Obstetrics and Gynecology
Fetal malpresentation

University Of Fallujah
College Of Medicine

Lecture : 4

Stage : 4th Year

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Department: obstetrics and Gynecology

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Learning objectives

1. Review types of fetal malpresentation.

2. Know the causes and main etiological factors for malpresentation.

3. Understand the managements of fetal Malpresentation at term.

Malpresentation

Malpresentation is a presentation that is not cephalic.

Breech presentation

Breech presentation is the most commonly encountered malpresentation and occurs in 3–4% of term pregnancies, but is more common at earlier gestations. They only become a problem if the baby is not cephalic by 37 weeks' gestation.

There are three types of breech:

- The extended (frank) breech: hips flexed, knees extended which is the commonest type.
- The flexed (complete) breech: hips flexed, knees flexed, less common type.
- The footling breech: the least common is in which a foot presents at the cervix. Cord and foot prolapse are risks in this situation.

FIGURE 9.6. Types of breech presentations. (A) Frank breech, in which the feet are near the head; (B) complete breech, in which the legs are crossed; (C) footling breech, in which one or both feet are extended.

Predisposing factors for breech presentation

Maternal causes:

- Fibroids.
- Congenital uterine abnormalities (e.g. bicornuate uterus).
- Uterine surgery

Fetal or placental causes:

- Multiple gestation.
- Prematurity.
- Placenta praevia.
- Abnormality (e.g. anencephaly or hydrocephalus).
- Fetal neuromuscular condition.
- Oligohydramnios.
- Polyhydramnios.

Antenatal management of breech presentation

If a breech presentation clinically suspected at or after 36 weeks, this should be confirmed by ultrasound scan. The three management options available at this point:

- External cephalic version (ECV).
- Vaginal breech delivery
- Elective caesarean section.

A previous large multicentre randomized controlled trial suggested that planned vaginal delivery of a breech presentation is associated with a 3% increased risk of death or serious morbidity to the baby. It has led to the recommendation that the best method of delivering a term breech singleton is by planned caesarean section. Despite this, maternal choice and the failure to detect breech presentation until very late in labour mean that obstetricians need to be expert in the skills of breech vaginal delivery and aware of the potential complications.

External cephalic version

ECV is a relatively safe technique and shown to reduce the number of caesarean sections due to breech presentations. Success rates in most units are around 50%.

Prerequisite for ECV

- The procedure performed at or after 37 completed weeks' gestation.
- Experienced obstetrician.
- Near delivery facilities.
- ECV performed with a tocolysis (e.g. nifedipine) as this shown to improve the success rate.
- A fetal heart rate trace performed before and after the procedure.
- Important to administer anti-D if the woman is rhesus negative.

Technique

With ultrasound guidance, the breech is elevated from the pelvis and one hand used to manipulate this upward in the direction of a forward role whilst the other hand applies gentle pressure to flex the fetal head and bring it down to the maternal pelvis.

Contraindications to ECV

- ❖ Fetal abnormality (e.g. hydrocephalus).
- ❖ Placenta praevia.
- ❖ Oligohydramnios or polyhydramnios.
- ❖ History of antepartum haemorrhage.
- ❖ Previous caesarean or myomectomy scar on the uterus.
- ❖ Multiple gestation.
- ❖ Pre-eclampsia or hypertension.

Risks of ECV

- ❖ Placental abruption.
- ❖ Premature rupture of the membranes.
- ❖ Cord accident.
- ❖ Transplacental haemorrhage
- ❖ Fetal bradycardia.

