



FIGURE 1: Number of patients who clinically recovered over time was plotted against the number of patients who had negative conversion over time.

MO919 PERSISTENCE OF ANTIBODIES AFTER SARS-COV-2 VACCINES IN HAEMODIALYSIS PATIENTS: A 6 MONTHS FOLLOW-UP

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BACKGROUND AND AIMS: As COVID-19 related mortality is higher in haemodialysis patients than in the general population, proper vaccination strategies against the SARS-CoV-2 virus have utmost importance. It has been previously shown that mRNA vaccines (e.g. BNT162b2) can generate >95% of seropositivity in haemodialysis patients [1]. On the other hand, the seropositivity rate reached by the inactivated vaccine (CoronaVac®) was around 80%. In this study, we aimed to analyse the persistence of SARS-CoV-2 antibodies in haemodialysis patients for 6 months and compare it with the healthy controls.

METHOD: Haemodialysis patients who were vaccinated either by BNT162b2 or CoronaVac® and who continued their regular controls for 6 months were involved in the study. Those who had previous or active SARS-CoV-2 infection, who had malignancies and those who had received immunosuppressive drugs in the previous 12 month were excluded from the study. SARS-CoV-2 IgG levels were measured by a commercial test after the first doses of the vaccines and at the end of the sixth month. Healthy healthcare workers who were vaccinated with similar vaccine schemes were taken as the control group.

RESULTS: We recruited 85 haemodialysis patients who had received their first doses of either vaccine. Of them, 4 patients died; 3 patients were hospitalized because of COVID-19 infection during the follow-up; 9 patients missed at least one of their regular controls; and 2 patients were diagnosed with malignancy. A total of 26 patients experienced asymptomatic or mild COVID-19 infection during the follow-up period. SARS-CoV-2 IgG levels were measured at the end of the sixth month for the remaining 41 patients. Sero-positivity significantly decreased at the end of the sixth month for both vaccines, but the BNT162b2 group (n = 22) still had better seropositivity than CoronaVac® (n = 19) group (81% versus 50%; P = .03). In contrast, the seropositivity of healthy controls, even with the inactivated vaccine, was 96%. When one booster dose was applied, 90% of seropositivity could be maintained in the BNT162b2 group at the sixth month.

CONCLUSION: BNT162b2 vaccine generates more persistent antibodies than inactivated vaccines in haemodialysis patients. However, when compared with the healthy controls at the end of the sixth month, antibody titers decrease more

profoundly in haemodialysis patients. The booster dose can maintain the antibody levels and should be applied at least every 6 months.

REFERENCE

- Murt A, Altıparmak MR, Yadigar S *et al.* Antibody responses to the SARS-CoV-2 vaccines in hemodialysis patients: is inactivated vaccine effective? *Ther Apher Dial.* <https://doi.org/10.1111/1744-9987.13752> (5 November 2021, date last accessed).

MO920 SARS-COV-2 NEUTRALIZING ANTIBODY RESPONSE TO BOOSTER VACCINATION IN PATIENTS ON HAEMODIALYSIS

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BACKGROUND AND AIMS: SARS-CoV-2 antibody titers after two doses of vaccination decrease over time. Hemodialysis patients are especially vulnerable to COVID-19 as they are immunocompromised, putting them at higher risk of infection and poorer response to vaccines. Therefore, administering the third dose ("booster") in these patients is key to reduce COVID-19 infections and prevent severe illness. Dialysis patients were among the first group of patients who received booster vaccinations. To study the humoral response to the third injection in this group, we collected serum from 33 patients on hemodialysis and measured neutralizing antibody titers against SARS-CoV-2 before and after their booster doses.

METHOD: Patients were recruited from a dialysis center in New York City, NY from June to September 2021. Data on COVID-19 vaccination and demographics were collected upon enrollment. Blood samples were taken after enrollment. SARS-CoV-2 neutralization antibodies were assayed using the GenScript SARS-CoV-2 Surrogate Virus Neutralization Test Kit (Cat#L00847-A). Corresponding neutralizing antibody titers are presented as Unit/mL (U/mL).