117. The Association between Down's Syndrome and Systemic Lupus Erythematosus: A Case Report And Review Of Literature

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Background: Down's syndrome (DS) is a genetic disorder associated with trisomy of chromosome 21. There is a raised incidence of autoimmune diseases among DS patients. However it seems that association between DS and systemic lupus erythematosus (SLE) is not common. We reviewed 4 previous case reports and discussed if the immune disorders in Down's syndrome patients can predispose them to SLE as an autoimmune disease. Case presentation: A 17 year old male with Down's syndrome (DS) who had systemic lupus erythematosus(SLE) is described. His first presentation was chest pain causing by pericardial effusion. This patient fulfilled 6 of the revised criteria for the classification of SLE: malar rash, arthritis, pericarditis, leucopenia, positive ANA and positive anti ds DNA. He is on remission under treatment with prednisolone. Discussion: According to our literature review in medical sources, 4 Down's syndrome cases with SLE presentation had been reported. Characteristics of these 4 cases are compared. Considering this fact that enhanced autoantibody production and apoptosis have very important roles in pathogenesis of SLE may lead us to conclude that DS patients have some immune disorders that predispose them to develop SLE more than healthy population. To prove this claim more clinical and immunological studies are needed.

Keywords: Down's Syndrome, Systemic Lupus Erythematosus

118. The Beneficial Effects of Therapeutic Plasma Exchange on the Frequency, Proportion and Function of the Most Important Subsets of CD4+ T Lymphocytes in the Immuno-Pathogenesis of Multiple Sclerosis: Regulatory T Cells and Th17 Cells

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Plasma exchange is used increasingly as an individual therapeutic decision in the treatment of severe, steroid resistant relapses of Multiple Sclerosis (MS). However, its mechanism of action in this CD4+ T cell mediated autoimmune disease remained unknown. Clarifying the effects of therapeutic plasma exchange on Regulatory T cells as the major controllers and Th17 cells as the main promoters of MS, may help us to use this procedure as a disease modifying treatment in remission phase for reducing the rate and severity of future attacks. In this regard, we hypothesized that plasma exchange provides the immune system an exceptional break for de novo recognizing of myelin auto-antigens in a tolerogenic manner, by depleting the body of inflammatory mediators that acts as providers of co-stimulatory signals for the adaptive immune system. This may lead to an increase in the frequency and function of regulatory T cells and in contrast, a decrease in the frequency and function of Th17 cells. To investigate the reality of this hypothesis, for the first time in the world, we are going to compare the frequency, proportion and function of these cells before the first and after the last session of therapy in a group of 20 Relapsing-Remitting MS patients under the course of therapeutic plasma exchange. The plan of techniques for investigating this issues will be flowcytometric assays for the frequency and ratio of lymphocyte subsets, Real-time PCR for the assessment of the expression levels of lymphocyte subsets specific transcription factors, and co-culture inhibition assays for evaluation of the inhibitory function of regulatory T cells on the autologous responder T lymphocytes. We are now at the beginning of this study. So the results and conclusion about our hypothesis will be reported in the future.

119. The Relation between Some Biochemical Parameters by Balancing Pro-Oxidant-Antioxidant in Rheumatoid Arthritis Disease

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Background: Rheumatoid arthritis is mainly characterized with non-exclusive inflammation of local joints or joints inflammation, morning stiffness. In rheumatoid arthritis patients, increased free radicals of oxygen (ROS) act as mediators of tissue damage. This point emphasizes on the necessity of applying appropriate methods for examining tissue oxidative condition and antioxidant compounds capabilities in patients with rheumatoid arthritis. Then, we considered its relation with biochemical parameters. Materials and Methods: In surveying 100 patients with rheumatoid arthritis, the index rate of oxidant was compared in case group and control group using independent T Test. Results: Due to the fact that P Value <0.001, we observed a meaningful difference, and the result of misbalancing oxidant-antioxidant in the group with rheumatoid arthritis favored the increase of oxidant. In examining biochemical parameters in patients with rheumatoid arthritis, urea has decreased while uric acid content has increased. By examining the relationship between biochemical parameters and oxidant-antioxidant balance we observed that