

Abnormal microvascular thrombosis (platelet poor, fibrin rich) leading to consumptive coagulopathy with widespread endothelial dysfunction.

Causes

- SHOTMISS:
 - Snake envenomation
 - Hepatic failure
 - Obstetric - amniotic fluid embolus, PET, HELLP, foetal death in utero
 - Trauma - major HI, massive blood loss, rhabdomyolysis
 - Malignancy - prostate, mucinous, acute promyelocytic leukaemia
 - Immune - transfusion, anaphylaxis, transplant rejection
 - Sepsis - G-ve, viral haemorrhagic fevers
 - Shock - of other causes
- Other causes: severe pancreatitis, large vessel aneurysm, giant haemangiomas, some connective tissue disorders including antiphospholipid syndrome

Investigations

Blood: Coags (↑INR, ↑APTT), ↓Fibrinogen, ↑FDP, ↑↑D-dimers. FBC (↓plts)

Complications

- Multisystem failure
- Renal failure
- ARDS
- Hepatic injury
- Altered mental state
- Cardiac failure
- High mortality rate (20-50+%)

Management

- Treat underlying cause - e.g. antivenom, antibiotics
- Generally supportive
- However:
 - Platelet transfusion if marked thrombocytopenia
 - Protein C - licensed for severe sepsis
 - Factor VIIa - if bleeding+
 - Consider:
 - Antithrombin III
 - Heparin[‡] if thrombosis predominates
 - Tranexamic acid or aminocaproic acid if bleeding predominates
 - FFP - if bleeding and low fibrinogen
 - Cryoprecipitate[‡] - only if low fibrinogen

[‡] *Controversial*