OBGYN Shelf Review

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Practice Questions

- A 23-year-old G1P0 pregnant female at 23 weeks presents to clinic for prenatal follow-up. Vitals are unremarkable except for a BP of 145/91. Which of the following is best next step in management?

A. Reassurance
B. 24-hour urine protein collection
C. Abdominal CT scan
D. Emergency surgery
E. B-hCG levels

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A. Chronic hypertension
B. Gestational hypertension
C. Preeclampsia
D. Preeclampsia with severe features
E. Normal pregnancy

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D. Preeclampsia with severe features
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Hypertension & Preeclampsia in Pregnancy

- Chronic hypertension
  - Evidence of HTN outside of pregnancy (e.g.; previously diagnosed)
  - HTN **before** 20 weeks
- Gestational hypertension
  - HTN (140+/90+) **after** 20 weeks
- Preeclampsia
  - HTN after 20 weeks **and** proteinuria (300mg/24h) OR "end-organ dysfunction"
- Severe features
  - BP 160+/110+
  - Platelets < 100k
  - Vision or Neuro symptoms
  - LFTs 2x upper limit of normal
  - Pulmonary edema
- Other info
  - Patient with previous history of preeclampsia **treatment**?
    - Low-dose aspirin starting at 12-weeks continued through pregnancy
  - Patient with previous history of preeclampsia **screening**?
    - 24-h urine protein collection to establish baseline
  - Treatment of preeclampsia
    - **Antihypertensives** (labetalol, nifedipine, alpha-methyldopa, hydralazine); **magnesium sulfate** (seizure prophylaxis)
    - No severe features: deliver at **37 weeks**
    - Severe features: deliver at **34 weeks**

Practice Questions

- A 25-year-old G2P1 pregnant female at 32 weeks presents to clinic for prenatal follow-up. Prenatal ultrasound reveals transverse lie presentation. Which of the following is best next step in management?

A. Expectant management
B. External cephalic version
C. Internal cephalic version
D. Expedited delivery
E. Cesarean section

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A. **Expectant management**
B. External cephalic version
C. Internal cephalic version
D. Expedited delivery
E. Cesarean section

Fetal malposition

- 0-37 weeks
  - No intervention
  - Majority of neonates spontaneously convert to cephalic presentation
- 37+ weeks
  - External cephalic version
- Active labor (at any time)
  - C-section
- 37+ weeks with failed ECV, active labor, or any contraindication to vaginal delivery
  - C-section
- Important contraindications for external cephalic version
  - **Any** indication for C-section (arrest of labor, nonreassurring FHR)
  - Placenta previa or abruption
  - Multiple gestation
  - Ruptured membranes

Practice Questions

- A 27-year-old G3P2 pregnant female at 35 weeks presents to clinic after noticing a gush of fluid this morning. Nitrazine and fern tests of the fluid are positive. Which of the following is best next step in management?

A. Expectant management
B. Antibiotics and corticosteroids
C. Magnesium sulfate
D. Delivery
E. Cesarean section

Practice Questions

- A 27-year-old G3P2 pregnant female at 35 weeks presents to clinic after noticing a gush of fluid this morning. Nitrazine and fern tests of the fluid are positive. Which of the following is best next step in management?

A. Expectant management
B. Antibiotics and corticosteroids
C. Magnesium sulfate
D. **Delivery**
E. Cesarean section

Premature Preterm Rupture of Membranes (PPROM)

- Preterm = before 37 weeks
- Premature = before the onset of contractions
- Important thresholds
  - < 34 weeks = corticosteroids (promotes fetal lung maturity)
  - < 32 weeks = magnesium sulfate (neuroprotective)
  - > 34 weeks = delivery
- Management
  - < 32 weeks, no signs of infection or compromise: **magnesium sulfate**, steroids, latency antibiotics (reduces risk of chorioamnionitis)
  - < 34 weeks, no signs of infection or compromise: steroids, latency antibiotics
  - < 34 weeks with <u>either</u> **infection** or **fetal compromise**: delivery (+ steroids, antibiotics, +/- magnesium)
  - > 34 weeks: **delivery**, antibiotics

Differential Diagnosis

- Postpartum dyspnea

Differential Diagnosis

- Pulmonary embolism
  - Timing: often **delayed** (days after delivery)
- Amniotic fluid embolism
  - Timing: **immediately** after delivery
  - Unique symptoms: symptoms of DIC (thrombocytopenia, bleeding)

