

First simultaneous robotic kidney transplant, sleeve gastrectomy performed

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Surgeons at the University of Illinois Hospital & Health Sciences System are developing new treatment options for obese kidney patients.

Many U.S. transplant centers currently refuse to transplant these patients due to poorer outcomes.

By simultaneously undergoing two procedures—robotic-assisted kidney transplantation and robotic-assisted sleeve gastrectomy—patients have only one visit to the operating room and one general anesthesia. Surgeons can utilize the same minimally invasive incisions.

Aidee Diaz, a 35-year-old Chicago woman, is the first patient in the world to have the combined procedure, according to UI surgeons. When Diaz was diagnosed with kidney disease and high blood pressure five years ago, doctors began intensive treatment, including chemotherapy and steroids, to treat abnormal protein production that was causing her kidney disease.

In Diaz's case, her weight jumped from 180 pounds to 300 pounds, and she needed dialysis three times a week.

"Many obese patients come to us because they have been excluded from transplant waiting lists or been told that they must lose weight prior to transplantation," said Dr. Enrico Benedetti, professor and head of surgery at UIC.

"Unfortunately, successful [weight loss](#) in patients with chronic illness is uncommon and often unrealistic."

On July 9, Dr. Subhashini Ayloo, assistant professor of surgery at UIC, performed the robot-assisted sleeve gastrectomy by removing 70 percent of Diaz's stomach. The procedure created a smaller stomach through which ingested food can enter the digestive tract without diverting or bypassing the intestines.

Immediately following the sleeve gastrectomy procedure, Benedetti performed a living-related kidney transplant. Diaz said she appreciates the gift of both procedures—having kidney function with weight loss.

Surgeons at the UI Hospital routinely perform robotic-assisted kidney transplantation (more than 65 cases since 2009) and sleeve gastrectomies for weight loss (more than 150 since 2007). The team has data, in press, demonstrating the safety of robotic kidney transplantation in obese patients with a body mass index above 40 and up to 60.

"The combination of gastric sleeve surgery and kidney transplantation could provide patients with the greatest benefit post-transplantation, when there is the greatest risk related to the combined complications of obesity and renal failure," said Ayloo, who is principal investigator of an ongoing clinical trial to evaluate the safety and effectiveness of the combined procedure.

The trial will determine whether simultaneous robotic-assisted kidney transplant and sleeve gastrectomy has fewer surgical complications and better medical outcomes for [obese patients](#) with end-stage renal disease compared to kidney transplant alone. The institutional review board (IRB) has approved the protocol but the trial is ongoing and results are not yet available.

Previous studies have reported outcomes of other laparoscopic bariatric procedures (gastric bypass and gastric banding) before and after kidney transplantation, but there is no data on sleeve gastrectomy combined with [kidney transplantation](#), Ayloo said.

Provided by University of Illinois at Chicago

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