University of Basrah
Al-Zahraa Medical College

Ministry of higher Education
and Scientific Research

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**5th year**

# REPRODUCTIVE BLOCK

**Lecture**

**Duration : 1 hour**

# FETAL MALPRESENTATION

*Presented by*

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**GYNAECOLOGY 20th**
**EDITION by Ten Teachers**

# Learning Objectives (LO)

1-definition of malpresentation

2- Breech presentation etiology , diagnosis and types .

3- Management of breech presentation

4- Management of persistent breech presentation

5- complications of vaginal breech delivery

6- Transvers and oblique lie ( shoulder presentation ) diagnosis and treatment .

7- Compound presentation etiology and management

8- Prolapse & presentation of the umbilical cord etiology , diagnosis and management

# LO 1
# Definitions

- **Malpresentation: Includes conditions where the fetal head is not the presenting part.**

- **Breech presentation is the most common type of malpresentation occur in 3-4% of term pregnancies , but its more common at earlier gestation .**

# LO 2
# Aetiology

**1- Preterm delivery**

**2- Multiple pregnancy.**

**3- Uterine anomalies ( bicornuate uterus ) .**

**4- Oligo- & Poly- hydramnios.**

**5- Placenta previa**

**6- Multipara.**

**7- fetal abnormalities ( Anencephaly or hydrocephalus ) .**

**8- fetal neuromuscular condition .**

**9- Pelvic tumors ( Fibroid ) .**

# Diagnosis

**A- During pregnancy**

**1- Abdominal examination: the head occupies the fundus, FH is heard at the level or slightly above the maternal umbilicus.**

**2- Ultrasound exam. Or X-ray.**

**B- During labour: After rupture of the mem, the breech (irregular, soft, no suture line) can be felt, & the anus, scrotum & sacrum, in flexed breech foot can be felt.**

# Types of breech

**1- Extended or Frank: 60% ,legs are extended beside the body more in primigravida & near term, less difficult in delivering the after coming head.**

**2- Flexed or Complete: hips & knees are flexed.The presenting part is irregular**

**& less pointed so early engagement is less likely & cord prolapse is more common.**

**3- Footling Or Incomplete : one or both feet are presenting. Greater risk of cord prolapse & difficult delivery of the after coming head.**

# LO 3
# Management (ECV)

- **All cases must be delivered in a hospital by experienced obstetrician.**
- **Three management options available and should discussed with the woman .**

**1- External cephalic version: The fetus is turned to a head presentation by manipulation through the mother's abdominal wall.**

