

TESTING FOR IgG ANTI-PHOSPHATIDYLSERINE ANTIBODIES IDENTIFIES ANTI-PHOSPHOLIPID SYNDROME PATIENTS THAT ARE NEGATIVE FOR ANTI-CARDIOLIPIN ANTIBODIES. Dier K, Lopez L. Corgenix Inc. (REAADS), Westminster, Colorado 80234, USA.

Anti-phospholipid (aPL) antibodies are a group of heterogeneous autoantibodies with reactivity against various negatively charged phospholipids, including cardiolipin (CL), phosphatidylserine (PS), and phospholipid/cofactor complexes. Unlike PS, CL lacks a physiological role in coagulation. Despite this, anti-cardiolipin (aCL) remains the most commonly requested aPL test. Can anti-phospholipid syndrome (APS) patients be identified that are anti-phosphatidylserine (aPS) positive and aCL negative? We tested serum samples from 89 patients for IgG aCL, aPS, and anti-B2GPI antibodies by ELISA: 49 samples from patients with various autoimmune diseases and aPL antibodies; 28 consecutive (unselected) SLE patients; and 12 selected SLE (with history of thrombosis/APS). 71% of the autoimmune samples were positive for aPS and only 67% for aCL; 36% of the consecutive SLE samples were positive for aPS and 25% for aCL; and 75% of the APS/SLE samples were positive for aPS and 58% for aCL antibodies. Because anti-B2GPI antibodies are thought to be more specific for thrombosis, we studied their correlation with aCL and aPS antibodies. In all three patient groups, aPS correlated better with anti-B2GPI than aCL antibodies as shown in the following table:

Correlation (r-value)	Autoimmune	Consec. SLE	APS / SLE
anti-B2GPI vs. aPS	0.700	0.928	0.986
anti-B2GPI vs. aCL	0.468	0.864	0.973

In summary, 4 to 17% more samples were positive for IgG aPS than aCL in the patients studied, and aPS results correlated better with the "thrombosis specific" assay (anti-B2GPI). These findings indicate that testing for IgG aPS antibodies may identify APS patients that are negative for aCL. In addition, testing for aPS plus anti-B2GPI may be more clinically relevant than testing for aCL antibodies only.

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