

Woman is back on dialysis after doctors remove transplanted pig kidney

May 31 2024, by Lauran Neergaard



Lisa Pisano looks at photos of her dog after her surgeries at NYU Langone Health in New York on Monday, April 22, 2024. Doctors had to remove a transplanted pig kidney from Pisano and put her back on dialysis just 47 days later – because the heart disease she also suffers damaged the new organ. Pisano was only the second patient ever to receive a kidney from a gene-edited pig, and NYU Langone Health announced Friday, May 31, that she is stable after removal of the kidney. Credit: AP Photo/Shelby Lum, File

A woman who received a [pig kidney transplant](#) is back on dialysis because surgeons had to remove the gradually failing organ after just 47 days.

Lisa Pisano was the second person to receive a kidney from a gene-edited pig, and NYU Langone Health announced that she is stable after an operation to remove the organ earlier this week.

The first patient to receive a pig kidney transplant, [Richard "Rick" Slayman](#) at Massachusetts General Hospital, died in early May, nearly two months after his transplant. Doctors there said there was no indication he died as a result of the experimental transplant.

Pisano's heart and kidneys were failing when, in a dramatic pair of surgeries in April, doctors implanted a mechanical pump to keep her heart beating and then the pig kidney.

At first she seemed to be recovering well. But Dr. Robert Montgomery, who led the transplant, said there were "unique challenges" to managing both the heart pump and new kidney. Her blood pressure dropped too low multiple times for optimal blood flow to the kidney.

The kidney lost function until doctors no longer could justify keeping her on immune-suppressing medications, Montgomery said in a statement Friday.

A recent kidney biopsy showed no signs of rejection—the biggest concern in highly experimental animal-to-human transplants—but there was "significant injury" from insufficient blood flow, he said. NYU will further study the explanted kidney for further insight on how it reacted inside a living person.

Montgomery noted Pisano wasn't a candidate for the life-prolonging

heart pump while on dialysis, and her heart disease in turn barred a traditional kidney transplant.

"We are hoping to get Lisa back home to her family soon," he said. "Her strength and bravery in the face of adversity inspires and drives us as we continue pursuing the hope and promise of xenotransplantation."

Pisano told the Associated Press in April that she knew the pig kidney might not work but "I just took a chance. And you know, worst case scenario, if it didn't work for me, it might have worked for someone else."

More than 100,000 people are on the U.S. transplant waiting list, most who need a kidney, and thousands die waiting. In hopes of filling the shortage of donated organs, several biotech companies are genetically modifying pigs so their organs are more humanlike, less likely to be destroyed by people's immune system.

Formal studies of such organs are expected to begin next year. Meanwhile, NYU and other research teams have temporarily transplanted pig kidneys and hearts into brain-dead bodies, with promising results. In addition to the Mass General pig kidney transplant, the University of Maryland transplanted pig hearts into two men who were out of other options, and both died within months.

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