



## THE SIGNIFICANCE OF ANTIPHOSPHOLIPID ANTIBODIES IN A PATIENT WITH ANGIOIMMUNOBLASTIC LYMPHADENOPATHY (AILD)

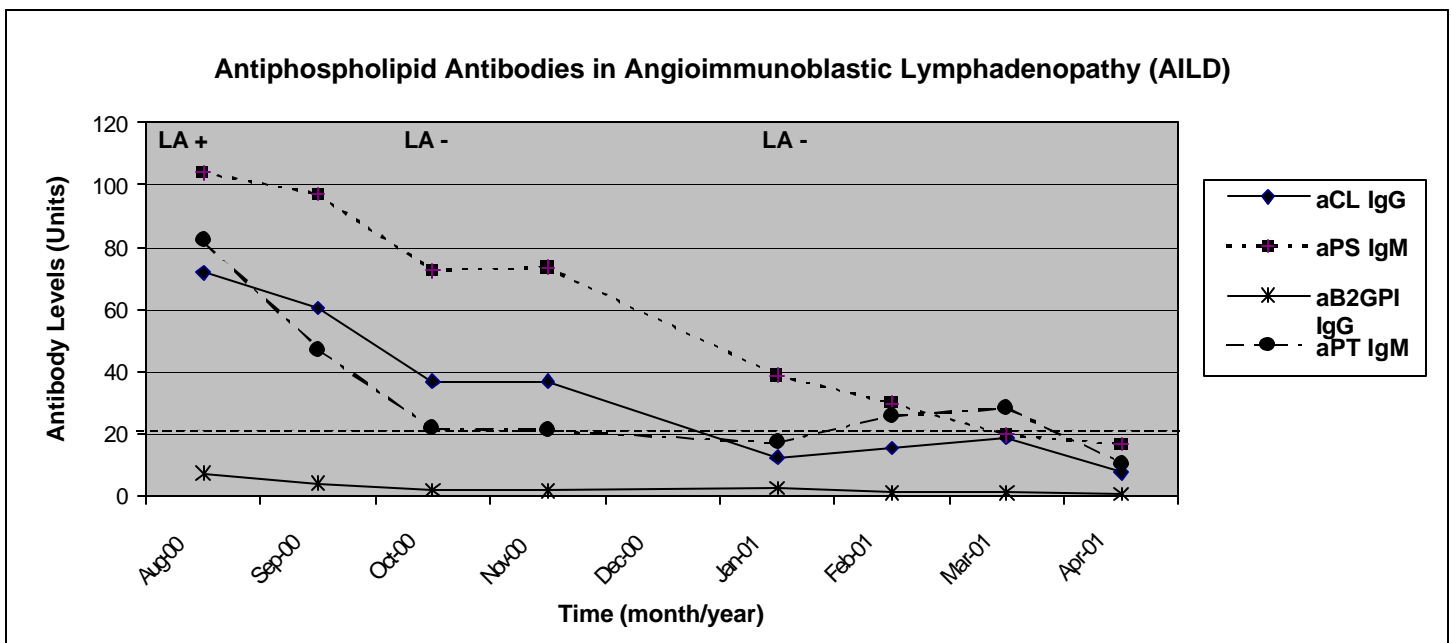
Angioimmunoblastic lymphadenopathy (AILD) is a hematologic condition thought to be the result of a clonal T-cell disorder, with significant proliferation of immunoblasts and plasma cells. These patients present with generalized lymphadenopathy (enlarged lymph nodes) but not lymphoma, however, some may undergo malignant transformation. Elevated serum gamma globulin (hypergammaglobulinemia), usually polyclonal, is almost invariably present in patients with AILD, and as a result, various serum protein abnormalities are frequently seen. High Epstein-Barr virus (EBV) antibody titers are common, but the exact cause-effect relationship with AILD is unknown. To our knowledge, the presence of elevated serum levels of antiphospholipid antibodies in patients with AILD has not been reported.

A middle aged male with arthritis, fever, progressive weight loss, generalized lymphadenopathy and erythematous skin rash is reported. This patient has been followed at a large teaching hospital and serially tested for antiphospholipid antibodies at Corgenix. The lymph node biopsy showed atypical plasmacytosis. Flow cytometry and T cell receptor gene

rearrangement studies were not conclusive for lymphoma. Serum protein electrophoresis showed hypergammaglobulinemia with 2 monoclonal peaks, serum IgM elevated to 1030 mg/dl (normal 60-263), HIV negative, EBV VCA IgG titer of 1/5120, and strong positive lupus anticoagulant (LA) test. The LA result prompted an antiphospholipid antibody evaluation to determine the risk for thrombosis and to consider anticoagulation therapy. Serum samples obtained over a 9-month follow-up period were tested for anti-cardiolipin (aCL), anti-phosphatidylserine (aPS), anti-beta 2 glycoprotein I (B2GPI) and anti-prothrombin (aPT) antibodies. Antiphospholipid antibody levels are summarized in the chart below.

