

Rituximab

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Persistent COVID-19 infection: case report

A man [*age not stated*] developed persistent COVID-19 infection during treatment with rituximab.

The man infected with the SARS-CoV-2 virus (day 01). He was receiving rituximab [*dosage, route and indication not stated*]. On day 25, he was admitted with cough, general weakness and dyspnoea. RT-PCR of a nasopharyngeal sample was tested positive for corona virus. He received two units of off-label convalescent-anti-SARS-CoV-2-plasma [convalescent plasma], unspecified systemic steroids, unspecified anticoagulants and vitamin D. He had a good response. During the admission, radiographic imaging revealed about 50% of lung injury. He was discharged on day 41. Anti-SARS specific- coV-2 IgG was negative, whereas RT-PCR assay was still positive. On day 61, he was re-admitted with fever. Laboratory examinations revealed signs of inflammation. Repeated SARS-CoV-2 RT-PCR test was positive. The complete blood count revealed thrombocytopenia and severe lymphopenia. Inflammatory parameters including C-reactive protein, D-dimer, ferritin and fibrinogen were elevated. He was diagnosed with a continuous persistent COVID-19 infection due to rituximab treatment.

The man received off-label treatment remdesivir (10 day course), four units of convalescent-anti-SARS-CoV-2-plasma, IV immune-globulin 120g [immunoglobulin] and one dose of ivermectin 15 mg. He was improved and within 10 days he was discharged. The elevated laboratory values were decreased after the treatment. On the day of discharge (day 77), an RT-PCR assay of a nasopharyngeal swab was negative for the COVID-19 infection.

Basheer M, et al. Clearance of the SARS-CoV-2 Virus in an Immunocompromised Patient Mediated by Convalescent Plasma without B-Cell Recovery. *International Journal of Molecular Sciences* 22: No. 16, 18 Aug 2021. Available from: URL: <http://doi.org/10.3390/ijms22168902>

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