***Contraindications:***

**1- Placenta previa .**

**2- Congenital anomalies ( Hydrocephalus ) .**

**3- oligohydramnios or polyhydramnios**

**4- Severe HT & severe IUGR.**

**5- Scared uterus ( previous CS or Myomectomy scar ).**

**6- multiple pregnancies**

**7- history of Antepartum hemorrhage**

- ***Complications:***

**1- Placental separation.**

**2- Cord entanglement.**

**3- PROM.**

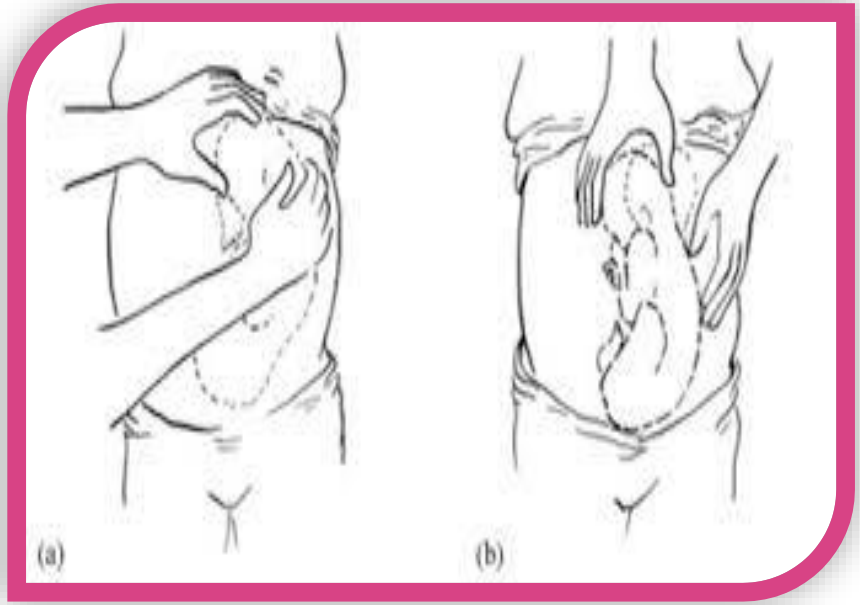
**4- Preterm labour.**

**5- Uterine scar dehiscence.**

**6- Transplacental hemorrhage with Rh sensitization.**

# ECV Procedure

- **Usually done between 36-37 wk. because before 36 wks spontaneous version occur in a large proportion of cases & after 37 wk it will be difficult due to decrease liquor vol.**
- **Should be performed with tocolytics ( nifedipine ) as this has been shown to improve success rate .**
- **Success rate 50% .**
- **Heart rate trace most be performed before and after the procedure**
- **Administer anti D if woman is RH negative**

# LO 4
# Management of persistent breech presentation

- **The patient must be thoroughly assessed so that the correct rout for delivery must be chosen.**

**1- Assess the size & shape of the pelvis using clinical examination, X-ray or CT scan.**

**2- Assess the size of the baby by clinical exam & ultrasound.**

**3- Exclude extension of the fetal neck→ mentovertical diameter (13 cm) meeting the brim which will cause obstruction.**

## 2- Elective caesarean section

- **Breech + any additional risk factor.**

**1- DM.**

**2- Moderate to severe HT & PE.**

**3- Placenta previa.**

**4- Rh isoimmunization.**

**5- IUGR.**

**6-pelvic abnormality.**

**7- Body wt > 3.5 kg.**

**8- hyperextended head.**

**9- BOH & infertility.**

**10- Previous CS.**

**11- preterm with body wt < 1.5kg.**

# 3- Vaginal Breech Delivery

## Pre-requisites for vaginal breech delivery

### Feto-maternal

- **The presentation should be either extended (hips flexed, knees extended) or flexed (hips flexed, knees flexed but feet not below the fetal buttocks).**

- **There should be no evidence of feto-pelvic disproportion with a pelvis clinically thought to be adequate and an estimated fetal weight of <3,500 g (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) should be excluded.**

# Management of labour

- **Fetal wellbeing and progress of labour should be carefully monitored.**
- **An epidural analgesia is not essential but may be advantageous; it can prevent pushing before full dilatation.**
- **Fetal blood sampling from the buttocks provides an accurate assessment of the acid–base status (when the fetal heart rate trace is suspect).**
- **There should be an operator experienced in delivering breech babies available in the hospital.**

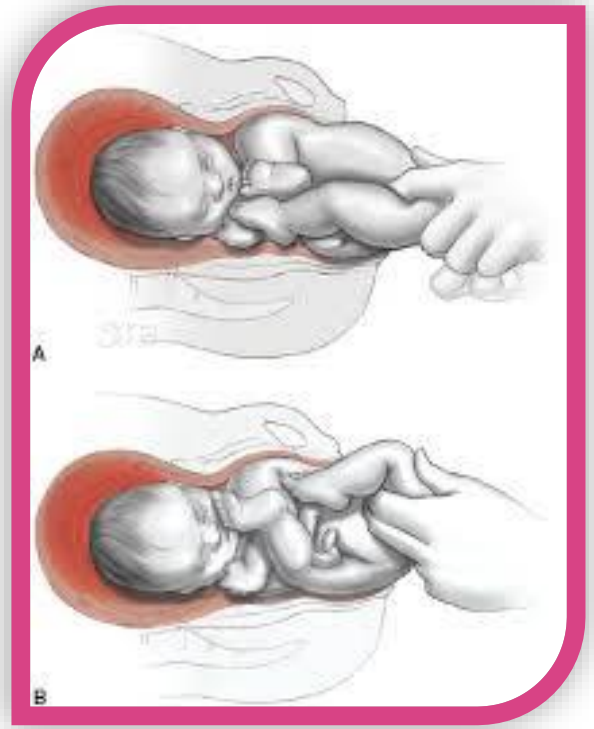
# Technique

## *Delivery of the buttocks*

**full dilatation and descent of the breech will have occurred naturally. When the buttocks become visible and begin to distend the perineum, preparations for the delivery are made. The buttocks will lie in the anterior– posterior diameter. Once the anterior buttock is delivered and the anus is seen over the fourchette (and no sooner than this), an episiotomy can be cut.**

