MBCHB IV

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EPB:

Definition

- *Bleeding,viability*
- *Upper limit of 28 weeks often used*

Differential dignosis

- *Abortion*
- *Hydatidiform mole*
- *Ectopic pregnancy*
- *Dysfunctional uterine bleeding*
- *Coincidental causes – infections; neoplasms*

ABORTION

Essential parameters in definition

- *Bleeding – commonest*
- *Drainage of amniotic fluid (AF)*
- *Fetal weight*
- *Gestation*
- *Possibilty of fetal viability*

Definition

- *Basic definition* - ***termination before gestation commensurate with fetal viability*** *– often 28 weeks*
- *WHO definition – termination* ***before 20 weeks of gestation or if fetus weighs <500gm***
- *(variability of definition affects comparative vital statistics)*

Types of abortion

Based on etiology

1. *Spontaneous abortion*
2. *Induced abortion*
    - *Therapeutic*
    - *Criminal*
    - *Clandestine*
    - *legal*

Spontaneous abortions (SA)

Definition: *occur without human interference*

Incidence: *15% of all known conceptions*

Pathology:

- *H'ge into decidua basalis → necrotic changes → fetal demise*
- *ROM if GBDs > 14 weeks*
- *Uterine contractions*
- *Cervical dilatation*

Etiology of spontaneous abortions

1. *Fetal abnormalities*
2. *Anatomical factors*
3. *Corpus luteum insufficiency*
4. *Maternal disease*
5. *Environmental factors*
6. *Trauma*

Etiology: 1. Fetal abnormalities

Chromosomal:

- *Monosomies – 45,X (Turners syndrome)*
- *Trisomies – XXY (Klinefelters syndrome)*
- *Polyploidy*

Gross abnormalities:

- *Neural tube defects (NTDs)*
- *anencephaly*

Etiology: 2. *Anatomical factors*

- *Cervical incompetence*
- *Mullerian fusion abnormalities*
- *Fibroids*

Etiology: 3. *Corpus luteum insufficiency*

- *Inadequate endometrial preparation*
- *Inadequate pregnancy support*

Etiology: 4. *Maternal disease*

- *TORCH complex*
- *Febrile illness e.g. malaria – fever, parasitization*
- *Listeria monocytogenes; brucella abortus*
- *Mycoplasma; syphyllis*
- *Endocrine disease – DM, thyroid disease*

Etiology: 5. *Environmental factors*

- *Irradiation e.g. X-rays, radiotherapy*
- *Embryotoxic drugs*

Etiology: 6. Trauma

- *Direct/indirect*
- *Blunt/sharp – penetrating*

Clinical types of abortion

1. *Based on the stage in the progression of abortion process*
   - *Threatened abortion*
   - *Missed abortion*
   - *Inevitable abortion*
   - *Incomplete abortion*
   - *Complete abortion*
3. *Based on whether or not there is sepsis*
   - *Septic abortion*
5. *Based on consistency of occurrence*
   - *Habitual or recurrent abortion*

Parameters in allotment of clinical stage of abortion process

- *Bleeding –presence, amount, color,clots*
- *Lower abdominal pains – presence, character*
- *Uterine size in relation to gestational age*
- *State of the cervix – consistency, length, if opened*
- *Products of conception (POC's) –in utero, partially expelled, completely expelled*

Clinical types: Threatened abortion

- *Presentation – minimal bleeding; no LAP's; uterine size=GA; all POCs in utero; cx long and closed*
- *Management – bed rest, sedation, antibiotics; progestagens; pelvic u/s to confirm viability*

Clinical types: Missed abortion

- *Fetal demise but all POCs in utero*
- *Bleeding irregular & dark; ut. Size<GA; cx closed & firm; regression of symptoms/signs of pregnancy*
- *PUSS – unembryonic collapsed GS(=blighted ovum); collapsed GS + fetal pole but no FCA (=missed abortion)*
- *Mnx: coagulation screen + evacuation*

Clinical types: Inevitable abortion *–*
'point of no return reached'

- *Intermittent LAPs; bleeding often insignificant if≤16 wks; cx dilated but all pocs in utero;uterine size=GA*
- *Mnx:*
  - *<14 wks with bleeding +++→ evacuation*
  - *>14 wks & no bleeding → allow to progress ± acceleration with syntocinon*

Clinical types: Incomplete abortion

- *h/o LAPs & bleeding in lumps; ut.size<GA; cx open; RPCs; often incomplete if GA<16 wks*
- *Mainstay of mnx → uterine evacuation*
- *Adjunctive mnx → Rx of shock, h'ge (ergometrine,IVIs, Blood,etc), antibiotics, analgesics*

