

## Immunosuppressants

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**COVID-19: case report**

A 62-year-old man developed COVID-19 following immunosuppressive treatment with rituximab, cyclophosphamide, prednisolone and methylprednisolone [*not all routes stated*].

The man, who had history of chronic lymphocytic leukaemia (CLL), was initially evaluated in Clinic for Nephrology and Renal Transplantation of Laiko Hospital of Athens, Greece, in July 2019 for nephrotic syndrome and impaired kidney function (Chronic Kidney Disease stage III). Based on kidney biopsy findings, he was diagnosed with cryoglobulinaemic glomerulonephritis. Therefore, he started receiving rituximab four weekly doses of 375 mg/m<sup>2</sup>, IV cyclophosphamide three monthly infusions of 500 mg/m<sup>2</sup> and prednisolone 0.75 mg/kg for 3 weeks, followed by a slow taper. The last infusion of cyclophosphamide was administered in October 2019 (total dose administered 3g). At last follow-up in February 2020, 6 months from the therapy initiation, creatinine and proteinuria levels were decreased, and he was receiving methylprednisolone 6 mg/day. On 16 March 2020, he presented to the emergency department with dry cough and high fever. He reported no travel history or contact with a coronavirus-infected patient. His symptoms had started 5 days prior to presentation and rapidly deteriorated on the day of admission. On physical examination he was tachypnoeic with oxygen saturation at 93%. The throat swab sample tested positive for SARS-CoV-2 (RT-PCR). He was then transferred to a referral hospital for COVID-19. A chest CT scan revealed diffuse bilateral infiltrates. He had stage IIb pneumonia with hypoxia.

Along with respiratory support with oxygen therapy, the man started receiving off-label treatment with hydroxychloroquine 200mg twice daily and ceftriaxone. His clinical status deteriorated rapidly. Two days later, he was transferred to the ICU and put on mechanical ventilation due to respiratory failure. Off-label azithromycin 500mg once daily for 7 days was started in the ICU. Remdesivir was not administered because of renal

impairment. He remained haemodynamically stable without vasopressors support and maintained a satisfactory urine output in spite of a transient renal function deterioration. His respiratory function gradually improved. After 7 days he was discharged from the ICU to the rehabilitation unit. Meanwhile, a CT scan performed on the 16th day of hospitalisation revealed a remarkable improvement in the lung lesions. After 25 days of hospitalisation, he was discharged home. Thereafter, he remained in a good clinical condition.

Marinaki S, et al. A Patient with Cryoglobulinemic Membranoproliferative GN (MPGN) Who Survived COVID-19 Disease: Case Presentation and Current Data of COVID-19 Infection in Dialysis and Transplanted Patients in Greece. *Medicina (Kaunas, Lithuania)* 56: No. 7, 17 Jul 2020. Available from: URL: <http://doi.org/10.3390/medicina56070355>

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