

Systemic lupus erythematosus and varicella-like rash following COVID-19 in a previously healthy patient

We have read the recent article by Slimani et al. entitled "Systemic lupus erythematosus and varicella like rash following COVID-19 in a previously healthy patient."¹ They have described a healthy 23-year-old patient who presented, coincidentally with COVID-19, a systemic lupus erythematosus (SLE). They concluded that the SLE disease was triggered by COVID-19. They have written in the discussion section that viruses, including parvovirus B19, Epstein-Barr virus, cytomegalovirus, herpes virus-6, HTLV-1, hepatitis A and C virus, and rubella virus are linked to SLE and maybe have a possible role in the pathogenesis of the disease. Available data indicate that viral-induced autoimmunity can be activated through multiple mechanisms, mainly via molecular mimicry. Other mechanisms include epitope spreading, bystander activation, and immortalization of infected B cells. Recent studies have shown that acute viral infections such as parvovirus B19 and EBV can mimic lupus, trigger lupus, or trigger SLE Flares.² Slimani et al. should have evaluated the patient for other viral infections, especially EBV. Therefore, they cannot conclude that COVID-19 alone has definitely triggered SLE. If they had evaluated the presence of infection with the noted viruses at least by enzyme-linked immunosorbent assay and had obtained negative results, they could strongly link the SARS-CoV-2 to SLE. To date, several reports of SLE with COVID-19 have been published, but none of them tested the patient for other acute or chronic viral infections associated with SLE.^{1,3-5} A severe immune activation in patients with COVID-19 results in an acute respiratory distress syndrome, and a cytokine storm. New coronavirus increases interferon- γ , tumor necrosis factor- α , macrophage inflammatory protein-1 α , IL-2, IL-6, IL-7, IL-10, in patients, that show a form of secondary hemophagocytic lymphohistiocytosis or macrophage activation syndrome (sHLH/MAS). Previous studies reported HLH in the background of SLE.⁶ Acute infection with coronavirus may produce autoantibodies, such as anti-CCP antibodies and antinuclear antibodies. Future reports can support or refute this hypothesis.

CONFLICT OF INTERESTS

The authors declare that there are no conflict of interests.

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