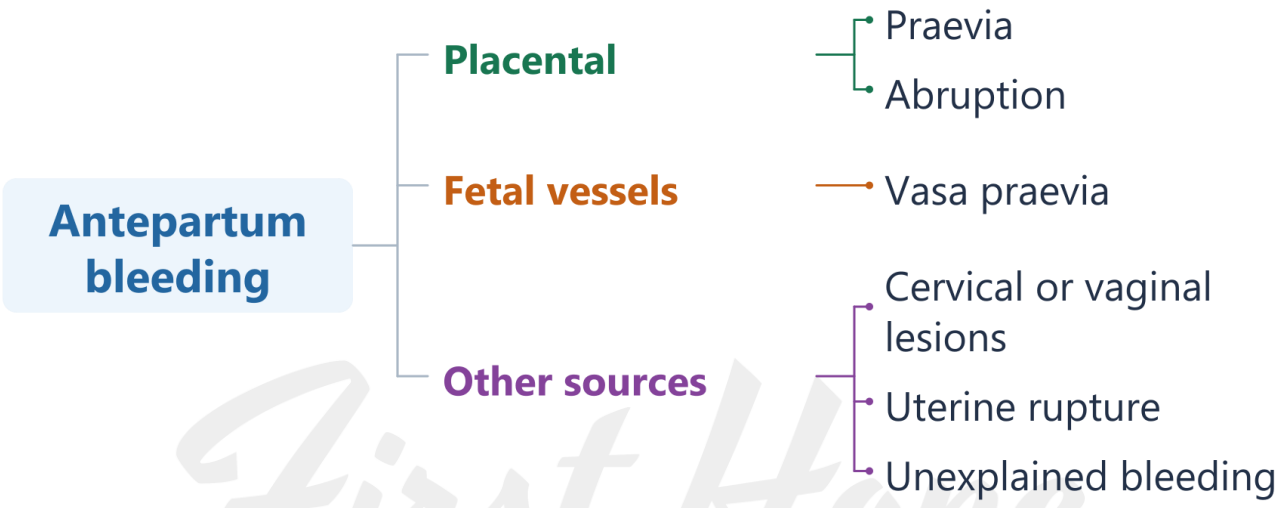
Obstetrics & Gynaecology - Topic 10 - Antepartum haemorrhage

Recognising Antepartum Haemorrhage

Definition

- Antepartum haemorrhage is bleeding from or into the genital tract in later pregnancy before the baby is born.
- The gestational threshold varies between definitions; many contemporary guidelines use 24 completed weeks, while some teaching systems use 28 weeks.



Clinical Importance

- Always state the definition used, and assess significant bleeding urgently at any gestation.
- Visible blood loss can underestimate the total loss, particularly when bleeding is concealed behind the placenta.
- The main threats are maternal shock, coagulopathy, fetal hypoxia, preterm birth and fetal death.

Causes and Patterns

- Placenta praevia and placental abruption are major obstetric causes, but cervical or vaginal disease can also cause bleeding.
- Vasa praevia is especially dangerous because the blood can come from fetal vessels rather than the maternal circulation.
- A small blood-stained mucus show may accompany labour, but it should not be assumed to explain heavy bleeding or other concerning signs.
- Some episodes remain unexplained after assessment and still need an appropriate follow-up plan.

