Since January 2020 Elsevier has created a COVID-19 resource centre with free information in English and Mandarin on the novel coronavirus COVID-19. The COVID-19 resource centre is hosted on Elsevier Connect, the company's public news and information website.

Elsevier hereby grants permission to make all its COVID-19-related research that is available on the COVID-19 resource centre - including this research content - immediately available in PubMed Central and other publicly funded repositories, such as the WHO COVID database with rights for unrestricted research re-use and analyses in any form or by any means with acknowledgement of the original source. These permissions are granted for free by Elsevier for as long as the COVID-19 resource centre remains active.

LETTER TO THE EDITOR

COVID-19 Vaccination in Immunoglobulin A Nephropathy

To the Editor:

The timely editorial from Bomback et al[1] on de novo and relapsing glomerular diseases after COVID-19 vaccination noted that immunoglobulin A nephropathy (IgAN) was one of the most frequently reported glomerulonephritides in this context. However, the absolute incidence was low, with 10 reports of de novo or relapsed IgAN, including 1 from our institution.[2] Vaccine trial safety data in IgAN are lacking in part because immunosuppressed patients, including those with glomerular diseases, were generally excluded.[3] We reviewed 145 IgAN patients diagnosed between December 2015 and March 2021 and on active follow-up, and noted that 61.4% had received at least 1 dose of messenger RNA–based COVID-19 vaccine. All patients except 1 (described in[2]) had pre-existing IgAN diagnosed before their vaccination. None of those with pre-existing IgAN who had COVID-19 vaccination reported gross hematuria at a median 28 (interquartile range, 15-50) days' follow-up. Among 29 patients with pre-existing IgAN who had kidney function, urine microscopy, and proteinuria evaluated at 11 (18-33) days after vaccination, 2 had mildly increased serum creatinine with increased hematuria and proteinuria. None required initiation or escalation of immunosuppressive therapy. The possibility of a treatable flare after vaccination should be weighed against the significantly increased risk of COVID-19-related mortality in patients with kidney disease.[4]

Cynthia Ciwei Lim, MMed (Singapore), MRCP (UK), Jason Choo, MRCP (UK), MMed (S'pore), Chieh Suai Tan, MBBS, MRCP (UK)

Article Information

Authors' Affiliation: Department of Renal Medicine, Singapore General Hospital, Singapore.

Support: None.

Financial Disclosure: The authors declare that they have no relevant financial interests.

Acknowledgements: We thank Hui Zhuan Tan, Zhong Hong Liew, and Irene Mok for contributions to this work.

Patient Protections: Ethics review was not required according to the SingHealth Centralized Institutional Review Board determination (reference number 2021/2356) for this service evaluation, as participants were not subjected to additional risks or burdens beyond usual clinical practice.

Peer Review: Received July 7, 2021. Accepted July 7, 2021 after editorial review by a Deputy Editor.

Publication Information: © 2021 by the National Kidney Foundation, Inc. Published online July 14, 2021 with doi 10.1053/j.ajkd.2021.07.001

References

1. Bomback AS, Kudose S, D'Agati VD. De novo and relapsing glomerular diseases after COVID-19 vaccination: what do we know so far? *Am J Kidney Dis*. 2021;78(4):477-480.
2. Tan HZ, Tan RY, Choo JCJ, et al. Is COVID-19 vaccination unmasking glomerulonephritis? *Kidney Int*. 2021;100(2):469-471.
3. Glenn DA, Hegde A, Kotzen E, et al. Systematic review of safety and efficacy of COVID-19 vaccines in patients with kidney disease. *Kidney Int Rep*. 2021;6(5):1407-1410.
4. Zhou F, Yu T, Du R, et al. Clinical course and risk factors for mortality of adult inpatients with COVID-19 in Wuhan, China: a retrospective cohort study. *Lancet*. 2020;395(10229):1054-1062. [Erratum in: *Lancet*. 2020;395(10229):1038].

RESEARCH LETTER

Outcomes From Infections With Variant Strains of SARS-CoV-2 Among Patients Receiving Maintenance Hemodialysis

To the Editor:

Even though safe and effective vaccines have been developed for SARS-CoV-2, variants of concern continue to emerge.[1,2] We present a comparison of 2 COVID-19 waves in 2 hemodialysis facilities. Patients in 1 hemodialysis facility ("wave 1") were infected by nonvariant SARS-CoV-2 between July and October 2020. Patients from the second facility ("wave 2") became ill between December 28, 2020, and January 10, 2021 and were infected by a variant SARS-CoV-2 from the B.1.362 lineage, termed IVUI-L452R (Israeli variant under investigation with L452R mutation). Genetic mutations were detected by next-generation sequencing. Detailed methods and figures showing timelines are in Item S1.

This analysis includes 33 patients, 26 from wave 1 and 7 from wave 2. Baseline clinical characteristics were similar between the groups except for a higher frequency of diabetes and heart failure among wave 1 patients (Table S1).

Table 1 and Fig 1 compare clinical presentation and disease severity. Five of 26 patients from wave 1 were asymptomatic and diagnosed by postexposure surveillance, while all patients from wave 2 were symptomatic.

COVID-19 severity was significantly worse in patients from wave 2, with more with critical COVID-19 (71% vs 8%, $P = 0.005$, Fig 1), as well as borderline statistically significantly higher need for noninvasive ventilation ($P = 0.05$), mechanical ventilation ($P = 0.05$), and hemodynamic support ($P = 0.05$). Medical treatment is detailed in Table S2.

In-hospital mortality was significantly higher among wave 2 patients (57% vs 8% in wave 1; $P < 0.005$), corresponding to an odds ratio of 16 (95% CI, 2-127.9). Overall mortality was also significantly higher for wave 2 patients (71.4% vs 15.4% for wave 1; $P < 0.001$) despite shorter follow-up (39 ± 4 vs 129 ± 54 days; $P = 0.003$).

In this retrospective study, patients infected with IVUI-L452R SARS-CoV-2 had significantly poorer outcomes and