Study examines antibody response to COVID-19 vaccination in patients with kidney failure
6 April 2021

In a recent study, most patients with kidney failure who were undergoing hemodialysis developed a substantial antibody response following the vaccination with the Pfizer-BioNTech vaccine against COVID-19, but it was significantly lower than that of individuals without kidney disease. The findings will appear in an upcoming issue of CJASN.

Individuals with kidney failure who are receiving dialysis treatments have a higher risk of experiencing severe COVID-19 if they become infected with the virus that causes the disease. Therefore, vaccination may be especially important for these patients; however, they also tend to mount reduced immune responses against infections and vaccinations. To assess their responses to COVID-19 vaccination, a team led by Moshe Shashar MD (Laniado Hospital and Tel-Aviv Medical Center, Israel) compared antibody responses following vaccination with the Pfizer-BioNTech vaccine in 56 patients on maintenance hemodialysis vs. 95 healthcare workers.

All of the healthcare workers developed a positive antibody response to the virus that causes COVID-19, compared with 96% of participants in the dialysis group. The average antibody levels in patients on dialysis were significantly lower than those among healthcare workers. Also, there was a significant inverse correlation of age and antibody levels in both groups.

Although the findings are preliminary and warrant further clarifications and verifications, they suggest that COVID-19 vaccination doses and schedules should be reconsidered for individuals with kidney failure who are on dialysis.

"I believe our findings should encourage patients with kidney failure treated with dialysis to be vaccinated as soon as vaccination becomes available for them, while we as a care givers should explore ways to enhance its efficacy in our patients," said Dr. Shashar.

More information: "Humoral Response to the Pfizer BNT162b2 Vaccine in Patients Undergoing Maintenance Hemodialysis," DOI: 10.2215/CJN.03500321

Provided by American Society of Nephrology

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.