Rebuttal: CON Position

Formal Assessment of Donor Kidney Function Should Be Mandatory

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We read with interest the positive role of formal glomerular filtration (GFR) assessment of living kidney donors using radionuclide by Tan et al. [1]. Although they present a logical narrative of why formal assessment of GFR should be performed in all potential kidney donors, they fail to recognize that the kidney donor *must be normal* to ensure no immediate or long-term harm is incurred. Donor safety must always be the top priority and emotional issues around the growing waitlist, shortage of organs or both should *not* be an excuse to select suboptimal donors for increasing the donor pool. Patients in renal failure are already receiving some form of life-sustaining therapy and it is not rational to risk the health of another person for the sake of improving the quality of life of the recipient [2].

The authors wrote, ‘*We therefore recommend more accurate and rigorous testing of kidney function in donors who are compromised by middle or older age, hypertension or glucose intolerance. Such donors are prone to glomerulopenia, and hence at risk of developing progressive loss of kidney function following a halving of their nephron mass*’. In our opinion, we should not even consider these ‘compromised’ individuals as potential donors. Let us shoot straight and put an end to this ethical and emotional dilemma. A potential donor is either normal or not. Normal is defined as the absence of any chronic condition and risk factors for renal disease, hypertension, diabetes and

other chronic conditions post-kidney donation. Anything else is trying to be heroic and potentially jeopardizing the health of the donor. Clearly, the authors do not see a problem with using a donor *at risk* as long as iothalamate GFR is >80 ml/min/1.73 m². We firmly believe that if donor safety is a priority, then any donor at risk, irrespective of GFR, should not be considered a donor. In specific instances, patients who are obese or have glucose intolerance, may be considered for standard treatment and later considered for kidney donation. However, accepting these patients with risk factors because iothalamate GFR is >80 ml/min/1.73 m² is simply not acceptable, nor ethical, knowing the cumulative risk of chronic disease these factors may pose. One can argue that the risk of developing kidney failure in a donor who developed diabetes or hypertension later in life does not depend on whether the donor has one or two kidneys. This is probably true, but we have no scientific evidence to back this up, and therefore absolute caution is necessary. We believe that the currently available creatinine clearance and eGFR methods are easy to use, have no significant costs or side effects and the results should be within the normally accepted range (>90 and <150 ml/min/1.73 m²) in a ‘normal’ healthy individual for acceptance as a kidney donor. There is data to suggest that MDRD underestimates GFR at GFR >60 ml/min/1.73 m², so the cutoff point of 90 ml/min/1.73 m² should pose no problem. In

fact, a more recent equation, the Chronic Kidney Disease Epidemiology (CKD-EPI) equation [3], has been shown to be more precise than the MDRD at GFR >60 ml/min/1.73 m² as well as in the elderly and should be a valuable tool in estimating GFR in kidney donors. Furthermore, if creatinine clearance overestimates GFR by about 10%, then the cutoff of 90 ml/min/1.73 m² approximates a GFR of about 80 ml/min/1.73 m², so what would be the rationale to do another test that is risky and costly and tedious? Tan et al. [1] wrote that ‘*for those unable to establish a “gold standard” GFR procedure, the best alternative would be to approximate the GFR in biphasic potential donors with a marginal creatinine clearance (<90 ml/min/1.73m²) after 3–4 days of cimetidine blockade of creatinine secretion*’. Clearly, they understand that we do not need iothalamate GFR to select a healthy donor.

The transplant community has a duty to educate the public to reduce fears of kidney donation in an attempt to increase the number of living kidney donors, safeguard the donor by not coercing those at risk through the selection process. When it comes to evaluating living kidney donors, we should adhere to the principle: normal is normal and abnormal should not be a substitute for normal.

Disclosure Statement

The authors do not have any financial interest in the products discussed in this editorial.

References

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