The Miracle of Life...Almost

Trauma in Pregnancy

- Causes of maternal injury in decreasing order of frequency:
  - Vehicular crashes
  - Falls
  - Penetrating objects

- The greatest risk of fetal death is from maternal distress

Supine Hypotensive Syndrome

- Check to see if volume depletion is an issue
  - Orthostatic VS
  - Hx of diarrhea, vomiting
  - Dehydration

- Manage with LLR positioning and fluids
Ectopic Pregnancy

WHY?
- Infections
  - PID, IUD’s, previous abortions
- Pelvic/Ovarian tumors
- Tubal surgery
- Anatomical defect
  - Rare

All women of childbearing age who present with acute onset of abdominal pain and signs or symptoms of shock should be considered to have an ectopic pregnancy until proven otherwise!

Ectopic Pregnancy

Wadda Ya See?
Depends on how intact the tubes are

Ectopic Pregnancy

• Before rupture
  - LMP was usually < 6 weeks
  - No more than 8 weeks
  - Mild vaginal bleeding or brown-stained discharge
  - Mild spasmodic cramping/acute stabbing pain

Ectopic Pregnancy

• After rupture
  - Severe bleeding into the abdomen
  - Vaginal bleeding minimal
  - Compensated/decompensated shock S/S
**Ectopic Pregnancy**

**OPTIONS ?**
- Rapid ABC assessment/recognition
- Priority transport
- Shock management

**Placenta Previa**
- Placenta implants partially or completely in the lower part of the uterus
- Happens in 1 in every 200 pregnancies

**Placenta Previa**
- Low-lying (Type 1)
- Marginal (Type 2)

**Placenta Previa**
- Partial (Type 3)
- Complete (Type 4)

**Placenta Previa**
- Risk Factors
  - Age
  - Multiparity
  - Previous C-section
  - D&C
  - Smoking

**Placenta Previa**
- S/S
  - Bleeding
    - Bright red
    - Painless
  - Spontaneous
  - Non-tender abdomen
  - Fundal height OK

**Placenta Previa**
- Treatments
  - ABC support
  - I.V. fluid support
  - Transport for definitive treatment
  - C-Section
Abruptio Placenta

• Premature separation of a normally situated placenta in the upper part of the uterus
• Typically a 3rd Trimester complication

Abruptio Placenta

**What’s Goin’ On?**

• Pre-eclampsia
• Chronic HTN
• Trauma
• Don’t know…

Abruptio Placenta

• Findings
  – Scant outward DARK red blood flow WITH pain
  – Acute onset
  – Uterus becomes tender and rigid if hemorrhage is retained
  – S/S of shock inconsistent with amount of visible bleeding

General Assessment

• Fluid resuscitation prn
• Transport in LLR position
• Definitive tx is C-Section
Normal Delivery

Head and Perineum support

Normal Delivery

Normal Delivery

Normal Delivery

Normal Delivery

Normal Delivery
Umbilical Cord Presentation

- The umbilical cord presents before the fetal head
- Cord becomes compressed between fetus and pelvis
- Associated with breech presentation, multigravidity, large fetus

Breech Presentation

- Occurs when the fetus’ buttocks or lower extremities are the presenting part
- Increased risk of prolapsed cord, cord compression
- Associated with pre-term birth, placenta previa

Umbilical Cord Presentation

- Position the mother in a knee-chest position
- Check cord for pulsations and cover cord with sterile towel moistened with saline
- Have mother pant with contractions to avoid bearing down
- Insert a sterile, gloved hand into the birth canal and push the presenting part of the fetus off the cord
- High flow oxygen

Breech Presentation

- If the head will not deliver, then form a “V” with fingers and press the vagina away from the newborn’s nose
- Temporary airway is established
- Transport with mom’s hips elevated
Cephalopelvic Disproportion

• Size of the fetus head vs. mom’s pelvis
• One of the most common causes of difficult labor
• The mother is often primigravida and experiencing strong, frequent contractions for a prolonged period

Cephalopelvic Disproportion

Causes

• Increased fetal weight
  – >10 lbs.
  – Diabetic mother
  – Multigravida mother
• Cervical rigidity

Cephalopelvic Disproportion

Remedy

– Basic standard of care
– 3 D’s
  • Discovery
  • Delivery to ambulance
  • Diesel

Shoulder Dystocia

• Fetal shoulder becomes lodged against the mother’s pubic bone
• Cannot be detected until after the head delivers

Shoulder Dystocia
Shoulder Dystocia

- **MATERNAL**
  - Postpartum bleed
  - Perineal tear
  - Uterine rupture
  - Fracture of symphysis pubis
  - Vaginal lacerations

- **FETAL**
  - Clavicle fx.
  - Humerus fx.
  - Fetal hypoxia
  - **Brachial plexus injury**
  - Fetal death

---

Meconium Staining

- Light green to darker green, thick
- Intubation/suction may be necessary to clear the airway

---

Suctioning Meconium

Follow:

After delivering the chest:
- suction resistant lower airway
POSTPARTUM COMPLICATIONS

Postpartum Bleeding
- Loss of more than 500 cc's of blood immediately following delivery
- Caused by:
  - Lack of uterine tone
    - Multigravida, multiple births, large newborn
  - Vaginal/Cervical tears
  - Retained placental pieces

Postpartum Bleeding
- ABC’s
- High flow Oxygen
- Place baby at breast, uterine massage
- Consider 2 large I.V.’s
- Consider Oxytocin prn

Uterine Rupture
- Spontaneous or traumatic rupture of the uterine wall
  - Occurs in 1 out of 1400 deliveries
  - 5-15% maternal mortality
- May result from previous uterine scar
- Prolonged labor, trauma

Uterine Rupture
**Uterine Rupture**

- Characterized by sudden abdominal pain, steady tearing sensation, active labor
- Early signs of shock, weakness, dizzy, may not see bleeding, abdomen rigid, fetus may be palpated through abdomen
- Sudden cessation of labor and/or fetal heart tones

**Uterine Inversion**

- Infrequent (0.05% of all deliveries)\(^1\)
- Uterus gets turned inside-out after delivery
  - Umbilical cord traction
  - Fundal implantation of placenta
- Inverted uterus usually appears as a protruding bluish-gray mass
  - Placenta is often still attached

**Uterine Inversion**

- **S/S**
  - Profuse vaginal bleeding
    - 800ml – 2L
  - Severe lower abdominal pain
  - Vasovagal effects
- Treat for shock and bleeding

**Uterine Inversion**

- **S2-S4**
THE END…
Any Questions?

It’s Been My Pleasure…

Christopher Ebright
B.Ed., NREMT-P

c.ebrightnremtp@gmail.com

National EMS Academy
Covington, LA

Resources

1. www.aafp.org/afp/20070315/875.html

Resources

- http://www.w-cpc.org/fetal2.html
- http://www.w-cpc.org/fetal1.html
- Brady Paramedic CD Vol. 3
- http://medlib.med.utah.edu/kw/human_reprod/mml/hr_ob_ch_5.jpg
- Commander Diane Miller, NC, USN
- http://www.who.int/reproductive-health/impac/images_P/3.22.1manualreposit.gif
- http://prometheus.frii.com/~jenine/summer98/bman/baby.jpg
- Mosby Paramedic CD ch. 40
- Matthew Zavarella, RN, EMT-P
- http://www.med-help.net/ECB1I.jpg
- http://www.udel.edu/Biology/Wags/histopage/colorpage/dfc7/cfr/cfrcp.GIF