Vaginal breech delivery

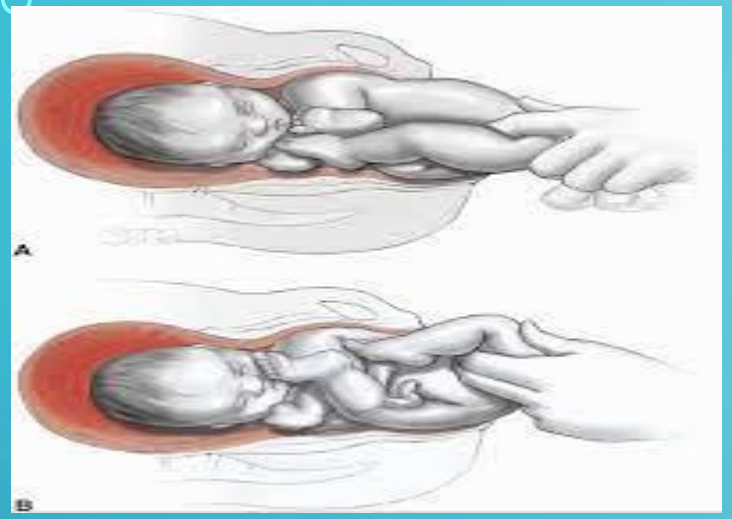
Pre-requisite

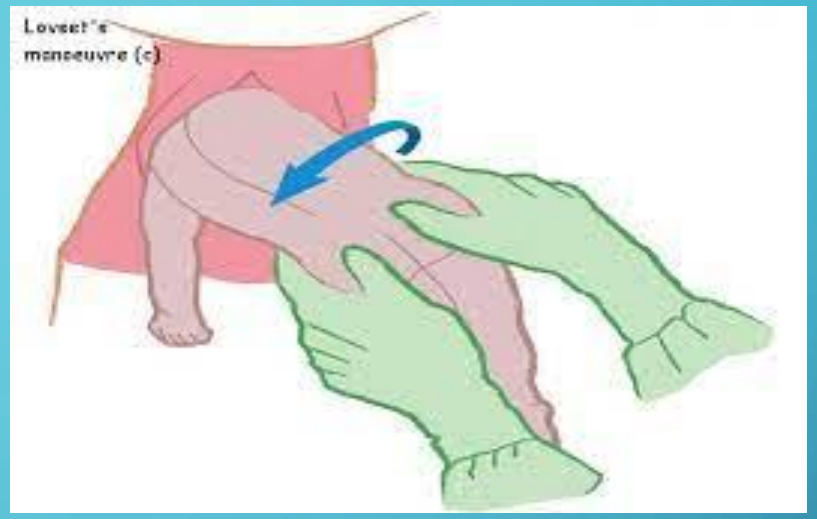
- There should be an operator experienced in delivering breech babies
- The presentation either extended or flexed breach (but feet not below the fetal buttocks).
- Clinically adequate pelvis and an estimated fetal weight of <3,500 g by ultrasound or clinical measurement.
- There should be no evidence of hyperextension of the fetal head, and fetal abnormalities that would preclude safe vaginal delivery (e.g. severe hydrocephalus).

