Management of prolapsed cord

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Key Amendments

Date	Amendments	Approved by

Introduction

This guideline aims to give staff clear evidence-based guidance on the risk factors and action to be taken in the event of a prolapsed cord.

Definition- descent of umbilical cord through cervix alongside (occult) or past presenting part (overt) in the presence of ruptured membranes.

Guideline

- The incidence of cord prolapse is reported to be 0.14 - 0.62%. Midwives and medical staff must therefore familiarise themselves with the risk factors and the drills to be followed in the event of umbilical cord prolapse.

- 50% of cases are preceded by obstetric manipulation.

- In hospital settings, mortality is largely secondary to prematurity and congenital malformations

- Cord prolapse is also associated with birth asphyxia which is predominantly caused by cord compression and umbilical arterial vasospasm and can result in long term morbidity because of hypoxic ischaemic encephalopathy.

Risk factors for Cord Prolapse

General risk factors

- Pre-term
- Low birth weight
- Abnormal Presentation
- Congenital abnormalities
- Multiple Pregnancy
- High Parity
- polyhydramnios
- High presenting part on V.E
- Low lying placenta, other abnormal placentation

Procedure related risk factors

- Artificial rupture of membranes
- Vaginal manipulation of fetus with ruptured membranes
- External cephalic version (during procedure)
- Internal podalic version
- Stabilising induction of labour

Suspicion of cord prolapse

- Suspect cord prolapse where there is abnormal foetal heart rate pattern (e.g. Bradycardia, variable decelerations) particularly if such changes occur soon after membrane rupture, spontaneously or with amniotomy.
- Perform speculum and/or digital vaginal examination (even at preterm gestation)
- Do not perform ultrasound examination to predict increased probability of cord prolapse.

Actions:-

- If a patient presents with a prolapsed cord the appropriate medical staff will be called by obstetric and neonatal 2222. These include the obstetric consultant, registrar and SHO, anaesthetist and neonatal doctors
- If in Community - Call 999 for immediate transfer to the Consultant Unit.
- The aim is to try and avoid compression of the cord by the foetal head or presenting part especially during contractions.

General principles of reducing Cord compression: -

- Turning off Oxytocin. (if being used.)
- Consider use of tocolytics if hyperstimulation present (e.g. Terbutaline).
- Raise the maternal pelvis e.g. by placing pillows under buttocks.
- Assisting the woman into the all 4's position – be aware of the position of the prolapsed cord (if anterior do not turn the woman into the all 4's position).
- Placing the patient in exaggerated Simm's position – with knee chest position.
- Minimal handling of loops of cord lying outside vagina. Manual replacement of prolapsed cord above presenting part is **not** recommended.
- Wrapping cord in swabs soaked in warm sodium chloride 0.9% is of **no** proven benefit.

During the VE assess

- Presenting part
- Dilatation of the cervix
- Fetal heart

Attempt to prevent cord compression by

<u>Manual elevation of presenting part</u>

Contraindications – procedure resulting in unnecessary delay in delivery

Procedure

- Insert gloved hand or 2 fingers into vagina and apply pressure to presenting part pushing it upwards
- Variation is to remove hand from vagina once presenting part is above brim, and apply suprapubic pressure upwards

Complications- excessive displacement of presenting part may result in more cord prolapsing

Bladder filling to elevate the presenting part

Indications- decision to delivery interval likely to be prolonged and/or involve ambulance transfer.

Contraindications- procedure resulting in unnecessary delay in delivery.

Procedure

- Catheterise the woman with appropriate Foley catheter.
- Insert end of a blood giving set into end of Foley catheter and once sodium chloride 0.9% 500-750 ml instilled, clamp the catheter.
- Empty bladder just before any delivery attempt

Gestational age at the limits of viability

Counsel mother on continuation and termination of pregnancy

Delivery

- **If the cervix is fully dilated** every effort should be made to deliver the baby as quickly as possible by Forceps delivery or Ventouse delivery (in the community if delivery is imminent proceed with normal delivery. whilst awaiting assistance)
- **If the delivery is not imminent** for any reason, the midwife should maintain pressure on the presenting part to reduce pressure on the cord and give 250mcg terbutaline S/C if contracting, followed by immediate transfer to obstetric theatre. Auscultate the fetal heart. Commence CTG whilst awaiting delivery by caesarean section -

  -Category 1 caesarean- if cord prolapse is associated with suspicious or pathological fetal heart rate pattern.

  -Category 2 caesarean- if FHR pattern normal.

- In some circumstances (e.g. Internal podalic version for a second twin) breech extraction may be performed.
- Cord blood samples for pH and base excess measurement should be taken.

NB : Even if no pulsation of the cord is felt emergency measures should still be carried out as pulsation may return if the pressure on the cord is relieved

Complete Clinical Incident form (Datix Web)

Debrief patient, partner and staff