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UC San Diego Health Performs First HIV-to-HIV Kidney Transplant in Region

Procedure is part of an unprecedented multi-site national clinical trial

For the first time in Southern California, surgeons at UC San Diego Health have transplanted the kidney of a deceased donor with HIV into a recipient with a pre-existing HIV infection. The procedure is part of an unprecedented multi-site national clinical trial to evaluate the safety and benefit of HIV-to-HIV kidney transplantation.

The procedure occurred earlier this month. The patient is expected to make a full recovery.

In 2013, Congress passed the HIV Organ Policy Equity (HOPE) Act, an effort to alleviate a chronic shortage of donor organs, which hits patients with HIV particularly hard, resulting in extremely long wait times and a greater likelihood of dying before a donor organ becomes available.

Though organ transplants between donors and recipients with HIV have been successfully conducted in South Africa since 2008, such transplants were illegal in the U.S. until passage of the HOPE Act, which permits transplants of kidneys and livers from donors with HIV to qualified recipients with well-controlled HIV and end-stage organ failure, under approved research protocols. The kidney clinical trial launched last year. The transplantation of organs from donors with HIV to recipients without HIV remains prohibited.

The shortage of donor organs is universal and persistent, with more than 113,000 Americans currently needing a transplant (with almost 75,000 on active waiting lists), according to the United Network for Organ Sharing. The kidney was the first human organ to be successfully transplanted in 1954 and is, by far, the organ most often transplanted.



Left to Right: Saima Aslam, MBBS, associate professor of medicine and director of the Solid Organ Transplant Infectious Diseases Service, Jennifer Berumen, MD, transplant and hepatobiliary surgeon and director of Living Donor Kidney Transplant and Kristin Mekeel, MD, chief of transplant surgery.

“Patients often wait more than 10 years in California for a deceased donor kidney transplant, and 13 people die nationally each day waiting. By expanding donation to donors with HIV, we can get more patients transplanted — sooner — with healthy, functioning kidneys,” said Kristin Mekeel, MD, chief of transplant surgery at UC San Diego Health and part of the patient’s diverse medical team, which included infectious disease, nephrology and transplant surgery specialists, pharmacists, research coordinators and organ procurement organization professionals.

The use of donor organs infected with HIV or hepatitis B and C viruses has become more viable in recent years. In 2016, Saima Aslam, MBBS, associate professor of medicine at UC San Diego School of Medicine and director of the Solid Organ Transplant Infectious Diseases Service at UC San Diego Health, and colleagues in the organ transplant programs launched a clinical practice protocol to use organs from donors actively infected with the hepatitis C virus, which is now curable. The change has resulted in a significant expansion of the organ donor pool and a reduction in wait list time.

Persons with HIV are at higher risk of requiring a kidney (or liver) transplant due to organ damage caused by the virus and by common, associated co-infections and conditions, such as hepatitis B and C, hypertension and diabetes.

Aslam is principal investigator for the UC San Diego component of the HOPE in Action clinical trial for kidney transplantation, which is being coordinated by Johns Hopkins University with UC San Diego and 15 other transplant centers nationwide. The trial will include 80 experimental HIV-to-HIV kidney transplants, 80 transplants of HIV-negative kidneys to HIV-positive recipients and 200 observational transplants of HIV-uninfected kidneys to HIV-infected recipients. The trial is actively recruiting patients.

UC San Diego is also participating in a second, similar clinical trial involving HIV-to-HIV liver transplants. That first-ever trial launched earlier this year at UC San Diego; it is actively recruiting patients as well.

“The overall goals of both trials are to assess the safety of using such organ donations and ultimately increase the number of organ transplants performed in the U.S. This is expected to reduce the wait list time for all recipients,” said Aslam. “This trial will also provide a new biorepository of tissue and blood samples to fuel future studies investigating HIV persistence and pathogenesis, and provide an unprecedented opportunity for persons living with HIV to register as organ donors.”

The Center for Transplantation at UC San Diego Health conducts transplants of kidneys, livers, lungs, pancreas, heart, bone and marrow and multi-organ procedures. This year so far, specialists have transplanted 98 kidneys (34 from living donors), 37 livers, 25 lungs and almost 50 hearts. The heart transplant program recently reported the best one-year survival rate for U.S. patients among health care providers performing more than 50 procedures per year.

The kidney transplantation program at UC San Diego is the largest in the region. Since 1968, the program has conducted more than 3,200 kidney transplant procedures. Learn more at health.ucsd.edu/specialties/surgery/transplant/kidney-transplant or visit Lifesharing at www.lifesharing.org.

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