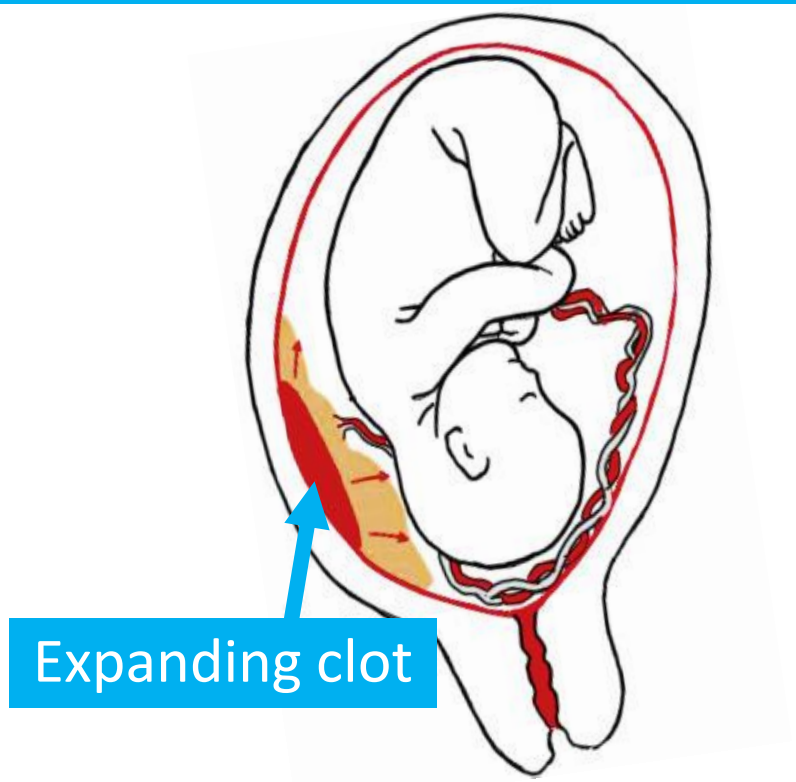
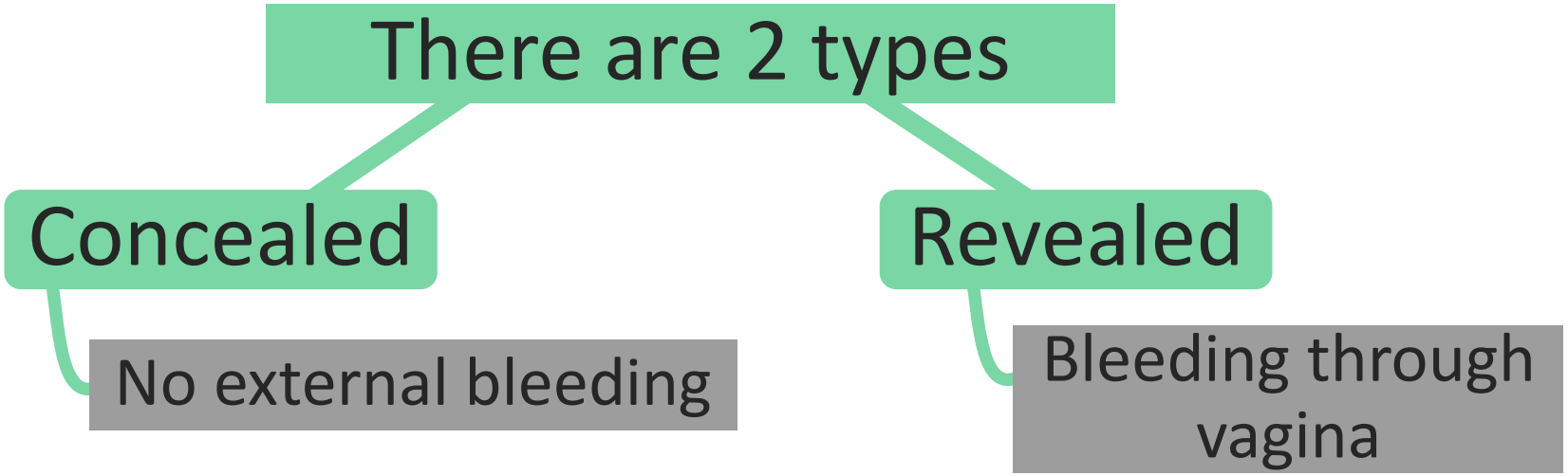
Placental Abruption



Placental Abruption

Placental abruption is premature separation of the placenta from the uterine wall.

Placenta separates partly or completely.



Pathophysiology

Separation of placenta from uterine wall causes hemorrhage into the decidua basalis.

Usually vaginal bleeding occur. But concealed hemorrhage is possible.

Hematoma formation further separates the placenta from the uterine wall.

This reduces blood supply to the fetus.

Retroplacental blood may penetrate the uterine cavity into peritoneal cavity.

-Couvelaire uterus

The myometrium in this area becomes weak and may rupture due to increased intrauterine pressure during contractions.

Incidence- 0.5-1.0% of pregnancies

Clinical classification

Class 0	Asymptomatic
Class 1	Mild (approximately 48% of all cases)
Class 2	Moderate (approximately 27% of all cases)
Class 3	Severe (approximately 24% of all cases)

Class 1

- No vaginal bleeding to mild vaginal bleeding
- Slightly tender uterus
- Normal maternal BP and heart rate
- No coagulopathy
- No fetal distress

Class 2

- No vaginal bleeding to moderate vaginal bleeding
- Moderate to severe uterine tenderness with possible tetanic contractions
- Maternal tachycardia with orthostatic changes in BP and heart rate
- Fetal distress
- Hypofibrinogenemia (ie, 50-250 mg/dL)

Class 3

- No vaginal bleeding to heavy vaginal bleeding
- Very painful tetanic uterus
- Maternal shock
- Hypofibrinogenemia (ie, < 150 mg/dL)
- Coagulopathy
- Fetal death

Risk factors

Fetal

- Polyhydramnios
- Multiple pregnancy
- Fetal growth restriction (FGR)

Maternal

- Hypertension (including preeclampsia)
- Smoking
- Trauma to the maternal abdomen
- Cocaine

Prevention

Avoidance of tobacco, cocaine and amphetamine misuse.

Avoidance of smoking.

Control the blood pressure.

Prognosis

Continues bleeding causes maternal and fetal distress.

It can cause maternal and fetal death.

Severity depends on degree of placental separation.

Perinatal mortality depends on extent of the abruption and gestational age of the fetus.

Placental abruption is responsible for approximately 6% of maternal deaths.

Presentation

- Sudden onset, constant, severe abdominal pain
- Severe backache (due to posterior placenta)
- Tender uterus on palpation
- Hard uterus ('woody')
- Bleeding- often dark
- Maternal signs of shock
- Absence or reduce fetal movements
- Evidence of fetal distress on CTG

The degree of vaginal bleeding does not necessarily correlate with the degree of abruption as abruptions may be concealed.

Warning signs

- Maternal collapse
- Feeling cold
- Light-headedness
- Restlessness
- Distress and panic
- Painful abdomen
- Vaginal bleeding

Diagnosis

Made clinically.

Ultrasound scan is of used to confirm fetal wellbeing and exclude placenta previa.

Absence of ultrasound changes doesn't exclude the diagnosis.

Management

Admit all women with vaginal bleeding or unexplained abdominal pain.

Immediate CTG and USS

If fetal distress or maternal compromise

Resuscitate and deliver

If no fetal distress, and bleeding and pain cease

Delivery at term