PATIENTS WITH SICKLE CELL–RELATED KIDNEY FAILURE BENEFIT FROM TRANSPLANTS BUT ARE LESS LIKELY TO RECEIVE THEM

Study reveals lower risk of death in kidney transplant recipients who received care through the VA.

Highlight

• Patients with kidney failure associated with sickle cell disease benefit from kidney transplants, but they’re less likely than other patients to receive them.

Washington, DC (February 25, 2021) — A new analysis indicates that patients with kidney failure associated with sickle cell disease benefit from kidney transplantation to a similar extent as patients with kidney failure from other causes; however, the sickle cell population is less likely to receive transplants. The research will appear in an upcoming issue of CJASN.

Sickle cell disease is a known risk factor for kidney failure, and adults with sickle cell–related kidney failure who receive long-term dialysis treatment have very high rates of early death. The other alternative for kidney failure treatment is to receive a kidney transplant, but it’s unclear whether transplantation will lower these patients’ risk of dying prematurely.

To investigate, a team led by Tanjala S. Purnell, PhD, MPH and Sunjae Bae, KMD, PhD (Johns Hopkins University) examined national registry data pertaining to all U.S. adults with kidney failure who began maintenance dialysis or were added to the kidney transplant waitlist in 1998–2017.

“Previously, some providers who relied upon older data expressed concerns that transplantation may be rather futile in the sickle cell population given their relatively high mortality rate after transplantation. On the other hand, the sickle cell population also shows extremely high mortality while on dialysis,” Dr. Bae explained. “Therefore, if their post-transplant mortality is still sufficiently lower than their dialysis mortality, kidney transplantation could be a preferable treatment option in the sickle cell population.”
The analysis revealed that, compared with patients who stayed on the transplant waitlist, patients who received a transplant—whether they had sickle cell disease or not—had lower rates of death. The better patient survival after transplantation was similar among transplant recipients who had sickle cell disease and those who did not, with about a 20 percentage point better survival over 10 years. “Our study findings lend strong support to the viewpoint that transplantation is a valuable treatment option for patients with sickle cell–associated kidney failure,” said Dr. Bae.

Nonetheless, patients with sickle cell disease were 27% less likely to undergo transplantation than patients without the disease. Surprisingly, when limiting the analysis to only patients added to the kidney transplant waitlist, patients with sickle cell disease were 38% less likely to receive a transplant than other patients.

“As a field, we must do a better job of improving access to transplantation for patients with sickle cell disease,” said Dr. Purnell. “Our research study, which uses our national registry of all patients, demonstrates better survival with transplant for these patients. We must eliminate disparities in access to this life-saving procedure.”

A Patient Voice article accompanies the study.

Study co-authors include Morgan Johnson, BS, Allan B. Massie, PhD, Xun Luo, MD, MPH, Carlton Haywood, Jr., PhD, MA, Sophie M. Lanzkron, MD, MHS, Morgan E. Grams, MD, PhD, MHS, and Dorry L. Segev, MD, PhD.

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