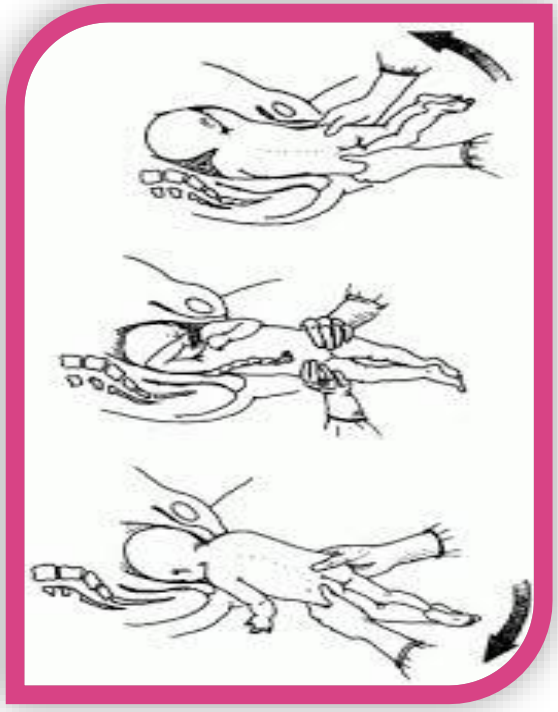
## *Delivery of the legs and lower body*

**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, first anteriorly then posteriorly. With contractions and maternal effort, the lower body will be delivered. Usually a loop of cord is drawn down to ensure that it is not too short.**



# Delivery of the shoulders

- **As soon as the umbilicus is born pulsation in the cord should be checked to exclude cord compression. A finger should be inserted through the vagina to make certain that the arms are lying folded on the chest & the fetal back should be kept anterior as soon as the inferior angle of the scapula becomes visible at the interoitus, the ant  arm can be gently hooked out, after which the posterior arm  can be released.**
- **If the arms are extended delivery can be done by Loveset's Maneuver.**

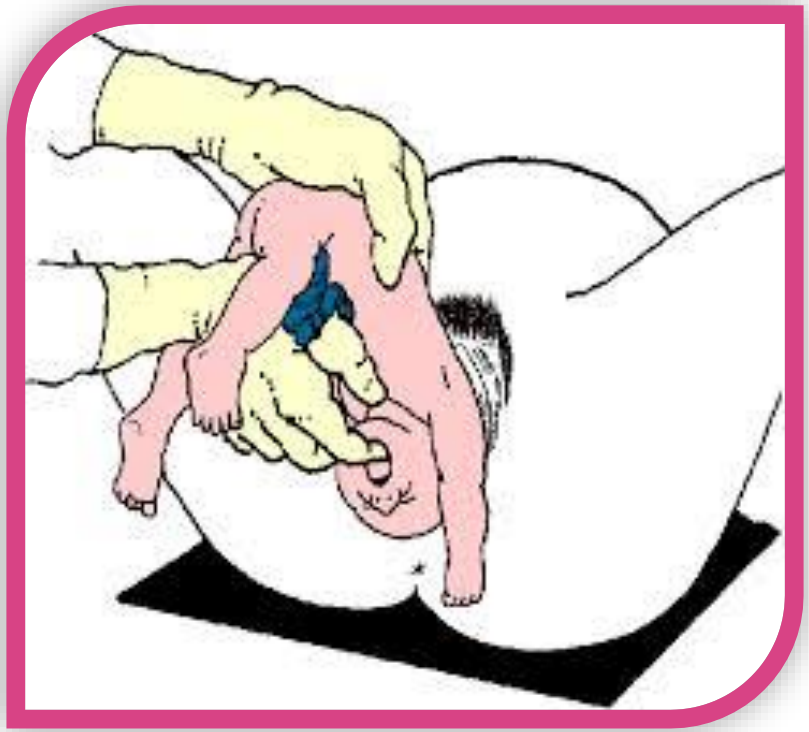


- **By downward traction the ant shoulder is brought to lie behind the symphysis, the inferior angle of the scapula is outside when this is done the post shoulder will lie below the brim, the fetus then turn through 180º with the back upwards, while moderate traction is maintained.**

