



## LONG TERM RENAL OUTCOME OF LIVING KIDNEY DONORS: A SINGLE CENTRE EXPERIENCE

Song CH<sup>1</sup>, Wong HS<sup>1,2</sup>, Yakob S<sup>1</sup>

<sup>1</sup>Department of Nephrology, Selayang Hospital, Selangor, Malaysia

<sup>2</sup>Clinical Research Centre, Selayang Hospital, Selangor, Malaysia

### Objective:

To assess the long-term renal outcome of living kidney donor (LKD).

### Method:

This is a retrospective descriptive cohort study of the renal outcome of LKD who donated their kidney in Selayang Hospital from year 2000 until 2016. The renal function measured using CKD-EPI equation in ml/min/1.73m<sup>2</sup> at 5 years and 10 years were analysed.

### Basic Demographic



61 LKD operations took place in Selayang Hospital from year 2000 to 2016



Mean age at kidney donation:  
43.44±9.05 years old



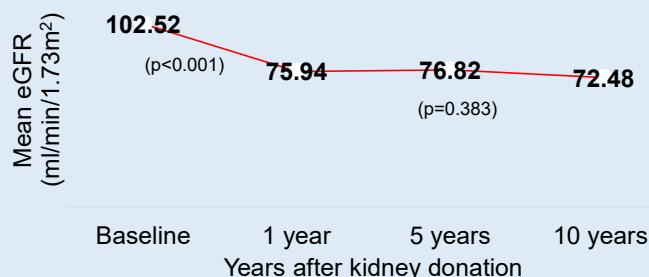
Male: 27.87%  
Female: 72.13%



Malay: 59.02%  
Chinese: 29.5%  
Indian: 11.48%

### Results

#### MEAN EGFR OVER YEARS



A repeated-measures ANOVA determined mean eGFR differed significantly across time points of pre-operation to 1 year, 5 years and 10 years ( $F(3, 72)=25.932$ ,  $p<0.001$ ). However, mean eGFR remained stable over time ( $74.0\pm15.2$  vs  $76.9\pm19.3$  vs  $72.6\pm14.1$ ,  $p=0.383$ ). Therefore, the results indicated a non-significant time effect for eGFR post donor-nephrectomy.

At 5- and 10-years post-donation, 13.71% ( $n=34$ ) and 20.69% ( $n=29$ ) donors had eGFR  $<60$  ml/min/1.73m<sup>2</sup> respectively.



1 donor progressed to end stage renal disease needing regular haemodialysis at 13 years post-donation



Hypertensive disease was documented in 32.43% ( $n=37$ ) of the donor

Mean onset:  $7.92\pm3.40$  years



5.41% ( $n=37$ ) developed significant proteinuria ( $>300$ mg per day)

### Conclusion

In this donors cohort, significant drop of eGFR noted post-donation at 1 year comparing to baseline but remain significantly stable till with time. 30% develop hypertension and less than 25% progressed to eGFR  $<60$  ml/min/1.73m<sup>2</sup>. This is comparable to national prevalence of hypertensive population but slightly higher for chronic kidney disease. In general, LKDs has favourable renal outcome post-donation.