

Opinion on Kidney Transplantation after Recovery from COVID-19

Pieter Evenepoel*

Department of Microbiology, Immunology and Transplantation, Nephrology and Renal Transplantation Research Group, KU Leuven, Belgium

Introduction

The continuing coronavirus pandemic is having a significant impact on people and healthcare systems throughout the world, resulting in new realities. Patients on dialysis who are waiting for a kidney transplant are a vulnerable population with several comorbidities and frequent interactions with the healthcare system. Due to the COVID-19 epidemic, the number of transplants has decreased significantly, lengthening wait periods in this high-risk demographic. On the other hand, information about the severity of SARS-CoV-2 infection in immunocompromised individuals, as well as the development and durability of neutralizing antibodies in these patients, is only beginning to emerge. It's uncertain how to effectively deal with the problem of delaying a life-saving transplant.

Description

COVID-19, the ongoing epidemic caused by SARS-CoV-2, has had a significant impact on transplant systems in the nations most afflicted, notably Italy. Due to immunosuppression and concomitant diseases, patients on hemodialysis and kidney transplant (KTx) recipients appear to be more prone to COVID-19 sickness, according to preliminary evidence. There is currently a dearth of evidence on COVID-19's biologic behaviour, recurrence and long-term morbidity, as well as no transplant experiences in individuals who have previously had COVID-19. We provide what is likely the first example of a KTx administered following a recent COVID-19 sickness [1]. COVID-19 is more likely to occur in patients with renal illness. This risk is particularly significant in kidney transplant patients, who are predicted to have a 25% chance of dying from SARS-CoV-2 infection. As a result, health authorities in a number of nations have made mRNA vaccines a priority for this susceptible demographic [2].

By the 21st of March 2020, illnesses caused by the new coronavirus SARS-CoV-2 had infected individuals in 177 countries and killed 11,252 people. Due to long-term immunosuppression, comorbidities and persistent chronic renal disease, little is known regarding the risk, presentation and consequences of SARS-CoV-2 (COVID-19) infection in kidney transplant recipients. COVID-19 is mostly a respiratory illness, although it can also induce renal and multi-organ failure in extreme situations. It's unclear if immunocompromised hosts are at a higher risk of systemic illness. As a result, over a six-week period in three south London hospitals, we report on seven occurrences of COVID-19 in kidney transplant recipients (median age 54 (range 45-69), three females, from a group of 2082 managed transplant follow-up patients). Within three months of transplantation, two of the seven patients manifested. Two were treated as outpatients, while the remaining five required hospitalization, four

of which were in intensive care units. All of the individuals had respiratory symptoms as well as a fever. Hypoxia, chest crepitation, lymphopenia and a high C-reactive protein were all prevalent clinical characteristics. Severe cases had very high D dimer, ferritin and troponin levels, which were possibly predictive. Six of the seven patients had their immunosuppression altered. Diabetic individuals accounted for three of the patients with severe disease. One patient recovered after a three-week follow-up, while the other died. As a result, our data imply that COVID-19 infection in kidney transplant recipients may be severe, necessitating hospitalization to an intensive care unit. The symptoms are mostly respiratory in nature and are usually accompanied by a fever. The majority of individuals had their immunosuppression lowered and were given supportive treatment.

According to a new study on the successful transplantation of a kidney into a new patient from a person who died of COVID-19 difficulties, it may still be viable to safely use organs from COVID-19 donors. Because of concerns that the organ may infect the new recipient, kidney transplantation from COVID-19 infected donors has been avoided. While a few kidneys from persons with COVID-19 were given during the pandemic, this is the first time that the technique's complete safety has been proven by tissue sampling, which revealed no molecular evidence of the virus in the kidneys [3-5].

Conclusion

This heartening instance instructs transplant hospitals on how to properly do kidney transplants during the epidemic. Kidney transplantation is only possible after careful analysis of the risks and advantages of the organ offer, complete recovery from COVID-19 symptoms and the existence of a positive SARS-CoV-2 IgG antibody test.

References

1. Kasiske, Bertram L., Jon J. Snyder, David T. Gilbertson and Changchun Wang, et al. "Cancer after kidney transplantation in the United States." *Ame J Transplant* 4 (2004): 905-913.
2. Legendre, Christophe, Guillaume Canaud and Frank Martinez. "Factors influencing long-term outcome after kidney transplantation." *Transpl* 27 (2014): 19-27.
3. Kiley, Deborah J., Chow S. Lam and Raymond Pollak. "A study of treatment compliance following kidney transplantation." *Transpl* 55 (1993): 51-56.
4. Kasiske, Bertram L., Shakeel Anjum, Rajiv Shah and Jeffrey Skogen, et al. "Hypertension after kidney transplantation." *Am J Kidney Dis* 43 (2004): 1071-1081.
5. Marcello, Tonelli, Nathan Wiebe, Aminu Bello and Deepak Jadhav, et al. "Systematic review: Kidney transplantation compared with dialysis in clinically relevant outcomes." *Ame J Transplant* 11 (2011): 2093-2109.

*Address for Correspondence: Pieter Evenepoel, Department of Microbiology, Immunology and Transplantation, Nephrology and Renal Transplantation Research Group, KU Leuven, Belgium; E-mail: Pieter.Evenepoel54@uzleuven.be

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