

Comparison of Outcomes with HTK and UW Solutions in Renal Transplantation

To the Editor:

We appreciate the comments of Drs. Opelz and Döhler regarding our submission to the *American Journal of Transplantation* (1). The authors correctly point out that our series, which encompassed 634 deceased donor and 950 living donor transplants, was not sufficiently powered to detect a difference in UW versus HTK performance in organs cold-preserved for more than 24 h. Our study did show, to a statistically significant degree, apparent equipoise in patient and graft survival between the whole of the UW and HTK groups. Separate multivariate analyses of outcomes validated the data set by showing contributions of donor and recipient factors consistent with previous reports from the literature (2,3). Finally, our study assessed correlation between storage solution type and delayed graft function, and HTK use was actually seen by Cox multivariable analysis to be associated with decreased risk of delayed graft function.

The results of the Collaborative Transplant Study, to which Drs. Opelz and Döhler allude, did show a detrimental effect of preservation with HTK over UW in prolonged ischemia times (4). This excellent work reports on 16 years of registry data. As in our own experience, the authors noted shifts in preservative fluid type and the proportion of organs stored for longer than 24 h over the course of the collection period. While this registry data can be used to calculate a hazard ratio to control for the era effect in our own study, the applicability of such a factor derived from an aggregate of heterogeneous data to a single center's practices is not certain. Nonetheless, Drs. Opelz and Döhler correctly comment on an important weakness of our report, the potential confounding effects of secular trends on our results. We clearly discussed this in the original manuscript.

In summary, final proof of the superiority of HTK over UW or vice versa as a renal preservative remains elusive. In the absence of any new randomized trial of sufficient power and granularity to assess all factors and outcomes of renal transplantation using the two solutions, large reports such as the Collaborative Transplant Study and smaller series such as our own provide complementary information on renal preservation. Our experience shows little, if any, difference between the fluids within the scope of our usual ischemia times, and as HTK has cost and ease of use benefits (5), it remains our standard choice for cold preservation of renal allografts.

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References

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