



Anti-β2-Glycoprotein I Autoantibody Expression as a Potential Biomarker for Strokes in Patients with Anti-Phospholipid Syndrome

Husham Bayazed

University of Zakho, Iraq

Abstract:

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This study sought to determine the frequency rates of anti-cardiolipin (aCL) dependent on the presence of β2-GPI, anti-β2-glycoprotein I (αβ2-GPI), and anti-phosphatidyl serine (aPS) IgG autoantibodies among stroke patients, and thus demonstrate the importance of testing for αβ2-GPI autoantibodies. All cases were under 50 years-of-age and had no recognizable risk factors.

Using ELISA to evaluate the presence of IgG isotype of aCL, αβ2-GPI, and aPS autoantibodies in their blood, the results indicated that the frequency of αβ2-GPI was 14/50 (28%), aCL was 11/50 (22%), and aPS was 9/50 (18%) among stroke patients. In contrast, aCL was detected in 2/30 (6.7%) of control subjects; each of the other anti-phospholipid antibodies (APLA) was never observed. Of all the αβ2-GPI+ cases, the incidence of stroke patients having the combined profile of αβ2-GPI + aCL was 11/14 (78.6%) and of αβ2-GPI + aPS was 9/14 (64.3%). Only 2/14 (14.3%) of these αβ2-GPI+ patients also expressed aCL in the absence of aPS. The frequency of patients expressing all three markers was only 9/14 (64.3 %). In none of the APS/stroke patients were aCL or aPS expressed in the absence of the αβ2-GPI. Conversely, αβ2-GPI as a sole marker was seen in 3/14 (21.4%) of these patients (i.e., in absence of either other marker). It was concluded from these studies that the among the three major forms of APLA examined, the presence of αβ2-GPI IgG autoantibodies appeared to correlate best with stroke in patients who were concurrently suffering APS.

Biography:

Prof Dr. Husham Bayazed has completed his PhD from University of Mosul, College of Medicine. He is now



Consultant Immunologist at Scientific Research Center, University of Zakho / Kurdistan Region. He is specialist in clinical Immunology with interest in Neuro-immunology and has published more than 25 papers in reputed journals and has been serving as scientific reviewers of many local and international medical journals. In addition of being Fellowship of ISC, Infection, Cancer and Immunology Advisory Board Member (EUROMDnet) (Belgium), Membership of World Stroke Organization, Membership of Metabolomics (USA), and Membership of American Association of Science & Technology.

Recent Publications:

1. Husham Bayazed, International Journal of Biology and Biotechnology, 2014
2. Husham Bayazed, Journal of the Neurological Sciences, 2013
3. Husham Bayazed, Journal of Immunotoxicology, 2012
4. Husham Bayazed, Sultan Qaboos University medical journal, 2007
5. Husham Bayazed, Qatar Medical Journal, 2007
6. Husham Bayazed, Saudi medical journal, 2003

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