

QUALITY OF LIFE AND SIDE EFFECTS IN KIDNEY TRANSPLANT PATIENTS TREATED WITH CYCLOSPORINE- AND TACROLIMUS-BASED IMMUNOSUPPRESSIVE REGIMENS

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Purpose. Transplant recipients and providers continue to seek opportunities to improve post-kidney transplant patient quality of life (QOL), which is influenced by a number of variables. The purpose of this study is to determine the effects of immunosuppressive regimen and time since transplant on QOL outcomes utilizing a nationwide organ transplant recipient registry.

Methods. Renal transplant patients age 16 and over were invited to participate in the registry. Patients completed a 100-item questionnaire, which captured a range of posttransplant outcomes. General QOL was measured by the SF-12, which provides a mental (MCS) and physical (PCS) component score. The Memphis Survey, an instrument developed and psychometrically validated at the University of Tennessee, was administered to patients to evaluate side effects associated with immunosuppression. Comparisons of side effects focused on cyclosporine- and tacrolimus-based regimens.

Results. Data were analyzed from 296 single and 33 repeat kidney transplant recipients who entered the registry between 1/7/2000 and 7/10/2001. Single kidney transplant patients reported the use of the following immunosuppressive agents: prednisone (85.8%), cyclosporine (59.5%), mycophenylate mofetil (46.6%), tacrolimus (30.4%), azathioprine (16.9%) and sirolimus (5.7%). Patients on cyclosporine-based regimens compared to tacrolimus-based regimens scored worse in the MCS (mean, 48.7 vs. 52.2, $p=0.052$). No significant difference was found in PCS scores (mean, 43.0 vs. 40.1, $p=NS$). Cyclosporine-based therapy was associated with more frequent and severe side effects in the Memphis Miscellaneous side effect subscale ($p<0.05$). Side effects became more frequent and severe as time since most recent transplant increased, with significant trends seen in all Memphis subscales except the GI domain up to 5 years posttransplant ($p<0.05$). Compared to single kidney recipients, repeat transplant patients reported more frequent and severe problems in the life/role domain ($p=0.04$), more frequent emotional side effects ($p=0.02$), and scored worse on the MCS ($p=0.002$).

Conclusions. Tacrolimus-based regimens are associated with better mental QOL (higher MCS scores) than cyclosporine-based regimens, as well as fewer and less severe side effects in certain domains. Side effects associated with immunosuppressive regimens increasingly impair posttransplant QOL over time up to 5 years posttransplant. Repeat kidney transplant patients experience worse posttransplant QOL than patients with one transplant.