



PRESS RELEASE

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KIDNEY STRUCTURAL FEATURES FROM LIVING DONORS PREDICT TRANSPLANT FAILURE IN RECIPIENTS

Highlight

- Subtle structural features of donated kidneys—which were observed through biopsies taken at the time of donation—were associated with the longevity of organs after they were transplanted.

Washington, DC (January 23, 2020) — New research indicates that subtle structural features of donated kidneys from living donors may predict the risk of kidney transplant failure in recipients. The findings, which appear in an upcoming issue of *JASN*, may help clinicians as they evaluate the quality of organs at the time of transplantation.

The quality of donated kidneys obtained from living donors is often inferred from their age, risk factors, and kidney function. Although living kidney donors are extensively evaluated to ensure that they have good health and that they do not have any medical conditions that would disqualify them from donating, subtle injuries in the donated kidney tissue may not be detected through standard evaluations.

When a team led by Andrew Rule, MD and Naim Issa, MD (Mayo Clinic, in Rochester) evaluated 2,293 kidney donor-recipient pairs, the investigators discovered that some very subtle structural features of the donated kidney may influence the longevity of the kidney in the recipient. For example, minimal scarring of the kidney or hardening of its vessels, as well as a larger size of nephrons—the microscopic functional units of the kidney—observed in biopsies at the time of donation were associated with a shorter lifespan of the transplanted kidney in recipients, regardless of other donor or recipient characteristics that are known to affect the longevity of donated kidneys.

“We think that these subtle features in the living donor kidney make the recipient more susceptible to lose the kidney transplant over time,” said Dr. Issa. “These important findings may provide insights into previously unrecognized predictors of kidney transplant failure in recipients.”

Study co-authors include Camden L. Lopez MS, Aleksandar Denic MD, PhD, Sandra J. Taler, MD, Joseph J. Larson, MS, Walter K. Kremers, PhD, Luisa Ricaurte Archila, MD, Massini A. Merzkani, MD, Mariam P. Alexander, MD, Harini A. Chakkera, MD, Mark D. Stegall, MD, and Joshua J. Augustine, MD.

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The article, entitled “Kidney Structural Features from Living Donors Predict Graft Failure in the Recipient,” will appear online at <http://jasn.asnjournals.org/> on January 23, 2020, doi: 10/1681/ASN.2019090964.

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