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Anti-C1q antibody concentrations by ELISA in systemic lupus erythematosus**Audrey Margery-Muir**
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Systemic lupus erythematosus (SLE) is an inflammatory disorder in which autoantibodies contribute to impaired apoptosis and clearance of cell debris. Anti dsDNA and anti C1q antibodies have been implicated, as well as complement protein C1q itself. IgG autoantibodies reacting with the collagen like region of C1q protein (α C1q ab) were quantitated in serum of 56 patients diagnosed with SLE and undergoing treatment for variable periods, together with 33 age/sex-matched controls. Analysis of the results showed optimal sensitivity and specificity of 57% and 91% respectively at a cut-off concentration for positivity of 20 U/ml. The assay is a potentially useful confirmatory test for SLE, but is not suitable as a screening test for SLE with the probability of a positive test and SLE in an individual within a random population of only $\leq 1\%$. α C1q ab concentrations were detectable in all samples tested with concentrations manifesting no correlation with age and serum C1q levels in SLE patients and a negative correlation with age in controls. The α C1q ab detected by this assay do not react therefore with native C1q. In SLE patients, α C1q ab concentrations correlated with the concentrations of dsDNA antibodies, ($p = 0.0001$) and C-reactive protein and inversely with complement component C4 (C4) concentrations ($p = 0.041$). α C1q ab concentrations were not associated with individual therapeutic regimens, but were higher in those patients receiving a combination of three drug therapies and with the presence of renal disease. The diagnostic relevance of this complex autoantibody will require further definition of its antigenic specificities.

Biography

Audrey Margery-Muir is a PhD student at Curtin University (Perth, Western Australia) in the school of Biomedical Sciences. She has been researching the immune pathways involved in the pathology of SLE and has had 3 successful papers accepted/ published in well renowned papers. She is enjoying her research and hope to continue forward after the completion of her doctorate degree

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