



Donation Over Age 70 and Older Is an Obstacle for Kidney Transplantation?

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The profound organ shortage has resulted in longer waiting times and increased mortality for those awaiting kidney transplantation. Consequently, patients are turning to older living donors. It is unclear if an upper age limit for donation should exist, both in terms of recipient and donor outcomes [1]. However, there is a fact that surgery can present additional risks for older patients; this requires physicians to be especially careful about who they deem fit to undergo donor transplant procedures. Currently, surgeons are conservative about living kidney donors: Nearly three-quarters of transplant centers have not accepted organs from people older than 70. Caution makes sense because the long-term effects of kidney donation on older adults are unknown.

Between 1990 and 2010, 219 men and women between the ages of 70 and 84 donated kidneys, according to an article published by Segev and colleagues [2]. Most commonly, these seniors gave the organs to middle-aged and older adults that they know well, unlike the system that distributes kidneys from deceased donors anonymously. The usual recipients were their children (37 percent), followed by their spouses or partners (35 percent), siblings (14 percent) and other relatives and friends. Data about medical outcomes when using older kidneys, while relatively scarce, are encouraging. In his study last year, Segev found that 93 percent of patients who received kidneys from live donors 70 and older were alive one year after transplant surgery, and 74.5 percent survived five years. As for patients who got kidneys from live younger donors, 96 percent were alive at one year and 83 percent at five years, a result considered statistically equivalent.

The report from Johns Hopkins Medical Institutions reviewed 219 healthy adults aged ≥ 70 have donated kidneys at 80 of 279 transplant centers [3]. Competing risks models with matched controls were used to study the independent association between older donor age and allograft survival, accounting for the competing risk of recipient mortality as well as other transplant factors. In this recent study, Berger et al. have found that mortality among living kidney donors aged ≥ 70 was no higher than healthy matched controls; in fact, mortality was lower, probably reflecting higher selectivity among older live donors than could be captured in National Health and Nutrition Examination Survey III (NHANES-III, $p < 0.001$). These findings support living donation among older adults but highlight the advantages of finding a younger donor, particularly for younger recipients.

Kidneys from live donors aged ≥ 70 may not last as long in younger recipients as kidneys from younger living donors, even although recipients appear to have similar survival. However, the clinical decision faced by a kidney transplant candidate might be more complex; for example, deciding to forgo live donor transplantation from an older donor might mean waiting several years for a deceased donor transplant. Although the performance of grafts from live donors aged ≥ 70 may be less optimal than grafts from live donors ages 50 to 59 and may be comparable to grafts from non-ECD deceased donors ages 50 to 59, they still are preferable to the well documented risks of joining a lengthening waitlist where more than half of candidates over 60 are predicted to die before receiving a deceased donor transplant [3].

In conclusion, these and other good results should encourage the expansion of older living-donor transplantation because this may represent an important solution to the organ shortage.

References

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