Foetal Distress

What is foetal distress?

- It is an obstetric emergency.
- It refers to the precence of signs in a pregnant woman before or during childbirth that suggest the foetus may not well.

Fetal distress.

- Hypoxia may results in permanent fetal brain damage or death.
- If not reversed by immediate alleviation of the cause

(resstore proper blood supply, oxygenation to the fetus)

or the fetus delivered immediately.

- It is made by indirect methods.
- Because direct assessment of fetal oxygenation is under investigation.

Perinatal foetal distress

- 1. Intrauterine fetal distress
- Antepartum fetal distress
- Intra partum fetal distress
- 2 Asphyxia neonatorum.

Antepartum fetal distress

- It is a chronic fetal distress.
- Abnormal growth is in clinical and ultrasound sacns.
- Results due to abnormal uteroplacental function.
- Abnormalities in amniotic fluid (meconium stained, oligohydroamnios)

Specific signs of foetal distress

- 1. Decreased movement felt by the mother.
- 2. Meconium stained amniotic fluid.
- 3. Non reassuring pattern seen on cardiotocography.
- Foetal tachycardia (more than 160bpm) or foetal bradycardia (less than 110bpm) specially during and after contractions.
- Decreased variability in the foetal heart rate pattern. (Less than 5)
- Late decelerations.

- 4. Biochemical signs of foetal distress,
- This is assessed by collecting blood samples of foetal blood from scalp.
 - 1. Foetal metabolic acidosis

2.Elevatedd blood lactate levels. This indicate that baby is having lactic acidosis.

Contd.

5. Abnormal results of biophysical profile.

- 1. Ultrasound to assess foetal movements.
- 2. Breathing
- 3. Tone
- 4. Amniotic fluid volume
- . Here each parameter Scores a two. A score of 4 or lower indicate foetal distress.

- Some of above mentioned signs are more reliable predictors than others.
- For example:

Cardiotocography can give high false positive rates, even it is interpreted by a experienced obstetrician. Assessment of metabolic acidosis is more reliable, though it not widely available.

Fetal scalp pH monitoring.

- Fetal blood sampling is a useful tool for the diagnosis of fetal distress.
- It is perform after rupture of membranes, a special guard needle is introduced through an amnioscope to take a drop of scalp blood for detection of its pH. Blood is collected in to a microtube.
- PH of 7.25 or more is normal, pH of 7.20 or less is acidosis.
- Direct assessment of fetal oxygenation gives most meaningful, reliable and reproducible data, and it is under investigations.

Causes for foetal distress

- 1. Abnormal position and presentation of fetus.
- 2. Multiple births.
- 3. Shoulder dystocia
- 4. Umbilical cord prolapse.
- 5. Placental abruption.

Contd.

- 6. Premature closure of ductus venosus.
- 7. Uterine rupture.
- 8. Intrahepatic cholestasis of pregnancy.

Pathophysiology

• Umbilical cord prolapse

Poor oxygenation leads to start the aneorobic respiration and causes foetal acidosis, ultimately results death.



- When expose to outer environment it undergoes spasms
- When it compress by presenting part of the foetus.

Then due to umbilical cord compression results reduce oxygenation to foetus.

Treatment

- Current recommendation is to look for more specific signs and take prompt action to remedy the situation.
- Once identified it need rapid delivery by instrumental vaginal delivery or immediate cessarean section.

Management

- There should be a skillfull team and need continous fetal monitoring throughout pregnancy and labour.
- If baby is in distress need to administer oxygen to mother.
- Give fluids to mother and change the position and reassess the parameters.
- If the condition is not improving need immediate delivery.

Method of delivery

- If heart rate abnormalities are persisting or there are additional signs of distress ;
- If cervix is fully dialate and foetal head is not more than 1/5th above the pubic symphysis , delivery is by vacuum extraction or forceps .
- If the cervix is not fully dialated or fetal head is above pubis symphysis, delivery is by caesarean section.

Transcervical amioinfusion

- It is a procedure that normal saline or lactated ringer's solution is infused into the uterine cavity to replace amniotic fluid through catheter.
- Indications
- 1. Oligohydroamnios with fetal distress.
- Technique

place fetal scalp electrode

Place double lumen intrauterine pressure catheter

Warmed normal saline or ringer's lactate 10-20 ml per minute. And stop at 250 to 500 ml.

Evidence

- There no enough evidence concerning the use of amnioinfusion for preterm rupture of membranes.
- Amnioinfusion appears to reduce the occurance of variable heart rate decelerations and lower the use of caesaran section.

Complications of foetal distress

- 1. Hypoxic ischemic encephalopathy
- 2. Permanent neurological impairment
- 3. Foetal death.

Wait.

- If the physicians dismiss the signs of foetal distress or fail to follow standards of care for high risk pregnancies, this constitute medical negligence.
- If this leads to injury, it is medical malpractice.