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Action Points

WASHINGTON -- Patients who have a second kidney transplant may not be as bound for failure as once thought, researchers said here.

In a retrospective, single-center study, there were no significant differences in graft survival at one and five years between primary and secondary transplants among end-stage renal disease (ESRD) patients, Syed Jawad Sher, MD, of Indiana University, and colleagues reported at the National Kidney Foundation meeting here.

"The outcomes were very comparable," Sher told *MedPage Today*. "Even with a second transplant, graft function, length of survival, and complications were all comparable" to a primary transplant.

Some earlier research had shown inferior long-term outcomes when kidney patients are re-transplanted, and researchers have considered second transplants to carry high immunologic risks.

But Sher said there's been an overall lack of data on outcomes, especially since survival in kidney transplants has improved during the last few decades.

Although the majority of ESRD patients go on dialysis, about 16% to 17% receive a primary transplant. Among those, the same proportion also go on to receive a second transplant when the first graft fails, Sher said, adding typical survival for a first graft is about eight years.

So he and colleagues conducted a retrospective study comparing first- and second-time transplant recipients seen at their facility.

In order to control for donor characteristics, they looked at 38 deceased donors, mean age 35, who had given one kidney to a first-time transplant, and the other to a repeat transplant.

Overall, they found no significant difference between primary and repeat transplants in terms of graft survival at one and five years.

Nor were there any significant differences in graft rejection ($P=0.35$), length of time to rejection ($P=0.45$), or serum creatinine at one and five years ($P=0.70$ and $P=0.46$, respectively).

They also saw no differences in terms of infection, and attributed the overall lack of difference in outcome to modern immunosuppression.

"The use of thymoglobulin as induction therapy, and mycophenolate and tacrolimus as maintenance immunosuppression likely overcomes the challenges posed by prior sensitization in terms of rejection in this particular setting," they wrote.

But Sher said that if second transplants were monitored over a period longer than five years, differences may become more apparent.

He also cautioned that the mean recipient age for primary transplant was 49 compared with a mean age of 42 for a secondary transplant, meaning different disease etiology could be a factor. Also, significantly more patients getting a primary transplant were diabetics.

Still, Sher said that kidney transplant may offer several advantages in terms of dialysis, especially after a graft has failed, particularly in terms of quality of life, but also with regard to cost.

Dialysis could cost from \$50,000 to \$80,000 a year, Sher said, but transplanted patients only cost about \$25,000 a year in treatment. However, that doesn't factor in the cost of the initial transplant surgery, Sher told *MedPage Today*. He did not have a cost estimate for the procedure.

In their poster, the investigators wrote that survival may be improved with a second kidney transplant, compared with dialysis after primary graft failure.

In a statement, NKF president Lynda Szczech, MD, said the data suggest that "kidney specialists can feel comfortable referring patients with failed transplants for a second transplant evaluation." She said the study also provides some optimism for patients that they'll "have a very good likelihood of success the second time around."

The researchers reported no conflicts of interest.

Primary source:National Kidney Foundation

Source reference:

Sher SJ, et al "Outcome of second kidney allograft transplants versus primary transplants from paired donor" NKF 2012.

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