



PRESS RELEASE

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IMMUNE SYSTEM–RELATED DIFFERENCES MAY EXPLAIN HIGHER COVID-19 DEATHS AMONG PATIENTS ON DIALYSIS AND KIDNEY TRANSPLANT RECIPIENTS

Highlights

- People who are on dialysis or who have undergone kidney transplantation have immune system–related differences compared with people with normal kidney function, and these differences are further amplified by SARS-CoV-2 infection.
- The findings may help explain why these individuals face a higher risk of dying from COVID-19.
- Results from the study will be presented online at ASN Kidney Week 2021 November 4–November 7.

San Diego (November 6, 2021) — People with kidney failure who are on dialysis or who have received a kidney transplant face a higher risk of dying from COVID-19. New research reveals that these individuals have profound immune system–related differences compared with people with normal kidney function, and that these differences are further amplified by SARS-CoV-2 infection. The findings will be presented online at ASN Kidney Week 2021 November 4–November 7.

The study included 32 patients who were on hemodialysis or who received a kidney transplant and were hospitalized for COVID-19, as well as 12 dialysis or transplant patients without COVID-19 and 10 healthy controls.

Patients with a severe COVID-19 course were older and showed lower counts of immune cells called lymphocytes and monocytes, compared with patients with a benign disease course. Patients without COVID-19 had lower numbers of all major immune cell subsets compared with healthy patients, and these numbers were further reduced in patients with COVID-19, especially in patients with a severe disease course.

Investigators noted several other immune system–related differences between patients and controls. “Although dialysis and kidney transplant patients are inherently heterogeneous groups, the immunological abnormalities during COVID-19 are similar

across the two cohorts, with the exception of more pronounced defects in innate immunity and a dampened antibody response in kidney transplant patients,” said lead author Stefania Affatato, of Università di Brescia – ASST Spedali Civili di Brescia, Brescia, Italy.

Co-authors include F Mescia, V Quaresima, C Fiorini, M Gaggiotti, N Bossini, P Gaggia, R Badolato, LD Notarangelo, M Chiarini, F Scolari, and F Alberici.

Study: “Immunological response in dialysis and kidney transplant patients with SARS-CoV-2 infection”

ASN Kidney Week 2021, the largest nephrology meeting of its kind, will provide a forum for nephrologists and other kidney health professionals to discuss the latest findings in research and engage in educational sessions related to advances in the care of patients with kidney diseases and related disorders.

Since 1966, ASN has been creating a world without kidney diseases by educating and informing, driving breakthroughs and innovation, and advocating for policies that create transformative changes in kidney medicine throughout the world. ASN has more than 21,000 members representing 131 countries. For more information, visit www.asn-online.org.

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