Editorial

iMedPub Journals
http://www.imedpub.com

Journal of Clinical & Experimental Nephrology
ISSN 2472-5056

2021
Vol. 6 No. 2: 109

COVID-19 Prevalence amongst Dialysis Patients

Milagros D. Samaniego-Picota*

Department of Internal Medicine-Nephrology, University of Michigan, USA

*Corresponding author:
Milagros D. Samaniego-Picota, Professor of Medicine, Department of Internal Medicine-Nephrology, University of Michigan, USA
msamanie@med.umich.edu

Citation: Samaniego-Picota MD (2021) COVID-19 Prevalence amongst Dialysis Patients. J Clin Exp Nephrol Vol.6 No.2: 109.

Editorial

Dialysis is a treatment method that replicates the function of the kidneys when they are failing. The kidneys work to filter and extract waste materials, excess fluid, salts and contaminants from the blood in healthy individuals. This mechanism, however, fails in cases of kidney failure and individuals need to undergo dialysis. The kidneys do not improve in the event of chronic renal failure, and people require dialysis for the remainder of their lives, unless they are an eligible candidate for kidney transplantation.

In Wuhan, a city in the Hubei Province of China, a novel coronavirus (i.e., SARS-CoV-2) was identified as the cause of a cluster of pneumonia cases at the end of 2019. By 2020, it has contributed to a pandemic that has spread through much of the world's nations. The primary form of SARS-CoV-2 (COVID-19) disease is a lung infection with symptoms ranging from moderate upper respiratory infection to extreme pneumonia, acute respiratory distress syndrome and death. Extreme acute respiratory syndrome coronavirus2, or SARS-CoV-2, triggers COVID-19. It is commonly recognized that the SARS-CoV-2 virus, the causative agent for COVID-19.

COVID-19 affects patients with pre - existing comorbidities disproportionately, such as patients with different types of kidney disease. Dialysis patients have a higher risk of infection with SARS-CoV-2002E. Although kidney disease does not place patients at higher risk of COVID-19, it puts patients at risk of more serious outcomes during infection, such as reduced kidney function. Some chronic conditions are risk factors for serious COVID-19, such as diabetes and a weakened immune system can also be present in these patients. While the exact reasons remain unknown why COVID-19 affects the kidneys, several potential explanations have been suggested by scientists.

Kidney structure: One reason the coronavirus is so infectious is because the virus spikes are how the virus binds to a host cell. SARS-CoV-2, the COVID-19 virus, has very sticky spikes that form a powerful bond with an ACE2 receptor that is abundant in the human body, including the kidneys.

Extreme inflammation: When there is a degree of damage to a cell, inflammation occurs. To facilitate its healing, the body sends various molecules and proteins to that site. There are times, however, where the reaction can be intense and, in these situations, inflammation can harm the response of the immune system rather than support it.

Blood clotting: The aim of the kidneys is to eliminate waste from the body and extra fluid. Kidney biopsies from patients with COVID-19 have shown that tiny blood clots are formed in some cases. These blood clots can impact the proper functioning of the kidneys.

End-stage renal disease (ESRD) patients are especially vulnerable to extreme COVID-19 due to older age and high comorbidity frequency, such as diabetes and hypertension. Nearly one third of hospitalized dialysis patients with COVID-19 died.

Vaccination of patients with dialysis-Dialysis patients, especially those undergoing in-center hemodialysis, represent a vulnerable population at high risk of COVID-19 death. However, the vast majority of COVID-19 vaccine trials omitted such patients and therefore, information regarding safety and efficacy of the vaccines in this population is lacking. Based upon the data from the general population, we encourage vaccination against COVID-19 among dialysis patients as soon as it is made available to them.