

## 한국에서의 확장 공여신의 이용실태와 신이식의 성적 연구

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### Use of Expanded Criteria Donors and Its Outcome in Korea

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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) and its outcome.

**Methods:** We retrospectively analyzed a total of 791 kidney TPL cases between 1997 and 2009 in Seoul National University Hospital. Expanded criteria deceased donor (ECDD) was defined as donor who fulfilled United Network for Organ Sharing criteria or Nyberg 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 30 kg/m<sup>2</sup>, history of hypertension (HTN), lower estimated glomerular filtration rate (eGFR) than 80 ml/min, proteinuria and microscopic hematuria.

**Results:** During the last 13 years, DD and LD kidney TPLs have been performed in 228 (28.8%) and 563 (71.2%) cases, respectively. Among the DDs, 43 cases (18.9%) belonged to the ECDDs. Among the donor variables, age over 60, death from cerebrovascular origin, presence of hypertension were associated with lower 6 month eGFR (63.0±16.9 vs. 48.8±8.6, p=0.002, 65.1±17.8 vs. 57.4±14.8, p=0.004, 83.3±48.7 vs. 59.4±29.7, p<0.001, respectively) ECDD group showed lower post-TPL 6month eGFR than that of standard criteria deceased donor (SCDD) group (65.9±16.0 vs. 47.1±10.2, p<0.001).

As for LD, 161 (28.6%) donors met the criteria for ECLDs. The proportions of each medical abnormality in ECLDs were as follows: age over 60 in 1.9%, HTN in 8.7%, obesity in 7.5%, low eGFR in 31.3%, proteinuria in 0%, and microscopic hematuria in 5.0%. About 7.4% of ECLD had two or more medical abnormalities. Among the donor variables, eGFR lower than 80ml/min was associated with lower 6 month eGFR (64.8±14.2 vs. 57.2±10.0, p<0.001). ECLD group showed lower post-TPL 6month eGFR than that of standard criteria living donor (SCLD) group (63.9±14.0 vs. 59.6±12.2, p=0.002). However, graft survival was not different among each donor type. (p=0.484)

**Conclusions:** ECD occupied 25.8% of the total kidney TPL donors. ECD were more prevalent among living donors than deceased donors. (28.6% vs. 18.9%) Post-TPL 6 month MDRD eGFR was lower in recipients who received allografts from ECD (ECDD, ECLD). However, there was no difference of graft survival among different donor type.

**Key Words:** 확장범주 공여자, 이식, 공여자

Expanded criteria donor, Transplantation, Donor