performed to confirm the presentation. In some cases a baby will adopt a breech position because of a fetal or uterine abnormality, reduced liquor volume or placenta praevia and these conditions need to be excluded.

Mrs Alvares has a scan which confirms that her baby is breech with flexed legs. The baby is normally grown and has a normal liquor volume. The placenta is normally located and there is no obvious uterine or fetal abnormality to account for the breech presentation (Fig. 22.1; Box 22.1).

What information should you give Mrs Alvares about delivery?

She should be informed that planned caesarean section carries a reduced perinatal mortality and early neonatal morbidity for babies with a breech presentation at term compared with a planned vaginal birth. There is no evidence that the long-term health of babies with a breech presentation delivered at term is influenced by how the baby is born.

She should be advised that planned caesarean section for breech presentation carries a small increase in serious immediate complications for her compared with planned vaginal birth. It does not carry any additional risk to her long-term health outside pregnancy. The long-term effect of planned caesarean section on future pregnancy outcomes is uncertain.

Mrs Alvares would prefer not to have a cesarean section but is worried about the risk to the baby of a vaginal breech delivery. She remembers that you mentioned that it might be possible to turn the baby to face head down and would like some further information about this.

What will you tell her?

The procedure called external cephalic version (ECV) involves external manipulation of the baby through the maternal abdomen to turn the baby to a cephalic presentation. It should be performed after 36 weeks with a first baby and after 37 weeks in parous women. The success rate is aproximately 40% with a first baby and approximately 60% in parous women. If it is successful, less than 5% of babies will turn back to breech.

The risks to the baby include acute fetal distress, spontaneous rupture of the fetal membranes and placental abruption which may require emergency cesarean section but these occur very uncommonly. It can cause a significant amount of maternal discomfort.

She thinks she would like to have an ECV performed. An appointment is made for the following day and she returns to labour ward. She wants to know exactly what will happen.

Obstetrics and Gynaecology: Clinical Cases Uncovered.
By M. Cruickshank and A. Shetty. Published 2009 by Blackwell Publishing. ISBN 978-1-4051-8671-1.