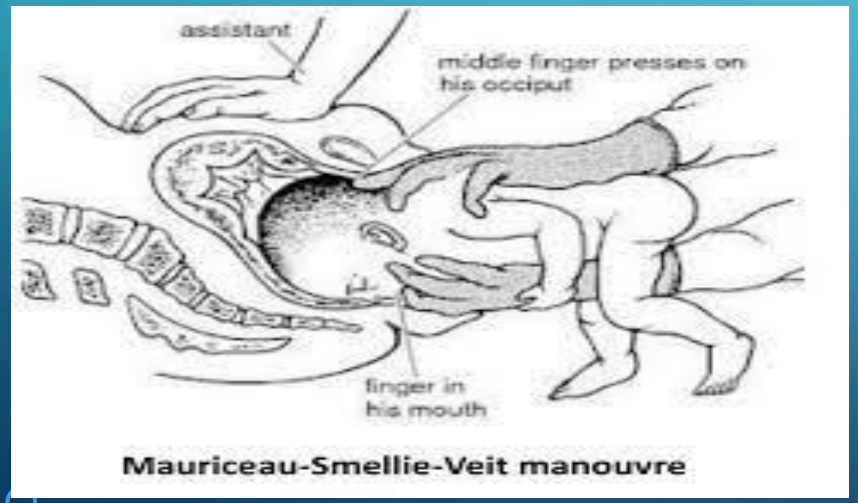
Technique

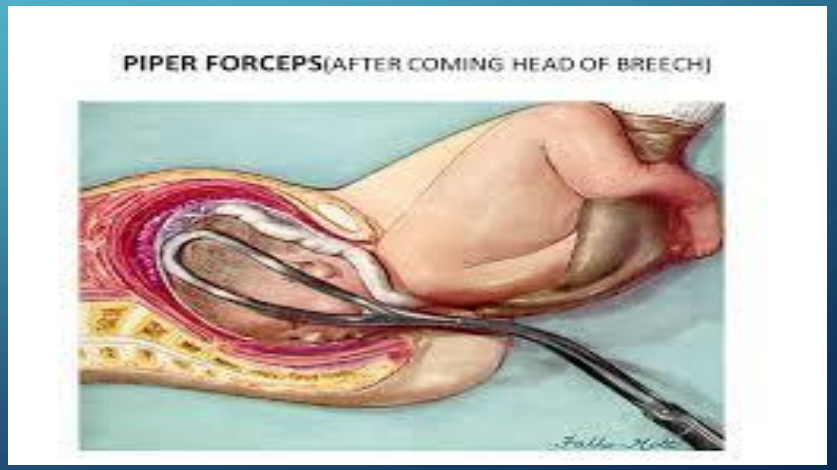
- Hands-off: problems are more likely to arise when the obstetrician tries to speed up the process by pulling on the baby, and this should be avoided.
- Delivery of the buttocks: When the buttocks become visible and begin to distend the perineum, preparations for the delivery made. Once the anterior buttock delivered and the anus is seen over the fourchette an episiotomy can be cut.
- Delivery of the legs and lower body, if the legs are flexed, they will deliver spontaneously. If extended, they may need to be delivered using Pinard's manoeuvre. This entails using a finger to flex the leg at the knee and then extend at the hip.

- Delivery of the shoulders: the finger gently placed above the shoulder will help to deliver the arm. Once the spine becomes visible, delivery of the second arm will follow. Loveset’s manoeuvre essentially copies these natural movements.
- Delivery of the head: the head delivered using the Mauriceau–Smellie–Veit manoeuvre the baby lies on the obstetrician’s arm with downward traction being levelled on the head via a finger in the mouth and one on each maxilla If this manoeuvre proves difficult, forceps need to be applied.


A
B


Lovset's
manoeuvre (c)


assistant
middle finger presses on
his occiput
finger in
his mouth
Mauriceau-Smellie-Veit manouvre


PIPER FORCEPS(AFTER COMING HEAD OF BREECH)

