The High Mortality and Impact of Vaccination on COVID-19 in Hemodialysis Population in India During the Second Wave

To the Editor: Patients getting in-center hemodialysis (HD) have been disproportionately affected by COVID-19 infection.[1,2] India has seen 2 waves of SARS-Cov2 infection in 2020 and 2021, with the second wave being more intense.

We examined the mortality data and impact of COVID-19 vaccination on patients on HD in the National NephroPlus dialysis network during the second wave of COVID-19 pandemic from 15 March 2021 to 15 June 2021. Characteristics of dialysis patients were extracted from unit records. Outcome data were collected on all patients. Data on the vaccination status were collected.

Out of 17,662 patients on HD during this period, 1111 were found to be positive for SARS-CoV2. The mean age was 53.86 ± 13.57 years, with male predominance (70.11%). Of the COVID positive population, 364 (32.76%) died. The overall mortality in the network dialysis population during the period of the second wave was higher than that during the corresponding period (15 March–15 June) in the first wave (2020) and the pre-COVID period (2019) (Figure 1).[1] Diabetes, older age, and need for hospitalization were associated with mortality in adjusted models. Individuals who had received even 1 dose of the vaccine had 33% reduced risk of being infected with the virus and 46% (95% confidence interval 17%–62%) lower risk of mortality in adjusted models even after being diagnosed with COVID-19.

The second wave of COVID-19 in India was characterized by increased overall mortality among patients on dialysis. Vaccination reduced the risk of development of symptomatic COVID-19 and mortality in this population.

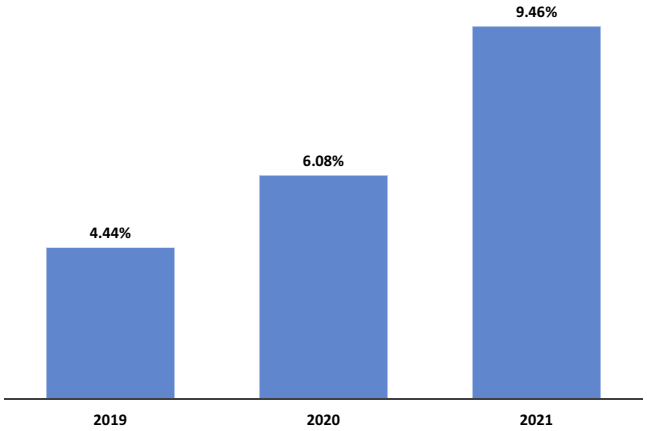

Figure 1. Percent mortality between 15 March and 15 June 2019, 2020, and 2021 in the NephroPlus dialysis cohort.

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