# 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.

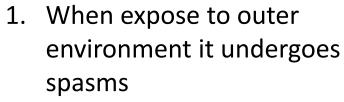
• 7. Uterine rupture.

• 8. Intrahepatic cholestasis of pregnancy.



# Pathophysiology

Umbilical cord prolapse



2. When it compress by presenting part of the foetus.



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

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





#### 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 1/5<sup>th</sup> 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 retail 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.





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