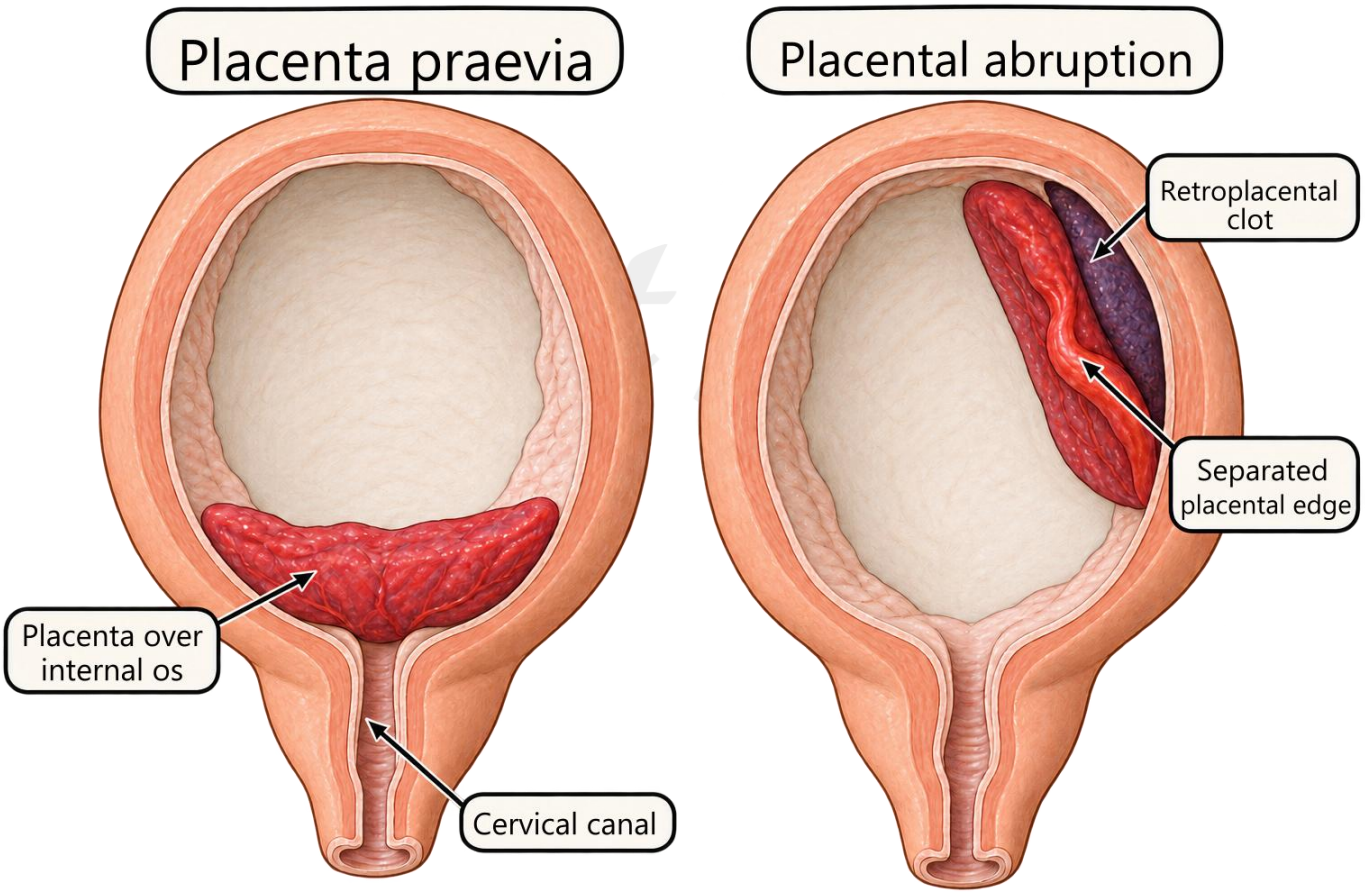
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Assessing Severity

- Describe whether bleeding is spotting, minor, major or massive according to the local obstetric-haemorrhage system.
- Estimate and record loss, but use pulse, blood pressure, mental state, peripheral perfusion and urine output to judge its physiological effect.
- Ongoing bleeding or abnormal observations can be serious even before haemoglobin falls.
- A pregnant woman may initially compensate for blood loss, so apparently normal blood pressure does not exclude significant haemorrhage.

Placenta Praevia and Placental Abruption

Comparing the Mechanisms



Teaching models distinguish placenta over the internal os from separation with a clot behind a normally situated placenta

Useful Clinical Differences

Feature	Placenta praevia	Placental abruption
Typical pain	Bleeding is often painless.	Pain and uterine tenderness are common.

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Feature	Placenta praevia	Placental abruption
Uterine findings	The uterus is often soft, and presentation may be abnormal.	The uterus may be tense, tender or frequently contracting.
Blood loss	Visible bleeding is common.	Bleeding can be revealed, concealed or mixed.
Ultrasound	It identifies the relationship to the internal os.	It may support the diagnosis but cannot reliably exclude it.
Important caution	Avoid digital examination before placental location is known.	Visible blood loss may greatly underestimate severity.

Placenta Praevia

Definition and Clinical Features

Placenta Praevia and Low-Lying Placenta

- Placenta praevia occurs when the placenta reaches or covers the internal cervical opening on appropriate later-pregnancy imaging.
- A low-lying placenta has its edge within 20 mm of the internal os without covering it.

Bleeding Mechanism, Risks and Presentation

- As the lower uterine segment develops or the cervix changes, attachment in this region can separate and bleed.
- Previous caesarean birth, other uterine surgery, previous praevia and assisted reproduction increase risk.
- Bleeding is classically painless and recurrent, with a soft uterus and sometimes a high presenting part or abnormal lie.
- These features are clues rather than absolute rules, because contractions or another condition can produce pain as well.

Placental Abruption

- Abruption is premature separation of a normally situated placenta before birth.

Separation, Concealed Bleeding and Couvelaire Change

Separation and Concealed or Revealed Bleeding

- Bleeding into the decidua can create a retroplacental haematoma, separating more placenta and reducing fetal exchange.

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- Blood may escape through the cervix, remain concealed or produce both patterns.
- In revealed abruption, blood tracks externally; in concealed abruption, much of it remains behind the placenta or within surrounding tissues.

