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OPINION | COMMENTARY

The Next Pig Thing in Medicine

A man is still alive a month after a pig heart transplant.

By Sally Satel

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I had my first kidney transplant in 2004. It gave out after 10 years. The replacement, which I received in 2016, functions well but won't last forever. "May your organ outlive you," older transplant patients tell each other. Otherwise, you may not survive the queue for a new one.

That's why recent breakthroughs in xenotransplantation—the implantation of animal tissues and organs across species—have been exhilarating. In September, doctors at NYU Langone Medical Center attached a pig kidney to blood vessels in a dead woman's leg (with her family's permission). It produced urine and cleared waste products during the 54-hour observation period. Two months later, they repeated the procedure.

Also in September, a team at the University of Alabama at Birmingham implanted the first-ever genetically modified pig kidneys into the body of Jim Parsons, 57, of Huntsville, who had been left brain-dead by a motorcycle accident. The new kidneys turned "beautiful and pink," the lead surgeon said. The experiment lasted 77 hours.

Then, on Jan. 7, surgeons at the University of Maryland transplanted a heart from a genetically modified pig into David Bennett Sr. , who doctors said had exhausted all other treatment options. Mr. Bennett, 57, is still alive.

More than 90,000 Americans are waiting for a kidney. In 2021 fewer than 25,000 received one, and some 41,000 were added to the national waiting list. On the average day, around a dozen people on the list die.

Dialysis—an hourslong process of having your blood cleansed—extends life, though not nearly as much as a transplant, but is a several-times-a-week ordeal. More than half a million Americans have end-stage kidney disease and depend on dialysis, according to the National Institute of Diabetes and Digestive and Kidney Diseases. Medicare’s End State Renal Disease program spent \$51 billion on dialysis in 2019, more than 6% of the total Medicare budget.

Xenotransplantation is the future. Jayme Locke, the surgeon who headed the University of Alabama team, said she hopes to be able to offer pig-kidney transplants within five years. Godspeed to Dr. Locke, her colleagues and the noble pig. Make the donor shortage—its heartbreak, its unfairness and its expense—a thing of the past.

Dr. Satel is a senior fellow at the American Enterprise Institute and a visiting professor of psychiatry at Columbia University’s Vagelos College of Physicians and Surgeons.

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