

Abnormal labour

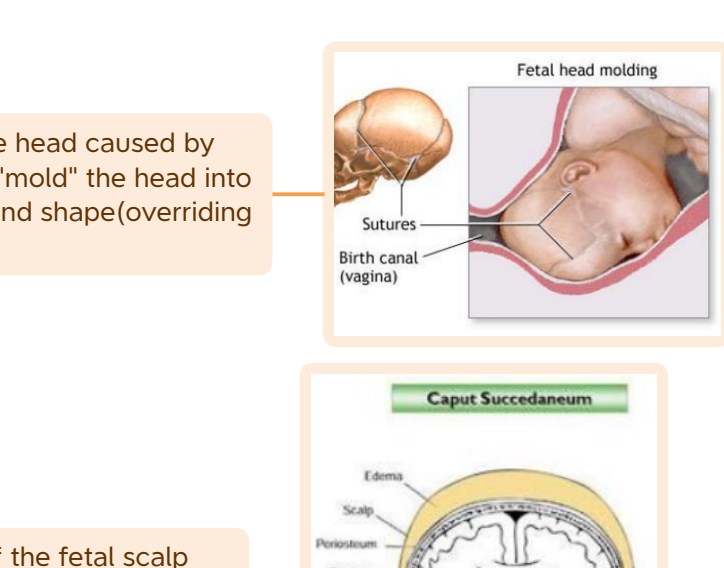
Overview

- Strong & frequent contractions causing abnormally rapid progress of labor and delivery
- Strong uterine contractions
- Small sized baby
- Minimal soft tissue resistance
- Previous history of precipitate labour
- Management: Discontinue oxytocin, Episiotomy? (to avoid ICH and birth canal trauma), Observe mother for PPH after delivery
- Laceration: Cervix, vagina, and perineum
- Uterine inversion - PPH
- Uterine atony - PPH
- Amniotic fluid embolism (infection as a result of asystole delivery)
- Maternal complications
- Fetal complications: Intracranial hemorrhage, Fetal distress, Delivery in inappropriate place

Poor progress in the first stage of labour

- Definition: cervical dilatation of less than 2 cm in 4 hrs, usually associated with failure of descent and rotation of the fetal head
- power: Dysfunctional uterine activity
 - The most common cause of poor progress in labour
 - The assessment of uterine contractions is most commonly carried out by clinical examination and by using external uterine topography
 - Intrauterine pressure catheters are available and give a more accurate measurement of the pressure being generated by the contractions, but they are invasive and rarely necessary
 - A frequency of 3 to 5 contractions per 10 minutes is usually considered ideal, with each lasting 45-60 seconds
 - If delay is suspected -> offer amniotomy (artificial rupture of membranes) and repeat vaginal examination in 2 hours -> if progress was < 1 cm after 2 hours, delay is confirmed -> Consider oxytocin -> if progress fails to occur despite 4-6 hours of augmentation with oxytocin, a caesarean section will usually be recommended
 - If oxytocin is used, ensure that the time between increments of the dose is no more frequent than every 30 minutes. Increase oxytocin until there are 4-5 contractions in 10 minutes
- passages & passenger: Cephalopelvic disproportion (CPD)
 - Implies anatomical disproportion between the fetal head and maternal pelvis
 - CPD can not be diagnosed definitively except after failed trial of labor
 - Causes:
 - Large fetus (constitutional, GDM, postmaturity)
 - Abnormal fetal position (occipitoposterior)
 - Unusually small pelvis (previous fractures, metabolic bone disease)
 - Contracted pelvis (Pelvis of a size and/or shape that insufficient for vaginal delivery of a normal sized fetus)
 - Obstructive masses in the maternal pelvis or in the fetus (hydrocephalus or fetal goitre)
 - Findings suggestive of CPD:
 - Fetal head's exit irregular
 - Progress is slow or even despite effective uterine contractions
 - Vaginal examination shows vertex molding and caput formation
 - Head is poorly applied to the cervix
 - Hemorrhoids

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Poor progress in the second stage of labour