This patient presented with very high levels of aCL and aPS (IgG and IgM isotypes), as well as IgM aPT antibodies. However, anti-B2GPI antibodies were consistently negative throughout the follow-up period. It is possible that the initial strong LA activity was related to the presence of aPT antibodies and not to aCL and aPS antibodies, as the levels of aPT antibodies declined rapidly. The aCL and aPS levels, although declining with clinical improvement, remained

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(Cont. from pg. 1)

within the moderate to strong positive range when the LA activity became negative.

It is reported in the literature that antiphospholipid antibodies developed during infections or malignant diseases are not associated with thrombosis. Following the proposed "Antiphospholipid Antibody Algorithm", the absence of anti-B2GPI antibodies in this patient suggests the "non-autoimmune" or "infectious" nature of these antiphospholipid antibodies. The patient was not anticoagulated and although closely watched, no thrombosis was recorded during the follow-up. Prednisone and cyclosporin treatment resulted in a rapid clinical and serologic improvement with a significant decrease in antiphospholipid antibody levels to normal or near normal levels, negative conversion of the LA activity, normal serum protein electrophoresis pattern, a 50% decrease in serum IgM, and significant decrease of the erythrocyte sedimentation rate. The EBV VCA IgG titer also decreased to < 1/80 (normal) in this patient. These results also suggest that the development of antiphospholipid antibodies in this patient may be "an effect" of the immunological abnormalities of AILD, as their levels decreased or returned to normal with clinical improvement and normalization of other serologic abnormalities.

### **READER ANNOUNCEMENTS**

• **NEW REAADS PRODUCTS CLEARED BY THE FDA:** Two new assays for the detection of anti-Prothrombin antibodies are now available from Corgenix. The REAADS IgG anti-Prothrombin (aPT) Test Kit (product #10238) and the REAADS IgM anti-Prothrombin (aPT) Test Kit (product #10240) are the first and only commercial methods to be cleared for in vitro diagnostic use in the U.S. With the addition of the aPT IgG and aPT IgM assays, Corgenix offers the most complete line of FDA-cleared ELISA products for the detection of antibodies related to the antiphospholipid syndrome:

1. anti-Cardiolipin (aCL) IgG, IgM, IgA
2. anti-Phosphatidylserine (aPS) IgG, IgM, IgA
3. anti-Beta-2 Glycoprotein I (aB2GPI) IgG, IgM, IgA
4. aPT IgG, IgM

Call our Technical Support Group for more information or to evaluate any of the Corgenix antiphospholipid products.

• **Reminder: The XVIIIth Congress of The International Society on Thrombosis and Haemostasis (ISTH)** will be held in Paris, France, from July 6-12, 2001 at the Palais des Congrès. We invite you to visit our booth during the exhibition (#F35), or meet with us during the Poster session on Wednesday, July 11 at the Hall Havane.

### **READER PRODUCT FEATURE**

#### **REAADS Anti-Prothrombin (aPT) IgG and IgM ELISA Test Kits**

For *In Vitro* Diagnostic Use

Assay format -	96-well microtiter plate (8 x 12 strips) with breakaway wells
Sample matrix -	Human serum or 3.2% sodium citrate plasma
Sample dilution -	1:51
Antigen substrate -	Human prothrombin
Conjugate -	Horseradish peroxidase (HRP) conjugated anti-human IgG or IgM
Chromogenic substrate -	TMB (single component)
Stopping solution -	0.36 N Sulfuric acid
Assay incubations	
Sample -	15 min @ room temperature
Conjugate -	15min @ room temperature
Substrate -	10 min @ room temperature
Wavelength -	450 nm
Clinical specificity -	IgG aPT 95%; IgM aPT 97%
Clinical sensitivity -	Unselected SLE: IgG 15%, IgM 12%; Primary APS: IgG 18%, IgM 27%
Product numbers -	10238 IgG aPT Test Kit 10240 IgM aPT Test Kit

• **The AACC/CSCC Annual Meeting and Clinical Laboratory Exposition** is scheduled for July 29 – August 2, 2001 at McCormick Place in Chicago, IL. We encourage you to visit the Corgenix booth (#2523) during the exhibition, which will be open from Tuesday, July 31 through Thursday, August 2. The following Corgenix abstracts have been accepted for presentation during the Hematology/Coagulation Poster Session at 10:00 AM Thursday, August 2, 2001:

**Antiphospholipid Antibody Recovery in Serum and Citrated Plasma by 4 Different Assays.** K. Dier, L. Olsen, C. Fink, L. Lopez. (Abstract #557)

**Comparative Sensitivity and Agreement of 4 Antiphospholipid Antibody Tests on Healthy and Diseased Populations.** K. Dier, D. Taylor, A. Whittier, L. Olsen, C. Fink, L. Lopez. (Abstract #558)

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Corgenix, Inc.

12061 Tejon Street

Westminster, Colorado 80234

Phone: (800)729-5661; fax: (303)457-4519

Outside the US: (303)457-4345

Website: [www.corgenix.com](http://www.corgenix.com)

e-mail: [techsupport@corgenix.com](mailto:techsupport@corgenix.com)