- **By this means the post arm is brought to the front & inevitably delivered either spontaneously or easily hooked out with the finger. The fetus then rotated again 180º in the opposite direction, the back kept upward & the remaining arm will be delivered.**

# Delivery of the head

- **The head is 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 Delivery occurs with first downward and then upward movement (as with instrumental deliveries). If this manoeuvre proves difficult, forceps need to be applied. An assistant holds the baby's body upwards while the forceps are applied in the usual manner**



# LO 5
# Complications of vaginal breech delivery

**A- Mother:** **Sepsis, injury to the birth canal & danger of emergency anesthesia.**

**B- Child:** **Increase PNM, preterm complications, congenital anomalies, injury to the fetus.**

- **Stillbirth result from intracranial hemorrhage & asphyxia.**

# Breech Extraction

- **The obstetrician delivers the infant with no assistance from the mother. The method has been used to expedite labour in case of fetal distress or cord prolapse. Occasionally when progress ceased in the second stage or for delivering the 2$^{nd}$ twin, ( the cx must be fully dilated with adequate liguor volume, the uterus may be relaxed by GA & there should be on CPD.**

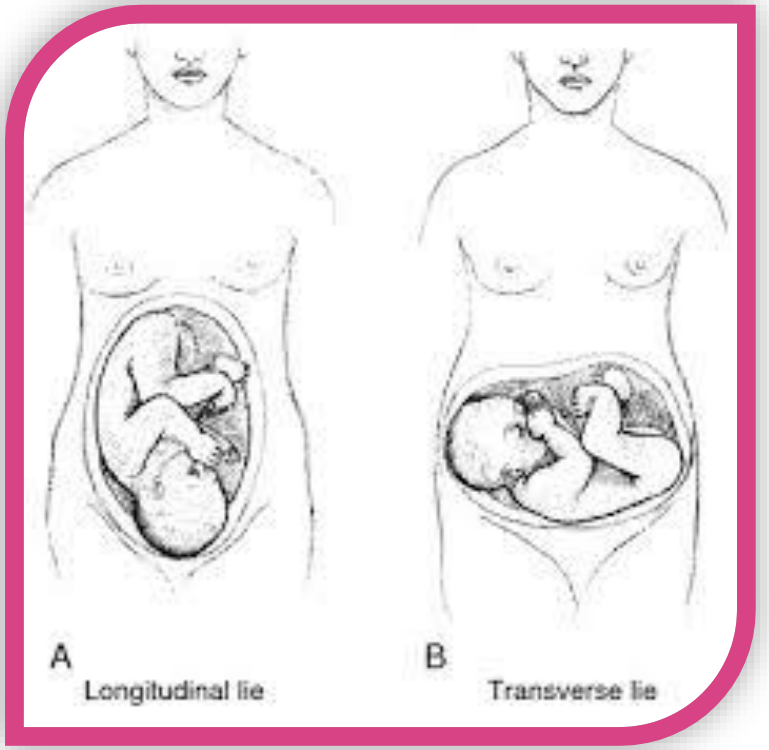
# LO 6

# Transvers & oblique lie (shoulder presentation)

- **The fetus lies with its long axis transverse or oblique in the uterus, when the point of the shoulder is usually the presenting part. Occur 1:325-500.**

***Etiology:***

- **Multiparous with lax abdominal wall.**
- **Contracted pelvis, placenta previa & pelvic tumors.**
- **Prematurity.**
- **Polyhydramnios**
- **IUD**
- **Twin**
- **Abnormal uterine shape.**



# Diagnosis

- ***Positions:*** **dorso-anterior (commonest), dorso-posterior, dorso superior & dorso-inferior.**
- ***Diagnosis:***

***A- abdominal examination:*** **the uterus appears asymmetrical, broader than usual with the fundus lower than the expected for date; on palpation the head is in one of the iliac fossae, no presenting part is felt over the brim.**

***B- Vaginal examination:*** **high presenting part, the membranes rupture early in labour& when the cervix dilated an arm or loop of cord may be prolapsed, the acromion process & adjacent ribs may also be felt, the arm should be differentiated from a leg by the absence of heel & abduction of the thumb.**

