COVID-19 infection in kidney transplant recipients: report from two centers of Bangladesh

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Background: The novel coronavirus severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) had affected people around the globe including transplant recipients. Here we report our experience of coronavirus 2019 (COVID-19) infection in kidney transplant recipients of Bangladesh.

Methods: This prospective observational study was performed in two specialized kidney hospitals of Dhaka, Bangladesh from May 2020 to August 2020.

Results: In these two centers about 1,043 kidney transplant recipients were regularly followed up. Among them 31 patients (2.97%) developed COVID-19 infection during the study period. Of them 23 patients were test positive and the remaining test negative but suspected clinically and radiologically. Average age of recipients was 38.3±6.9 years (23–53). Twenty-eight recipients were male (90.3%) and three were female (9.7%). Fever was the most common presentation (100%), followed by cough (80.6%), shortness of breath (35.5%), diarrhoea (12.9%), generalized weakness (12.9%), loss of taste (9.7%), headache (6.5%), body ache (6.5%), throat pain (3.2%), chest pain (3.2%), abdominal pain (3.2%), and orbital cellulitis (3.2%). On investigation, leukocyte count was normal in 77% cases and raised in 19.2% cases and lymphopenia was observed in 69.2% cases. C-reactive protein (CRP) was found high in 63.6% recipients. Chest X-ray showed pneumonic changes in 80.6% (25/31) cases. Favipiravir was given to 20 transplant recipients (64.5%). Five patients (16.1%) developed acute kidney injury (AKI); one patient improved and four patients (80%) had died, three patients required dialysis. The overall mortality rate was 22.6% (7 out of 31); three patients had severe AKI (42.8%), two developed acute respiratory distress syndrome (28.6%) and two developed cerebrovascular disease (28.6%).

Conclusions: In summary kidney transplant recipients in our centers had a higher rate of COVID-19 infection and higher rate of mortality than the general population (22.6% vs. 1.4%). Patients who developed AKI had a higher mortality rate.

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