Intrauterine fetal death

Definition: fetal demise after 28 weeks of gestation and before the onset of labour , it affect 1% of pregnancies.

Aetiology

In 50% of cases the cause of death is unknown or cannot be determined.

Associated causes include the following:

1- Placental complication 10-20%.
2- Hyper tension 5-20%.
3- Medical complications e.g immune disease 5-10%.
4- Erythroblastosis fetalis 3-15%.
5- Congenital abnormalities 5-10%.
6- Intrauterine infection TORCH and disteria.
7- Undetermined 50%.

Diagnosis

1- Absent fetal movement .
2- Uterus small for date.
3- Fetal heart tone is not detected with Doppler ultrasound.
4- Ultrasound confirm the diagnosis

By no fetal movement , no fetal heart and collapse of fetal body with over lapping of cranial bones by ultrasound or by x-ray.

5- X-ray findings of intrauterine death include :
    1- Gas in the cardiovascular system occurs within 3 or 4 days after death.
    2- Subsequent over lapping of the fetal skull bones (Spalding sign).

3- Marked curvature or angulations of fetal spine.(following maceration of the spinous ligaments).
6-amminocentesis is rarely indicated to confirm fetal death if performed it will show dark brown turbid fluid and marked elevated of creatine phosphokinase.

Management

If fetal death between 13-28 weeks allows for 2 different approaches:

1- Watch full expectancy: about 80% of pregnancy will goes to the spontaneous onset of labour between 2-3 weeks of fetal death but may associated with anxiety and psychological upset so this

conservative approach may become unacceptable , so need some psychological support .if not so need to shift to active management in form of induction of labour.

2- induction of labour or induction of abortion:
   a- Emotional upset patient felt carrying a dead fetus.
   b- Low possibility of intrauterine infection.
   c- 10% risk of DIC : when a dead fetus is retained for more than 4-5 weeks .

Methods or drugs used for induction of labour :

Many drugs used for induction of labour

1- Vaginal suppositories of PGE2 used between 12-28 weeks of pregnancy.

PG is very efficient drug with successful rate of 97%.

Side effect : 50% nausea , vomiting or diarrhea ,increase temperature all these side effects are transient .other side effects are uterine rupture and cervical laceration .

2-**IV** oxytocin infusion use for induction of labour if the cervix is favorable .

After 28 weeks of gestation:

1- If the cervix is favorable of induction of labour there is no contraindication of using oxytocin is the drug of choice .

   The use of PGE2 suppositories at this gestational age is associated with an increase risk of uterine

rupture so it should be used with care and small doses.

2- If the cervix is not favorable for induction so need:
   a- Lamineria tent placed in the cervical canal before oxytocin used.
   b- Intrauterine catheterization with extra amniotic instillation of normal saline.

   Other part of management include monitoring of coagulopath**:**

   Regardless the mode of therapy , weekly fibrenogin level should be monitor during the period of expectant management along with complete blood picture.

Normal fibrinogen level is 300mg/dl, if decreased may be the early sign of DIC .

Other indices include prothrombin time which increase in DIC, partial thrmboplastine time PTT also increase in DIC, the fibrinogen-fibrin degradation products increase.

If laboratory evidence of mild DIC is noted in the absence of bleeding so delivery by the most appropriate means is recommended.

If the clotting defect is more sever or if there is evidence of bleeding this need correction by blood transfusion or fresh frozen plasma or use cryoprecipitate before any intervention.

Follow up:

After termination of pregnancy need emotional support of both parents and search should be

undertaken to determine the cause of intrauterine death .

TORCH study and culture of listeria, anticardiolipin antibody level and karyotype study for chromosomal abnormalities.

Chromosomal analysis of the dead fetus and total body radiography and complete autopsy of the fetus to determine the cause of death.