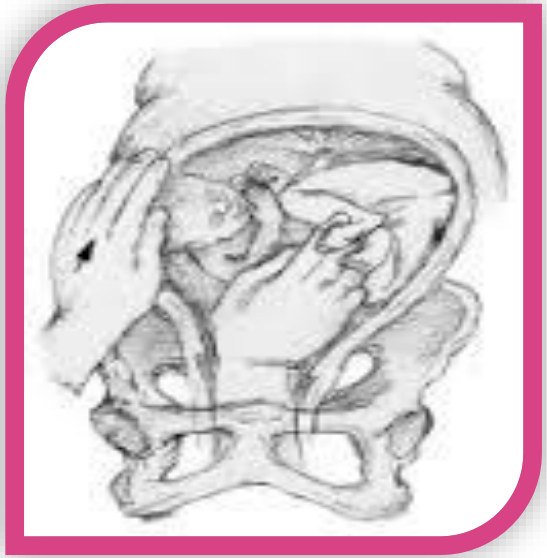
***C- X-ray & ultra sound.***

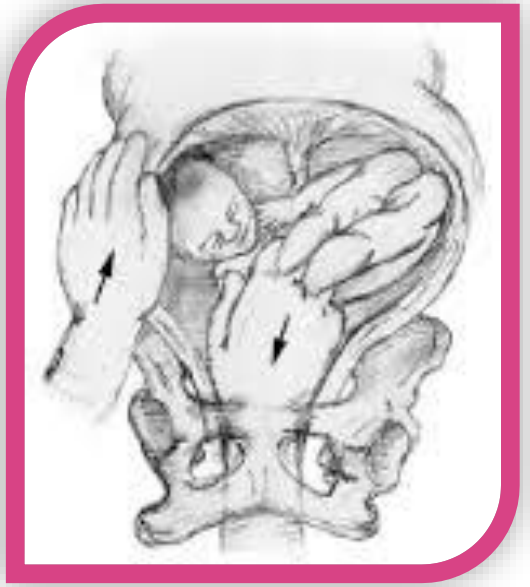
# Course of labour

- **The fetus can’t be born vaginally unless it is macerated or very premature. There is no mechanism of labor & untreated cases will end in obstructed labor & fetal death.**
- **Neglected cases can end with rupture uterus.**