Differential Diagnosis

- Genital ulcers

Differential Diagnosis

- Herpes simplex virus
  - **Multiple**, "**grouped**", ulcers, "erythematous base"
- Chancroid (Haemophilus ducreyi)
  - Severely painful ulcers with **exudate** + **friable base**
  - Painful inguinal lymphadenopathy with **pus leakage**
- Primary syphilis (Treponema pallidum)
  - **Single** painless chancre
- Granuloma inguinale (Klebsiella granulomatis)
  - **Multiple** painless ulcers
  - **No lymphadenopathy**
- Lymphogranuloma venereum (Chlamydia L1-L3)
  - Small, shallow, painless ulcers
  - **Large, painful, inguinal lymphadenopathy**

Painful

Painless

Differential Diagnosis

- Postpartum hemorrhage

Differential Diagnosis

- Choose between these based on hints in the question
- Tone
  - Uterine atony
  - "Soft" or "Boggy" uterus
  - If **no information** or **hints** given: choose uterine atony (the uterus may not be obviously loose)
- Trauma
  - Cervical or genital laceration
  - "Uterus firmly palpated" (hint that it is not due to uterine atony) + **large** infant or **prolonged** delivery
- Tissue
  - Placenta accreta, increta, or percreta; abnormal placentation
  - "Placenta incompletely delivered" or "retained placenta on U/S" or "fragmented placenta"
- Thrombin
  - Coagulopathy (e.g.; Von Willebrand disease, DIC)
  - **Delayed** bleeding (delivered initially without problems, but hours later developed vaginal bleeding)
  - Look for **family history** or previous **bleeding** with minor trauma
- Other
  - Uterine inversion
    - "Uterus absent to palpation"
    - "Smooth mass protruding from vagina"

Differential Diagnosis

- Third trimester bleeding

Differential Diagnosis

- Placenta previa
  - **Painless bleeding**
- Vasa previa
  - **Painless** bleeding + **fetal instability** (e.g.; bradycardia)
- "Bloody show"
  - Can be a normal finding in early labor
  - Small amounts of blood or mucus; **normal** placenta on U/S
- Placental abruption
  - **Painful** bleeding (look for risk factors: HTN, trauma, cocaine)
  - **High**-frequency contractions
- Uterine rupture
  - **Painful** bleeding (risk factors: previous **vertical** C-section, uterine surgery)
  - **Loss** of fetal station, **loss** of contractions, "irregular" mass palpated (fetus extending out of uterus)

Painless bleeding

Painful bleeding

Differential Diagnosis

- Vaginal infections

Differential Diagnosis

- Candidiasis
  - Discharge: **White, thick**, "cottage cheese" appearance
  - pH: **Normal** (< 4.5)
  - Other hints: **Vaginal inflammation**
  - Treatment: Oral fluconazole (topical miconazole if pregnant)
- Bacterial vaginosis
  - Discharge: **Off-white**, "**fishy**" odor
  - pH: **Abnormal** (> 4.5)
  - Other hints: **No inflammation**, **clue cells**
  - Treatment: Metronidazole for patient **only** (or clindamycin)
- Trichomonas vaginalis
  - Discharge: **Greenish, frothy discharge**
  - Other hints: **"Red spots"** on cervix (strawberry cervix), **vaginal inflammation**
  - Treatment: Metronidazole for patient **and** partner! (sexually transmitted infection)

Differential diagnosis

- Benign breast masses

Differential diagnosis

- Fibroadenoma
  - Single, **firm** mass, <30 years old, can vary in size/tenderness with menses
- Breast cyst
  - Single, **soft** mass, >30 years old
- Fat necrosis
  - Single, **irregular** mass, may have **ecchymosis**, skin retraction, history of **trauma**
  - Biopsy (differentiates from malignancy): **fat cells, macrophages**
- Fibrocystic change
  - **Multiple, bilateral** masses, "irregular breast contour", varies with menses

Healthy, young, nonpregnant women

- Breast engorgement
  - **Bilateral** breast tenderness, warmth, **no fever**
- Galactocele
  - **Subareolar, unilateral**, cystic mass, **no fever**
- Acute mastitis
  - **Unilateral** breast erythema, tenderness + **fever**
- Breast abscess
  - Same symptoms as mastitis!
  - Look for "**fluctuant mass**" (infection has collected as an abscess)

Postpartum or pregnancy related

Differential diagnosis

- Acute ovarian-related abdominal pain in a healthy, young female

Differential diagnosis

- Ovarian torsion
  - Unique features: may have history of similar but **less severe** episodes (ovary spontaneously undergoes torsion/resolves)
  - Ultrasound: **decreased** doppler flow, **enlarged** & edematous ovary
- Ruptured ovarian cyst
  - Unique features (if severe): **peritoneal irritation** (rebound, guarding, rigidity), **hemodynamic instability** (fluid loss from ovary -> hypovolemia
  - Ultrasound: **free fluid** in abdomen