Couvelaire Change

- Severe extravasation into the uterine muscle can produce a bluish discoloured **Couvelaire uterus**.
- This appearance alone does not mandate hysterectomy if the uterus contracts and bleeding can be controlled.

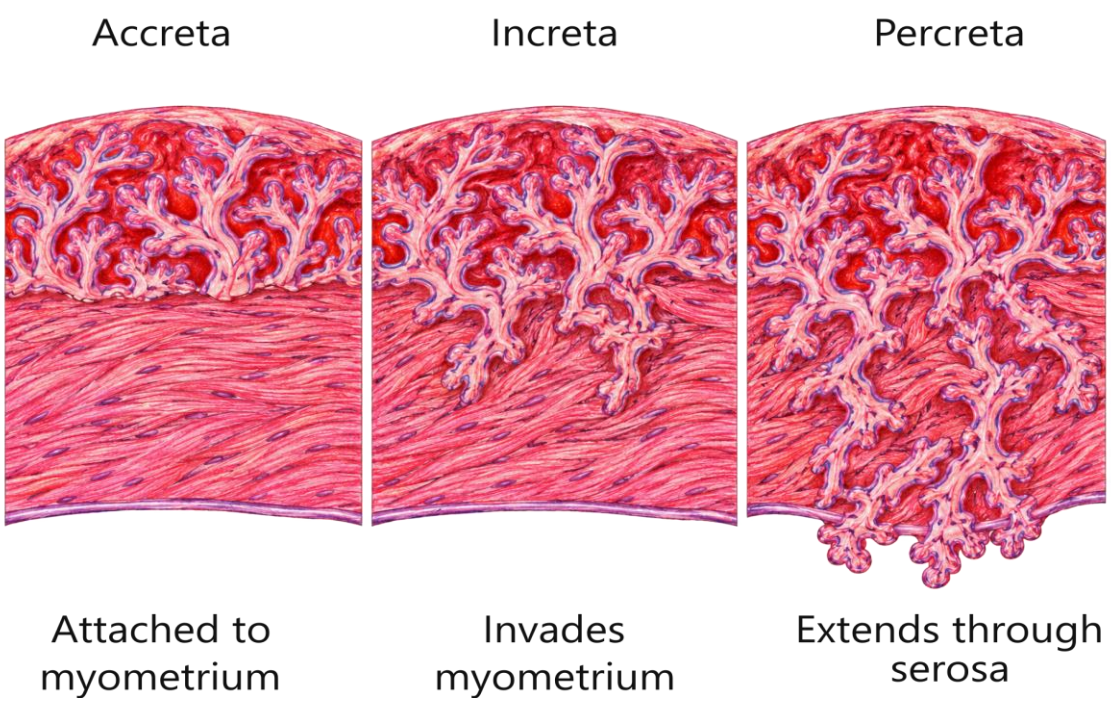
Risk Factors, Presentation and Complications

- Hypertension, previous abruption, smoking, cocaine exposure and abdominal trauma are recognised risk factors.
- Pain, uterine tenderness, frequent contractions or increased uterine tone can accompany bleeding.
- Severe abruption can cause shock, fetal compromise and disseminated intravascular coagulation.
- A normal ultrasound does not exclude abruption because fresh blood and small areas of separation may be difficult to see.

Placenta Accreta Spectrum

- Placenta accreta spectrum describes abnormal placental adherence or invasion at the uterine wall.

Types by Depth of Placental Invasion



Accreta, increta and percreta describe increasing involvement of the uterine wall by placental tissue

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1. Placenta Accreta

- Villi attach directly to superficial myometrium where the normal decidual interface is deficient.

2. Placenta Increta

- Villi extend into the myometrium.

3. Placenta Percreta

- Villi extend through the uterine wall and may involve neighbouring organs.

Comparing the Depth of Placental Invasion

Traditional term	Relationship to the uterine wall
Accreta	Villi attach directly to superficial myometrium where the normal decidual interface is deficient.
Increta	Villi extend into the myometrium.
Percreta	Villi extend through the uterine wall and may involve neighbouring organs.

Risk Assessment and Birth Planning

Risk Factors and Imaging

- Previous caesarean birth combined with an anterior low placenta or praevia is an important warning combination.
- Ultrasound by an experienced operator assesses findings such as placental lacunae, abnormal interface and bridging vessels.
- MRI may help selected difficult cases but is not automatically needed when expert ultrasound provides the required information.

Specialist Birth Planning and Placental Safety

- Plan birth with a specialist multidisciplinary team, blood products, anaesthesia, neonatal support and critical-care access.
- Do not forcibly separate a placenta suspected to be accreta because this may cause catastrophic haemorrhage.
- The definitive plan may include caesarean hysterectomy with the placenta left undisturbed, while selected conservative approaches require expert follow-up.

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