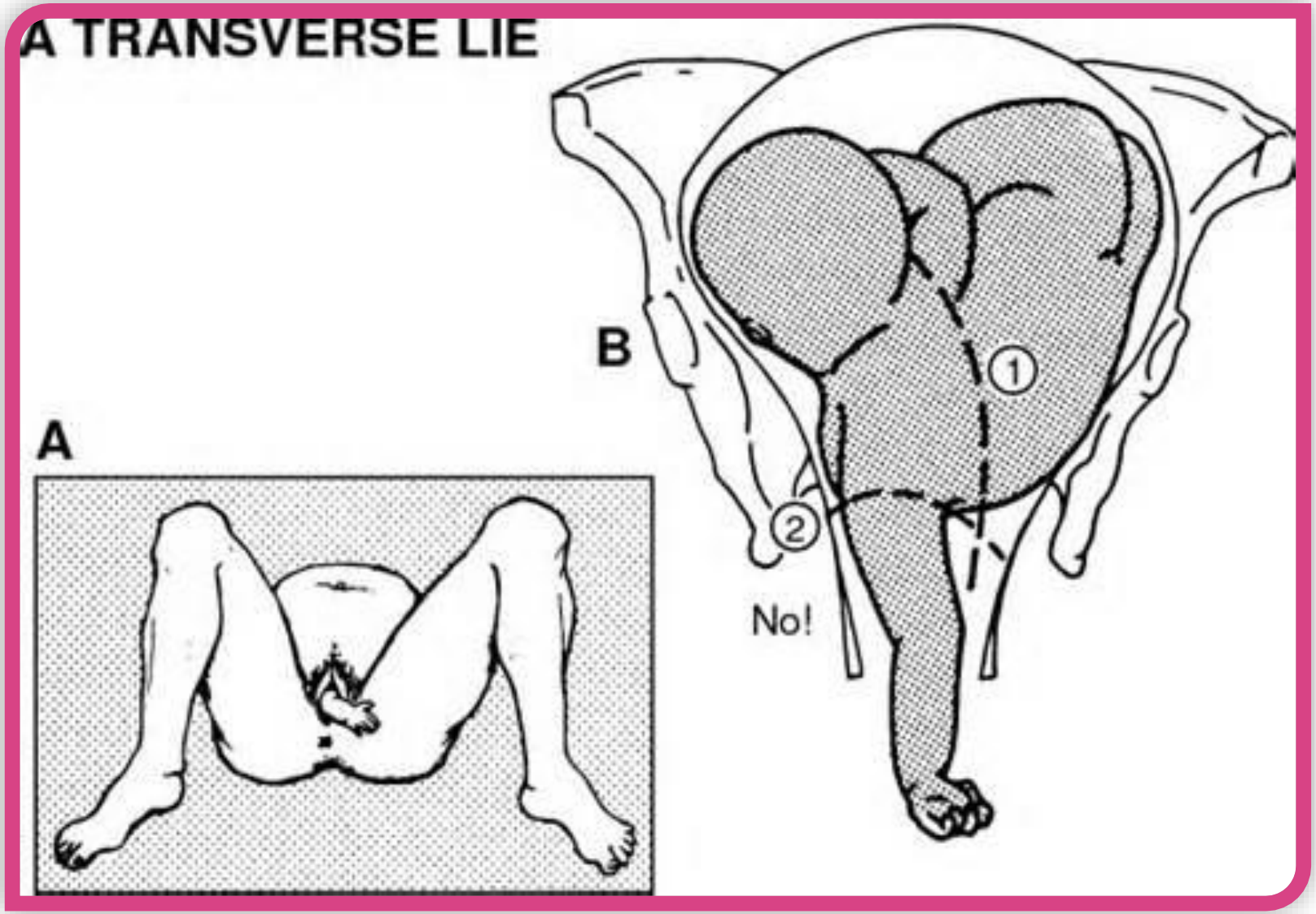
# Treatment

- ***During early labor:*** **before the membranes rupture, ECV may correct the abnormality. Followed by amniotomy & uterine stimulation to maintain longitudinal lie. If oblique or transverse lie persist in labor CS is performed. In cases of T-lie of the second twin with intact membranes & full cx dilatation internal podalic version may be attempted in which the fetal legs are pulled down & followed by breech extraction.**





- ***Late in labor with impacted shoulder:*** **if with dead fetus CS is the safest procedure, rarely decapitation is done in areas with no facilities for CS.**



# LO 7
# Compound presentation:

- **Occur in 1:650- 1250; it includes cases of cephalic presentation when one or more limbs lie alongside & presented with the head & also breech presentation when one or both arms presented with the breech.**

# Etiology

- **Contracted pelvis & pelvic tumors.**
- **Polyhydramnios.**
- **Deflection of the head.**
- **Dead macerated fetus.**
- **The commonest is head + hand (75%).**

