

LETTER TO THE EDITORS

Faster may be better for anastomosis time, but does it really affect survival?

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Dear Sirs,

We congratulate Weissenbacher and colleagues on their retrospective study examining the influence of anastomosis time (AT) on outcomes after deceased donor kidney transplant, provocatively entitled 'The Faster the Better' [1]. The authors conclude that AT is independently associated with patient survival, but not with overall graft survival, and suggest that AT is 'one of the most important modifiable transplant factors [and] should be considered a major risk factor for long term outcome'.

It may be the case that an increase in warm ischemia due to longer AT directly contributes to patient death, as the authors propose. A second explanation is that AT is simply a surrogate for other factors that predispose to patient death. Caution should therefore be exercised before drawing conclusions as insufficient controls within the models may lead to AT being confounded.

It is at least superficially difficult to reconcile an event at the transplant procedure contributing to patient death by the mechanisms proposed, which does not have a significant effect on graft survival. Of the 196/1245 (15.7%) known deaths, it is reported that only 12 (1%) did not have a functioning graft. It is not clear whether any of these patients were retransplanted prior to death. A mechanistic link between anastomotic time, graft ischemia, and patient death that is independent of graft survival is not easy to see, particularly when considering the primary causes of death were heart failure, sepsis, and cancer. It would be useful to

know whether AT influenced graft function as determined by estimated glomerular filtration rate or immunosuppression requirements.

The analysis of patient death accounted for donor and recipient age and body mass index, donor hypertension, and donor fulfilling extended criteria. Recipient and operative factors not accounted for that may have impact on AT and be associated with patient death include, for instance, poor quality vessels seen in atherosclerosis and diabetes, cause of renal disease, bleeding, and poor surgical technique.

It is interesting to consider whether AT is indeed modifiable for a given surgeon operating on a given patient. While we understand the authors' intent in describing AT as modifiable, this is not supported by the data presented.

Stephen O'Neill, Gabriel C. Oniscu and Ewen M. Harrison
*Clinical Surgery, University of Edinburgh, Royal Infirmary of
Edinburgh, Edinburgh, UK*
e-mail: ewen.harrison@gmail.com

Reference

1. Weissenbacher A, Oberhuber R, Cardini B, *et al.* The faster the better: anastomosis time influences patient survival after deceased donor kidney transplantation. *Transpl Int* 2015; **28**: 535.