中文題目: 尿毒症病患腎臟移植後發生泌尿道腫瘤風險之性別差異

英文題目: Gender difference for urological malignancy risk in uremic patients after kidney transplantation: a population-based study

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Background: High urological malignancy incidence has been reported in end-stage renal disease (ESRD) patients, especially of female gender. This study was undertaken to evaluate whether female recipients still carry an aggravated risk of this malignancy after kidney transplantation (KT).

Methods: The claims data from the Bureau of National Health Insurance of Taiwan were used for analysis. All KT recipients who developed urological malignancy from January 1, 1999 to December 31, 2007 (n=2,245) were enrolled in this study. By means of propensity score, a database of 1:4 ratio random incident ESRD patients with matched age, gender, co-morbidity rates and dialysis to index date was used as control (non-KT group, n=8,980). The last observation period ended on December 31, 2008.

Results: The cumulative urological malignancy incidence rate was significantly higher in female recipients after KT than their female ESRD counterparts without KT ($p<0.001$). This gap became more prominent about 2 years after transplantation. No similar trend was detected in male KT patients ($p=0.13$). Incidence rate ratio of urological malignancy was significantly higher in female recipients (IRR:2.13; 95% CI:1.53-2.97) than in their male counterparts (IRR:1.43; 95%CI:0.90-2.25). From multivariate Cox proportional hazard regression tests, female (HR:2.10; 95% CI: 1.52-2.95) but not male gender (HR:1.47; 95%CI: 0.93-2.32) was determined to be an independent factor for the development of urological malignancy after KT. After acquiring this malignancy, KT recipients did not have any advantage in cumulative survival compared to ESRD patients without KT ($p=0.07$).

Conclusion: Compared to males, female recipients tended to have a significantly higher urological malignancy risk after KT.

Key words: end-stage renal disease; kidney transplantation; urologic malignancy; incidence; gender difference