

VAGINAL BLEEDING - SECOND AND THIRD TRIMESTER

Initial evaluation:

- **NO DIGITAL EXAMINATION** (do not check cervix with your fingers unless you know the placental location i.e. no placenta previa)
- Ultrasonographic evaluation for placental location
- Stabilize patient if significant bleeding and hemodynamic instability; remember ABC's
- Continuous fetal monitoring

Potentially serious causes of third trimester bleeding

- Placenta previa
- Placental abruption
- Vasa previa
- Uterine rupture

PLACENTA PREVIA:

Definition: Placental implantation that overlies or is within 2 cm of internal cervical os

Risk factors: age, parity, previous C-section, tobacco use, multiple gestation

Types:

- Complete previa- covers the os
- Marginal or partial previa- placental edge lies within 2 cm of the os
- Low lying placenta- edge is 2-3.5 cm from the os.

Presentation: Usually painless vaginal bleeding (unless accompanied by labor or premature contractions). May be an initial sentinel bleed.

INITIAL ASSESSMENT AND MANAGEMENT OF PLACENTA PREVIA IN SECOND TRIMESTER

- Place 2 18 gauge IVs. Infuse 5% glucose in Lactated Ringer's solution. Heplock other IV.
- Baseline labs:
 - Type and screen or cross match (significant bleeding) for 2-4 units of blood.
 - Hemoglobin, platelets, coagulation profile.
 - Obtain Rh if missed in prenatal. Give Rhogam if Rh negative. May need to order Kleinhauer- Betke test to determine dose needed
- Evaluate fetal viability, advanced labor, uncontrolled hemorrhage
 - If fetus viable, manage conservatively
 - If no fetus viability, manage as IUFD
 - If contractions, aim to prolong pregnancy until fetal lung maturity achieved
 - Tocolyse with Magnesium Sulfate
 - Consider corticosteroids for fetal lung maturity if between 24 -34 weeks
 - Have double set up examination
- Consult OB ASAP

Outpatient management

- Discharge home if no recurrent bleed, first episode of bleeding and patient stable.
- Review precautions:
 - Must live within 20 minutes of hospital and must have availability for immediate transport if further bleeding episode
 - Because of increased occurrence of intrauterine growth restriction, must have adequate nutrition, cease smoking and absolute pelvic rest- no sex, nothing into vagina

Continued inpatient management

- Keep hospitalized if no available transport, second bleed,

MANAGEMENT OF PATIENT WITH THIRD TRIMESTER BLEEDING AND NO PREVIA ON US:

- Do speculum exam (no digital) to rule out other causes of bleeding (cervicitis, cervical ectropion, polyps, cervical cancer)
- Perform APT test if no obvious maternal source and to evaluate for fetal source of blood
 - Mix > 3 drops of vaginal blood + 5 ml tap water, then centrifuge or mix.
 - Collect 5 cc of pink supernatant add 1 cc 1% NaOH
 - Read in 2 mins: pink = fetal HgB yellow-brown =adult
- Look for other placental abnormalities (i.e. abruption)
- Obtain coagulation profile to rule out other causes of bleeding. If all normal, patient stable or no further bleed, or first bleeding episode, may discharge

INITIAL ASSESSMENT AND MANAGEMENT OF PLACENTA PREVIA at 35 to 36 weeks

- Complete previa:
 - Determine fetal lung maturity (FLM) by US guided amniocentesis
 - Proceed to C- section if mature
 - If lungs immature, continue expectant management, test for FLM weekly, then C-section when mature
- Partial previa
 - Determine FLM as above
 - Delivery options
 - Placenta > 2 cm from internal os at 36 week ultrasound: Expect vaginal delivery at term.
 - Placenta 1-2 cm: May attempt vaginal delivery in facility with double set up (set up for vaginal delivery in OR in case c-section needed).
 - Follow with serial OBTU ultrasound to see whether placenta retracts upward. As long as no further bleeding you may allow pregnancy to progress to term. If placental obstruction continues when fetus is mature, do cesarean section.
 - If no longer a placenta previa on ultrasound, treat as a normal pregnancy.