- occurs when the uterus is contracting strongly, but there is arrest of cervical dilatation and descent of the fetal head
- Bandl's ring is a late sign of obstructed labour; the depression can be seen on the abdomen at the level of the umbilicus. It signifies impending rupture of the lower uterine segment
- Complications: Uterine rupture, Recto-vaginal & vesico-vaginal fistula, Pelvic floor injury, Pelvic organ prolapse, Intraperitoneal infection, Nerve injury, Caput succedaneum
- Management: Delivery by caesarean section
- Birth of the baby is expected to take place within 3 hours of the start of the second stage in nulliparous women and 2 hours in parous women
- Delay is diagnosed if delivery is not imminent after 2 hours of pushing in a nulliparous labour and 1 hour for a parous woman
- Secondary dysfunctional uterine activity: Powers
 - A common cause of second stage delay, and may be exacerbated by epidural analgesia
 - If no mechanical problem is anticipated, the treatment is with rehydration and intravenous oxytocin
- Passages: Delay in the second stage can occur because of a narrow midpelvis (android pelvis), which prevents internal rotation of the fetal head. It may also occur due to a resistant perineum, particularly in a nulliparous woman
- Diagnosis: Abnormal position of the vertex where occiput is posterior over the sacro-iliac joint or directly over the sacrum, Persistent occipitoposterior results from failure of rotation
- Management: 90% spontaneous rotation to OA, specially if good uterine contractions, adequate pelvis, and average fetal size. Instrumental delivery or CS if arrest persists
- Management: Prolonged second stage of labor: Abdominal exam: full lower abdomen, difficult to palpate fetal back, fetal limbs are palpable anteriorly, and fetal heart may be heard in the flanks. Vaginal exam: posterior fontanel towards the sacrospinous point, anterior fontanel is easily felt if flexed head, marked molding with caput and difficulty to assess station and position

Poor progress in the third stage of labour

- Management:
 - Controlled pushing with encouragement
 - Regular review of progress and fetal wellbeing
 - Relaxation techniques
 - Epidural for comfort measures
 - Remember: avoid fetal distress by vigorous suction
 - Controlled delivery

Breech presentation

- Definition: Breech presentation occurs when the cephalic pole is in the uterine fundus
- Incidence: 30% of pregnancies at 28 weeks' gestation, and 3-4% of term pregnancies in labor
- Types:
 - Frank breech (50-70%) occurs when both hips are flexed and both knees are extended
 - Complete breech (5-10%) occurs when the fetus is flexed at the hips and flexed at the knees
 - Incomplete or foaling breech (10-20%) occurs when the fetus has one or both hips extended
- Complications: Cord prolapse (15% in foaling breech, 5% in complete breech, and 0.5% in frank breech), Head entrapment, Spinal cord injury (with neck hyperextension)
- Delivery:
 - External cephalic version and then allow vaginal delivery
 - Internal version
 - Caesarean section
 - Breech vaginal delivery

Internal version

- ECV (is the manipulation of the fetus through the maternal abdomen, to a cephalic presentation)
 - Indication: persistent breech presentation at term. The version is performed to avoid malpresentation in labor
 - Done at 36-37 weeks gestation
 - Spontaneous version from breech to cephalic at term is about 8%
 - Overall success rates are greater for multiparous women (60%) than for nulliparous women (40%)
 - Reversion from cephalic to breech after successful ECV is rare (3%)
 - Complications of ECV: Compromised umbilical blood flow, Placental abruption, Fetal distress, Fetal injury, Premature rupture of membranes, Fetomaternal bleeding
 - Contraindications: Version is not generally recommended in cases of ruptured membranes, third-trimester bleeding, oligohydramnios, multiple gestations, or after labour has begun
 - Pre-requisites include reactive nonstress test and informed consent
 - Ultrasonographic guidance is an important adjunct to confirm position and monitor FHR
 - IBS-negative patients should receive 10 cc I (D) immune globulin after the procedure because of the potential for fetomaternal bleeding
 - After the procedure, the patient should be monitored continuously until the FHR is reactive, no decelerations are present, and no evidence of regular contractions exists

Face presentation

- Face presentation results from extension of the fetal neck. The chin (mentum) is the presenting part
- Occurs in about 1 in 500 labours
- Face presentation may be diagnosed by vaginal examination or ultrasonography
- The fetus must be mentum (chin) anterior for a vaginal delivery to allow for flexion of the fetal head and successful vaginal delivery
- Mentum posterior should be managed by Caesarean delivery
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Brow presentation

- Brow presentation results from partial deflexion of the fetal neck
- The majority of cases spontaneously convert to a face attitude
- A vaginal delivery of a persistent brow presentation is not possible and managed by caesarean section

Shoulder presentation

- Shoulder presentation occurs as the result of a transverse or oblique lie of the fetus and the causes of this abnormal presentation include placenta previa, high parity, pelvic tumor and uterine anomaly
- Delivery should be by caesarean section
- Delay in making the diagnosis risks cord prolapse and uterine rupture

Compound presentation

- Compound presentation occurs when an extremity protrudes beside the presenting part
- Fetal risks are cord prolapse in 10% to 20% of cases and birth trauma including neurologic and musculoskeletal damage to the involved extremity
- The presenting extremity should not be manipulated
- Continuous fetal monitoring (recommended because compound presentation can be associated with occult cord prolapse)
- Spontaneous vaginal delivery occurs in 75% of vertex-upper extremity presentations
- Caesarean section is indicated in cases of non-reassuring FHR, cord prolapse, and failure of labor to progress