Complications of a breech vaginal delivery

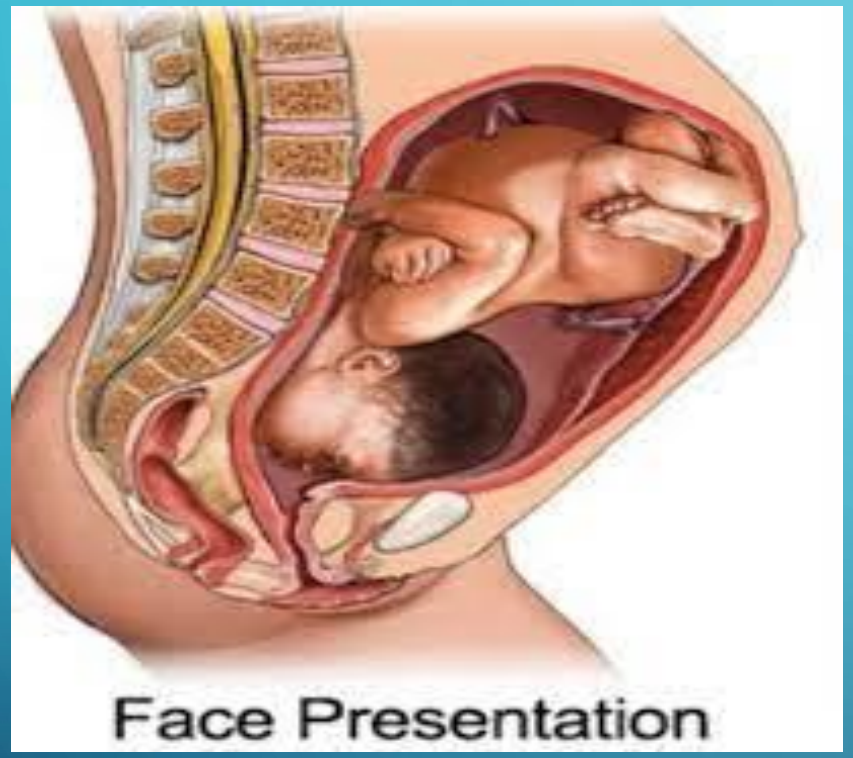
1. Increased risk of cord prolapse: particularly with footling breech.
2. Increased risk of CTG abnormalities as cord compression is common.
3. Mechanical difficulties with the delivery of the shoulders and/or after-coming head, leading to damage of the visceral organs or the brachial plexus.
4. Delay in the delivery of the head may occur with a larger fetus, leading to prolonged compression of the umbilical cord and asphyxia.
5. Uncontrolled rapid delivery of the head may occur with a smaller fetus and predisposes to tentorial tears and intracranial bleeding.
6. A small or preterm fetus may deliver through an incompletely dilated cervix, resulting in head entrapment.

Face presentation

Face presentation occurs in about 1 in 500 labours and is due to complete extension of the fetal head.

Causes of face presentation

- In the majority of cases, the cause for the extension is unknown, although frequently attributed to excessive tone of the extensor muscles of the fetal neck.
- Rarely, extension may be due to a fetal anomaly such as a thyroid tumour.


