Rare Condition Results in Placing Patient's Kidney in Pelvis

By Michelle Brubaker | March 14, 2019

ulianne Bachman was in such debilitating pain a year ago that she had to take a leave of absence from her job as a science teacher and used a walker and abdominal brace to move around. "I was unusually tired, losing weight rapidly, and at times, I would feel so dizzy I thought I was going to pass out," said Bachman, who found herself in the emergency room just a few weeks later.



An MRI determined Bachman had a rare condition called nutcracker syndrome, in which the left renal vein (the vein that carries filtered blood from the left kidney) becomes compressed by two arteries, as if squeezed by a nutcracker, resulting in diminished blood flow and kidney function impairment. Bachman's left renal vein was 75 percent compressed.

"I have only seen a patient with this rare disease once or twice in my entire career," said Kristin Mekeel, MD, transplant and hepatobiliary surgeon at UC San Diego Health. "The only way to relieve the intense pain patients like Julianne experience is to remove the kidney that is being compressed, but that was not an option in her case."

That's because Bachman had only one kidney. Her right kidney had been removed when she was one week old. "That kidney was just a mass of cells and never developed correctly," said Bachman. "That surgery was done in 1985, and I have a scar that wraps around my back. I hadn't had any issues with my health until recently."

Bachman was referred to UC San Diego Health, and Mekeel's team performed an autotransplant, in which an organ is surgically moved from one place in the patient's body to another.

In a standard kidney transplant, the blood vessels of the new kidney are attached to blood vessels in the lower part of the abdomen, just above one of the patient's legs. The new kidney's ureter is

connected to the bladder. In almost all cases, the original impaired kidneys are left in place in the body. With Bachman's autotransplant, the surgical team placed her kidney on the right side of her pelvis.

"By moving the kidney to the lower abdomen, the compression of the vein to the kidney is relieved so pain is improved," said Mekeel, "However, the procedure is risky when you only have one kidney. A complication could have left Julianne without a kidney and on dialysis. Luckily, those complications are rare, and she was willing to take the risk because of her debilitating pain."

Bachman said the painful symptoms from nutcracker syndrome vanished a few days post-surgery, but recovering from the procedure itself was difficult and emotional. "I have never experienced pain like that before." But as the months have gone by, she feels herself getting stronger. "I'm more independent now, starting physical therapy and no longer have to use a walker. I'm really grateful I received my care at a place that is innovative and able to treat complex and rare cases, like mine."



UC San Diego Health Kidney Transplant Program Hits Milestone

The UC San Diego Health kidney transplant program completed a record of 96 kidney transplants in 2018, up from 85 in 2017, and has performed 51 transplants so far in 2019. "The growth of the program is, in part, due to the expansion of the living donor kidney transplant program," said Mekeel. In 2018, Thirty-seven UC San Diego Health patients received living donor kidneys and 44 patients donated kidneys to UC San Dan Diego Health patients. Nine patients donated through the National Kidney Registry's Paired Exchange Program .

"The registry gives us the unique ability to perform a special form of living kidney donor transplantation, known as paired kidney exchange. This program allows donors who are not bloodor tissue-compatible with their recipient to 'exchange' their kidney with a donor who is compatible," said Mekeel. "UC San Diego Health participated in multiple kidney donor chains across the country, improving access to kidney transplant for patients listed." In California, kidney transplant candidates sometimes wait up to 10 years for a kidney transplant from a deceased donor.

The transplant team at UC San Diego Health is skilled in the complex care of living donors. The interdisciplinary team includes dedicated living donor specialists who provide medical, surgical and psychological support for potential donors.

"I am so proud to report that our program has outstanding kidney transplant patient outcomes, with survival of patients and kidneys after transplant far exceeding the national average," said Mekeel. "It's such an honor to do what I do for a living and give patients a better quality of life. I

also get to witness family members donating to loved ones and strangers donating to patients, giving life through the incredibly selfless act of organ donation."

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