

Thrombocytopenia

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Low platelets are commonly found with or without symptoms on CBCs

S/S: petechiae/purpura and mucosal bleeding (epistaxis, gingival, GI, bladder, vaginal)

5 Big Causes of Thrombocytopenia

1) Thrombotic Thrombocytopenia Purpura (TTP)

- a. Low ADAMTS13 -> impaired vWF breakdown and widespread “platelet plugs”
- b. **Pentad = low plt, fever, microangiopathic hemolytic anemia, neuro abnormalities, and renal abnormalities**
- c. Tx = plasma exchange

2) Hemolytic Uremic Syndrome (HUS)

- a. Story: Kiddo. Recent bloody diarrhea. Renal and CBC abnormalities
- b. Like TTP except more renal and **no neuro findings**
- c. Tx = supportive care

3) Heparin Induced Thrombocytopenia (HIT)

- a. Story: patient recently got heparin and now has **Plt < 150 or 50% reduction**
- b. Tx: *stop heparin and anticoagulate* (direct thrombin inhibitor)

4) Disseminated Intravascular Coagulation (DIC)

- a. Response to systemic illness (like sepsis) -> Disseminated coagulation
- b. **High PT/PTT, D-Dimer, and FDPs** (fibrinogen degradation products)
- c. **Treat underlying cause**, may need platelet transfusion

5) Immune Thrombocytopenic Purpura (ITP)

- a. Common condition
- b. Tx: **steroids** and maybe platelet transfusion

6) Idiopathic Thrombocytopenic Purpura

- a. Causes: HIV, hepatitis, viral infection, drugs (aspirin, antibiotics, digoxin), EtOH, immunizations...
- b. Most get better on their own. Try to find the trigger and remove it.

Quick Facts

- Microangiopathic hemolytic anemia occurs when red blood cells are mechanically damaged intravascularly often by small platelet aggregates stuck to the blood vessel wall. Your buzzword is “schistocytes.”
- Pregnancy induced thrombocytopenia looks a lot like eclampsia (low platelet, hemolysis, seizure), but the latter is uncommon in 1st and 2nd trimester – so keep both on your differential.
- HIT patients are pro-coagulant and need to be anticoagulated with something other than heparin.