Clinical types: Complete abortion

- *No LAPs; all POCs expelled; post abortion lochia; ut.size <<GA; cx closed*
- *mnx;: ergometrine ± antibiotics*

Induced abortions

- *As a result of human interference*
- *Therapeutic abortion*
  - *Medical benefit to mother accrued*
- *Criminal abortion*
  - *No medical benefit accrued; contravenes the law*
- *Clandestine abortion*
  - *Unprofessionally done; inappropriate environment*
- *Legal abortion*
  - *When the life of the mother is in danger*

Septic abortions

- *Presence of infection at any stage*
- *Post abortion sepsis → after abortion process*
- *Etiology: criminal/clandestine abortion; prolonged pre-evacuation period*
- *Infective agents: gm+ve/-ve; aerobes/ anaerobes*
- *Common organisms: Staphylococcus; Streptococcus; Bacteroides; Clostridia perfrigens/welchii; E.coli; Pseudomonas; Klebsiella*

Septic abortion: presentation

- *Foul smelling POCs, offensive PVD, tachycardia, pyrexia*
- *Uterine, adnexal, peritoneal tenderness*
- *Bacteraemia → septicaemia → infection dissemination ± ARF*
- *Endotoxic shock*
- DIC

Complications of abortion

- *Immediate*
  - *H'ge*
  - *Infection*
    - *Local, Disseminated*
- *Long-term*
  - *Medical*
    - *PID, Ectopic pregnancy, infertility*
  - *Socioeconomic*
    - *Marital disharmony – infertility; Stigmatization – infertility, abortion; Economic –cost of treatment*

Habitual/recurrent abortion

- *At least 3 consecutive abortions – suggestive of an underlying cause*
- *Causes:*
  - *Anatomic defects – cervical incompetence; uterine abnormalities (congenital; fibroids)*
  - *Hormonal – corpus luteum insufficiency*
  - *Infections – TORCH complex*

1. *Cervical incompetence (CI)*

- *Pathology:*
  - *Cervical weakness → yields to weight of amniotic sac contents and expansion of amniotic sac*
  - *AF sac fills uterine cavity at 14 wks – hence CI manifests in second trimester*
  - *Mild/moderate CI – ROM is 1st event → bleeding/contractions*
  - *Severe CI – painless "fall of AF sac"*

CI: Etiology

- *Congenital – rare, normal shape*
- *Overenthusiastic "D"&C*
- *Fetal delivery before full cervical dilatation*
- *Traumatic vaginal operative delivery*
- *Precipitate labor*
- *Obstructed labor*
- *Annular tear/perforation of cervix*

CI: Presentation

- *Recurrent mid-trimester abortions (MTAs)*
- *Subsequent falling gestation*
- *ROM often the initial event*
- *Pain often not a significant feature*

CI: Clinical findings

- *Short cervix – indicates loss of ICO*
- *Patulous cervix ± closed ICO*
- *Anatomical deficiency on cervix*
- *Normal looking cervix*

CI: interval investigations

- *Cervicogram*
  - *Loss of cervical lenth*
  - *Loss of ICO*

Net effect – funneling of the cervix

CI: Management

Objective – strengthening the cervix in order to support pregnancy after 13 weeks GA!

Methods:

1. *McDonald stitch – sub-mucosal pulse string suture*
2. *Shrodkar stitch – continuous sub-mucosal mesylene tape*
3. *trachelorrhaphy*

2. *Uterine abnormalities*

Pathology – reduced compliance of myometrium to expansive forces of growing AF sac; inadequate endometrial preparation for implantation

Types of abnormalities:

- *acquired - fibroids*
- *congenital – mullerian fusion anomalies*

UAs: Presentation

- *MTAs; rising gestation; uterine contractions an important feature*

- *UAs: Management*
- *Anticipatory – rising gestation → viability*
- *surgical:*
  - *Myomectomy*
  - *Metroplasty (Strassman's operation)*

Corpus luteum insufficiency (CLI)

- *Inadequacy of CL of menstruation → inadequate secretory changes → defective implantation*
- *Inadequate function of CL of pregnacy → inadequate early pregnancy support*
- *Mnx – luteal phase support with progestagens*

Termination of pregnancy

First trimester

- *D&C*
- *RU486 (mefiprestone)*

Second trimester

- *Prostaglandins*
  - *Extra-amniotic; intra-amniotic; pessaries/gel*
- *Syntocinon*
- *hysterotomy*

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