

신장이식에서의 확대공여자의 비율과 임상 양상

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The Proportion and Clinical Characteristics of Expanded Criteria Donors

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Backgrounds : Organ shortage is the worldwide problem in transplantation. Using expanded criteria donor (ECD) grafts is one of the efforts to solve the organ shortage. We investigated the current situations of donor selection in both deceased donor (DD) and living donor (LD) kidney transplantation (TPL) as baseline data for establishing a reliable consensus for donor selection.

Methods : We retrospectively analyzed a total of 421 kidney TPL cases between 2005 and 2009 in Seoul National University Hospital. Extended criteria deceased donor (ECDD) was defined as United Network for Organ Sharing criteria. For LD, expanded criteria living donor (ECLD) was determined if at least one of five criteria were fulfilled, which were as follows: age over 60, body mass index over 25 kg/m², history of hypertension (HTN), lower estimated glomerular filtration rate (eGFR) than 80ml/min, proteinuria and microscopic hematuria.

Results : During the last 5 years, DD and LD kidney TPLs have been performed in 148 (35.2%) and 273 (64.8%) cases, respectively. There have been significant increase in the proportion of DD kidney TPL, which reached 40.7% in 2009, up from 20.9% in 2005 ($p < 0.001$). Among the DDs, twenty donors (13.5%) belonged to the ECDDs. Among ECDDs, there were 26% of cerebrovascular cause of death, 24% of HTN history, and 18% of low eGFR. Except old age, the mean number of comorbidities in ECDDs was 1.7. The number of ECDD kidney TPL were 2 (14.3%) in 2005, 0 (0%) in 2006, 3 (13.6%) in 2007, 8(16.3%) in 2008, and 7(14.0%) in 2009, respectively. As for LD, one hundred and forty seven (53.8%) donors met the criteria for ECLDs. The proportions of each medical abnormality in ECLDs were as follows: age over 60 in 0.7%, HTN in 8.2%, obesity in 49%, low eGFR in 54.8%, proteinuria in 0%, and microscopic hematuria in 3.4%. About 8% of ECLD had two or more medical abnormalities. Number of annual ECLD kidney TPL increased until year 2008; 27 (50.9%) in 2005, 33 (57.9%) in 2006, 27 (60%) in 2007, 33 (73.3%) in 2008 and 27 (39.7%) in 2009. However, only 53% of the donors were regularly followed up after donor nephrectomy. ECDD and ECLD combined, a total of 167 cases (40.1%) were ECDs among total TPL cases.

Conclusions : ECD occupied 40.1% of the total kidney TPL donors. ECD were more prevalent among living donors than deceased donors Regular follow-up for LDs should be emphasized, especially for the ECLDs. Further study for the prognosis of the ECDD and ECLD kidney TPL is ongoing.

Key Words : 확대공여자, 신장이식, 공여자선택

Expanded criteria donor, Kidney transplantation, Donor selection