POSTPARTUM EMERGENCIES/URGENCIES

DEEP VENOUS THROMBOSIS(DVT):

- Pregnant patients who have just delivered have 5 times the normal risk for DVT
- 3/1000 pregnant patients get DVT, 1/2700-7000 pts get PE during/after delivery
- Risks: history of DVT, major surgery, C/S, operative vaginal delivery, immobilization, trauma, infection, disorders of coagulation especially Factor V (5) Leiden and Antithrombin III, obesity, high parity, African American, older age (> 35 years old)

Pathophysiology: Hypercoaguable, reduction in venous flow and tissue injury increase mom's risk.

Diagnosis:

- High index of suspicion
- Signs/symptoms: swelling (>2 cm difference) of calf, pain, warmth, palpable cord
- Homan's sign: pain with dorsiflexion of foot (non-specific)
- Duplex doppler screening may demonstrate decreased flow

Prevention: TED hose, elevate legs, ambulate, avoid leg crossing, and pre-op mini-dose heparin or enoxaparin

Treatment:

- Heparin: Draw baseline PT/PTT, then IV bolus 5,000-10,000 U (70-100U/kg),
  - then continuous infusion at 1,000 U/hr (check HCMC protocol)
  - Monitor PTT q 6 hrs, adjusting to 1.5-2.0 x control
  - Heparin to continue until PT levels adequate for Coumadin
- Enoxaparin: Need to monitor anti factor Xa levels, dose in usual manner
- Coumadin: Begin as Heparin is given and continues 3 months postpartum
  Contraindicated in pregnancy, but okay in breastfeeding

PULMONARY EMBOLISM:

Diagnosis:

- Signs/symptoms= tachypnea, (resting rate >16), dyspnea, tachycardia, cough, pleuritic chest pain, apprehension, rales, hemoptysis, fever, diaphoresis, cyanosis, friction rub, loud S2, gallop or murmur, hypotension, syncope or cortical blindness if massive. Many PE's occult. PO2>85 is reassuring, but doesn't r/o PE. ECG shows tachycardia, may be normal, may have large S wave in lead I, inverted T and a Q wave in lead III (S1Q3T3 syndrome), T wave inversion in V1-4, and transient RBBB.
- Cardiac echo may show clot or right atrial or ventricular dilatation
- CXR normal 30%, 70% have elevated diaphragm, atelectasis, or effusion
- Spiral cut chest CT
- VQ scan gives 90% reliability--angiography gold standard if still in doubt

Treatment:
- Anticoagulant while getting tests if high suspicion
- Treat with Heparin as in DVT, but for 5-10 days (check HCMC protocol)
- Pulmonary embolectomy if hemodynamic deterioration; thrombolytics only in life-threatening situations
- Coumadin continued for 4-6 months postpartum

LATE POSTPARTUM HEMORRHAGE: (Between 24 hrs-6 weeks)
- Cause: Sub-involution of uterus, abnormal involution at placental site, infection, retained placental fragments, development of vulvar, sub-peritoneal or supravaginal hematomas
- Consult OB
- Evaluate abnormal involution with sonography--if no retained tissue, try Methergine/ Oxytocin/ Hemabate. Curettage/hysterectomy is a last resort.
- Consider broad spectrum antibiotics if infection suspected

PUERPERAL INFECTIONS:
- Temp $\geq$ 100.4 F (38C) 3 readings in 24 hr
- Endometritis:
- Usually polymicrobial in nature, commonly involving group A or B Strep, Bacteroides, others as seen in chorioamnionitis [see chorioamnionitis]
- Ampicillin/Gentamicin or Clindamycin/Gentamicin are acceptable regimens; in very toxic pt, give Ampicillin + Gentamycin + Clindamycin or Metronidazole
- Continue antibiotics 4-5 days and for 24-48 hrs after defervescence (avoid antipyretics (acetaminophen, ibuprofen) after day 4 so can observe fever curve)

SEPTIC PELVIC THROMBOPHLEBITIS:
- Suspect when febrile patient not responding to triple antibiotic coverage
- CT or MRI may help in diagnosis (may need to consult OB regarding treatment)
- Response to Heparin therapy demonstrated by resolution of fever in 24 hrs…HOWEVER, according to Williams Obstetrics, heparin not proven to be beneficial.
- Anticoagulation 7-10 days; longer in ovarian vein thrombosis

PERINEAL INFECTIONS:
- Swelling, redness, localized pain
- Infected episiotomy sites should be debrided (consult OB prn), sitz baths, cleansing and should be allowed to close spontaneously

ECLAMPSIA:

- Seizure usually preceded by preeclampsia
- Treat with magnesium sulfate 4 g IV load, then 1-2 g per hour
- AVOID benzodiazepines and antiseizure meds due to risk to mom and baby
- If hypertensive DBP >110, should be treated to avoid intracranial hemorrhage

AMNIOTIC FLUID EMBOLISM:

- Abrupt onset of maternal hypotension, hypoxia, coagulopathy.
- Risk factors: Multiparity, tumultuous labor, abruption, IUFD, Use of Oxytocin
- Diagnosis is usually clinical; mortality rate as high as 80%.
- Signs and symptoms: sudden onset of dyspnea, hypotension, restlessness, cyanosis. Seizures (UP to 30%), CV collapse, DIC, coma
- Labs: Hgb, ABGs, BMP, Coags
- Management: ABCs; 2 large bore IVs, CXR and EKG, Invasive homodynamic monitoring

REFERENCES:

ALSO Course
FP Obstetrics, 2nd Edition.
Williams Obstetrics, 22nd edition.
American Family Physician, November 1998