In the relatively short span of 12 months, severe acute respiratory syndrome coronavirus 2 (SARS-COV-2) associated coronavirus disease 2019 (COVID-19) has resulted to more than 50 million patients and over 1.2 million deaths residing in 219 countries. Although the disease primarily presents as an acute respiratory disease with alveolar and interstitial pneumonia, it may affect various organs of the body including kidney.

Renal involvement in COVID-19 might range from acute kidney injury (AKI) with subtle rise in serum creatinine to requirement of dialysis, glomerular involvement manifested as proteinuria, pyuria and hematuria; and tubular abnormalities. Complete pathogenesis of kidney injury in COVID-19 is yet to be elucidated, however, the hypothesized mechanisms include direct cytopathic effect of kidney resident cells, deposition of viral antigen or virus-induced antibody immune complexes in the renal tubular cells, cytokine storm, hemodynamic alterations secondary to abnormal gas exchange in the lungs and volume depletion.

Recent publications from China and other parts of the world have clearly found out that acute kidney injury (AKI) is a common, yet serious, complication in critically ill patients with COVID-19 that is associated with unexpectedly higher death rates, prolonged hospital stay and higher medical expenditure. Incidence of AKI among hospitalized patients with COVID-19 ranges between 7% and 40%. The existing management of AKI associated with COVID-19 AKI comprises of supportive treatment, avoiding nephrotoxic drugs and early start of renal replacement therapy. However, as a nephrologist, we have faced lots of practical challenges in uninterrupted and timely provision of hemodialysis facility for the patients having kidney failure and COVID-19 due to many unpredictable factors.

There is a growing concern regarding the vulnerability of patients with chronic kidney disease (CKD) to poor and inequitable clinical outcomes due to the COVID-19 pandemic. Persons with CKD and particularly those undergoing maintenance hemodialysis always remain at increased risk of hospital admissions and life-threatening ailment due to COVID-19. In the recent days, hospitals and health care providers have been focused as the hotspots for COVID-19 that has been regarded as one of the highly infectious diseases. As the persons with CKD, and particularly those undergoing hemodialysis, require frequent visit to the hospitals, they pose a significant vulnerability of acquiring the infection. Moreover, underprivileged people with low socioeconomic status pose a disproportionately higher risk of having adverse outcomes of both kidney disease and COVID-19.

The unforeseen clinical, social and economic impact of the COVID-19, with or without kidney involvement, has been a matter of challenge worldwide that has demanded effective modifications in the formulation of policies and delivery of health care facilities at a national and global level.

REFERENCES: