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ritonavir (1.4%) (Supplementary Table S1). On October 21, 2020, after a median follow-up of 151 days (interquartile range 128–192 days) post-initiation of KRT, 36 patients (48.6%) had died during hospitalization, 1 patient (1.4%) was still hospitalized, and 37 (50%) had been discharged. In discharged survivors, the median overall duration of KRT was 27 days (interquartile range 11–50 days). At the end of follow-up, 3 patients (8.1%) were KRT-dependent while the remaining 34 patients (91.9%) had achieved variable degrees of renal recovery, including 23 patients (62.2%) with full renal recovery (Figure 1; Supplementary Table S1). These findings indicate that renal recovery is common in COVID-19 survivors even after long periods of KRT requirement during AKI. This information may be of value for patients with COVID-19 and their clinicians when it comes to deciding about the initiation or continuation of KRT.

SUPPLEMENTARY MATERIAL

Supplementary File (PDF)

Table S1. Patient characteristics and outcomes.

1. Gupta S, Coca SG, Chan L, et al. AKI treated with renal replacement therapy in critically ill patients with COVID-19. *J Am Soc Nephrol.* 2021;32:161–176.
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3. Chan L, Chaudhary K, Saha A, et al. AKI in hospitalized patients with COVID-19. *J Am Soc Nephrol.* 2021;32:151–160.

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Two episodes of severe acute respiratory syndrome coronavirus 2 infection in a patient on chronic hemodialysis: a note of caution



To the editor: Knowledge of coronavirus disease 2019 patterns in frail patients is still incomplete. Patients on chronic hemodialysis have a high risk of both infection and severe disease because of their fragility and unavoidable health care-related contacts.

Data from France in December 2020 show that the cumulative incidence of severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) infections reached 9% in the population on hemodialysis, with a mortality of 15% (Bulletin of the French Agency of Biomedicine, December 14, 2020). The diagnosis may be challenging: false negatives are frequent, and the persistence of positivity may be prolonged.

In this regard, we report an 89-year-old man on chronic hemodialysis for end-stage kidney disease secondary to nephroangiosclerosis and in the third month of palliative chemotherapy with 5-fluorouracil for metastatic liver cancer. He was screened because of a positive cluster in his nursing home. He was found positive for SARS-CoV-2 by a nasopharyngeal polymerase chain reaction test on November 5, 2020 (cycle threshold [Ct] for the RNA-dependent RNA polymerase [RdRp] gene [Ct_{RdRp} 22]; Ct for the nucleoprotein [N] gene [Ct_N 20]; Ct for the positive control [pos_ctrl] [Ct_{pos_ctrl} 30]; EurobioPlex SARS-CoV-2 Multiplex, Eurobio Scientific, Les Ulis, France) with no detectable anti-SARS-CoV-2 total IgG (Elecys Anti-SARS-CoV-2 S assay, Roche, Switzerland). He was hospitalized for surveillance from November 6–13 in the COVID unit at the Centre Hospitalier Le Mans, where he remained asymptomatic, and no imaging studies nor specific treatment was performed. Two polymerase chain reaction SARS-CoV-2 tests resulted negative on November 11th and 13th; isolation measures were discontinued, and he resumed treatment in his usual dialysis center. On November 27th, the patient experienced shivering during the dialysis session; a chest computed tomography scan showed right basal consolidation (Figure 1a), and amoxicillin/clavulanic acid was empirically started. On December 2nd, his clinical conditions worsened with dyspnea and an oxygen saturation of 90%. A chest computed tomography scan showed bilateral pulmonary honeycombing, highly suggestive of coronavirus disease 2019 (Figure 1b); the diagnosis was confirmed by a positive polymerase chain reaction SARS-CoV-2 nasopharyngeal test (Ct for the envelope protein [E] gene [Ct_E 25.6]; Ct_{RdRp} 28.9; Ct_N 28.9; Allplex 2019-nCoV Assay, Seegene Inc., Seoul, South Korea); the anti-SARS-CoV-2 IgG titer was 4.26 U/ml (normal values < 0.8). At the time of the present report, he was slowly