PLACENTAL ABRUPTION:

Definition: Premature separation of normally implanted placenta after 20 weeks of gestation, but prior to birth of infant.

Sher's classification:

- Grade I - diagnosed retrospectively after delivery or minimal bleeding (<100 ml)
- Grade II - fetus alive; tense, tender uterus
- Grade III A - dead fetus without coagulopathy
- Grade III B- dead fetus with coagulopathy

Risk factors include hypertension, smoking, substance abuse, multiple gestation, previous history, trauma and thrombophilia / metabolic abnormalities.

Diagnosis:

- Clinical symptoms of vaginal bleeding (80%) uterine contractions (35%), pain (70%) increased tone, fetal distress (50%). Uterine tenderness aka Couvelaire uterus
- Ultrasound:
 - May not see anything on ultrasound or may be of value in abruption, as it sometimes shows sonolucent retroplacental areas. Monitor sonolucent areas for expansion or contraction over time if abruption is mild and clinical conditions do not force delivery.
 - Only 2% of abruptions visualized by US. Therefore, not a reliable test
 - May be of no value if "external hemorrhage," as there will be no blood behind placenta.
 - Main benefit of US is to rule out placenta previa.

Management:

- Place 2x 16G IV's. Start infusion 5% glucose in Lactated Ringer's solution.
- Type and cross-match for 2 to 4 units of blood.
- Consult OB ASAP.

- Think immediate cesarean section.
- Obtain CBC, utox, platelets, fibrinogen, PT, PTT, fibrin split products; repeat every 4 hours. Clot test - red top tube taped to wall and check for clot in 7-10 minutes. If no clot, consider coagulopathy. Hgb q hour (maintain >30%) and clot test q2hr.
- Continuous fetal monitoring (external or internal) of fetal heart rate and contractions. Toco may reveal titanic contractions. IUPC elevated uterine tone.
- Draw a line at top of uterine fundus to measure possible increase of uterine size, especially when you suspect occult abruption.
- Monitor intake and output (Foley catheter to straight drainage) and keep output at 30 ml/hour or more.
- Do amniotomy if possible:
 - May decrease amount of thromboplastin released into circulation.
 - May accelerate labor.

Plan:

- Deliver as soon as possible:
 - Liberal use of cesarean section for fetal or maternal reasons.
 - Evaluate cervix: If you are absolutely certain of a rapid vaginal delivery, possibly attempt it. Otherwise, go IMMEDIATELY to c-section.
- Monitor fetus:
 - If fetus alive but evidence of distress, do cesarean immediately.
 - If fetus dead, attempt vaginal delivery.
- In severe abruption, the longer the interval between diagnosis and delivery, the greater the risk of fetal loss and maternal complications. If the patient is stable and coagulopathy is not present, expectant management may be appropriate.
- Correct coagulopathies:
 - Fresh whole blood or RBC's and coagulation factors.
 - Fresh frozen plasma.

- Cryoprecipitate.
- Platelet concentrates.
- Correct hypovolemia and circulation.
 - Rapid administration of 5% glucose in lactated Ringer's and fresh whole blood to prevent renal and distal organ failure.
 - Try to maintain hematocrit at 30% or greater.
- Avoid incision or episiotomy if possible; hemostasis important
- Postpartum:
 - Coagulation problems will rapidly self-correct once underlying etiology removed.
 - Correct anemia, fluid volumes, and electrolytes.
 - Watch for incisional hematoma formation.
 - Monitor intake and output for possible hypo- or hypervolemic problems of heart, lungs, or kidneys.

VASA PREVIA:

Occurs when a velamentous insertion of the umbilical cord crosses the cervical os ahead of the fetal presenting part.

Usually presents with abrupt onset of bleeding with rupture of the membranes.

Immediate danger of fetal exsanguination. Go to c- section immediately.

REFERENCES:

ALSO

Uptodate.com,

American Family Physician