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Wolters Kluwer

Causes of thrombocytopenia in adults

Falsely low platelet counts (pseudothrombocytopenia)

In vitro platelet clumping caused by ethylenediaminetetraacetic acid (EDTA)-dependent agglutinins (naturally occurring antibodies)

In vitro platelet clumping caused by an insufficiently anticoagulated specimen

In vitro platelet clumping caused by glycoprotein IIb/IIIa inhibitors (eg, abciximab) (NOTE: these can also cause true thrombocytopenia)

Giant platelets counted by automated counter as white blood cells rather than platelets

Common causes of thrombocytopenia

Primary immune thrombocytopenia (ITP)

Drug-induced immune thrombocytopenia (DITP)

Heparin (NOTE: special case, also can cause thrombosis)

Quinine (as in over-the-counter tablets for leg cramps; also in beverages)

Sulfonamides (eg, trimethoprim-sulfamethoxazole [Bactrim; Septra])

Acetaminophen (Tylenol, Panadol)

Cimetidine (Tagamet)

Ibuprofen (Advil, Motrin)

Naproxen (Aleve, Midol)

Ampicillin (Omnipen, Apo-Ampi)

Piperacillin (Pipracil, Zosyn)

Vancomycin (Vancocin)

Glycoprotein IIb/IIIa inhibitors (abciximab [ReoPro], tirofiban [Aggrastat], eptifibatide [Integrilin])

Food and beverages

Quinine-containing beverages (tonic water, Schweppes bitter lemon)

Walnuts

Certain herbal teas

Infections
HIV
Hepatitis C
Epstein-Barr virus (EBV; can be associated with infectious mononucleosis)
<i>Helicobacter pylori</i> (suspected in patients with symptoms of dyspepsia or peptic ulcer disease)
Sepsis with disseminated intravascular coagulation (DIC)
Intracellular parasites (eg, malaria, babesia)
Hypersplenism due to chronic liver disease
Alcohol
Nutrient deficiencies (eg, vitamin B12, folate, copper)
Rheumatologic/autoimmune disorders (eg, systemic lupus erythematosus, rheumatoid arthritis)
Pregnancy
Gestational thrombocytopenia
Preeclampsia
HELLP syndrome (hemolysis, elevated liver function tests, low platelets)
Other causes of thrombocytopenia
Myelodysplasia
Suspected in older patients, in whom a bone marrow biopsy may be appropriate
Cancer with disseminated intravascular coagulation
Cancer with bone marrow infiltration or suppression (eg, lymphoma, leukemia, some solid tumors)
Paroxysmal nocturnal hemoglobinuria (PNH)
Thrombotic microangiopathy (TMA)
Thrombotic thrombocytopenic purpura (TTP) is manifested by thrombocytopenia and microangiopathic hemolytic anemia; fever, renal failure, and/or neurologic symptoms may or may not be present
Hemolytic uremic syndrome (HUS) is typically seen in children following infection with a Shiga-toxin producing organism (<i>Escherichia coli</i> or <i>Shigella</i>)
Drug-induced TMA may occur with quinine, certain cancer therapies, calcineurin inhibitors, and others
Antiphospholipid syndrome (APS)
Aplastic anemia
Hereditary thrombocytopenias

An important consideration, especially in young patients who do not respond to treatment. Some specific syndromes are listed. However, many patients appear to have autosomal dominant thrombocytopenia with no other clinical features.
Von Willebrand disease type 2B
Wiskott-Aldrich syndrome
Alport syndrome
May-Hegglin anomaly
Fanconi anemia
Bernard-Soulier syndrome
Thrombocytopenia absent radius syndrome

The table lists possible causes of isolated thrombocytopenia. Refer to the UpToDate topics on thrombocytopenia, immune thrombocytopenia, heparin-induced thrombocytopenia, and drug-induced thrombocytopenia for further details and a more complete list of drugs that can cause drug-induced thrombocytopenia.

Graphic 77063 Version 11.0