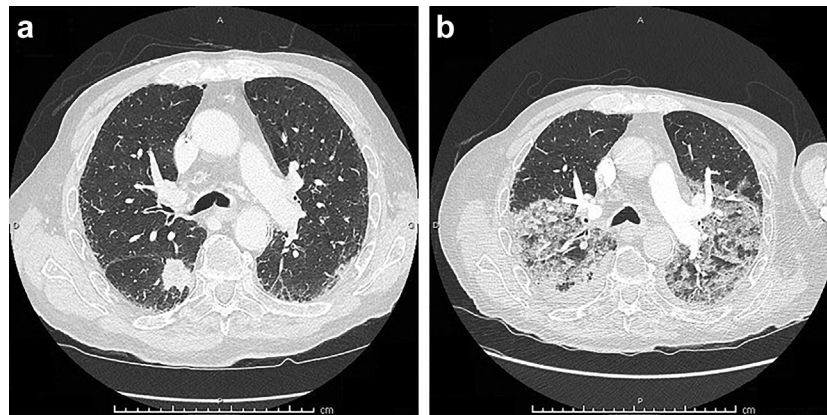


Figure 1 | Chest computed tomography scan. (a) November 26, 2020; (b) December 3, 2020.

recovering, the IgG titer was 72 U/ml, and he still had a positive reverse transcription polymerase chain reaction nasopharyngeal test.

So far, no clear SARS-CoV-2 reinfection/reactivation has been reported in a patient on dialysis aside from 1 case, in which clinical infection followed the serendipitous demonstration of positive low-titer SARS-CoV-2 IgG antibodies.¹ Our case further suggests the possibility of developing severe reinfection/viral reactivation in a patient on hemodialysis and allows us to make some general considerations.

First, it should underline that reinfection or subclinical persistence of the virus is possible in patients on dialysis; the diagnosis of reinfection/reactivation was delayed in our case because the possibility was considered low, postponing molecular testing after a highly suggestive computed tomography scan. Although anecdotal, this case suggests applying a high level of clinical suspicion in all patients with a history of SARS-CoV-2 infection, with even more aspecific signs and symptoms, including fever.

Second, the interpretation of the case is incomplete, because viral genotyping is not available and biological samples are not routinely biobanked. This highlights the importance of extensively studying the dialysis population: the combination of strict hospital controls and high susceptibility to infection may allow better understanding of the unusual patterns of SARS-CoV-2.

Last, this case may advise caution in evaluating the reentry of patients with SARS-CoV-2 infection among other patients who had undergone hemodialysis. In our case, a first false-positive test is unlikely, both because of the rarity of this occurrence and because of considering the antibody positivity time frame.² However, 2 consecutive negative tests do not fully exclude a false-negative result. Worth noting are the recent reports of shedding viable virus from immunocompromised patients up to 2 months from the initial diagnosis.³ For those reasons, which highlight the uncertainties with regard to this new disease, the *a priori* policy of discontinuing isolation without further testing after a symptom-free period of 20 days should probably be reconsidered on a case-by-case basis in patients on hemodialysis.^{4,5}

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4. European Centre for Disease Prevention and Control. *Guidance for Discharge and Ending Isolation of People With COVID-19*. Stockholm, Sweden: European Centre for Disease Prevention and Control; 2020.
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Personalized phospholipase A2 receptor antibody-driven rituximab treatment strategy in membranous nephropathy



To the editor: In the Sequential Treatment with Tacrolimus and Rituximab versus Alternating Corticosteroids and Cyclophosphamide in Primary Membranous Nephropathy trial, Fernández-Juárez *et al.* have shown that a sequential tacrolimus/rituximab protocol is effective yet inferior to the