Correspondence on 'Systemic sclerosis and the COVID-19 pandemic—World Scleroderma Foundation preliminary advice for patient management'

The actual question is raised in this article whether it is worth continuing the immunosuppressive treatment in patients with systemic sclerosis (SSc) if they are diagnosed with COVID-19 infection.[1] The clinical effectiveness of immunosuppressive therapy remains highly controversial. We would like to comment on this issue based on all available sources regarding the prolongation of immunosuppressive therapy in patients with SSc and COVID-19 and share our point of view.

Cases of patients infected with COVID-19 with rheumatic diseases (including a patient with SSc) are described in the article 'COVID-19 with rheumatic diseases: a report of five cases'. Patients with rheumatic diseases have an immune disfunction during the therapy with glucocorticoids and the biological therapy, which predispose them to an increased risk of contracting SARS-CoV-2 infection. For example, a severe form of COVID-19 was developed in a 79-year-old patient with SSc who received methylprednisolone at a dosage of 8 mg/day over the past year. Interstitial lung disease (ILD) was not diagnosed before the hospitalisation. IL-6 and IL-10 levels were elevated in this patient. It is worth mentioning the fact that the signs of COVID-19 and the ILD in patients with SSc are similar, and superinfection COVID-19 significantly makes the prognosis worse.[2–5]

There is evidence that drugs such as tocilizumab and JAK kinase inhibitors may be useful in preventing inflammatory storm in patients with SSc and COVID-19. For example, a case is described in a patient who received a monthly injection of tocilizumab and a mild course of COVID-19 was developed. At the same time, questions arise whether it is worth stopping the immunosuppressive therapy in patients with SSc during the COVID-19 infection.[3 6]

There are three cases of patients with SSc and the coronavirus infection are presented in the article; patients received rituximab regularly. In all patients, the condition worsened to the severe pneumonia. Patients took glucocorticoids, tocilizumab, heparin and antibiotics, which led to an improved outcome. The authors suggest that rituximab, methotrexate and the long-term usage of glucocorticoids could initially limit the cytokine storm syndrome, but their action was insufficient, which led to a delayed deterioration in the patient's condition.[7]

Systemic glucocorticoids are not recommended by the Centres for Disease Control and Prevention during the critical phase as it may prolong the elimination of the virus.[8] In the critical course of COVID-19, the usage of systemic glucocorticoids is not recommended, especially at a dose exceeding 20 mg/day, as their immunosuppressive activity will contribute to a more severe and prolonged course of coronavirus infection.[9]

Questions of the influence of immunosuppressive drugs on coronavirus infection, considered by rheumatologists, are under discussion. It is not recommended to stop taking glucocorticoids rapidly. Patients with positive dynamics while taking IL-6 inhibitors are advised to continue taking them.[10 11]

Analysing a review of studies on the course of COVID-19 in patients with systemic scleroderma, we come to the conclusion that it is necessary to continue the immunosuppressive therapy (glucocorticoids at a dose not exceeding 20 mg/day and tocilizumab).

Based on the available data, we have contradictions, and, accordingly, questions arise about the duration, dosage, intensity of therapy, prolongation and repeated courses of immunosuppressive therapy after the recovery of patients with SSc who had COVID-19 infection. It is also necessary to find out what are the criteria for the effectiveness and safety of the immunosuppressive therapy? Are there markers (indicators of a general blood test/a biochemical blood test/coagulogram, etc) that indicate a positive or negative dynamic?

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