Background: As considerable evidence indicates viruses play an important role in the pathogenesis of inflammatory rheumatic diseases as environmental factors. The most prominent pathogenic viruses which have been proposed in the triggering and initiation of autoimmune diseases include Parvovirus B19, Epstein-Barr-virus (EBV), Cytomegalovirus (CMV), Herpes virus-6, HTLV-1, Hepatitis A and C virus, and Rubella virus. It is possible that COVID-19 infection is also a trigger. Because SARS-CoV-2 infection can break immune tolerance and trigger autoimmune responses, it is also likely to induce clinical autoimmunity. Objectives: Find out a possible association between COVID-19 infection and development of IMDs.

Methods: We analyzed data of 21 patients (Male 4/19%, female 17/81%, mean age 45.5 ± 13.9 years), who were admitted to Rheumatology department of “Mikayelyan” University Hospital after Covid-19 infection with newly diagnosed IMDs from June till December 2021. All included patients had never had such kind of disorder before. EULAR/ACR criteria were used for diagnosis and assessment of disease activity.

Results: After SARS-CoV-2 infection some patients presented with preserved fever, high levels of CRP and ESR, had rash and arthritis. Particularly, 3 (14.3%) developed systemic lupus erythematosus, 3(14.3%) – antiphospholipid syndrome, 4 (19%) – rheumatoid arthritis, 2(9.5%) – spondyloarthritis, 3 (14.3%) – sarcoidosis, 4 (19%) - erythema nodosum, 1 (4.8%) - small-vessel vasculitis, 1 (4.8%) - undifferentiated arthritis, and 1(4.8%) - Tietze syndrome. 11 (52.4%) experienced severe course of Covid-19 with pneumonia and respiratory failure, in 10 (47.6%) patients the course of disease was mild. We’ve found a significant association between severe course of Covid-19 and development of erythema nodosum. (p< 0.05). Also an association between female gender and severe course of Covid-19 was determined (p<0.03).

Conclusion: In acute progression of the COVID-19 along with development of antiviral immunity, a dysregulated response of immune system may occur, represented by the marked cytokine release syndrome, macrophage activation, and systemic hyperinflammation. We analyzed the data of patients who didn’t have any typical symptom of rheumatic diseases before coronavirus infection, therefore, on our opinion, virus played an important role to induce clinical autoimmunity and autoinflammation and subsequently – IMDs. Possibly, Covid-19 infection may be included in the group of trigger viruses for IMDs.

REFERENCES:


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AB1109

EVALUATION OF THE POTENTIAL INDUCTION OF AUTOANTIBODIES AFTER THE ANTISARS-COV2 VACCINATION IN A COHORT OF PATIENTS WITH TRIPLE POSITIVITY FOR ANTIPHOSPHOLIPID ANTIBODIES

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Background: Anti-SARS-CoV2 vaccines showed a good efficacy in prevention of severe COVID-191. Their potential in induction of autoantibodies (abs) has not been well established1. One recent study demonstrated an increase of abs’ titre after anti-SARS-CoV2 vaccination only in patients with already pre-existing positivity1. Objectives: To evaluate the potential induction of abs after anti-SARS-CoV2 vaccination in a triple positivity for antiphospholipid Abs (PAPS) group.

Methods: 18 subjects were enrolled (M/F= 17/1; median age=52 years; 5 Primary Antiphospholipid Syndrome (PAPS), 5 Systemic Lupus Erythematosus...