

**MULTICENTRIC STUDY OF ANTI-PROTHROMBIN AND ANTI-B2GPI ANTIBODIES IN LA SAMPLES.** Ken J. Dier, Lorrie W. Olsen, Catherine A. Fink, Dorothy M. Adcock, Luis R. Lopez. Corgenix, Inc., Westminster, Colorado, USA

Lupus anticoagulant (LA) are immunoglobulins that inhibit *in vitro* phospholipid dependent coagulation assays. LA require the presence of a protein cofactor for optimal immunologic binding. IgG and IgM antibodies to prothrombin (aPT) and B2GPI (anti-B2GPI) were measured by ELISA in 61 LA positive plasma samples collected from 3 independent reference coagulation labs. 100 plasma samples from healthy blood donors and 56 plasma samples with abnormal coagulation profiles which did not meet the diagnostic criteria for LA were used as controls. The diagnosis of LA was based on published diagnostic criteria, however, each institution followed their own tests and procedures to establish the presence of LA. 23, 41 and 43% (mean 38%) of the LA positive plasma samples from each institution were found reactive to aPT antibodies while only 11% and 2% of the samples were positive from the abnormal coagulation control and healthy groups. Similarly, 43, 74 and 92% (mean 67%) of the LA positive plasma samples from each institution were found reactive to anti-B2GPI antibodies while only 12% and 0% of the samples were positive from the abnormal coagulation control and healthy groups. 55.7% of the samples in the LA positive group had elevated levels of aPT and/or anti-B2GPI antibodies compared to 21.4% of the samples in the abnormal coagulation control group and 0% in the healthy blood donors. In summary, increased plasma levels of aPT and anti-B2GPI antibodies were found in the LA positive samples compared to the controls. Unlike a previous study with strictly selected LA samples, these groups did not show ~100% reactivity to aPT and/or anti-B2GPI antibodies. In addition, each institution showed different profiles of aPT or anti-B2GPI antibody reactivity, most likely due to differences in the LA classification criteria. The abnormal coagulation group showed high positive rates for aPT and anti-B2GPI antibodies compared to healthy controls. Determination of aPT and anti-B2GPI antibodies in plasma samples suspected of having LA activity may help in establishing the diagnosis of LA.

**To be presented at the 9<sup>th</sup> International Symposium on Antiphospholipid Antibodies in Tours, France, September 12-16, 2000.**