Cardiolipin + Beta2 Glycoprotein 1-IgG + IgM (Phospholipid) Analysis

Objective

The objective of this test is to detect and quantify IgG and IgM antibodies against cardiolipin and Beta2 Glycoprotein 1, which are phospholipid-binding proteins. These antibodies are important markers for diagnosing antiphospholipid syndrome (APS), which is associated with thrombosis, recurrent pregnancy loss, and autoimmune diseases.

Materials and Methods

Materials:
- Serum sample from patient
- ELISA kits for cardiolipin and Beta2 Glycoprotein 1 IgG and IgM antibodies
- Microplate reader and washing equipment
- Standard laboratory equipment (pipettes, centrifuge)

Methods:
1. Sample Collection: Collect venous blood and separate serum by centrifugation.
2. Antibody Detection: Perform ELISA to detect IgG and IgM antibodies against cardiolipin and Beta2 Glycoprotein 1.
3. Interpretation: Elevated antibody levels support diagnosis of APS; repeat testing after 12 weeks is recommended for confirmation.
4. Quality Control: Use assay controls for reliability.
5. Correlation: Combine with lupus anticoagulant and clinical findings for comprehensive diagnosis.

Results

- Negative: Antibody levels below cutoff (no evidence of APS)
- Positive: Elevated IgG and/or IgM antibodies indicate antiphospholipid syndrome or related autoimmune disorders
- High titres: Associated with increased thrombotic risk and pregnancy complications

Conclusion

Testing for cardiolipin and Beta2 Glycoprotein 1 antibodies is essential for diagnosing antiphospholipid syndrome and assessing thrombotic risk. Results should be interpreted alongside clinical evaluation and other antiphospholipid antibody tests.