Differential diagnosis

- Oligo and polyhydramnios

Hydramnios

- Normal ranges: **AFI 5-24 cm; deepest pocket 2-8 cm**
- Polyhydramnios
  - Amniotic fluid index (AFI) 24+ cm OR "single deepest pocket" 8+ cm
  - Clinical signs: **enlarged uterus,**
  - Causes: Inability to swallow (esophageal atresia, EA + TEF, duodenal atresia), diabetes, multiple gestation, anencephaly
  - Complications: **PPROM, umbilical cord prolapse,** fetal malposition
- Oligohydramnios
  - AFI < 5 cm OR single deepest pocket < 2 cm
  - Clinical signs: **uterus less than estimated dates,** Potter's sequence (pulmonary hypoplasia, flattened face, dysmorphic limbs)
  - Causes: ACE inhibitors, NSAIDs, renal anomalies, hypertensive disorders (preeclampsia, etc.)
  - Complications: **meconium aspiration, umbilical cord compression**

Rapid Review

- A 57-year-old female with unilateral breast erythema, skin dimpling, and warmth
  - Inflammatory breast carcinoma
- 52-year-old with history of PCOS presents with post-menopausal bleeding for 1 month
  - Endometrial carcinoma
- 28-year-old 33 weeks pregnant patient with fever, RUQ pain, rebound and guarding
  - Appendicitis (uterus displaces appendix upwards in late pregnancy)
- 9-year-old patient with beefy protrusion of tissue at the urethral meatus
  - Urethral prolapse (treat with topical estrogen)
- 5-year-old with purulent vaginal discharge, mass at vaginal introitus
  - Vaginal foreign body
- Non-tender abdominal bulge in postpartum patient with no fascial defect on palpation
  - Rectus abdominis diastasis (typically don't need surgery)

Rapid Review Congenital Anomalies

- Hearing loss, microcephaly, periventricular calcifications
  Congenital CMV
- Hydrocephalus, chorioretinitis, diffuse intracranial calcifications
  Toxoplasma
- Skin scars, cataracts, limb hypoplasia
  Varicella
- Jaundice, cataracts, deafness, "continuous" murmur
  Rubella
- Rhinorrhea, skin rash, teeth and bone abnormalities
  Syphilis
- Hydrops fetalis
  Parvovirus B-19 (other causes of hydrops include alpha thalassemia & CMV)
- Neonatal sepsis, widespread abscesses
  Listeria
- Encephalitis, sepsis, vesicular skin lesions
  Herpes simplex

Rapid Review

- 62-year-old with post-menopausal bleeding, thickened endometrial stripe, ovarian mass
  Granulosa cell tumor
- 16-year-old with amenorrhea and cyclic abdominal pain each month
  Imperforate hymen
- 9-year-old female with firm, tender, breast mass posterior to the nipple
  Physiologic thelarche (normal breast development; often asymmetric)
- History of multiple miscarriages, positive VDRL, and elevated PTT
  Antiphospholipid antibody syndrome (PTT is **falsely** elevated)
- Pregnant woman with fever, dysuria, flank pain
  Pyelonephritis (treat with ceftriaxone or other 3rd gen cephalosporins)

Rapid Review

- Pregnant woman at 10 weeks with uterine size larger than estimate dates, severe nausea and vomiting, BP 155/95, markedly elevated B-hCG
  - Complete hydatidiform mole
- Pregnant patient with twins on ultrasound. One twin has dysmorphic limbs and a flattened face, the other has polyhydramnios and polycythemia
  - Twin-twin transfusion syndrome (One twin has oligohydramnios, the other has polyhydramnios)
- What type of pregnancy is the previous scenario? (Chorion, amnion)
  - Monochorionic-diamniotic
- Pregnant woman with severe nausea, vomiting, orthostatic hypotension, ketones in urine
  - Hyperemesis gravidarum (look for thiamine (B1) deficiency)
- Pregnant woman with anemia, thrombocytopenia, LFTs elevated
  - HELLP syndrome
- Pregnant woman with severe RUQ pain, thrombocytopenia, profound **hypoglycemia**, elevated LFTs, and **DIC**
  - Acute fatty liver of pregnancy

Rapid Review

- Erythematous, unilateral nipple rash, itchy, and refractory to steroids
  - Paget disease of breast (look out for underlying ductal adenocarcinoma!)
- Pregnant patient with fever, uterine tenderness, vaginal discharge, fetal tachycardia
  - Chorioamnionitis
- 7-year-old female with breast development, onset of menses, and high basal LH
  - Central precocious puberty
- 17-year-old female with amenorrhea, anosmia, cleft palate
  - Kallmann syndrome
- 35-year-old female with hirsutism, acne, temporal balding and ovarian mass noted on ultrasound
  - Sertoli-Leydig tumor

Questions?