IMMUNOLOGY/IMMUNOHEMATOLOGY

Autoimmune Hemolytic Anemia Due to a Warm Auto-Hemolysin

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A 63 year old woman with a history of recurrent back pain was undergoing an evaluation by a neurosurgeon when an anemia and thrombocytopenia were discovered during a routine laboratory work-up. She had a history pointing toward questionable bouts of hematuria, unsupported by laboratory analysis. An immunohematologic work-up at that time revealed a positive Direct Coomb's Test (complement only). A short course of steroids (four days) was tried after which a splenectomy was performed with resolution of the thrombocytopenia but persistence of the presumed hemolytic anemia. An evaluation one month later gave questionable results with the Donath-Landsteiner test which could not be confirmed. Further testing by reference laboratory confirmed a rare warm auto-hemolysin (IgM). These antibodies have been detected rarely in severe cases of warm autoimmune hemolytic anemia.

Anti-Cardiolipin Antibodies as a Cause of "False Positives" in Lyme Disease Testing

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Anti-Cardiolipin Antibodies(ACA), which are commonly found in auto-immune disease patients, are reported to be associated with thrombotic events, thrombocytopenia and recurrent fetal loss. The Anti-Cardiolipin Antibody is known to cause false positive reactions in VDRL testing for syphilis. Since the Lyme Disease organism, Borrelia burgdorferi, is also a spirochete, we wanted to know if Anti-Cardiolipin Antibodies could also cause "false positives" in Lyme Disease Testing. We found there is a high degree of correlation between patients who tested positive for Borrelia burgdorferi by Immunofluorescence Assay(IFA) and/or Enzyme-Linked Immunosorbent Assay(ELISA) methods and also positive for Anti-Cardiolipin Antibodies by the ELISA method. Therefore it would appear that Anti-Cardiolipin Antibodies can be a cause of "false positives" in Lyme Disease Testing.

Major Rat Allergens Causing Laboratory Animal Allergies

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Occupational allergies can result in lost time at work and a change in position or vocation by the employee. Studies concerning the prevalence of laboratory animal allergies (LAA) have estimated the incidence of LAA among animal care workers to be eleven and thirty per cent. The rat is the most frequently reported cause of LAA (72.2%) and this study identifies the antigenic components of two major sources of rat protein: rat urine and rat epithelia. Four epithelial protein fractions and three urinary protein fractions were identified by column chromatorgaphy. These fractions were determined to have marked antigenic activity by the radioallergosorbent (RAST) inhibition assay. The results demonstrated that the rat urinary and the rat epithelial extracts had similiar antigenic components but also each had antigenic components unique to itself.

Laboratory Investigation for Presence of Anti-IgA following a Transfusion Reaction

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A 64-year-old woman was admitted to the coronary care unit with chest pains and bleeding ulcer. This case study will describe the laboratory investigation for causes of an anaphylactic reaction to a blood transfusion which resulted in the detection of anti-IgA in a patient with an IgA deficiency.