

Placenta Previa

K Radhika

Vice Principal, Columbia College Of Nursing, Bangalore

Abstract

Placenta previa is an obstetric complication in which the placenta is inserted partially or wholly in the lower uterine segment. It is a leading cause of antepartum haemorrhage. It affects approximately 0.4-0.5% of all labours. In the last trimester of pregnancy the isthmus of the uterus unfolds and forms the lower segment. In a normal pregnancy the placenta does not overlies. If the placenta does overlie the lower segment, as is the case with placenta previa, it may shear off and a small section may bleed. The exact cause of implantation of the placenta in the lower segment is not known. The abdominal examination and ultrasonography helps to reveal the placenta previa. Immediate delivery of the foetus may be indicated if the foetus is mature or if the foetus or mother is in distress. Blood volume replacement, to maintain blood pressure and blood plasma replacement, to maintain fibrinogen levels, may be necessary.

Keywords: Placenta Previa, antepartum haemorrhage, abdominal examination, ultrasonography

Introduction

Placenta previa is an obstetric complication in which the placenta is inserted partially or wholly in the lower uterine segment. It is a leading cause of antepartum haemorrhage (vaginal bleeding). It affects approximately 0.4-0.5% of all labours.

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Incidence

Placenta previa occurs approximately one of every 250 births. It is one in 200 in India. One-third of all antepartum hemorrhage occurs due to placenta previa.

Causes

The exact cause of implantation of the placenta in the lower segment is not known.

Following are the postulated theories.

1. **Dropping Down Theory:** The fertilized ovum drops down to the lower uterine segment. Poor decidual reaction in the upper segment may be the cause.
2. **Multiple Pregnancies:** The large placental bed of the twin placenta is prone to low implantation of at least a part of the placenta.
3. **Defective Decidua:** This causes spreading of the chorionic villi over a wide area in the uterine wall encroaching on to the lower segment.

Degrees of Placenta Previa

Type I (lateral): The lower margin of the placenta dips into the lower segment.

Type II (Marginal): The placenta reaches the internal os when closed, but does not cover it.

Type III (Partial or Incomplete): The placenta covers the internal os when closed, but not when fully dilated.

Type IV (Central or complete): The placenta completely covers the internal os even when the cervix is fully dilated.

Predisposing Factors

- Increased placental size, e.g. twin placenta
- Previous uterine scar, e.g. previous caesarean or myomectomy scar
- Multiparity
- Advanced maternal age, over 35 years
- Previous reproductive surgery, e.g. dilatation and curettage
- Placental abnormality, e.g. succenturiate lobe
- Leiomyoma distorting uterine cavity
- Congenital malformation of the uterus.

Signs of Placenta Previa

- Painless vaginal bleeding in the third trimester of bleeding.
- The bleeding is usually bright red and the amount varies with the proportion of separation of placenta.
- Bleeding occurs as the lower segment of the uterus begins to pull upward with cervical effacement and dilatation in late pregnancy, causing the placental villi to tear away from the uterine wall.
- The bleeding may be scant at first and then become more profuse as more and more of the placenta separates.
- There is no way that the bleeding from the placenta can be arrested other than delivering the foetus and complete removal of the placenta.

Diagnosis

History may reveal ante partum haemorrhage. Abdominal examination usually finds the uterus non-tender, soft and relaxed. Leopold's Manoeuvres may find the fetus in an oblique or breech position or lying transverse as a result of the abnormal position of the placenta. Malpresentation is

found in about 35% cases. Ultrasonography reveals the placental status. Vaginal examination is avoided in known cases of placenta previa.

Management

An initial assessment to determine the status of the mother and foetus is required. Although mothers used to be treated in the hospital from the first bleeding episode until birth, it is now considered safe to treat placenta previa on an outpatient basis if the foetus is at less than 30 weeks of gestation, and neither the mother nor the foetus are in distress. Immediate delivery of the foetus may be indicated if the foetus is mature or if the foetus or mother is in distress. Blood volume replacement (to maintain blood pressure) and blood plasma replacement (to maintain fibrinogen levels) may be necessary. The corticosteroids are indicated at 24–34 weeks gestation if the patient has bleeding, given the higher risk of premature birth.

Mode of delivery

The mode of delivery is determined by clinical state of the mother, foetus and ultrasound findings. In minor degrees (traditional grade I and II), vaginal delivery is possible. It is that the placenta should be at least 2 cm away from internal os for an attempted vaginal delivery. When a vaginal delivery is attempted, consultant obstetrician and anaesthetists are present in delivery suite. In cases of foetal distress and major degrees (traditional grade III and IV) a caesarean section is indicated. Caesarean section is contraindicated in cases of disseminated intravascular coagulation. An obstetrician may need to divide the anterior lying placenta. In such cases, blood loss is expected to be high and thus blood and blood products are always kept ready. In rare cases, hysterectomy may be required.

Complications

Maternal

Ante partum haemorrhage

- Malpresentation
- Abnormal placentation
- Postpartum haemorrhage
- Placenta previa increases the risk of puerperal sepsis and postpartum haemorrhage because the lower segment to which the placenta was attached contracts less well post-delivery.

Foetal

Intra Uterine Growth Retardation IUGR (15% incidence)

- Premature delivery
- Death

Nursing Management

Assessment

Assess for

1. Painless unexplained vaginal bleeding after the 20th week.
2. Intermittent gushes of blood.
3. Placental placement revealed by ultrasound.
4. Maternal apprehension caused by the bleeding episode.

Diagnosis

1. Risk for foetal injury
2. Risk for infection.
3. Ineffective airway clearance
4. Actual risk for aspiration
5. Anxiety
6. Anticipatory grieving
7. Health promotion
8. Altered family process
9. Risk for altered parenting
10. Health seeking behaviour.

Planning

1. Monitor for bleeding episodes
2. Monitor maternal and foetal status
3. Provide opportunities for support and counselling
4. Provide education for self-care

Implementation

1. Do not perform vaginal or rectal examinations or give enemas
2. Monitor FHR and prepare client for ultrasound test
3. Facilitate 'double set-up' vaginal examination by the obstetrician
 - Prepare for caesarean section before vaginal examination
 - Vaginal examination is done in operating room
 - Type and cross match for possible blood transfusion
4. Manage bleeding episodes
 - Keep woman fasting
 - Monitor vital signs and FHR
 - Maintain woman on absolute bed rest.
 - Start and maintain IV fluids
 - Maintain perineal pad count to estimate amount of bleeding
 - Prepare for Caesarean delivery
 - Maintain meticulous sterile techniques
5. Support mother, spouse and family and encourage them to verbalize feelings
6. Provide parents information about the nature of problem
7. Prepare women for vaginal birth, if pregnancy is near term, the cervix is favourable, and marginal placental placement is identified.

Evaluation

Ensure the woman

1. Maintains normal vital signs and haemoglobin
2. Verbalizes her apprehension and feelings
3. Demonstrates FHR between 120-160 bpm with average variability and no late or variable decelerations.

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