L06: Maternal Vaginal Bleeding (> 20 Weeks)

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Introduction

Vaginal bleeding in a pregnant patient after 20 weeks gestation is also known as antepartum hemorrhage and specifically refers to bleeding that is unrelated to labour and delivery. In the majority of cases, abruptio placentae (placental abruption) (30%) and placenta previa (20%) are the underlying causes, with uterine rupture and vasa previa being comparatively more rare. Antepartum hemorrhage is associated with complications in pregnancy, including preterm labour and birth. Adverse outcomes are more likely with heavy bleeding or bleeding from non-previa sources.

In assessing women with a suspected antepartum hemorrhage, paramedics and EMRs/FRs must establish if the patient is hemodynamically unstable and begin appropriate treatment while providing safe and expeditious conveyance.

Essentials

- Bleeding during pregnancy is worrisome and always warrants further investigation. Patients showing signs of shock should be treated accordingly.
- The 4 major causes of vaginal bleeding after 20 weeks of gestation are placenta previa, abruptio placentae (placental abruption), uterine rupture, and vasa previa. **Placenta previa, placental abruption, and uterine rupture are lifte-threatening emergencies for both the mother and unborn child, requiring rapid identification and immediate transport to definitive care (emergency Caeserean section).**
- A detailed assessment of the patient and a history of current and past pregnancy must be obtained.

Additional Treatment Information

- Refer to CPG D01 and D02 for additional details on managing shock and bleeding.
  - → D01: Shock
  - → D02: Bleeding
- The management of pregnant patients with vaginal bleeding in the second and third trimesters depends on numerous factors, including the gestational age, the cause of bleeding, the severity of bleeding, and fetal status.

Referral Information

- Every patient presenting with bleeding in the 2nd or 3rd trimester should be assessed and conveyed to the closest and most appropriate facility.
- If the patient is presenting with signs of shock, notifying the hospital ahead of time is likely to improve patient outcome.

General Information

- A placental abruption (abruption placentae) occurs when the placenta separates from the uterine wall prior to the delivery of the neonate. Risk factors for placental abruptions include trauma, smoking, cocaine use, hypertension, preterm (and pre-labour) rupture of membranes, and a history of prior abruptions.
- Placenta previa is a condition where the placenta implants and grows over the internal os. Bleeding occurs when fetal growth, or contractions, disrupts the area over the cervix. Placenta previa should be suspected in any woman with vaginal bleeding in the second half of pregnancy.
- Uterine rupture is a rare cause of vaginal bleeding. It should be considered in the case of any woman with bleeding and a history of either previous caesarean delivery or other transmyometrial surgery. Rupture usually occurs during labour, as a result of abdominal trauma, or occasionally without any obvious cause. Abdominal pain and hemodynamic instability are common, and are signs of an obstetric emergency.

- Vasa previa occurs when fetal blood vessels are present in the membranes covering the internal os. These membranous vessels may be associated with either the umbilical cord, or may connect lobes of a bi-lobed placenta. Rupture of the vasa previa is an obstetric emergency and can lead to rapid fetal death due to exsanguination.

Interventions

First Responder

- Provide position of comfort for patient
- Keep patient warm and prevent heat loss
- Provide supplemental oxygen as required
  - → A07: Oxygen Administration

Emergency Medical Responder – All FR interventions, plus:

- Patient assessment - record amount of bleeding
- Warning: **If placenta previa, placental abruption, or uterine rupture are suspected prioritize transport and notify the receiving hospital as early as possible -- these patients require immediate surgical intervention.**
- Convey in left lateral decubitus position with early hospital notification
- Provide supplemental oxygen as required to maintain $SpO_2 \geq 94\%$
  - → A07: Oxygen Administration
- Consider analgesia as required:
  - → E08: Pain Management
    - Nitrous oxide

Primary Care Paramedic – All FR and EMR interventions, plus:

- Perform gentle abdominal examination
- Consider IV and fluids when appropriate
  - → D03: Vascular Access
- Consider antifibrinolytic therapy
  - Tranexamic acid
  - CliniCall consultation required prior to administration of tranexamic acid.

Critical Care Paramedic – All FR, EMR, PCP, and ACP interventions, plus:

- Fetal assessment if a doppler is available; alternatively, a POCUS can be used
- No pelvic examination
- Treat for hemorrhagic shock
  - Consider blood products
    - Call ETP for blood products
  - Consider hemodynamic support

Evidence Based Practice

PV Bleed/Threatened Abortion

Supportive

Neutral

Against

References

1. Ambulance Victoria. Clinical Practice Guidelines: Ambulance and MICA Paramedics. 2018. [Link]
2. Norwitz, ER. Overview of the etiology and evaluation of vaginal bleeding in pregnant women. In UpToDate. 2020. [Link]
3. Ornge Base Hospital. Adult Medical Directives. 2016. [Link]