OBJECTIVE 27: POSTPARTUM HEMORRHAGE

Rationale: Postpartum hemorrhage continues to be a major, although often preventable, cause of maternal morbidity and mortality.

The student will be able to list:

A. Risk factors for postpartum hemorrhage
B. Differential diagnosis of postpartum hemorrhage
C. Immediate management of the patient with postpartum hemorrhage, including:
   1. Inspection for lacerations
   2. Use of uterine contractile agents
   3. Management of volume loss
   4. Management of coagulopathy
I. Definition
   A. Excessive bleeding in the puerperium
   B. > 500 cc vaginal, > 1000 cc cesarean delivery

II. Causes and risk factors of PPH
   A. Uterine atony – most common
      • Precipitous labor
      • Multiparity
      • General anesthesia
      • Oxytocin use in labor
      • Prolonged labor
      • Macrosomia
      • Hydramnios
      • Twins
      • Amnionitis
      • Amniotic fluid embolism
   B. Lacerations in genital tract
      • Instrumental delivery
      • Manipulative delivery, i.e. breech extraction
      • Precipitous labor
      • Macrosomia
   C. Retained placenta
      • Prior cesarean
      • Uterine leiomyomas
      • Prior uterine curettage
      • Succenturiate lobe of placenta
   D. Coagulation defects
   E. Amniotic fluid embolism
   F. Uterine inversion
   G. Hematomas

III. Differential diagnosis – see above causes of uterine atony

IV. Management
   A. Inspect for lacerations
      • Bimanual examination
      • Speculum examination
      • Repair
   B. Boggy uterus
      • Manual massage
      • Medical
         • Oxytocin
         • Methergine
            - Give IM
            - Contractions almost immediately
            - Don't give to hypertensives
Prostaglandins
- \( \text{PGF}_2\alpha \) IM or intramyometrial
- \( \text{PGE}_2 \) vaginal suppository

Surgery – if medical maneuvers fail
- Uterine artery ligation
- Hypogastric artery ligation
- Uterine compression sutures
- Selective arterial embolization
- Hysterectomy

C. Maintain circulation
- Two large bore IV sites
- T & C for blood
- Serial hematocrits

D. Management of coagulopathy
- Give whole blood, or if not available
- Packed red cells
  PLUS
  Fresh, frozen plasma or cryoprecipitate
  PLUS
  Platelets, if indicated (platelet count < 50,000)

References


Adapted from Association of Professors of Gynecology and Obstetrics Medical Student Educational Objectives, 7th edition, copyright 1997.