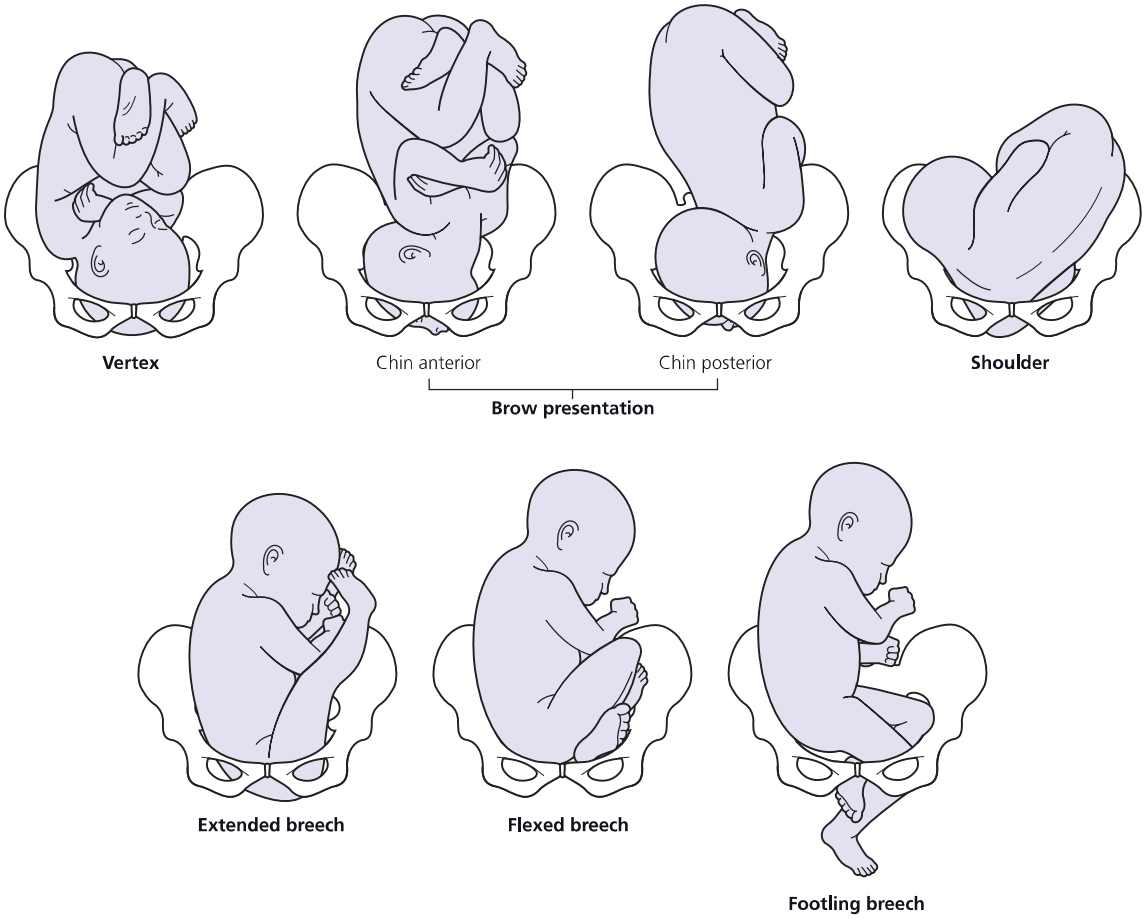

Figure 22.1 Fetal malpresentation.

Box 22.1 Fetal malpresentation

By 37 weeks >95% of babies will be in a longitudinal lie and vertex presentation. The remainder will be breech, face or brow presentations (also longitudinal lie) and oblique, transverse or unstable (variable) lies. Of these the breech and face presentations are, at least in theory, able to be delivered vaginally.

The risks of malpresentation are related to obstructed labour and the risk of uterine rupture secondary to prolonged contractions without any prospect of delivery. The other major risk with a non-longitudinal lie is of umbilical cord or a limb prolapsing through the cervix when the fetal membranes rupture. In view of this, women with non-longitudinal or unstable lies will normally be managed as inpatients from about 36 weeks until delivery or until the fetal lie stabilizes.

Maternal causes of malpresentation include uterine abnormality (e.g. fibroids or a placental praevia) and high parity also increases the risk. Fetal causes include multiple pregnancy, reduced liquor volume or fetal abnormality preventing a cephalic presentation.

What would you discuss with her?

She will be monitored by cardiotocogram (CTG) to check the baby's heart rate before the procedure is commenced. An ultrasound scan will be performed to check baby is still breech and to identify where the fetal back is positioned. Tocolysis (uterine relaxation) will be offered as it has been proven to improve success rates (usually by IV or subcutaneous beta-sympathomimetics).

She will be positioned in a slightly head down position (to try to elevate the breech out of the pelvis) with a

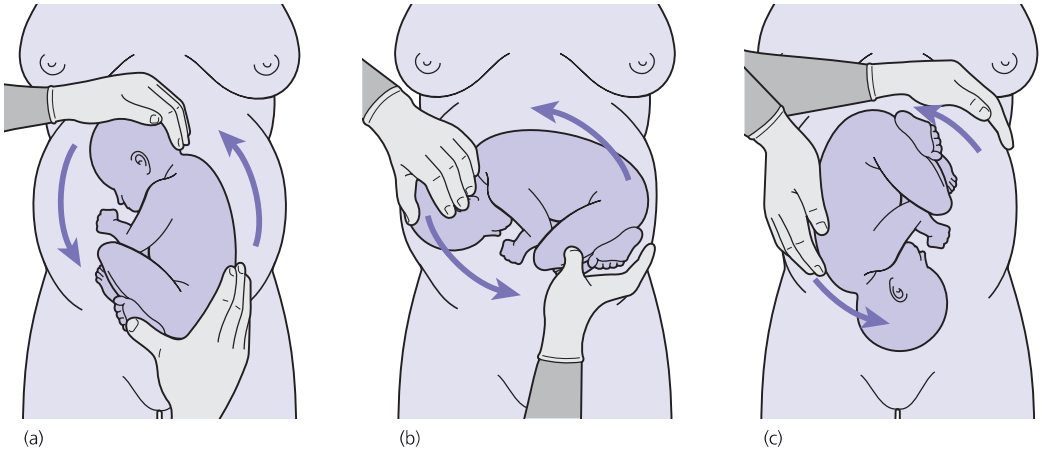

Figure 22.2 External cephalic version.

wedge under her right hip (to prevent aorto-caval compression from the pregnant uterus when lying flat). Pressure will be used on the maternal abdomen to try to elevate the breech out of the pelvis and turn the baby through a forward or backward roll to a cephalic presentation. Ultrasound can be used to guide the procedure.

