

Abstract Type : Oral Presentation
Abstract Submission No. : F-007385

Factors affecting Discard of Deceased Donor Kidneys of Korea

Suhyun Oh¹, Juhyung Ha¹, Jaeseok Yang¹

¹Department of Nephrology, Severance Hospital, Yonsei University, Republic of Korea

Introduction: Kidney transplantation has a significant survival advantage compared to dialysis but kidney supply is less than demand for transplantation. We analyzed characteristics and outcomes of deceased donor kidneys to assess and probabilities of organ discard.

Methods: This study included 5,592 deceased donor kidneys which are candidate for kidney transplantation from 2013-2018 in the Korean Network for Organ Sharing(KONOS) and the National Health Insurance Data Sharing Service(NHISS). Kidneys were classified by Not procured(N = 385), Both procured(N=5144), Single procured(N=63). Single procured were divided into Single transplanted(N=62), Single discarded(N=1). Both procured were divided into Bilateral Transplanted(N=5058), Unilateral transplanted(N=33), Unilateral discarded(N=33), Both discarded(N=20). We compared characteristics of transplanted, discarded, not-procured subgroups and assessed causes of kidney discard. Also we analyzed outcomes as death, graft failure requiring maintenance of dialysis in transplanted subgroups.

Results: Discard rate was 1%. Kidney discard rate combining not-procured kidneys were 439(7.9%). Compared with transplanted donor, not-procured kidney donors were older, had high BMI, more HTN and DM, high serum Cr, low serum Hb and high KDRI. The causes of not-procurement were all organ damage. The most common cause of kidney discard was organ damage(N=36, 66.6%), and second-most reason was no recipient located(N=7, 12.9%). In transplanted subgroups(Bilateral vs others), there were no significant differences in outcome as Death(Bilateral 346(6%), others 9(9%) kidneys, p=0.3) and Graft failure(Bilateral 208(4%), others 6(6%) kidneys, p=0.3). While mean KDRI of discarded plus not-procured kidneys(1.9 ± 0.7) was higher than that of transplanted organs(1.5 ± 10.5), a large overlap in the quality was observed.

Conclusion: Although discard rate of donors kidney was low in Korea(1%, 2013-2018), but factors beyond organ quality still affect kidney discard. So it is necessary to use kidneys that are discarded for reasons other than organ quality to the fullest.