IN THE NAME OF GOD

Placenta Previa

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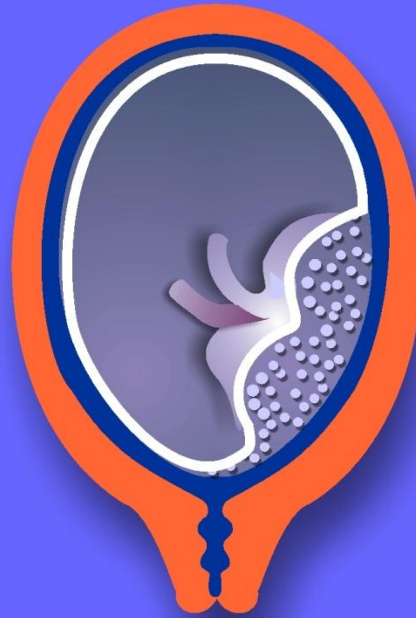
Causes of Late Pregnancy Bleeding

- Placenta Previa
- Abruption
- Ruptured vasa previa
- Uterine scar disruption
- Cervical polyp
- Bloody show
- Cervicitis or cervical ectropion
- Vaginal trauma
- Cervical cancer

} Life-Threatening (Placenta Previa, Abruption, Ruptured vasa previa, Uterine scar disruption)

Placenta Previa



Low-Lying

Marginal

Complete

Prevalence of Placenta Previa

- Occurs in 1/300 pregnancies that reach 3rd trimester
- Low-lying placenta seen in 50% of ultrasound scans at 16-20 weeks
  - 90% will have normal implantation when scan repeated at >30 weeks
- No proven benefit to routine screening ultrasound

Bricker L, Neilson JP. Routine ultrasound in late pregnancy (after 24 weeks gestation). Cochrane Database Syst Rev. 2000;(2):CD001451. Review.

Risk Factors for Placenta Previa

- age
- Previous cesarean delivery
- Previous uterine instrumentation
- High parity
- Advanced maternal age
- Smoking
- Multiple gestation

Morbidity with Placenta Previa

- Maternal hemorrhage
- Operative delivery complications
- Transfusion
- Placenta accreta, increta, or percreta
- Prematurity

Patient History – Placenta Previa

- Painless bleeding
  - 2nd or 3rd trimester, or at term
  - Often following intercourse
  - May have preterm contractions

Physical Exam - Placenta Previa

- Vital signs
- Assess fundal height
- Fetal lie
- Estimated fetal weight (Leopold)
- Presence of fetal heart tones
- Gentle speculum exam
- **NO** digital vaginal exam *unless* placental location known

Differential Diagnoses

- Abruptio placenta
- Pregnancy, Delivery

Laboratory – Placenta Previa

- Hematocrit or complete blood count
- Blood type and Rh
- Coagulation tests

Ultrasound – Placenta Previia

- Can confirm diagnosis
- Full bladder can create false appearance of *anterior* previa
- Presenting part may overshadow *posterior* previa
- Transvaginal scan can locate placental edge and internal os

Ultrasound – Placenta Previa

Internal Os

Placental Edge

Endocervical Canal

Treatment – Placenta Previa

- With no active bleeding
  - Expectant management
  - No intercourse, digital exams
- With late pregnancy bleeding
  - Assess overall status, circulatory stability
  - Full dose Rhogam if Rh-
  - May need corticosteroids, tocolysis

Expectant Management

- May discharge home if stable after 72 hours of inpatient observation
- Reduces stay in hospital by average of 14 days
- No increase in
  - Hemorrhage
  - Need for transfusion
  - Poor maternal or neonatal outcomes

Wing DA, Paul RH, Millar LK. Management of the symptomatic placenta previa: a randomized, controlled trial of inpatient versus outpatient expectant management. *Am J Obstet Gynecol* 1996; 175: 806-811.

Tocolytics in Placenta Previa

- Greatest morbidity and mortality related to prematurity
- Tocolysis can add an additional 11 days to pregnancy
  - Allows for administration of corticosteroids
  - No increase in maternal or fetal complications
  - Increase birth weights average of 320 grams

Sharma, A, Suri V, Gupta I. Tocolytic therapy in conservative management of symptomatic placenta previa. *Int J Gynaecol Obstet* 2004;84:109-113.

Corticosteroids

- Steroids may be administered after consultation with a gynecologist, if vaginal bleeding is mild and intermittent, if the patient is not in labor, and if gestation is less than 37 weeks.

Double Set-Up Exam

- Evaluation of previa by digital exam in operating room set for immediate cesarean delivery
- Appropriate *only* in marginal previa with vertex presentation
- Carefully palpate placental edge and fetal head
- Perform cesarean delivery for:
  - complete previa
  - fetal head not engaged
  - brisk or persistent bleeding
- Regional anesthesia is safe, less blood loss

Management

Placenta previa in a pregnancy of viable gestational age

+

-

Torrential and/or Fetal distress

-

Expectant management

+

C/Section

+

Fetal lung maturity

Sono assessment q 3-4 weeks

-

-

+

-

Bleeding

Placental migration

Trial of labor

-

+

Complete resolution

Double set-up

+

Trial of labor (low-lying only)

Complications

- Maternal mortality (rare)
- Rebleeding
- Intrauterine growth retardation (IUGR)
- Congenital anomalies
- Fetal anemia and Rh isoimmunization

Prognosis

- Patients with complete placenta previa tend to have poorer pregnancy outcomes. They tend to deliver more prematurely and may require hysterectomies at the time of delivery.

Vasa Previa

- Bleeding occurs with membrane rupture
- Blood loss is fetal
  - 56% mortality when undetected before onset of labor
  - 3% mortality when detected prenatally

Antepartum Diagnosis – Vasa Previa

- Amnioscopy
- Ultrasound
  - Vasa previa is highly associated with placenta previa on 2nd trimester US
  - Perform follow-up US with color-flow Doppler to R/O vasa previa
- Palpate vessels during vaginal examination

Management – Vasa Previa

- Immediate cesarean delivery if fetal heart rate non-reassuring
- Administer normal saline 10-20 cc/kg bolus to newborn if in shock after delivery

Summary

- Late pregnancy bleeding may herald diagnoses with significant morbidity/ mortality
- Determining diagnosis important, as treatment dependent on cause
- Avoid vaginal exam when placental location not known

THANKS

From: God