Abortion and Ectopic Pregnancy

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Introduction

- Spontaneous Abortion
- Elective Abortion
- Ectopic Pregnancy
Spontaneous Abortion

- Incidence-1 in 5 pregnancies
- 80% occur in the first trimester
- Incidence decreases with gestational age
- If fetal heart activity/viability is noted on ultrasound, the loss rate is only 2-3%
- Loss rate is 20% in those with first trimester bleeding
- Risk increases with increasing maternal age, paternal age, and parity
Spontaneous Abortion

- **Etiology**-
  - **Maternal factors**
    - Infectious: Mycoplasma, Toxoplasmosis, Listeria
    - Environmental: Alcohol abuse, Smoking
    - Uterine: Septum, Fibroids, Synechiae, Cervical Incompetence
    - Systemic Disease: Thyroid, Diabetes
  - **Paternal factors**: Chromosomal translocation
  - **Fetal Factors**: Chromosomal
    - 50% of 1st trimester abortions caused by chromosomal anomalies
Spontaneous Abortion - Symptoms

- Vaginal bleeding in almost all patients
- Cramping and pelvic pain very common
- Hemorrhage can lead to syncope from hypovolemia/shock
- Often discovered when fetal heart activity cannot be detected on exam
Spontaneous Abortion

- Differential Diagnosis
  - Threatened Abortion - bleeding, cervix closed
  - Inevitable Abortion - cervix open or membranes ruptured
  - Complete Abortion - passed all products of conception (P.O.C.)
  - Incomplete Abortion - passed some of the P.O.C.

- Treatment
  - Suction Dilation and Curettage or Observation
Induced Abortion

- More complicated the further along in pregnancy the procedure is done
- Dilation and Curettage until 12 weeks then Dilation and Evacuation
- Medical Rx possible until 9 weeks
  - RU-486 (mifepristone)/Misoprostil
  - Methotrexate/Misoprostil
Induced Abortion

- Complications
  - Perforation of uterus
  - Infection
  - Hemorrhage
  - Post Abortal Syndrome

- Septic Abortion
  - Sepsis, shock, hemorrhage
  - Follows infected complete or incomplete AB
  - More common before induced abortion was legalized
Ectopic Pregnancy

- Pregnancy anywhere outside uterine cavity
- Fallopian tube most common location
- Second leading cause of maternal mortality
- Risk Factors
  - Pelvic inflammatory disease, Age, Previous Ectopic, Previous tubal ligation
- Symptoms
  - Abdominal pain, vaginal bleeding, syncope, amenorrhea
  - Occurs 5-8 weeks after last menstrual period
Ectopic Pregnancy

- Physical Findings
  - Hypotension, tachycardia (shock)
  - Adnexal mass or tenderness in adnexa
  - Uterus-normal size
  - Peritoneal Signs

- Diagnostic Tests
  - Quantitative serum pregnancy test
  - Ultrasound
  - Culdocentesis
Ectopic Pregnancy

- Diagnostic Algorithm-Key Points
  - HCG>2000, IUP visible on Transvaginal Ultrasound
  - HCG rises by 66% in 48 hours in viable IUP
  - Suction Dilitation and Curettage (D&C)- Absence of villi points to ectopic
    - Can put uterine contents into saline and look for villi by gross inspection
Ectopic Algorithm

Vaginal Ultrasound/Serum HCG

No IUP, HCG > 2000
- Ectopic
  - Rising
    - Repeat HCG
      - Falling
        - D&C
          - No Villi
            - Falling
          - Villi
            - Repeat U/S when HCG > 2000

No IUP, HCG < 2000
- Repeat HCG in 48 h
  - <66% Rise
    - Rising
      - Repeat HCG
  - Falling
    - D&C
      - No Villi
        - Falling
      - Villi
        - Follow HCG Weekly to 0

IUP Seen
- Normal Rise
- Repeat U/S when HCG > 2000
Ectopic Pregnancy

- Management - determine hemodynamic stability
  - Medical
    - Methotrexate - unruptured, small, no cardiac activity, compliant patient
  - Surgical
    - Laparoscopy
      - Salpingostomy
      - Salpingectomy
    - Laparotomy
Ectopic Pregnancy: Prognosis for Subsequent Fertility

- Overall subsequent pregnancy rate is 60%, other 40% are infertile
- One-third of pregnancies after an ectopic pregnancy are another ectopic pregnancy, one-sixth are spontaneous abortions
- Only 33% of women with ectopic pregnancy will have a subsequent live birth
Ectopic Pregnancy - Unusual Variants

- Heterotopic Pregnancy
  - Simultaneous IUP and ectopic gestations
  - Rare - 1 in 30,000 pregnancies
- Abdominal Pregnancy - can occur anywhere in peritoneal cavity (1 in 3000)
- Cervical Pregnancy (1 in 10,000)
  - May need hysterectomy
- Ovarian Pregnancy (1 in 7,000)
  - Oophorectomy usually required