Following the procedure, whether successful or not, she will be put back on the CTG to make sure the baby is healthy.

RCOG guidelines recommend that women undergoing ECV do not need to be prepared for caesarean section as the chance of this being required as an emergency is very small (Fig. 22.2).

There are three attempts at ECV with tocolysis but unfortunately the baby remains breech. The post-ECV CTG is reassuring. Mrs Alvares is sure she does not want a vaginal breech delivery and would like some further information about caesarean section.

What will you tell her?

To reduce the risks of breathing problems in the baby, elective caesarean sections are usually carried out after 39 weeks. She would normally be admitted on the morning of her section. She would be asked to fast from midnight the night before and take some antacid tablets (to reduce the risks of aspiration if general anaesthetic became necessary).

Prior to the caesarean section, the lie of the baby would be checked on ultrasound to confirm it was still in the breech position. If it was found to be head down she would be advised to go home to await normal labour. She would normally receive a spinal anaesthetic for her section as this is associated with reduced risks to mother and baby, and would allow her to be awake to see her baby at birth.

Once her anaesthetic is working a catheter will be placed in her bladder and her section will be carried out through a 'bikini-line' incision. The baby and placenta are delivered through the incision and then the uterus and layers of the abdominal wall are repaired, the procedure usually takes 45–60 minutes. Afterwards she will be given painkillers as necessary and will usually be fit to go home after 3–5 days.

Having a baby, either vaginally or by caesarean section, carries a risk of excess bleeding sometimes requiring blood transfusion and a risk of infection. Caesarean section carries an increased risk of thrombosis (DVT) and damage to bladder and ureters compared with vaginal delivery. In order to minimize these risks antibiotic prophylaxis is given during the procedure and thromboprophylaxis is given postnatally.

The positive and negative effects of caesarean section have been extensively investigated. The NICE guideline on caesarean section summarizes these in one of its appendices.

Mrs Alvares is happy with the explanation and is booked for an elective section at 39 weeks. She is admitted as planned and, as the baby remains in a breech presentation, has an uncomplicated elective section. She has a female baby in good condition weighing 3.24 kg and is fit for discharge after 3 days.

CASE REVIEW

Mrs Alvares has a breech presentation of the fetus diagnosed at 37 weeks' gestation. A placenta praevia, abnormalities of liquor volume and uterine abnormality are ruled out by an ultrasound examination and she is counselled about an external cephalic version to manually turn the baby to a cephalic position so that she could attempt a vaginal delivery. Following consent for the procedure, she is given tocolysis to increase the likelihood of it being successful; however, ECV fails and the fetus remains in a breech position.

She then opts for an elective caesarean section as mode of delivery after being counselled that a planned caesarean section carries a small reduced perinatal mortality and early neonatal morbidity. Her caesarean section proceeds without event and she makes a good postoperative recovery. In a subsequent pregnancy, provided there are no other concerns and the baby is in a cephalic position, she could opt for a trial of vaginal delivery.

Malpresentation at term is associated with increased perinatal morbidity and mortality. When faced with this problem the options include vaginal delivery of a non-vertex presentation, attempting to convert the fetal lie to a vertex presentation or delivery of the baby by caesarean section depending on the malpresentation involved. Decisions regarding the most appropriate course of action should be made in conjunction with the parents ensuring that they are fully informed of all the available evidence regarding risks, benefits and potential outcomes of the various options.

KEY POINTS

- While malpresentations are seen more often at earlier gestations, this reduces to <5% at term (>37 weeks)
- A low lying placenta, fibroids in the lower segment of the uterus, polyhydramnios are some of the predisposing factors for fetal malposition
- The risks with an oblique or a transverse or an unstable fetal lie (where there is no fetal part fixed in the pelvis) include one of cord prolapse in case of rupture of membranes. In view of this risk (which would necessitate an emergency delivery), these women should ideally be managed as inpatients after 36–37 weeks (until delivery) as long as the malposition remains
- An ECV should be offered to women with a malposition at >36 weeks' gestation, once other risk factors such as a low lying placenta have been ruled out
- Tocolysis improves the success rate of an ECV, as does being multiparous

Further reading

RCOG Green Top Clinical Guideline (no 20a). *External cephalic version and reducing the incidence of breech presentation.* December 2006.