ADHERENCE TO IMMUNOSUPPRESSION IN ADULT LUNG TRANSPLANT RECIPIENTS: PREVALENCE AND RISK FACTORS

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Background:

Adherence to medication is a favourable factor with regard to survival after kidney-, heart-, and liver transplantation. Little is known about adherence to medication in lung transplant recipients. To study prevalence of adherence and identify risk factors of nonadherence we evaluated adherence to tacrolimus in adult lung transplant recipients who were at least one year after transplantation.

Aim:

The aim of the present study is to explore the prevalence of adherence to immunosuppressive therapy in adult lung transplant recipients using an objective measure and to determine possible risk factors for nonadherence.

Methods:

Tacrolimus intake was prospectively monitored using the Medication Event Monitoring System (MEMS®). Recipients were qualified as adherent if a timing-adherence score of $\geq 80\%$ was reached. Patient characteristics and possible risk factors for nonadherence were collected using the Karnofsky Performance Index, Self-Care Agency ASA Scale, State-Trait Anxiety Inventory, Zung Self-Rating Depression Scale, and the Long-Term Medication Behaviour Self-Efficacy Scale.

Results:

Ninety one recipients used MEMS® for a median of 95 days (range: 50-124) and were included. They showed a median timing-adherence score of 98.1\% (range 31.2-100). A timing-adherence score of $\geq 80\%$ was seen in 92.3\% of the recipients. Multiple logistic regression showed an association of lower timing-adherence scores with younger age and lower ability of self care.

Conclusions:

We conclude that adherence to immunosuppressive therapy is very high in lung transplant recipients. Only 7.7\% of the recipients are nonadherent. Younger recipients and recipients with lower ability of self care seem to be at risk for nonadherence. Follow-up of clinical data is needed to study whether nonadherence is associated with poorer outcome, i.e. bronchiolitis obliterans syndrome.