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## LETTER TO THE EDITOR

## Liver transplantation in COVID-19 positive patients

## To the Editor:

We read with great interest the article by Rouphael et al. in the *American Journal of Transplantation*,<sup>1</sup> and would like to highlight several points. First, the title and the introduction suggest that a liver transplant was performed in a recipient who was positive for SARS-CoV-2. However, the most recent preoperative reverse transcriptase polymerase chain reaction (RT-PCR) testing was, in fact, negative. Patient's lack of any pulmonary symptoms or signs, along with the fact that 6–10 weeks earlier, she cared for her significant other with COVID-19, undoubtedly suggest that at the time of transplantation, this young and previously healthy recipient had fully recovered from symptomatic, remote exposure to COVID-19. Seemingly, no special intraoperative or postoperative isolation or precautions for COVID-19 were provided, and standard of care postoperative immunosuppression induction was given. The authors themselves state that the recipient was deemed not to have an active COVID-19 infection. Therefore, their conclusion that the reported case “is an important addition to the literature given the emerging evidence and concerns for increased mortality and pulmonary complications in patients with SARS-CoV2 undergoing surgery” is unjustified. While the source of the negative specimen is unreported, studies and CDC guidelines recommend lower respiratory tract specimen when testing mechanically ventilated patients for COVID-19, due to increased sensitivity.<sup>2</sup>

Clinical and transplant strategies regarding an ongoing SARS-CoV-2 infection or its infectivity are better informed via quantitative RT-PCR of viral load.<sup>3–5</sup> Viral load is commonly reported as the number of cycles required for the fluorescent signal to cross the detection threshold, so a higher cycle threshold reflects lower viral load. Studies demonstrated that the cycle threshold of quantitative RT-PCR could be leveraged to inform clinical transplant decision-making. The author alluded to the cycle threshold, but its value was not reported. In our institution, two successful liver transplants were performed in recipients with positive preoperative RT-PCR, and used cycle threshold cut-off values of 24 and 35, based on recipient acuity.<sup>3,5</sup>

In view of the current resurgence of SARS-CoV-2 both worldwide and nationally, prolonged convalescent shedding of SARS-CoV-2 genome is becoming a common occurrence in the transplant arena, in both recipients and donors. We agree with the authors that when risk tolerance is tiered to recipient acuity, liver transplantation can save the life of many patients with positive COVID-19 results.

## KEYWORDS


clinical decision-making, clinical research/practice, ethics and public policy, infectious disease, liver allograft function/dysfunction, liver transplantation/hepatology

## DISCLOSURE

The authors of this manuscript have no conflicts of interest to disclose as described by the *American Journal of Transplantation*.

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