KSN SEOUL, KOREA 2023
April 27(Thu) - 30(Sun), 2023
Coex, Seoul, Korea

Abstract Type : Oral
Abstract Submission No. : 1554

Comparisons of clinical outcomes between hypertensive and normotensive living kidney donors: a nationwide prospective cohort study

Jong Ho Kim[1], Yu Ho Lee[2], Soo-Young Yoon[1], **Dae Kyu Kim[1]**, So Jin Lim[1], Jin Sug Kim[1], Kyung Hwan Jeong[1], Sang Ho Lee[1], Hyeon Seok Hwang[1]
[1]Department of Internal Medicine-Nephrology, Kyung Hee University Medical Center, Korea, Republic of
[2]Department of Internal Medicine-Nephrology, Bundang CHA General Hospital, Korea, Republic of

Objectives: Living kidney donors with hypertension is potential candidates to solve the imbalance between supply and demand for renal transplantation. However, the safety of hypertensive donor is not sufficiently ensured after donor nephrectomy and there are limited studies, which compare the clinical outcomes between hypertensive and normotensive donors.

Methods: All data from this study were obtained from the Korean Organ Transplantation Registry (KOTRY). A total 672 hypertensive donors and 5,134 normotensive living kidney donors were included from May 2014 to December 2020. Primary outcome was the occurrence of proteinuria and the development of lower renal function, defined as an estimated glomerular filtration rate (eGFR) less than 60 or 45 ml/min/1.73 m^2.

Results: Compared to normotensive donors, hypertensive donors had lower eGFR before nephrectomy and remained lower after kidney transplantation. However, the risk of eGFR below 60 ml/min/1.73 m^2 (adjusted HR, 0.87; 95% CI 0.70-1.09; P = 0.226) or below 45 ml/min/1.73 m^2 (adjusted HR, 1.49; 95% CI 0.77-2.86; P = 0.234) was not significantly increased in hypertensive donors after multiple adjustment. When comparing the rate of eGFR decline between the hypertensive and normotensive donors, there was no significant difference (adjusted unstandardized β, -0.19; -1.15 – 0.76, P = 0.691). The incidence of proteinuria occurrence in hypertensive donor was increased, and it tended to increase even after 4-5 years. Hypertensive donors were found to have significantly more proteinuria than normotensive donors (adjusted HR, 1.83; 95% CI 1.13-2.96; P = 0.014).

Conclusions: Our study indicated that the risk of proteinuria after donation was increased in hypertensive donor, while it was not translated into significant decline in renal function. The continuous and careful monitoring for proteinuria should be required in hypertensive donor after nephrectomy.