Face Presentation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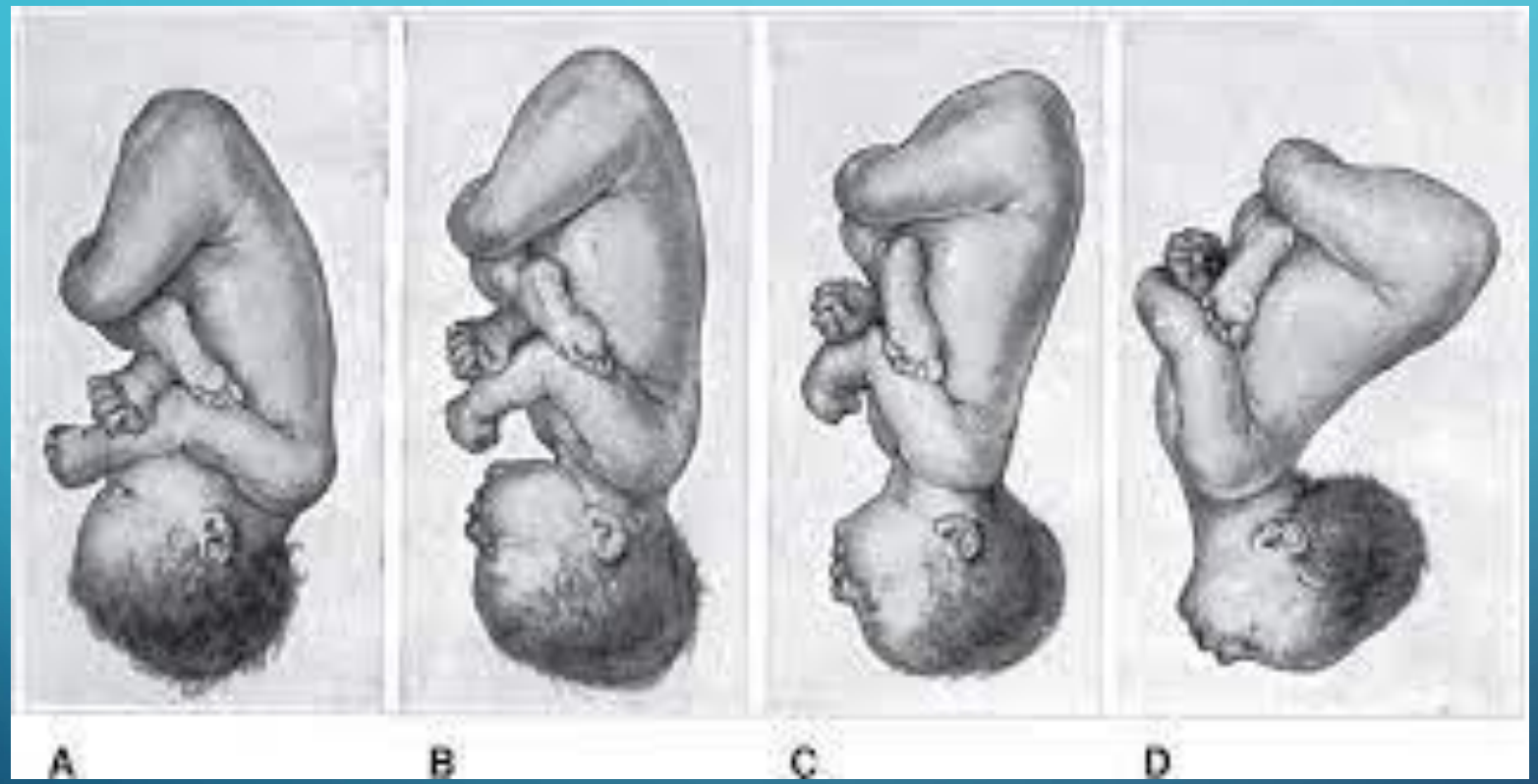
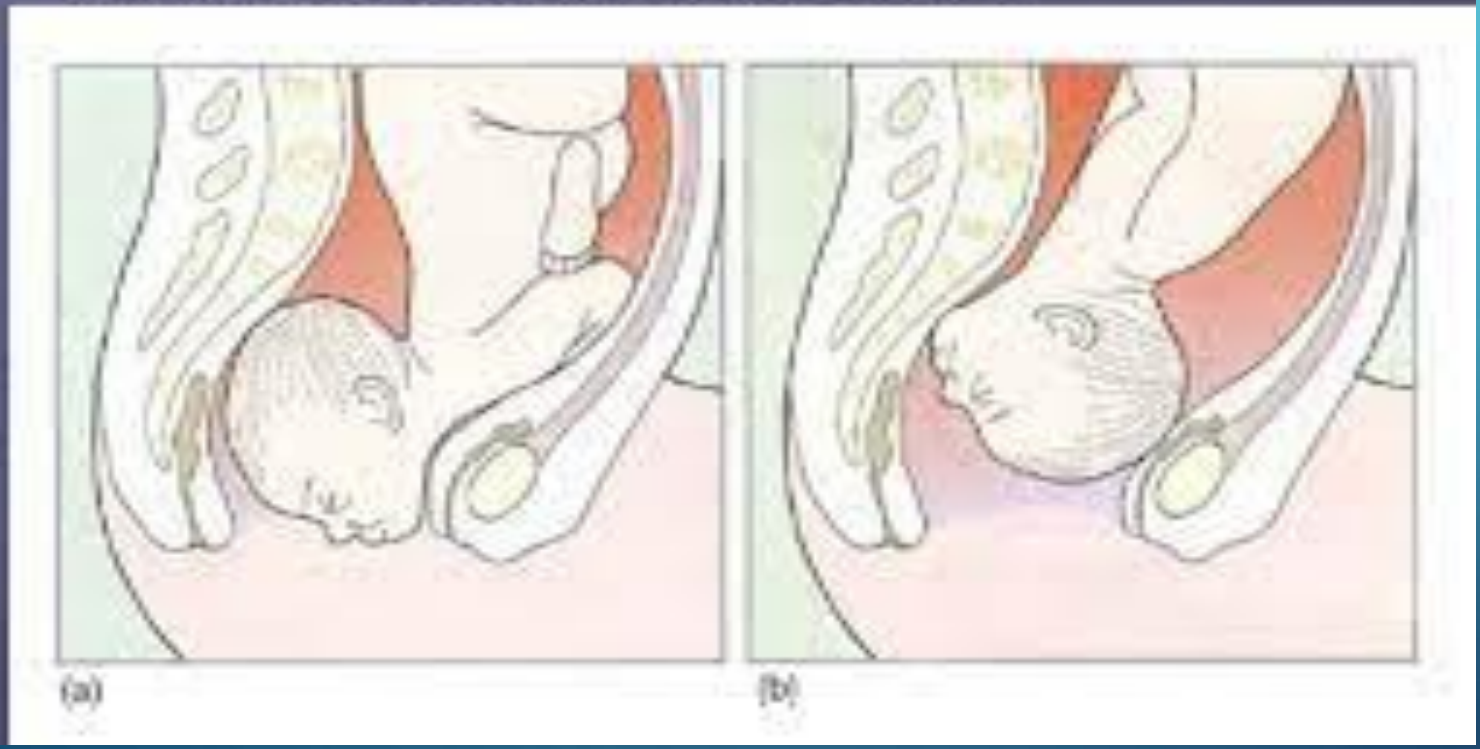
The presenting diameter is the submento-bregmatic, which measures 9.5 cm and is approximately the same in dimension as the suboccipitobregmatic (vertex) presentation. Despite this, engagement of the fetal head is late and progress in labour is frequently slow, possibly because the facial bones do not mould. It is diagnosed in labour by palpating the nose, mouth and eyes on vaginal examination.


