Cord Prolapse

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Abstract

Cord prolapse is one of the life threatening obstetrical emergencies during child birth. The fetus is at the risk of developing anoxia due to acute placental insufficiency from the moment the cord is prolapsed. The incidence of cord prolapse is about 1 in 3 hundred deliveries. It occurs mostly in multiparous women. When diagnosis of cord prolapse is made the obstetrician and midwives calls for urgent assistance to prevent complications to the mother and the fetus. The health care professionals must also take judicious judgement and prompt treatment to save the life of mother and fetus.

Keywords: Cord prolapse, Occult Prolapse, Cord Presentation, Deceleration of fetal heart rate, fetal soufflé, vasospasm

Introduction

Cord Prolapse

The cord prolapse is defined as the prolapse of umbilical cord which lies side or below the level of presenting part. The incidence of cord prolapse is about 1 in 300 deliveries. It is mostly confined to parous women. Incidence is reduced with the increased use of elective CS in noncephalic presentations.

Case study of Mrs. X

Mrs. X, 30 years old women presented with cord prolapse during first stage of labour after rupturing of membranes. The immediate first aid management like oxygen administration like face mask was provided, oxytocin drip was stoped and lifted the presenting part of the cord with gloved fingers and introduced into the vagina and the women was kept trendelenburg’s position. Forceps delivery was done to avoid fetal complications.

Types

There are three clinical types of abnormal descent of the umbilical cord by the side of the presenting part. all these are placed under the heading cord prolapse.
**Occult prolapse**
The cord is placed by the side of the presenting part and is not felt by the fingers on intertal examination.

**Cord presentation**
The cord is slipped down below the presenting part and is felt lying in the intact bag of membranes.

**Cord prolapse**
The cord is lying inside the vagina or outside the vulva following rupture of the membranes.

**Etiology**
Anything which interferes with perfect adaptation of the presenting part to the lower uterine segment, disturbing the ball valve action may favour cord prolapse. Too often, more than one factor operates.

<table>
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<tr>
<th>Book picture</th>
<th>Patient picture</th>
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<tbody>
<tr>
<td>1. Malpresentations the commonest being transverse [5-10%] and breech [3%] Specially with flexed legs or footling and compound [10%] presentation.</td>
<td>Transverse presentation</td>
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<td>2 Contracted pelvis</td>
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<td>3 Prematurity</td>
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<td>4 Twins</td>
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<td>5 Hydramnios</td>
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<td>6 Placental factor minordegeere placenta previa with marginal insertion of the cord or long cord.</td>
<td>Placenta previa</td>
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<td>7 Iatrogenic low rupture of the membranes, manual rotation of the head, ECV, IPV.</td>
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<td>8 Stabilising induction</td>
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**Diagnosis**
Occult prolapse is difficult to diagnose. The possibility should be suspected if there is persistence of variable deceleration of fetal heart rate pattern detected on continuous electronic fetal monitoring.

Cord prolapse the cord palpated directly by the fingers and its pulsation can be felt if the fetus is alive. Cord pulsation may cease during uterine contraction which, however, returns after the contraction passes off. Temptation to pull down the loop for visualisation or unnecessary handling is to be avoided to prevent vasospasm. Fetus may be alive even in the absence of cord pulsation. Hence prompt USG for cardiac movements or auscultation for FHS to be done before fetal death declared.

**Prognosis**
Fetal-the fetus is at risk of anoxia from the movement cord is prolapsed. The blood flow is occluded either due to mechanical compression by the presenting part or due to vasospasm of the umbilical vessels due to exposure to cold or irritation when exposed outside the vulva a result of handling. The hazards to the fetus is more in vertex presentation specially when the cord is prolapsed through the anterior segment of the pelvis or when the cervix is partially dilated. The prognosis is however related with the interval between its detection and delivery of the baby and if the delivery is completed within 10-30 minutes the fetal mortality can be reduced to 5-10%. The overall perinatal mortality is about 15-%

**Management**
Scheme of management of cord prolapse

1. Caesarean delivery
2. Immediate vaginal delivery
   a. First aid bladder filling, to lift the presenting part of the cord trendelburg position
   b. Casarean section
3. Immediate safe vaginal delivery
   Possible Vertex or breech

**Nursing interventions**
Anoxia to the fetus related to cord prolapse lift the presenting part to avoid compression, elevated sims position, administration of the oxygen, monitoring fetal rate, immediate and safe delivery by forceps

**Conclusion**
The fetus is at the risk of anoxia from the moment the card is prolapsed, the blood flow is occluded either due to mechanical compression, by the presenting part or due to vasospasm of the umbilical vessels. the prognosis is related with the interval between its detection and delivery of the baby and if the delivery is completed within 10-30 mins the
fetal mortality can be reduced to 50 to 10%.

References