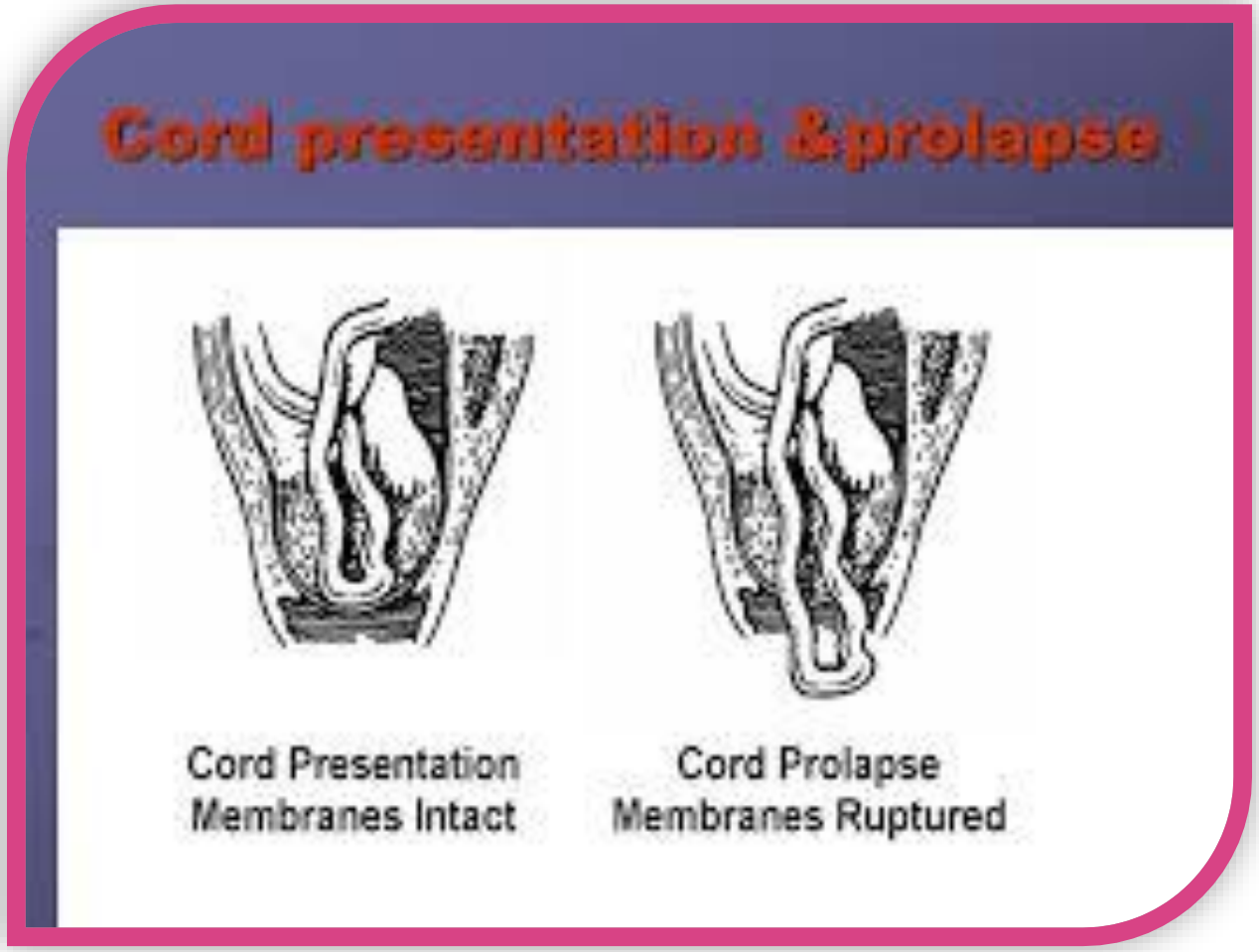
# Management

***Diagnosis:*** **Is easy after the membranes are ruptured.**

***Management:*** **exclude congenital anomalies, CPD & contracted pelvis, finally cord prolapse if the fetus is a live. In general expectant treatment is chosen as in most of the cases the extremity of the limb will recede as the presenting part descends, active treatment is necessary in cases of cord prolapse with live fetus or CPD when CS is indicated.**

# LO 8
# Prolapse & presentation of the umbilical cord

- **Occur 1: 200-300 deliveries. Whilst the membranes remain intact, the condition is that of presentation, which becomes cord prolapse when the sac rupture. The fetal mortality is lower in cases of cord presentation compare to cord prolapse.**



# Aetiology

- **Malpresentation & nonengagement of the presenting part.**
- **Prematurity.**
- **Operative maneuver.**
- **Multiparity.**
- **Abnormal cord eg. Long cord or  low placental insertion.**

# Diagnosis

**It should be suspected if there is fetal heart rate variation (variable deceleration). One may feel coils of cord within the forewater before the membranes rupture in such presentation it is important to keep the membranes intact while preparing for CS. In prolapse coils of cord are felt within the vagina & in this situation, cx dilation, level of the presenting part & presentation must be noted as well as pulsation in the cord.**

# Management

- ***Vaginal delivery*** **is indicated if the fetus is dead or has lethal congenital anomalies. A trial of labor with instrumental delivery may also be allowed if the cx is 8 cm dilated with deeply engaged head.**