A
B
C
D

Two fetal position recognized with face presentation:

- **Mento-anterior:** (the chin is anterior) if progress in labour is good, vaginal delivery is possible, the head being delivered by flexion.
- **Mento-posterior position:** (the chin is posterior) delivery is impossible, as extension over the perineum cannot occur. In this circumstance, caesarean section performed.

Face presentation: a. mento-anterior(delivery possible)
b. mento-posterior (delivery impossible).



Oxytocin should not used, and if there is any concern about the fetal condition, caesarean section should be carried out.

Forceps delivery is acceptable for low mento-anterior face presentations but ventouse is contraindicated.

Brow presentation

It is the least common malpresentation, occurring in 1 in 2,000 labours. Arises when there is less extreme extension of the fetal neck than that with a face presentation. It considered a midway position between vertex and face.

The causes are similar to those of face presentation, although some brow presentations arise because of exaggerated extension associated with an OP position.

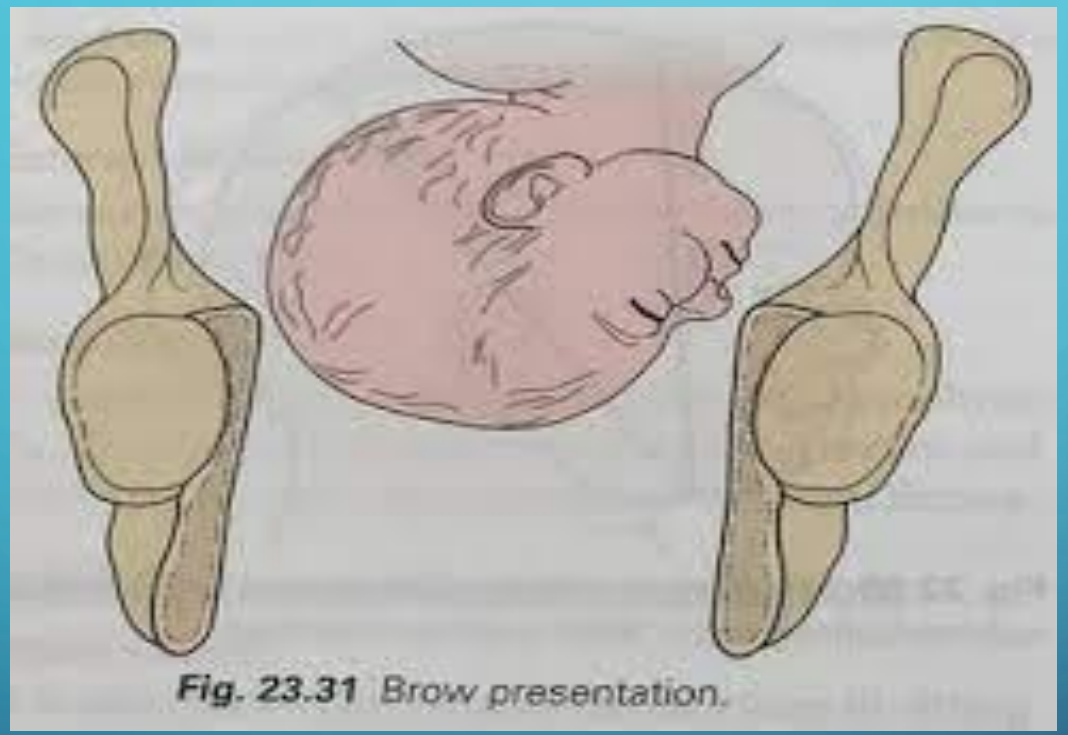


Fig. 23.31 Brow presentation.

The presenting diameter is the mento-vertical (measuring 13.5 cm) this is incompatible with a vaginal delivery.

It diagnosed in labour by palpating the anterior fontanelle, supraorbital ridges and nose on vaginal examination. If this presentation persists, delivery can only achieved by caesarean section.

Shoulder presentation

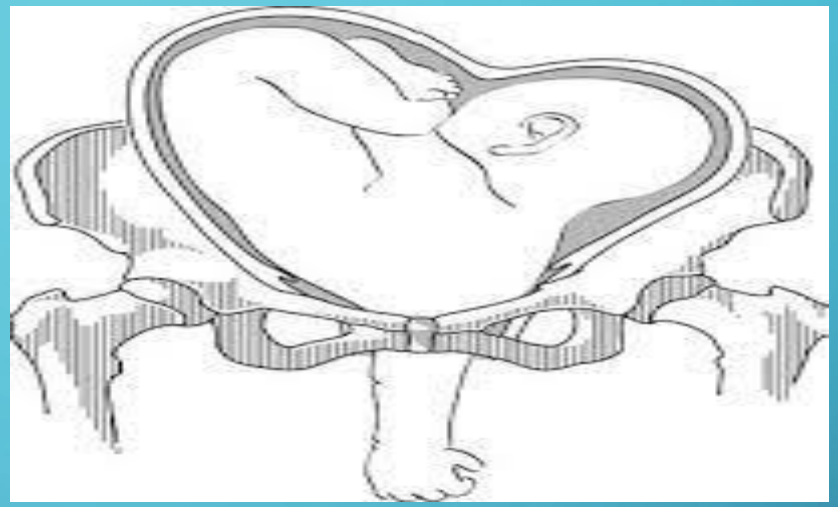
Occurring in 1 in 300 pregnancies at term, but few of these women will go into labour. Shoulder presentation occurs as the result of a transverse or oblique lie of the fetus.

Causes:

- Placenta praevia.
- High parity.
- Pelvic tumour.
- Uterine anomaly

Delivery should be by caesarean section. Delay in making the diagnosis risks cord prolapse and uterine rupture.


Shoulder presentation




C. Prolapsed umbilical cord.


Thank you!