



# MISCARRIAGE

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# Introduction

- Also referred to as early pregnancy loss
- About 15% of pregnancies will undergo clinically recognized spontaneous miscarriages
- The true early pregnancy loss rate might be as high as 50%



# Introduction

- 80% occur in the first 12 weeks
- Clinically recognized miscarriage occur in:
  - 12% of women <20 years
  - 26% of women >40 years
- Overall pregnancy loss (recognized and unrecognized) in women >40 is 75%



# Definition

- Premature termination of a pregnancy by spontaneous or induced expulsion of a nonviable foetus from the uterus
- Viability → 24 weeks or 500g



# Classification

- Spontaneous
  - Sporadic
  - Recurrent (3 abortions)
- Induced
  - Therapeutic
  - Unsafe



# Classification

- Threatened
- Missed
- Inevitable
- Incomplete
- Complete
- Septic abortion
  - Complete
  - Incomplete



# Spontaneous First Trimester

- Majority (70%) because of developmental abnormalities
- Environmental factors
  - Smoking
  - Infections
  - Toxins
  - Drugs



# Late Spontaneous Abortions

- Uterine abnormality
- Cervical incompetence
- Submucous myomata
- Poor placentation
- Infections
  - Syphilis
  - Amniotic fluid infection syndrome





# Clinical Presentation

- Depends on where in the progression of the condition the patient presents



# Threatened Abortion

- Clinical presentation
  - Minimal vaginal bleeding
  - Lower abdominal pain



# Threatened Abortion

- On examination
  - Cervical os closed
  - TVS → intra-uterine pregnancy with fetal heart activity



# Threatened Abortion

- Differential diagnosis:
  - Anovulatory bleed
  - Implantation bleed
  - Anembryonic pregnancy
  - Ectopic pregnancy



# Threatened Abortion

- Management
  - Confirm diagnosis
  - Rule out anembryonic pregnancy or ectopic pregnancy
  - Manage expectantly
    - No evidence that progestogen therapy is effective



# Threatened Abortion

- Management
  - Emotional support
  - 60% won't abort
  - No effective medical treatment



# Inevitable Abortion

- Clinical presentation
  - Vaginal bleeding with clots
  - Increasing severity of abdominal pain
- On examination
  - Uterus might be tender
  - Cervical dilatation



# Inevitable Abortion

- Management
  - Resuscitation if necessary
  - First trimester: → manual vacuum aspiration (MVA)





# Inevitable Abortion

- Second trimester: → oxytocin followed by evacuation if retained products. If complete abortion (>16-18 wks) evacuation not necessary



# Incomplete Abortion

- Clinical presentation
  - Products of conception has been passed (amniotic fluid, foetus or placental tissue)
  - Pain decreased after “passing something”
  - Vaginal bleeding



# Incomplete Abortion

- On examination
  - Cervical os open
  - Products of conception felt in the os
  - Uterine size smaller than period of amenorrhoea



# Incomplete Abortion

- Management
  - Rule out the diagnosis of septic incomplete abortion
  - Resuscitation if hypovolemic
  - Remove products of conception at time of examination, especially if bleeding
  - Oxytocinon (20 IU in 1000 ml Ringers/ Saline



# Incomplete Abortion

- Management
  - MVA
    - All patients with uterine size less than 14 weeks and hemoglobin more than 9g% and hemodynamically stable
    - Evacuation in theatre – all other patients



# Complete Abortion

- This can occur in pregnancies more than 16 weeks gestation
- The whole foetus and placenta is completely expelled
- Diagnosed only if you have seen and examined the products yourself



# Complete Abortion

- Management
  - Observe the patient for bleeding
  - Try to make a diagnosis
    - Examine foetus for congenital abnormalities → blood from foetal heart or tissue from calve muscle for chromosomal analysis
    - Examine placenta → send for



# Missed Abortion

- Where the foetus is in utero and not expelled
- Clinical presentation
  - Asymptomatic
  - Amenorrhoea
  - Usually diagnosed on ultrasound → foetal pole with no heart activity





# Missed Abortion

- Diagnosis
  - TVS → embryonic pole measuring  $>5$  mm  
→ embryonic heart activity should be visible



# Missed Abortion

- Management
  - Before 12 weeks → vaginal misoprostil followed by MVA
  - After 12 weeks → induce labour with prostaglandins and do evacuation or MVA after the pregnancy has been expelled
  - Do not use misoprostil in scarred uteri



# Abortion

- Special investigations
  - Haemoglobin on admission and before discharge on all patients
  - Syphilis serology on all patients
  - Rhesus status on all second trimester Caucasian, Indian and Coloured patients → if Rh negative administer anti-D immunoglobulin



# Abortion

- Emotional support
  - Early loss of a wanted pregnancy as bad as a neonatal death or stillborn
  - Grieving process
    - Shock, denial, anger, depression and acceptance



# Abortion

- Refer for counselling if necessary
- Make follow-up arrangements if indicated to discuss results of tests etc
- Contraception counselling
- Plan future pregnancies



# Septic Abortion

- Abortion + infection
- Clinical presentation:
  - History of unsafe intervention
  - Fever
  - Symptoms and signs of pelvic infection
    - Lower abdominal pain, peritonism
    - Foul smelling / pussy discharge through cervical os
    - Cervical excitation tenderness, adnexal tenderness



# Strict Protocol

- Systematic routine evaluation of each patient's organ systems
- Early identification of organ dysfunction
- Clear clinically identified indications for hysterectomy



# Septic Abortion

- Management
  - Resuscitation with fluids and blood products
  - Antibiotics
    - Cephalosporins, metronidazole, aminoglycosides
  - Assessment of organ dysfunction
  - Removal of the source of sepsis
  - Proper monitoring of disease process





# Septic Abortion

- Assessment for organ dysfunction
  - **CVS** → BP, pulse
  - **Respiratory** → CXR, arterial blood gas
  - **GIT** → liver enzymes
  - **Renal** → Creatinine, urine output



# Septic Abortion

- Assessment for organ dysfunction
  - **Hematological** → hematocrit, platelets, clotting profile
  - **CNS** → GCS
  - **Immunological** → temperature, VCT



# Septic Abortion

- Removal of focus of infection
  - After obtaining all above information → assess where patient is in the disease process of infection



# Septic Abortion

- Possibilities:
  - SIRS
  - MODS
  - Septic shock
- Treatment:
  - Resuscitate, antibiotics, evacuation or hysterectomy



# Septic Abortion

- Indication for evacuation
  - If only SIRS
- Careful monitoring and follow-up
- All biochemistry to be repeated post-evacuation to exclude deterioration



# Septic Abortion

- Indications for hysterectomy:
  - Multiple organ dysfunction
  - Septic shock
  - Necrotic cervix



# Septic Abortion

- Indications for hysterectomy:
  - Pus in the abdomen
    - Acute abdomen
    - Colpopuncture
  - No improvement after evacuation



# Septic Abortion

- Is a serious condition
- Must be diagnosed and managed properly
- Strict protocol saves lives





# Septic Abortion

- At Kalafong → comparing data prior to the implementation of the strict protocol:
  - Patients presenting now with severe acute maternal morbidity due to abortion, has a 91% less chance of dying 2003/4 compared to 1997/8



# Thank You



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