

**ASSOCIATION OF B<sub>2</sub>GPI COFACTOR EFFECT OF IgG ANTI-PHOSPHATIDYLSERINE (aPS) ANTIBODIES WITH HISTORY OF THROMBOSIS, THROMBOCYTOPENIA AND RECURRENT ABORTION IN SLE PATIENTS.** Kristina J. Keedy and Luis R. Lopez. REAADS Medical Products, Inc. Westminster, Colorado 80234, USA.

The optimal binding of "autoimmune" antiphospholipid antibodies requires the presence of a serum cofactor. This enhanced antibody binding (cofactor effect) may be relevant in the development of thrombosis in patients with antiphospholipid syndrome. We studied the association of cofactor (B<sub>2</sub>GPI) enhanced IgG aCL and aPS antibody binding activity with a clinical history of thrombosis, thrombocytopenia and recurrent abortion in 28 selected female SLE patients. Twelve with history of thrombosis (group I), 6 with history of thrombocytopenia (group II), and 10 without a history of either were used as controls (group III). 96-microwell plates were coated with CL or PS in the absence of B<sub>2</sub>GPI. Serum samples were serially diluted in sample diluent {PBS} containing 10% BSA/Casein (free of B<sub>2</sub>GPI). For determination of cofactor effect, purified human B<sub>2</sub>GPI (15 ug/ml) was added to the sample diluent. In the presence of B<sub>2</sub>GPI, an increase of > 20% in the ODs (450 nm) was considered positive for cofactor effect. No enhanced binding (cofactor effect) was detected in any sample from any of the 3 groups when tested for aCL antibodies. In contrast, 6 of 12 (50%) SLE patients with history of thrombosis (group I) showed positive cofactor effect when tested for IgG aPS antibodies. In the presence of B<sub>2</sub>GPI, their ODs increased up to 180%. Mean serum levels for both IgG aPS and aCL antibodies (67 aPS and 52 aCL units) of these 6 patients with positive cofactor effect were higher than the mean values for the entire group I (42 aPS and 32 aCL units). Four (66%) had a history of recurrent abortion. None of the patients in group II, and only one of 10 (10%) in group III showed aPS cofactor effect. This patient had borderline serum aPS level and was the only one with history of abortion. These results further support the physiologic role and clinical relevance of measuring IgG aPS antibodies.

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