LETTER TO THE EDITORS

Reply to: "Kidney graft survival of >25 years: a single-center report including associated graft biopsy results"

Tarique Sabah, Mohamed Adel Ilham & Usman Khalid 🝺

Cardiff Transplant Unit, Department of Nephrology & Transplant Surgery, University Hospital of Wales, Cardiff, UK E-mail: usman.khalid@doctors.org.uk

Dear Editor,

We read with great interest this article [1]. The authors identified a total of 86 patients in their center with a graft survival of more than 25 years (and reported outcomes in 72 of them), an incredibly high number.

We were very impressed with the overall outcomes reported, in terms of graft survival and function, especially given that these transplants were conducted in a relatively "early" era of immunosuppression development (between 1972 and 1988) and tissue typing. Given such immunological barriers, the fact that some of these transplants were either second or third transplants makes these results even more impressive. We have recently discovered through our knowledge of eplet matching (or mismatch load) that some HLA mismatches may be relatively benign and the results reported in this study may be reflective of such "fortunate" eplet matching.

Despite this, we believe that caution must be taken when interpreting these results in the modern era. These data represent a population of patients which were younger in age group with relatively few comorbidities (including mean blood pressures within normal range, average BMI of 25, and low number of patients with type 2 diabetes) and cause of renal failure being glomerular disease, as opposed to the current population of patients—which is typically older, often with multiple comorbidities, and in whom the predominant cause of renal failure is diabetes (which has its own multiple microvascular and macrovascular deleterious consequences). In addition to this, the mean donor age in this study was 26.9 years, with the oldest donor being 57. In comparison, at present, more than one-third of the deceased donors in the UK are aged 60 years and over—that is, extended criteria donors (as defined by the UNOS definition) and a significant proportion will often have multiple comorbidities [2]. Indeed, it comes as no surprise that long-term survivors tend to be younger patients with minimal comorbidities who have received a good quality kidney.

One of the things which would be really useful to know would be how many of these long-term survivors developed any malignancies—such as PTLD and skin cancer (in correlation with their degree of immunosuppression)—and also whether any developed significant cardiovascular disease. One would expect not a relatively insignificant proportion of long-term transplant survivors to suffer from such comorbidities. Also, do the authors think that the relative incidence of posttransplant diabetes was because of use of ciclosporin as opposed to tacrolimus?

Overall, the authors should be commended on a nicely written report that shows excellent results in terms of graft survival and function, in an era in which immunosuppression was still being developed and refined (and therefore arguably relatively suboptimal). It also highlights the long-term superiority of relatively young donors—a finding which is consistent with national registry data from the UK [3].

REFERENCES

1. Kettler B, Scheffner I, Bräsen JH, *et al.* Kidney graft survival of >25 years: a single center report including associated graft biopsy results. *Transpl Int* 2019; doi:10.1111/tri.13469 [epub ahead of print] NHSBT. Transplant activity in the UK – activity report 2017–18. https://nhsb tdbe.blob.core.windows.net/umbracoassets-corp/12300/transplant-activity-re port-2017-2018.pdf. Accessed 18th June 2019.

3. Summers DM, Johnson RJ, Hudson A, Collett D, Watson CJ, Bradley JA. Effect of donor age and cold storage time on outcome in recipients of kidneys donated after circulatory death in the UK: a cohort study. *Lancet* 2013; **381**: 727.