

Intra Uterine Foetal Death (IUFD)

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IUFD

- **Definition:-** Death of the foetus inside the uterus, after 25 weeks of gestation resulting in the birth of a dead newborn (still born)
- **Missed abortion:-** is defined as when the foetus dies inside the uterus but before 25 weeks of period of gestation

IUFD - Definition Contd

- ACOG (1995):- Includes only those dead foetuses and neonate born weighing 500 g or more

[80% of all still births occur before term, and more than half are before 28 weeks]

IUFD - Causes

- Foetal:- (25 – 40%)
 - 1) Chromosomal anomalies
 - 2) Non chromosomal birth defects – Neural tube defects, Congenital heart disease, hydrops and hydrocephalus
 - 3) Infections – TORCH, Hepatitis, Malaria and Syphilis

IUFD – Causes Contd

- Placental:- (25 – 35%)
 - 1) Abruptio placentae/ Placenta praevia
 - 2) Placental insufficiency
 - 3) Intra partum asphyxia
 - 4) Cord accidents
 - 5) Chorioamnionitis
 - 6) Twin-to-twin transfusion

IUFD - Causes Contd

- Maternal:- (5 – 10%)
 - 1) Hypertension, Diabetes, Antiphospholipid antibodies and Thrombophilias
 - 2) Trauma & Uterine rupture
 - 3) Sepsis, Hypoxia, Acidosis and Drugs
 - 4) Abnormal labour
 - 5) Post term pregnancy
- Unexplained:- (25 – 30%)

IUFD - Diagnosis

- History of Absent foetal movements
- Stationary maternal weight
- Height of uterus less than period of amenorrhoea (gradual regression in SFH)
- Uterine tone decreased (flaccid uterus)
- No foetal movements on palpation
- Foetal head – ‘Egg shell crackling’
- FHS – ‘Absent’ (Stethoscope, Doppler & USG)

IUFD - Investigations

- To confirm the diagnosis of IUFD:-
 - 1)USG – Absence of foetal movement, foetal heart movement and foetal breathing movement if observed over 30 min

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IUFD – Investigations contd

- 2) X-Ray abdomen –
 - a) Spalding sign (irregular overlapping of skull bones, after 7 days of IUFD)
 - b) Hyper flexion/hyperextension of foetal spine (softening of ligaments)
 - c) Crowding of ribs
 - d) Gas shadows in the chambers of heart/ great vessels (after 12 hours of IUFD - Robert's sign)

IUFD - Stillborn

- Evaluation of stillborn:- Malformations, skin staining, degree of maceration and Colour (pale or plethoric)
- Maceration:- Aseptic autolysis of foetus in sterile liquor (skin edematous/ blisters, peels off & dusky red; Ligaments, brain matter and viscera's liquefaction)

IUFD – Umbilical Cord

- Cord prolapse
- Entanglement of cord – neck/ arms/ legs
- Haematomas or strictures
- Number of vessels – (Two arteries – single artery is associated with congenital anomalies & one vein – left vein disappears by 4th month)
- Cord length – [30 to 100 cm; (50 cm)]

IUFD – Placenta, membranes & Amniotic Fluid

- Placenta:- Weight ($1/6^{\text{th}}$ of baby weight), staining, adherent clots, structural abnormalities – circumvallate/ accessory lobes, velamentous insertion & Oedema
- Membranes:- stained/ thickening
- Amniotic fluid:- Volume, Colour – meconium/ blood stained and Consistency

IUFD - Management

- Confirmation of IUFD [USG], Reassurance and psychological support
- Baseline coagulation profile – Fibrinogen, Plasma Thromoplastin Time and FDP
- Induction of labour :- a) Bishop's score to see favourability of cervix – PG E2(Dinoprost) and PG E1(Misoprost) b) Oxytocin in high dose
- Caesarean section – Placenta praevia, Previous two LSCS and Transverse lie

IUFD – Management contd

- Post delivery:-
 - psychological support
 - sedation
 - suppression of lactation { Bromocriptine }
 - evaluation of still born foetus, placenta - membranes & amniotic fluid

IUFD - Complications

- **Psychological** – trauma to woman and family [increased anxiety & post partum depression]
- **Coagulation disorders** – defibrination syndrome if foetus retained more than four weeks [silent DIC – 10 to 20%]
- **Abnormal uterine contractions, retained placenta and post partum haemorrhage**

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