

Autoimmune Diagnostics
Anti-Platelet Antibodies
Anti-Phospholipid Antibodies
Antinuclear Antibodies

Description and Clinical Significance

Autoimmune diseases can affect a multitude of endogenous structures and cause disorders of varying severity. In some autoimmune diseases, thrombocytopenia may be present; overlaps in the autoantibody pattern are frequent. Therefore, if an autoimmune etiology of thrombocytopenia is suspected, an autoantibody panel consisting of anti-platelet antibodies, anti-phospholipid antibodies, and antinuclear antibodies should be tested.

Anti-Platelet Antibodies:

Determines the presence of autoantibodies directed against platelet antigens (e.g., GP Ib/IX or GP IIb/IIIa). It is evaluated whether these are bound to the platelet surface or circulate freely in the patient's serum. Detection of such antibodies confirms the diagnosis of immune thrombocytopenia (ITP), but a negative result does not rule out ITP.

Anti-Phospholipid Antibodies:

These antibodies are directed against phospholipid-bound proteins on cell surfaces. Clinically, anti-cardiolipin antibodies and antibodies against beta-2-glycoprotein 1 are particularly relevant. Lupus anticoagulants, which cause a prolongation of phospholipid-dependent coagulation tests, also possess clinical significance. Anti-phospholipid antibodies can lead to an increased tendency for venous or arterial thromboembolism, neurological complications, or recurrent miscarriages (habitual abortions).

Antinuclear Antibodies:

Antinuclear antibodies (ANA), antibodies against double-stranded DNA (dsDNA), or their subsets are frequently associated with rheumatological autoimmune diseases.

References:

Thomas L, Labor und Diagnose, 2023, Release 5: <https://www.labor-und-diagnose.de/index.html>

Parameterkatalog des Klinischen Instituts für Labormedizin, Med.Univ.Wien und AKH Wien:

<https://www.akhwien.at/default.aspx?pid=3982>

Leistungsverzeichnis der Klinischen Chemie, Univ.Klinikum Ulm:

<https://www.uniklinik-ulm.de/zentrale-einrichtung-klinische-chemie/leistungsverzeichnis.html>