

Study shows donor kidneys with toxoplasma do not increase risks for transplant patients

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A new study from UC Davis Health could help to increase the supply of donor kidneys.

Researchers have found that transplant patients who receive kidneys

infected with the parasite [toxoplasma](#) have virtually the same outcomes as those who receive toxoplasma-negative organs.

Despite longstanding concerns, those who received kidneys from toxoplasma antibody positive donors (TPDs) had almost identical mortality and rejection rates. The research is [published](#) in *Transplant International*.

"Organs from donors who were positive for toxoplasma did just as well as organs from those who were negative, both for survival of the patients and survival of the kidneys," said Lavjay Butani, chief of pediatric nephrology. He coauthored the paper with Daniel Tancredi, professor of pediatrics. "This is quite encouraging."

Inconsistency in approach

Toxoplasma is a ubiquitous parasite that infects many people but generally causes no harm. However, people who are immunosuppressed, such as kidney recipients, could be at higher risk. Toxoplasmosis can be transmitted through the transplanted kidney and reactivate a latent infection in the kidney recipient.

Still, there has been tremendous inconsistency in how transplant centers treat TPD kidneys, with some accepting them and others rejecting.

"We conducted this study because about a year ago, there was a positive donor and the team did not want to use that [kidney](#) for one of our [pediatric patients](#), so we didn't accept it," Butani said. "But we realized, we just didn't have the data to know if that was the correct decision."

What the study showed

The study analyzed 51,000 transplants from the Organ Procurement and Transplantation Network database. Of those, 4,300 were TPD. They found that rejection and graft failure was 5% for both TPD and non-TPD kidneys. Other measures were similarly aligned. In other words, the TPD kidneys posed no additional risk.

The authors believe it is safe to transplant TPD kidneys—but do recommend additional monitoring. However, transplant patients routinely receive Bactrim, a two-antibiotic combination that is effective against toxoplasma and this may already be mitigating their risk. Most patients receive Bactrim for a year, but that could be extended for TPD cases.

The authors hope this work will help [transplant centers](#) unify their TPD policies. UC Davis Health is currently writing new protocols for pediatric transplants. Ultimately, this new understanding could help patients get the organs they desperately need.

"In transplants, kidneys are the greatest need," Butani said. "Because of increased diabetes, [high blood pressure](#) and other conditions, the wait list just gets progressively longer. We hope these findings will help increase the supply of [donor](#) kidneys."

More information: Lavjay Butani et al, Outcomes of Kidney Transplants From Toxoplasma-Positive Donors: An Organ Procurement and Transplant Network Database Analysis, *Transplant International* (2024). [DOI: 10.3389/ti.2024.13203](https://doi.org/10.3389/ti.2024.13203)

Provided by UC Davis

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