

Item S1.

Additional methods:

Kidney donor risk index (KDRI)¹:

The kidney donor risk index was calculated from the following donor characteristics: age (years), height (cm), weight (kg), race (black/nonblack), history of hypertension, history of diabetes, stroke as cause of death, terminal SCr, hepatitis C serostatus, and donation after cardiac determination of death status.

Kidney injury biomarkers:

We measured urine injury biomarkers from urine samples that were collected from the indwelling catheter tube in the operating room prior to organ procurement. We immediately placed the samples on ice, transported them to the individual OPOs, and stored them at -80°C until monthly batch shipments on dry ice to Yale University. Median (interquartile range) time from collection to freezing of urine samples at the organ procurement organizations was 6.3 (4.9-8.0) hours. At the Yale Biorepository, we performed a single controlled thaw and separated the samples into 1 ml barcoded aliquots for storage at -80°C until measurement. We measured NGAL with the Architect platform (Abbott Diagnostics, Chicago, IL, USA), which had a detection range of 0-6000 ng/mL. We measured L-FABP via latex-enhanced immunoturbidimetry using anti-human L-FABP mouse monoclonal antibodies (Sekisui Medical CO., LTD., Tokyo, Japan), which had an inter-assay coefficient of variation (CV) between 1-3.5% and a detection range of 0.5-250 ng/mL. We measured IL-18 and KIM-1 via the MesoScale Discovery Platform (Meso Scale Diagnostics, LLC, Gaithersburg, MD USA), which had a lower limit of detection of 0.169 pg/ml and 0.43 pg/ml for IL-18 and KIM-1, respectively. The intra-assay CVs for IL-18 and KIM-1 were <10%, and the inter-assay CVs were 7.2-10.66% and 5.2-9.2%, respectively. All ATI biomarkers were log-transformed for analyses. We measured urine creatinine, sodium and urea on RxDaytona analyzer as per the manufacturer's instructions (Randox Laboratories Ltd., Kearneysville, WV, USA).

REFERENCE:

1. Rao PS, Schaubel DE, Guidinger MK, et al. A comprehensive risk quantification score for deceased donor kidneys: the kidney donor risk index. *Transplantation*. 2009;88(2):231-236.