Antepartum Haemorrhage)

Definition

Bleeding from the birth canal after the 20th week (some use 24th week) of pregnancy.

Epidemiology

- Affects 2-5% of all pregnancies.
- 3 times more common in multiparous than primiparous women

Causes

- Idiopathic: 40%
- Placental abruption (abruptio placentae): 20-30%
- Placenta praevia: 30%
- Vasa praevia: Rare
- Uterine rupture: Rare
- Others: Trauma, polyps, infection, vulval varices

Placental abruption (30% of all cases of APH):

- Normal placenta separates from uterus prematurely and blood collects in between
- *Incidence:* <1%
- *Risk factors/causes:*
    - High blood pressure (140/90 or greater)
    - Trauma (usually a car accident or maternal battering)
    - Increasing maternal age and parity
    - Smoking, EtOH, cocaine use
    - Premature or prolonged rupture of membranes
    - Short umbilical cord or retroplacental fibroid
    - Abruption in previous pregnancies (10% recurrence risk)
    - Amniocentesis
- *Features:* PVB (80%), abdominal pain (70%), shock or fetal distress (60%), uterine contraction (35%), prem labour (25%), foetal death (15%).
- *Inv:* FBC, coags, DIC screen, XM, USS (not good at seeing haemorrhage, but may exclude placenta praevia), CTG.
- *Mx:* Resuscitate (O_2, fluids, IVF/blood), urgent O&G referral, monitor for coagulopathy, consider steroids or urgent delivery. **Anti-D** if Rh-ve.

Placenta praevia

- Insertion of part/all of placenta, in the lower segment of the uterus.
    - Grade I: placenta encroaches lower segment but does not reach the cervical os.
    - Grade II (marginal): reaches cervical os but does not cover it.
    - Grade III (partial): covers part of the cervical os.
    - Grade IV (total): completely covers the os, even when the cervix is dilated.
- *Risk factors/causes:* prior praevia/LSCS/TOP, multiparous, multiple gestations, advanced maternal age, smoking
- *Features:* Bright red, painless & recurrent PVB±shock. Usually >32/40. **Don't perform VE**
- *Inv:* USS 95% sens, FBC, XM, Kleihauer-Betke test (quantifies fetal RBC:maternal RBC)
- *Mx:* Monitor mother & foetus, IV fluids, consider steroids ± delivery (LSCS if Grade II/IV). **Anti-D** if Rh-ve.
- *Cx:* Placenta accreta (abnormally firm attachment of placenta to uterine wall).

Vasa praevia (bleeding from fetal vessels in the fetal membranes):

- Incidence<0.3%
- Umbilical cord vessels may attach laterally to membranes instead of placenta.
- *Features:* PVB –before or often after labour begins. Foetal distress++. Mother stable.
- *Inv:* abnormal CTG, USS (bi-lobed placenta or poor placental blood flow). Apt test (qualitative test for presence of HbF) on vaginal blood.
- *Mx:* Immediate LSCS.

Uterine rupture:

- Rare but very dangerous for both mother and baby.
- *Risk factors:* Prior uterine surgery incl LSCS (40%), grand multip, trauma, excessive oxytocin, shoulder dystocia, certain types of forceps deliveries
- The rupture may occur before or during labour or at the time of delivery.
- *Mx:* Urgent surgical delivery.

Other Causes

- Idiopathic in ~40%.
- Local causes, e.g. vulval or cervical infection, trauma or tumours.
- Inherited bleeding problems are very rare, occurring in 1 in 10,000 women.

Complications

- Premature labour
- Disseminated intravascular coagulopathy
- Renal tubular necrosis
- Postpartum haemorrhage

Prognosis

- APH has been found to be an independent risk factor for perinatal mortality.
- The fetus may die from hypoxia during heavy bleeding.
- Perinatal mortality low if expertly managed & no VE before admission to hospital.

Postpartum Haemorrhage

Primary PPH: Bleeding from birth canal in 1st 24h >500ml post-vaginal delivery or 1L post-CS.
Secondary PPH: Bleeding in excess of normal lochial loss after 24h.

Epidemiology: Most common cause of maternal death.

Causes:

Primary: Atonic uterus, trauma, retained placenta, coagulopathy.
Secondary: RPOC, infection
RF: Multiple pregnancy, polyhydramnios, macrosomia, abnormal uterus, long/precipitate delivery, coagulopathy (pre-eclampsia, HELLP, abruption, sepsis, drugs, IUFD), forceps, CS, previous PPH.

Management

Primary
IVC x 2, Fluid/blood, give **ergometrine** + **syntocinon**, rub uterus, compress uterus if soft/boggy, manually remove placenta, suture any local canal lacerations, external abdo aortic compression, **transexamic acid**, **misoprostol**, ?Factor VII, uterine packing or balloon tamponade, selective arterial embolisation, or Sx (suture, arterial ligation, hysterectomy)
Secondary
ABC, fluids, analgesia, **ergometrine** 0.5mg IV/IM, **ampicillin**, **gentamicin** & **metronidazole**, D&C