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Care of Asymptomatic SARS-CoV-2 positive Kidney Transplant Recipients

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To the Editor,

Sharing of experience amongst transplant community through various platforms and rapid publications has proven invaluable during the COVID-19 pandemic (1-3). The general consensus seemed to be that most kidney transplant recipients would have a moderate or mild course, although some may progress to a more severe disease. It was recommended to stop or decrease the dose of anti-proliferative agents and continue with calcineurin inhibitors (CNIs) and maintenance steroids (4). The approach to asymptomatic SARS-CoV-2 positive kidney transplant patients remains unclear, however with this letter, we want to share our recent experience with an

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asymptomatic SARS-CoV-2 positive kidney transplant patient followed-up on an outpatient basis.

We were informed that a 41 years old lady, whose primary kidney disease was unknown with a kidney transplantation from a deceased donor in 2002 after four years of hemodialysis and who was on extended-release tacrolimus 4 mg/day and mycophenolic acide (MPA) 360 mg bid had a positive nasopharyngeal swab test for COVID-19. She had no history of rejection, diabetes or hypertension with a stable graft function at a creatinine level of 1.2 mg/dL. She informed us by a telephone call that she was diagnosed to be SARS-CoV-2 positive with nasopharyngeal swab PCR test during the screening performed at home because of a household exposure to a family member with COVID-19. Her husband was diagnosed COVID-19 two days ago and he had myalgia and fever but she did not report any signs or symptoms that might be related to SARS-CoV-2. We reduced the MPA dose to 360 mg daily, started hydroxychloroquine (HQ) 200mg twice daily for 5 days and recommended her self-isolation at home for decreasing viral exposure from her husband, protecting her children and that she should report back should she develop any symptoms in which case she would need to be admitted to the hospital since she refused to come to the hospital at the time. The patient was followed by daily tele-visits inquiring about her condition. She did not report any symptom during follow-up. On the 14th day, she presented to the hospital for control tests when her creatinine was 1.23 mg/dL, white blood cells were 4800/µL, neutrophils 3100/µL, lymphocyte count 1400/µL, tacrolimus level was 7,4 µg/L. Nasopharyngeal swab PCR test for SARS-CoV-2 was negative while antibody testing was positive for IgG following which MPA dose was increased to 720 mg/day.

An asymptomatic benign course may also occur during COVID-19 as in our case. Treatment and follow-up strategies of kidney transplant recipients mostly depend on course of the disease. According to the recommendation of a recent paper, mild cases should continue to receive their CNIs and steroids but their antiproliferative drugs should be stopped (4). However data on care of asymptomatic patients were scarce. Recently DESCARTES group made a suggestion and they recommend no modification in asymptomatic cases (5). We reduced the immunosuppressive medications in our patient since we were unable to follow her course closely and

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she had a low rejection risk . Renal transplant patients with a severe disease risk however deserve further reduction in immunosuppressive treatment. The defined risk factors for a severe COVID-19 disease are advanced age, presence of comorbidities such as diabetes, hypertension, chronic kidney disease, pulmonary disease, obesity and lymphocyte-depleting therapy in the last 3 months for transplant patients (5).

Ali Husain et al. published their experiences in a symptomatic kidney transplant recipient with COVID-19 at an outpatient setting and they found similar demographic and clinical characteristics compared with inpatient cases (6). According to a recent review by Gleeson et al. criteria for outpatient follow-up were proposed to be lack of fever, no dyspnea, maintaining adequate oral intake, and the ability to maintain close communication with their transplant team (7). Advantages of this approach are avoiding unnecessary laboratory and imaging diagnostics, unnecessary burden in the health system and exposure of uninfected individuals. The clinicians are faced with some challenges for the specific treatment of COVID-19 since due to the continuing accumulation of data the treatment recommendations and algorithms are still evolving. At the time of our patient's presentation, our national guideline recommended HQ which we started at the time, but recent publications showed no beneficial effect of HQ in COVID-19 treatment. (8, 9)

In conclusion, care of asymptomatic COVID 19 positive patients should include decreasing immunosuppressive drug doses based on the clinician's judgment, advising self-isolation and self-monitorization at home and strict telephone communication with the physician. Accumulation of data about the asymptomatic transplant recipients on home follow-up will provide further information to lead the approach in future.

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