## PRESENTATION AND PROLAPSE OF THE CORD

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***Definition***

-**Cord presentation**-this occurs when the umbilical cord lies in front of the presenting part with the fetal membranes still intact.

-**Cord prolapse-**this occurs when the cord lies in front of the presenting part and the fetal membranes are ruptured.

-**Occult cord prolapse-**thisis said to occur when the cord lies alongside,but not infront of the presenting part.

**Predisposing factors**

-Any situation where the presenting part is neither well applied to the lower uterine segment nor well down in the pelvis may make it possible for a loop of cor to slip down infront of the presenting part.These situations include;

1. High head-If the membranes rupture spontaneously when the fetal head is high,a loop of cord may be able to pass between the uterine wall and the fetus,resulting in it lying infront of the presenting part.As the presenting part descends,the cord becomes occluded.
2. Multiparity-The presenting part may not be engaged when the membranes rupture and malpresentation is more common.
3. Prematurity-The size of the fetus in relation to the pelvis and the uterus allows the cord to prolapse .Babies of very low birth weight,less than 1500g are particularly vulnerable.
4. Malpresentation-Cord prolapse is associated with breech presentation,especially complete or footling breech.This relates to the ill-fitting nature of the presenting part and also the proximity of the umbilicus to the buttocks.In this situation the degree of compression may be less than with a cephalic presentation but there is still a danger of asphyxia.Shoulder and compound presentations and transverse lie carry a high risk of prolapse of the cord,occurring with spontaneous rupture of the membranes.Face and brow presentation are less common causes of cord prolapse.
5. Multiple pregnancy-Malpresentation ,particularly of the second twin,is more common in multiple pregnancy.
6. Polyhydramnios-The cord is liable to be swept down in a gush of liquor if the membranes rupture spontaneously.

***Cord presentation***

***Diagnosis***

-This is diagnosed on vaginal examination when the cord is felt behind intact membranes.

-It is however rarely detected but may be associated with abnormalities in fetal heart rate,such as decelerations.

***Management***

-Under no circumstances should the membranes be ruptured.This is to avoid cord prolapse.

-The midwife should discontinue the vaginal examination inorder to reduce the risk of rupturing the membranes.

-Help should be summoned,including medical aid.

-Fetal heart rate should be monitored every 30 minutes to assess the fetal well being.

-The mother should be helped into a position that will reduce the likelihood of cord compression.Such positions include:

1. The knee chest position which reduces pressure on the umbilical cord as the fetus will gravitate towards the fundus.
2. Exaggerated sim’s position-Pillows or wedges are used to elevate the woman’s buttocks to relieve pressure on the umbilical cord.

-Caesarean section is the most likely outcome.

***Cord prolapse***

***Diagnosis***

-The diagnosis is made when the cord is felt below or beside the presenting part on vaginal examination.

-Whenever there are factors present which predispose to cord prolapse,a vaginal examination should be performed immediately on spontaneous rupture of membranes.

-An abnormal fetal heart rate,particularly bradycardia may indicate cord prolapse.

-A loop of cord may be visible at the vulva.

-The cord is more commonly felt in the vagina or in cases the presenting part is very high,it may be felt in the cervical os.

***Management***

-A vaginal examination is done to check the stage of labour and to confirm if the cord is pulsating.

-If it’s in first stage or second stage and the cord is not pulsating ,then it’s not an emergency and the mother should be allowed to progress with labour.

-If the cord is pulsating,then it is considered an emergency and the midwife should call for help.

***Management of first stage(fetus alive)***

-The midwife should explain her findings to the mother and the emergency measures that will be needed.This is to alleviate anxiety and enhance cooperation.

-If an oxytocin infusion is in progress it should be stopped.This is because increased contractions will lead to increased cord compression.

-If the cord lies outside the vagina,it should be gently cleaned with a warm solution then put back gently into the vagina.This is to prevent reduction in temperature which may cause spasm of the cord blood vessels.

-The cord should not be put back into the uterus because these attempts might fail causing wastage of valuable time.

-Pressure on the cord must be relieved.In order to do this,the midwife keeps her fingers in the vagina,and especially during a contraction,holds the presenting part off the umbilical cord.

-The mother is helped to change position so that her pelvis and buttocks are raised.A knee-chest position or an exaggerated left sim’s position is recommended.

-An assistant should be asked to auscultate the fetal heart rate every 30 mins and record them in order to monitor progress of the fetus.

-These measures need to be maintained until the delivery of the baby,either vaginally or by caesarean section.

***Management of second stage(fetus alive)***

-Delivery must be expedited with the greatest possible speed to reduce the mortality and morbidity associated with this condition.

-If the mother is able to push,the delivery is expedited either by performing an episiotomy in a multiparous woman or by assisted delivery if the presentation is cephalic.

-Caesarean section is performed if vaginal delivery is not possible.

***Complications of cord presentation and cord prolapse***

-Fetal hypoxia due to spasm of the cord.

-Fetal death due to hypoxia and cord compression.