

Depression and Quality of Life Following Kidney Transplantation

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Introduction. Depression and diminished quality of life (QOL) are common in kidney failure. In this study we investigate whether kidney transplant (KT) improves depression and QOL across lifespan and whether this effect is sustained.

Methods. In this study, we assessed depression and QOL in patients on the KT waitlist before and after surgery. We measured depression using the Beck Depression Inventory-II (BDI-II) and QOL using the Kidney Disease Quality of Life Short Form Version 1.3 (KDQOL-SF) physical health composite score (PCS) and mental health composite score (MCS). We used linear mixed effect models with random intercepts to evaluate the effect of time, age, and KT status on BDI-II score, PCS, and MCS. For models with significant age interactions, we estimated this effect for baseline age groups.

Results. We analyzed 239 BDI-II assessments and 143 KDQOL-SF assessments. The BDI-II scores improved pre- to post-KT (10 pre-KT vs 5 post-KT, $p < 0.001$). Overall, PCS did not change pre- to post-KT (42 pre-KT vs 49 post-KT, $p = 0.11$). There were interactions between KT status, age, and years since baseline assessment. The magnitude of change in PCS post-KT decreased with older age ($p = 0.01$). In the sub-group analysis by age, PCS improved post-KT in patients < 60 years. The MCS improved from 47 pre-KT to 51 post-KT ($p < 0.001$), and the magnitude of improvement decreased with older age ($p = 0.03$).

Conclusions. Depression and QOL improve with KT. This improvement is sustained at one-year post-KT. While depression improves in all age groups, the improvement in QOL is more evident in younger patients.

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