



## EDITORIAL

### KIDNEYS IN COVID-19: VICTIM WITHOUT A FAULT

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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.<sup>1</sup> 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,<sup>2</sup> cytokine storm, hemodynamic alterations secondary to abnormal gas exchange in the lungs and volume depletion.<sup>3,4</sup>

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%.<sup>5-7</sup> The existing management of AKI associated with COVID-19 AKI comprises of supportive

treatment, avoiding nephrotoxic drugs and early start of renal replacement therapy.<sup>8</sup> 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.<sup>9</sup> 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.

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