

ADVANTAGES OF CONVERSION FROM TWICE-DAILY TO ONCE-DAILY TACROLIMUS INTAKE IN KIDNEY TRANSPLANTATION

B.G.SULTANOVA¹, I.B.MANSUROVA¹, SH.A.SARSENOVA², M.K.MUKANOVA²

¹ Kazakh Medical University of Continuous Education, Almaty, Kazakhstan

² Municipal Clinical Hospital 7, Nephrology department

OBJECTIVES

Among recipients of kidney transplants, non-adherence with prescribed immunosuppressive medications commonly occurs [Denhaerynck K, et al., 2005]. Several factors are associated with post-transplant medication non-adherence [Prendergast M.B., Gaston R.S., 2010]. Possible barriers to adherence include patients' personal schedules and routines, characteristics of the medicines and their dosage and schedules [Gordon E.J, et al, 2009]

Aim of study - to assess the advantages of once daily tacrolimus intake for recipients of kidney allograft

METHODS

For study, we had two comparative groups of patients. Once daily regimen of tacrolimus intake was switched at 46 patients (main group). Control group of 32 patients had twice daily regimen. Exclusion criteria was increased level of serum creatinine, anemia, hypertension. Examination of patients included laboratory tests of blood and urine, tacrolimus level, ultrasound of transplant. All patients completed Kidney Disease Quality of life Short Form 36 (KDQOL SF-36) questionnaire and immunosuppressive therapy adherence scale. The study was performed after 6 months after the switch. Statistical analysis was performed by Statistica 6.0.

RESULTS

Mean age of observed patients was $36,2 \pm 6,1$ years. The post-transplantation follow-up period was 5.1 ± 2.2 years. Analysis of KDQOL-36 revealed a significant difference in main group in general health ($p < 0.03$), energy, sleep, emotional well-being and work status ($p < 0.05$). Non-adherence at baseline was 68%, after 6 months it had significantly decreased to 44% ($p < 0.006$). Non-adherence was significantly reduced in group of patients who switched on once daily regimen of tacrolimus intake comparing with control group (OR – 0,33; 95% CI 0,12-0,84; $p = 0.02$) (Figure 1).

During period of observation slight increase of serum creatinine were revealed at 16 patients (20,5%) and mostly due to non-adherence of immunosuppressive therapy. Though no acute rejections of transplant were observed. Relative risk of decreasing GFR at non-adherent patients was significantly higher (RR – 2,84 95% CI 1,09-7,4; $p = 0.03$).

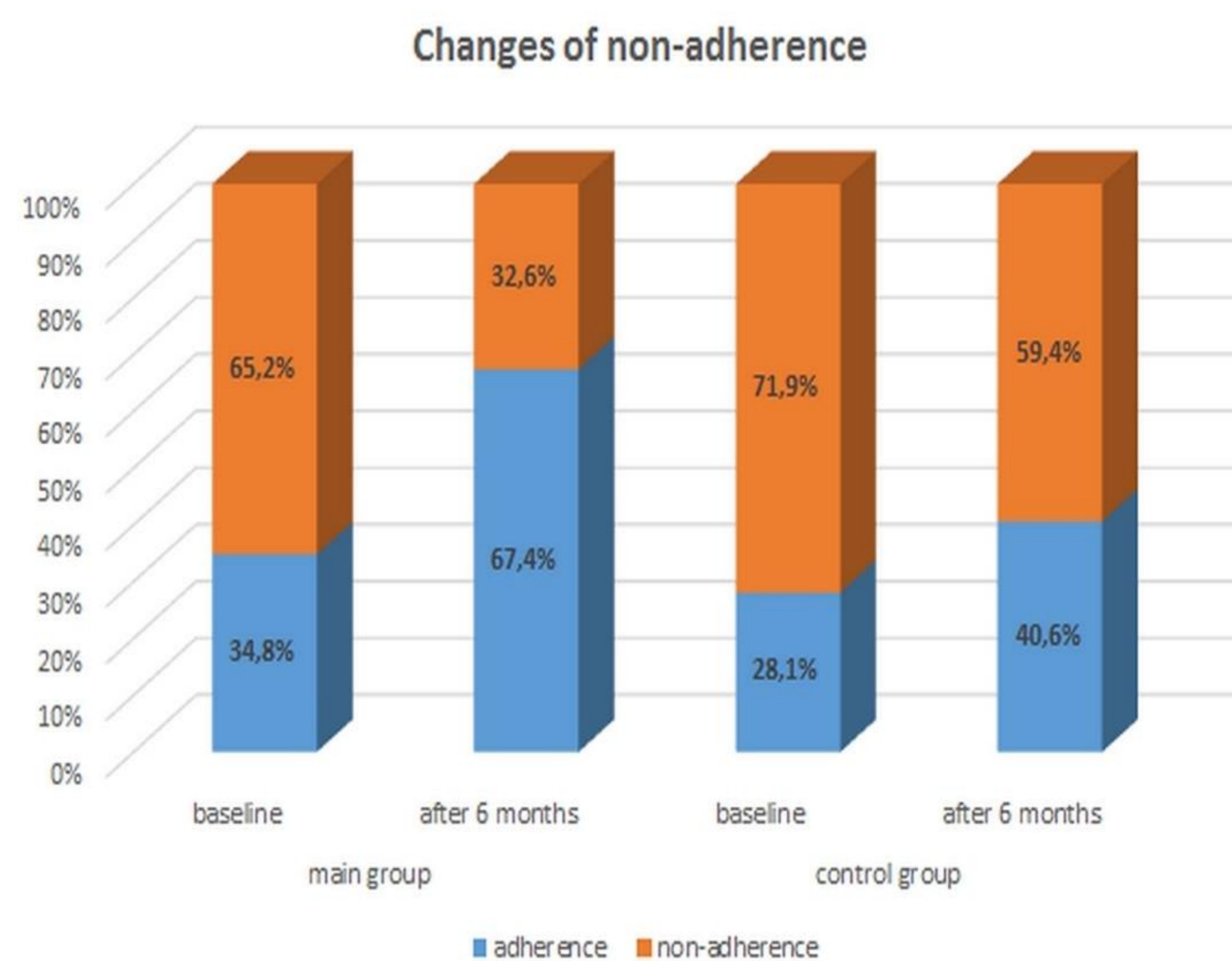


Figure 1

CONCLUSIONS

Conversion to once daily intake of tacrolimus in renal transplant recipients is significantly safe and effective, increases quality of life and therapy adherence. Non-adherence of immunosuppressive therapy can be significant predictor of early graft dysfunction.

