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Does Kidney Retransplantation Have a Favorable Outcome?

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Although kidney retransplantation is often accepted the best choice for most patients subsequent to kidney allograft loss, there is surprisingly few data to support it.¹ While outcomes after kidney transplantation have enhanced over the years, graft failure eventually occurs in many patients. Retransplantation often provides the desirable outcomes in these patients,² especially compared to those who are on maintenance dialysis.¹

In the current issue of the *Iranian Journal of Kidney Diseases*, Nourbala and colleagues³ noted that graft survival is not significantly different for the first kidney transplantation versus repeat kidney transplantation. We have previously reported a favorable graft and patient survival rates in 108 retransplant patients.² Between 2000 and 2005, a total of 35 340 living donor kidney transplants were performed in the United States, of which 7.1% were retransplant and from 48 351 deceased donor kidney transplants were 9.7% retransplants.⁴ Interestingly, outcomes of living donor retransplants were much better than primary deceased donor transplants.⁴ It is of interest that the patient reported by Nourbala and colleagues³ received a kidney from a living donor as the 4th retransplantation with a good graft function.

If the patient continue chronic immunosuppressive agents at the time of evaluating for retransplantation, some adjustment should be made in drug dosage, especially in potential preemptive retransplantation or in the patient on dialysis with significant residual kidney function in the primary allograft. However,

significant reduction dosage of immunosuppressive agents should be avoided for preventing acute rejection in these patients. Immunosuppressant adjustment should take into account other maintenance immunosuppressive agents being used concurrently and the planned protocol for induction and maintenance after retransplantation.¹ In retransplantation as well as primary kidney transplantation, potent immunosuppressive regimens are used to prevent acute graft loss, but risk of infection and malignancies should be kept in mind, and thus, adjusted dose is recommended to balance these. Immunosuppressive induction with potent agents should be used in retransplantation as well as primary transplantation. In the current case reported by Nourbala and colleagues,³ rabbit antihuman thymocyte globulin, tacrolimus, mycophenolate mofetile, and prednisolone were administrated. Retransplant patients have a higher risk for acute rejection and taking high-dose immunosuppressive agents, and so they receive more potent agents in comparison with those with a first graft. There is no information about general cumulative risk of malignancies or life-threatening infections after several courses of potent immunosuppressive induction after retransplantation. This can be very important, especially in cases of administering polyclonal antibodies for treatment of acute rejection, in patients that receive similar agents for induction of primary and repeated grafts, and in cases with short interval between the first and subsequent grafts.¹

In conclusion, there is no limitation for the number of kidney retransplantation for a patient with graft loss, at least in theoretical view. There is no significant difference in survival of zero AB-DR-mismatched retransplants compared with 1 to 4 AB and zero DR mismatched retransplants.⁵ Older patients require fewer retransplantations in their long life in comparison with younger ones, so it can be very important to know about the possible number of transplantations.

CONFLICT OF INTEREST

None declared.

REFERENCES

1. Koch MJ. Considerations in retransplantation of the failed renal allograft recipient. *Adv Chronic Kidney Dis.* 2006;13:18-28.
2. Pour-Reza-Gholi F, Nafar M, Saeedinia A, et al. Kidney retransplantation in comparison with first kidney transplantation. *Transplant Proc.* 2005;37:2962-4.
3. Nourbala MH, Ghadian A, Einollahi B, Azarabadi M. Successful 4th kidney transplantation: a case report from Iran. *Iran J Kidney Dis.* 2013;7:237-9.
4. Magee JC, Barr ML, Basadonna GP, et al. Repeat organ transplantation in the United States, 1996-2005. *Am J Transplant.* 2007;7:1424-33.
5. Thompson JS, Thacker LR 2nd, Krishnan G. Human leukocyte antigens DR and AB and kidney retransplantation. *Transplantation.* 2003;75:718-23.

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