



Favorable Outcomes After Renal Transplantation in Patients With Diabetes Mellitus

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ARTICLE INFO

Article type:
Letter to Editor

Article history:
Received: 06 Oct 2011
Revised: 11 Oct 2011
Accepted: 21 Oct 2011

Keywords:
Kidney Transplantation
Diabetes Mellitus

► Please cite this paper as:

Niederhaus SV, Sollinger HW. Favorable Outcomes After Renal Transplantation in Patients With Diabetes Mellitus. *Nephro-Urol Mon.* 2012;4(1):399-400. DOI: 10.5812/kowsar.22517006.2619

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Dear Editor,

Diabetes is a common cause of end-stage renal disease. Compared to hemodialysis, renal transplantation has been shown to prolong life of diabetic patients with end-stage renal disease (1). Due to the shortage of donor kidneys, whether transplantation should be performed for diabetic patients who have low survival expectancy or for patients with end-stage renal disease due to other causes is a debated issue (2). The literature has been divided on this issue; some authors have reported worse long-term outcomes after renal transplantation for diabetes, whereas others have reported that the outcomes of renal transplantation for diabetic recipients were similar to those for non-diabetic recipients (2-4).

In this issue, Einollahi *et al.* describe their experience with kidney transplantation in diabetic patients in one of the largest Middle Eastern transplant centers in Iran (5). Most of the transplanted kidneys were obtained from living donors, and most of the donors were unrelated to the recipients. This shows the great efforts to promote organ donation from living donors when deceased dona-

tion is a less common event. The authors have done an excellent job of obtaining data from a variety of sources, including paper charts, computer records, and via direct patient communication. This study had a rather stringent follow-up procedure, with up to 6 visits per year, even if transplantation was performed years ago.

During the 3-year study period, 252 solitary renal transplants were performed in 117 diabetic and 135 non-diabetic Iranian patients. Diabetic recipients as a group were older at transplantation than non-diabetic recipients. Patients were maintained on long-term dual immunosuppressive therapy. The median follow-up period was 29 months. During the 3 years of follow up, statistically significant differences were not observed in the overall mortality and graft survival of the 2 groups, despite the diabetic recipients being older than the non-diabetic recipients. Compared to non-diabetic patients, diabetic patients had higher levels of triglyceride, cholesterol, and uric acid levels; this indicates the need to carefully diagnose and treat diabetic patients after transplantation for abnormalities in lipid metabolism.

These results show that renal transplantation yielded good short- and medium-term postoperative outcomes for diabetic patients in Iran. Whether follow-up for a longer period than used in this study would reveal differences in patient survival remains unclear. However, even if such a difference was observed in future studies, it may be attributable to recipient age at the time of transplant,

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and age-for-age analysis may be necessary to adequately assess whether diabetes alone is a risk factor for poor long-term outcomes of renal transplant.

Overall, we commend the authors for their excellent care of diabetic and non-diabetic transplant recipients and agree with them in that renal transplantation is the best treatment for end-stage renal disease in diabetic patients.

Financial Disclosure

None declared.

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