THROMBOCYTOPENIA IN THE ANTIPHOSPHOLIPID SYNDROME


Take home points:
1. Approximately 25% of patients with antiphospholipid antibody syndrome (APLAS) will have thrombocytopenia.
2. There are no clinical or serologic features that distinguish APLAS patients with thrombocytopenia from those without it.
3. For patients with APLAS and refractory thrombocytopenia, splenectomy is a viable treatment option and is associated with a good long-term response.

Features of thrombocytopenia in APLAS:
- Thrombocytopenia can be the first (and only) manifestation of APLAS and can be misdiagnosed as immune thrombocytopenic purpura (ITP).
- According to the largest study on this topic, approximately 25% of patients with APLAS will have thrombocytopenia.
- Thrombocytopenia in APLAS is usually mild and benign (platelet count 70-120K) and is not associated with bleeding; these patients do not require treatment.
- There are no clinical or serologic features that distinguish APLAS patients with thrombocytopenia from those without it.
- The pathophysiology behind thrombocytopenia in APLAS is unknown. Most authors state that it is likely immune-mediated, much like ITP and not due to a consumptive process (except, perhaps in catastrophic APLAS which presents much like a thrombotic microangiopathy).
- Approximately 20% of patients with APLAS and thrombocytopenia will have very low platelet counts that are refractory to medical and pheresis therapy. In these patients, splenectomy is a viable treatment option and is associated with a good long-term response.

For review: Approach to the diagnosis of lupus anticoagulant

A lupus coagulant (LA) is diagnosed in the context of a prolonged phospholipid-dependent coagulation test, most often the activated partial thromboplastin time (aPTT; Test 1). The dilute Russell’s viper venom time (dRVVT; Test 2) may also be used to assess the presence of a lupus anticoagulant when the aPTT is prolonged. The dRVVT should also be measured if the patient has a clinical history suggesting the presence of a lupus anticoagulant (fetal loss, thrombosis), even in the context of a normal aPTT. If either of these screening assays is prolonged, an inhibitor screen (mixing study) should be done, in which the clotting time (aPTT or dRVVT) of a mixture of the patient’s and normal plasma is measured. A persistently prolonged clotting time of the mixed sample (positive inhibitor screen) indicates the presence of a coagulation inhibitor, whereas correction of the clotting time (negative inhibitor screen) suggests a coagulation factor deficiency. On occasion, the clotting time of the mixed sample will correct immediately after mixing but will be prolonged upon further incubation; hence, many researchers recommend that a negative inhibitor screen be confirmed after further incubation of the mixed sample. If the inhibitor screen is positive, additional studies to document the phospholipid (PL) dependence of the inhibitor are indicated. These tests may include the platelet neutralization procedure, dRVVT confirmation, tissue thromboplastin inhibition, or hexagonal phospholipid-based assays. If the results of the immediate and incubated mixing studies suggest the presence of a coagulation inhibitor, specific coagulation factor assays are indicated. (Modified from Brandt JT, Triplett DA, Alving B, Scharer I. Criteria for the diagnosis of lupus anticoagulants: an update. On behalf of the Subcommittee on Lupus Anticoagulant/Antiphospholipid Antibody of the Scientific and Standardisation Committee of the ISTH. Thromb Haemost. 1995;74:1185-90.)