Abstract

Background. Assessment of renal function 12 months after liver transplantation (LT) predicts chronic renal failure on long-term follow up. Objective. To evaluate pre- and post- LT factors associated with development of renal dysfunction (RD) in cirrhotic patients. Methods. Between June 2005 and June 2010, 104 cirrhotic patients were selected from 268 consecutively transplanted adult patients. RD was defined as a calculated glomerular filtration rate (cGFR) < 50 ml/min/1.73m² by modification of diet in renal disease (MDRD), 12 months after LT. Results. Baseline pre-LT creatinine was 1.0 ± 0.7 mg/dL and cGFR was 64 ± 32.8 mL/min. At 12 month follow up, creatinine was 1.3 ± 0.6 mg/dL and cGFR was 47 ± 18 mL/min. The prevalence of RD was 55%. Variables related to RD on univariate analysis were age (P = 0.007), pre-LT GFR (P = 0.012) and 7th day post-LT GFR (P = 0.003). Risk factors associated with RD on multivariate stepwise regression analysis were patient age [Odds ratio (OR) 1.04 (95% confidence interval (CI) 0.99- 1.09, P = 0.06)] and 7th day post-LT GFR [OR 0.97 (95% CI 0.96-0.99, P = 0.013)]. ROC curve analysis for 7th day post-LT GFR was 0.71 (95% CI 0.61-0.81). Conclusion. The 7th day post-LT GFR in cirrhotic patients may be a useful clinical tool to identify which patients might benefit from earlier nephroprotective immunosuppression.

Keywords
Cirrhosis, renal failure, liver transplantation, immunosuppression