Objectives

- Episiotomy and Vaginal Lacerations
- Abortion---Spontaneous and Induced
- Ectopic Pregnancy
- Forceps
- Vacuum Extraction
- Cesarean Section
- VBAC
Episiotomy and Vaginal Lacerations

- Midline Episiotomy
- Lateral Episiotomy
- Vaginal Lacerations
  - First, Second, Third, Fourth Degree
Muscles of the Perineal Body

- Bulbocavernosus
- Transverse perineal
- Puborectalis
- External Anal Sphincter
Obstetric Laceration

Figure 2. Anal sphincter complex (cadaver dissection).
Abortion

- Spontaneous
- Induced
  - Treatment
  - Suction curettage
  - D and C
  - Medical Intervention
Spontaneous Abortion

- **Spontaneous**
  - Threatened – bleeding in early gestation
  - Inevitable – bleeding with contractions and dilation
  - Incomplete – products of conception partially passed
  - Missed – dead fetus retained without expulsion
  - Septic – Fever over 100.4F due to infection (endo/parametritis-septicemia)
Spontaneous Abortion

**Etiology**
- Developmental abnormality of zygote, embryo, fetus, placenta
- >50% degenerated or absent embryo (blighted ovum)
- 60% abnormal chromosomes (>30% of 2nd trimester Ab’s)
- Hemorrhage into decidua basalis causes necrosis
- Ovum detaches, stimulates contractions
Spontaneous Abortion

Treatment

- Observation
- Dilation and Curettage (D&C)
- Vacuum Extraction (suction curettage)
Induced Abortion

- Rate: 238/1000 live births (60% in first 8 weeks, 88% in 12 weeks)
- Outpatient centers – up to 15 weeks
- Medical centers over 15 weeks
Induced Abortion

- Treatment Medical induction agents RU487, Estrogen/Progesterone, Dilators
  - Menstrual aspiration
  - Dilation and Curettage
  - Dilation and Evacuation
  - Cervical dilation substances
  - Uterine stimulants
  - Partial Birth Abortion
  - Hysterotomy
  - Hysterectomy
Female Pelvic Organs

- Fallopian tube
- Ovarian ligament
- Ovary
- Endometrium
- Cervix
- Round ligament
- Broad ligament
- Vagina
D and C

Vaginal canal held open with speculum

Curette scrapes uterine tissue
Ectopic Pregnancy

▶ Diagnosis
  - Abnormal uterine bleeding
  - Pelvic Pain
  - Positive Pregnancy Test
  - Ultrasound
Ectopic Pregnancy

Figure 46-9 Sites of ectopic pregnancy.

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Ectopic Pregnancy

- **Surgical Treatment**
  - Laparoscopy, Laparotomy

- **Medical Treatment**
  - Methotrexate and others
Laparoscopic view

- Left Ovary
- Ampullary pregnancy
Female Pelvis

- Bladder
- Uterus
- Pubic bone
- Clitoris
- Urethra
- Vagina
- Anus
- Coccyx
- Pelvic floor
- Rectum
Pelvic Types

- Pelvic Types
  - Gynecoid, Android, Anthropoid, Platypoid
Gynecoid Pelvis

Wide Birth Canal

Pubic Arch Wide
男性骨盤（上面）

女性骨盤（上面）
Android Pelvis
Pelvic Measurements

- Inlet
- Midplane
- Outlet
Mechanisms of Labor

- Flexion
- Descent
- Internal Rotation
- Extension
- External Rotation
- Explusion
Plane across ischial spines
Station

-3
-2
-1
0
+1
+2
+3
+4

VTX @ Spines
Position of Fetal Head

- Descent---Head enters pelvic inlet in the transverse
- Head Rotates to AP (Internal Rotation) in the Mid Plan
- Head is born by Extension
OP, LOP, ROP, ROT, LOT
Forceps

- Position
- BOW must be ruptured
- Station
  - High Forceps >0 station
  - Mid Forceps > 0 - +2
  - Low Forceps +3
  - Outlet Forceps
Forceps

- Indications:
  - Prolonged 2nd stage of labor
  - Progress has stopped
  - Inability to push due to anesthesia/analgesia
  - Fatigue
  - Immanent delivery is desirable (FHT’S bleeding, etc.)

Go to Williams Obstetrics for forceps delivery video
Forceps

- Law of Forceps:
  - Complete cervical dilations
  - BOW has ruptured
  - Position is known
  - Vertex is engaged at +2 station or below
Forceps

- Trial of Forceps/Failed Forceps:
  - Anticipate difficult delivery with CS ready
  - ACOG states: clinical assessment is highly suggestive of successful outcome
    - Emphasize proper training
Vacuum Extraction

- Generally OK after 34 weeks gestation
- Indications same as forceps
Vacuum Extraction

- Contraindications
  - Fetal Coagulopathy
  - Can’t assess position
  - High station
  - Non vertex presentation
  - Suspect cephalic disproportion
Vacuum Extraction

- Complications of vacuum extraction
  - Cephalohematoma
  - Scalp laceration
  - Intercranial hemorrhage
  - Neonatal jaundice
  - 6th and 7th intercranial nerve damage
  - Skull fracture
Vacuum Extraction

- Same rules apply as forceps
- Used properly, no more incidence of fetal or maternal complications than spontaneous delivery
- Abandon procedure if no progress after 3rd contraction or if cap dislodges > 3 times
Vacuum Extraction

- Contraindications
- Fetal coagulopathy
- Inability to assess position
- High station
- Non vertex presentation
- Suspect cephalo-pelvic disproportion
Comparison of Forceps/Vacuum

- IQ tested at age 17- no difference between spontaneous delivery, vacuum or forceps
- FDA showed 5% skull fracture in nulliparous woman with over 3 pulls or “pop-offs”.
- Forceps causes more 3rd and 4th degree lacerations
- Vacuum causes more retinal hemorrhages (no long term effects)
- Vacuum causes less maternal damage, more fetal trauma
C-Sections

- Percentages of deliveries via C-Section
  - 31% (15-16% primigravidas)

Indications for section
  - Repeat C-Section
  - Cephalo pelvic Disproportion (CPD)
    - Failure to progress---due to fetal size, maternal soft tissues, power of uterine contractions (UC’s), pelvic size
    - Nonreassuring fetal heart tones
  - Malpresentation
  - Shoulder dystocia
  - Pre eclampsia/Eclampsia
  - Obesity
  - Older age of parturients
  - Decrease in VBAC
  - Legal
Additional Indications for a C Section

- Medical problems—i.e. DM, Heart, Renal, Vascular
- Decrease in VBAC (TOLAC=trial of labor after CS)
- Cord prolapse
- Valuable Baby syndrome
- Elective
- Legal considerations
Placenta Previa

Total Placenta Previa

- Fetus
- Endometrium
- Placenta
- Umbilical Cord
- Cervix
Abruptio Placenta
Types of C-Sections

- Classical Incision
- Low Classical
- Low Transverse Incision
Caesarean section
VBAC

- Vaginal Birth after C-Section (TOLAC)

- Success Rate:
  - After CPD
  - After Malpresentation
  - After Bleeding Disorder

- Current Controversy (New Mexico 80% To 90% due to restrictions requiring fully equipped OR for immediate CS)

- ACOG and ASA