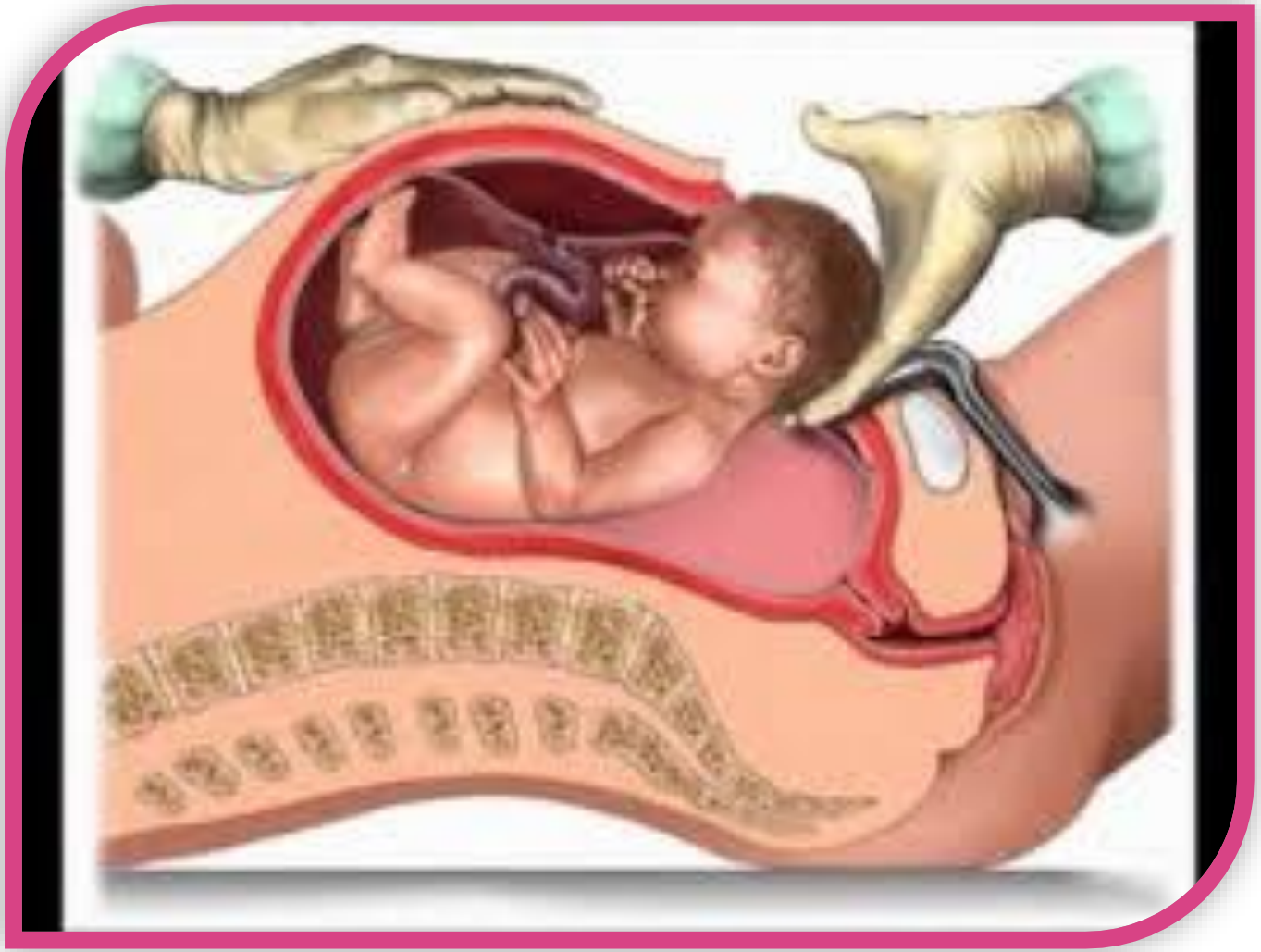
- **Cases other than the above must be treated as follow:**

# Emergency measures:

- **prevent cord compression by postural treatments that involve keeping the fingers in the vagina & placing the patient in Sims or Trendlenburg's position. It has been suggested that rapid forceful instillation of 500- 700 ml of saline into the bladder via a Foley's catheter is also effective. The cord should be replaced within the warm, moist vagina, so preventing the vasospasm that results from cold & local irritation.**

# Definitive treatment

Is to deliver the fetus by CS.



# THANK YOU