Chapter 6

PLACENTA PREVIA

Definition:

Placenta previa: The placenta is touching or covering the internal os at term and occurs in about 1:250 pregnancies with 46% delivering preterm [2,3]

Low lying: The leading edge of the placenta is within 2 cm of the internal os at term.[2,3]

It is diagnosed on second trimester ultrasound (U/S) when the inferior placental margin is within 2 cm or covering the internal cervical os on transvaginal scan.

Risk Factors:

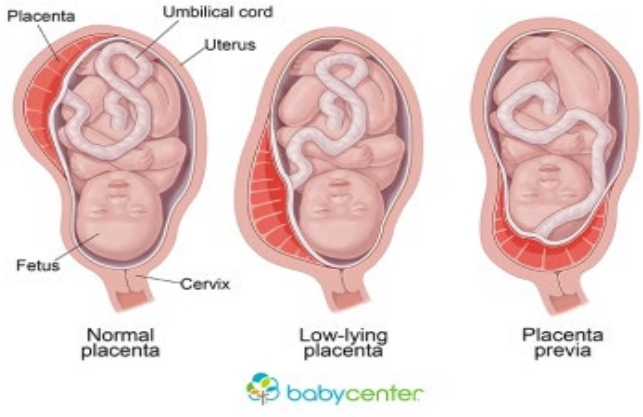
- previous placenta previa
- grand multiparity
- advanced maternal age ≥ 35 years
- previous uterine surgery
- previous Caesarean section especially when interpregnancy interval is < 12 months
- uterine anomalies eg., Bicornuate or septate uterus
- suction curettage
- smoking
- cocaine use
- in vitro fertilization

Classification:

The previous classification of placenta previa was based on physical exam and abdominal sonography. A total (complete) previa covers the internal cervical os, partial previa partially covers the cervical os, and the marginal previa just next to the os. This method of classification is no longer applicable and has been replaced by transvaginal measurements

Sonographers should report the actual distance of the placental edge to the internal cervical os, using the terminology of mm away from the os, covering the os.

If the placenta is implanted in lower segment of the uterus but not reaching the cervix, low-lying placenta is the preferred terminology. A distance greater than 2 cm is considered safe for vaginal birth.



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Assessment Findings

- Painless vaginal bleeding typically occurs without warning or labour
- There may be malpresentation in late pregnancy
- High presenting part
- Uterus felt to be soft on palpation
- Shock and anemia (corresponding with amount of blood loss)

Initial bleeding is usually a warning bleed eg. Not enough to cause hypovolemic shock, but a woman with placenta previa will be at very high risk to bleed again.

Complications[3]

- abnormal lie
- coagulopathy
- placenta accreta
- postpartum haemorrhage
- hysterectomy

Management

- **No digital vaginal examinations** until the placenta is localized and placenta previa is ruled out.
- *If bleeding is severe, it may be necessary to deliver the infant and call for the neonatal transport team.
- Stabilization and transfer will be necessary for level I units or centres with inadequate surgical and blood bank backup, or inadequate neonatal facilities.
- Full discussion regarding possible need for blood products is necessary. Informed consent is required.

1. Assess maternal and fetal health
2. NPO
3. Start intravenous infusion of saline or Ringer's lactate using a large bore needle, ideally IV access at 2 sites
    - Blood replacement as deemed necessary (based on amount of bleeding and maternal vital signs)
4. Monitor intake and output. Insert urinary catheter if bleeding is severe
5. Monitor maternal vital signs and fetal heart rate at least every 15 minutes while actively bleeding, and hourly once stable
6. Continuous electronic fetal monitoring until active bleeding has stopped
7. Assess the colour and amount of blood loss
    - Pad count
    - Weighing pads
    - Blood clots, number and size
    - Sequential CBC's and coagulation status
8. Lab assessment
    - CBC, Hgb, Hct
    - Coagulation screen
    - Electrolytes, BUN, creatinine
    - Group and cross match 2-4 units packed red cells (take blood during transfer)
9. Assess uterine tone and presence of contractions
10. Strict bedrest in the lateral position
11. Communicate with staff at receiving hospital if patient being transferred
12. 1:1 nursing care with nurse accompaniment during transport

If the woman is retained in a level II centre, the following is also recommended:

1. Bedrest until active bleeding has stopped for 2 – 3 days
2. Assess and treat anemia
3. Consider steroid (betamethasone) administration.
4. Daily fetal movement counts and non-stress testing
5. Delivery at 37 weeks, unless indicated earlier for maternal or fetal reasons.

A previous lower segment scar increases the risk of placenta accreta. Ultrasound should specifically assess for signs of placenta accreta when a patient has had a previous low segment caesarean section. Even without placenta accreta, the poor contractile ability of the lower uterine segment can contribute to major haemorrhage. The team must be prepared and the patient consented to necessary interventions.

Outpatient Management

- Outpatient management of placenta previa is an option with carefully selected patients who are highly compliant, have no ongoing bleeding, haemodynamically stable and within close proximity to the hospital. Unit specific guidelines need to be developed for facilitation of such management.

Suggested Readings

1. Baskett, T. F., **Essential Management of Obstetric Emergencies**, Clinical Press, Bristol, 1991.
2. Evans, R.J., RN, PhD, PNC(c); Evans, M.K. RN, PhD; Brown.Y.M.R RN, MCEd; **Canadian Maternity, Newborn, and Women's Health Nursing,** Wolters Kluwer, New York, 2015
3. The Society of Obstetricians and Gynecologists of Canada (SOGC), **Alarm Course Syllabus, 2015-2016, 22nd edition**.
4. Oppenheimer, L. MD, FRCSC; et al SOGC Clinical Practice Guideline; **Diagnosis and Management of Placenta Previa**, No. 189, March 2007