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## **Health-related quality of life in kidney transplant patients was better than those in chronic kidney disease patients at CKD stage 1-3**

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**Objectives:** Both kidney transplantation (KT) and pre-dialysis chronic kidney disease (CKD) patients usually experience mental and physical burdens according to renal functional deterioration. However, change in health-related quality of life (HRQOL) over time in KT patients has not been studied in comparison to that in CKD patients.

**Methods:** In this study, adult patients registered in the prospective, KoreaN cohort study for Outcome in patients With KT (KNOW-KT) and Chronic Kidney Disease (KNOW-CKD) between 2011 and 2013 were enrolled. HRQOL scores were assessed using Kidney Disease Quality of Life instrument (KDQOL-SF) and clinical parameters at the point of 0, 2, 4, 5 and 6 year after registration. A total of 842 KT and 1063 CKD patients at CKD stage 1-3 (eGFR > 60ml/min/1.73m<sup>2</sup>) were included in the analysis.

**Results:** Both CKD-targeted and SF36 score were improved 2 year after KT and their improvement persisted until 6 years. In contrast, CKD-targeted score and SF36 score were decreased at 5 year-follow-up in CKD patients. Lower GFR, low baseline QOL, diabetes, and low hemoglobin level were independent risk factors for lower SF36 score in KT patients. Employment status and baseline QOL was significantly associated with CKD-targeted score in both KT and CKD patients. At the same renal function, KT patients had significantly higher SF36 score than CKD patients (78.3±14.1 vs. 74.7±15.9,  $P=0.000$ ), especially physical QOL showed higher scores than mental QOL scores. In subdomain analysis, fragility, fatigue, and sleep disturbance showed persistent low QOL scores in both groups. In regard to the CKD-targeted score, KT patients had similar scores as CKD patients. In multivariable analysis, KT was an independent determining factor for higher HRQOL ( $P=0.000$ ).

**Conclusions:** In conclusion, KT patients have different HRQOL patterns and higher QOL compared to CKD patients even at the similar renal function. More specified approach to assess QOL according to KT or CKD patients.