Abnormalities of the Third Stage of Labor

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Postpartum Hemorrhage

- excessive bleeding from the placental implantation site, trauma to the genital tract, and adjacent structures, or both

Postpartum hemorrhage

- – classically defined as blood loss in excess of 500 ml during the first 24 hrs after delivery, when it occurs after the first 24 hrs. - late postpartum hemorrhage

Third Stage Hemorrhage

- postpartum hemorrhage before placental delivery

Third Stage Hemorrhage

- caused by attempts to hasten the delivery of the placenta
  - do not force delivery of the placenta before placental preparation
  - do not apply traction on the cord to pull placenta out (may cause uterine inversion)
  - wait for placental separation unless there is excessive bleeding

Predisposing Factors and Causes of Immediate Postpartum Hemorrhage

A. Bleeding from Placental Implantation Site

a. Hypotonic myometrium – uterine atony

- Forceps delivery
- Intrauterine manipulation
- Vaginal delivery after cesarean section or previous uterine incisions
- Some general anesthetics- halogenataed hydrocarbons

Hypotonic myometrium – uterine atony...

- Poorly perfused myometrium – hypotension
- Overdistended uterus – large fetus, twins, hydramnios
- Following prolonged labor
- Following very rapid labor

Hypotonic myometrium – uterine atony…

- Following oxytocin-induced or augmented labor
- High parity
- Uterine atony in previous pregnancy
- Chorioamnionitis

b. Retained placental tissue

a. retained placental tissue

Retained placental tissue…

- abnormally adherent – accreta, increta, percreta
  - predisposing factors – previous CS, previous D & C, multigravid (gravida 6 or more), placenta previa, previous accreta

Retained placental tissue…

- mismanagement of the third stage of labor to hasten placental delivery causing incomplete placental separation

B. Trauma to the Genital Tract

- Large episiotomy, including extensions/hematomas
- Lacerations of perineum, vagina, or cervix
- Ruptured uterus

C. Coagulation Defects

Intensify all of the above.

Diagnosis

Identify the cause

History -

1. Previous episodes of postpartum hemorrhage, multiple fetuses, hydramnios, etc
2. Coagulation disorders, bleeding with surgical procedures
3. Information about medications, with emphasis on Calcium channel blockers, digoxin, warfarin

Physical Exam

- Simultaneously perform physical examination and resuscitation
- Know and analyze predisposing factors

Uterine Atony

- Uterus is soft and relaxed
- Uterus increases in size- blood may be filling up uterine cavity

Lacerations and Tears Along Birth Canal

- bleeding in presence of a well-contracted uterus
- bleeding in the presence of a complete placenta
- blood is bright red

note: tears and uterine atony may co-exist!!!

- Ascertain condition of uterus – should be firm, and well-contracted, palpate uterus
- Careful inspection of vagina, cervix and uterus is essential
- Inspection of the placenta to check for completeness after delivery must be routine

Laboratory Studies:

- complete blood count
  - hb, hct
  - platelet count
- prothrombin time (PT)
- activated partial thromboplastin time (aPTT)

Imaging studies:

- Ultrasound - abnormalities within the uterine cavity and occult hematomas
- Angiogrphy may be used, with possible embolization of bleeding vessels

Management

- Initiate resuscitative measures;

  -Administer 100% oxygen

  -place several IV lines with large bore catheters and infuse crystalloid solutions
- Obtain samples for laboratory tests, type and cross match blood for transfusion

Treatment of uterine atony

- Perform manual or bimanual uterine massage – stimulate uterine contractions
- Give additional oxytocic agents

  -Oxytocin

  10-40 U IV in 1 liter of crystalloid

  -ergot derivatives (methlyergonovine, ergonovine)

  0.2 mg IM or IV

  -prostaglandins (carboprost)

  250 mcg IM, q 15 -90 min, not to exceed 2 mg

if bleeding persists:

- may need to do hysterectomy – if completed reproductive career
- ligation of uterine artery, or internal iliac artery – if need to be conservative

Treatment of Tears

- Ruptured uterus
  - -exploratory laparotomy
    - -hysterectomy versus repair
- Other tears/lacerations/hematomas
  - -repair, need good lighting and exposure

Retained placenta or fragments

A. "normally adherent" placenta

   - may do manual extraction of placenta if no separation occurs in 30 min

B. abnormally adherent placenta (accreta, increta, percreta)

   -hysterectomy

Uterine Inversion

Classification

Causes

Predisposing Factors

1. relaxed uterus
2. fundal insertion of the placenta
3. dilated or relaxed cervix
4. prolapsed submucous myoma

Exciting factors

- fundal pressure
  - manual
  - coughing or straining
- traction on cord
  - manual
  - short cord, relative or absolute

Management

- Prompt reposition
- Relax the uterus – anesthetic agents
- Blood volume replacement
- Know when to remove the placenta, do not remove unless ready to position the uterus – bleeding, infection

Prognosis

- Depends on cause, its duration, the amount of blood loss, comorbid conditions, and the effectiveness of treatment
- Prompt diagnosis and treatment are essential

Thank you and have a nice day!!!