The aim of this trial was to evaluate the impact of conversion from a calcineurin-inhibitor (CNI)-based immunosuppressive regimen to mycophenolate mofetil (MMF) and reduced-dose CNI on long-term renal function and survival in a series of 63 liver transplant patients with CNI-induced renal dysfunction. CNI dosage was significantly tapered after introduction of 2,000 mg MMF per day. Renal function was assessed by determination of serum creatinine levels and calculated creatinine clearance (CCl). The impact of relevant clinical parameters on renal function and survival post-conversion was analyzed by univariate and multivariate analysis. At 60 months post-conversion, mean creatinine level had significantly declined from 197.2±58.3 μmol/l at baseline to 160.0±76.5 μmol/l, and mean CCl has significantly increased from 38.4±13.4 ml/min at baseline to 47.9±21.1 ml/min (p<0.001), respectively. Forty-six patients (73.1%) demonstrated sustained renal response to modified immunosuppression. Full-dose MMF medication (p=0.006) and the early conversion (p=0.02) were identified as independent predictors of persistent renal function improvement. Sustained renal response to MMF plus reduced-dose CNI was identified as the most relevant independent promoter of long-term survival (hazard
Five-year survival rate post-conversion was 93.9% in renal responders and 64.3% in renal non-responders (log rank < 0.001). Sustained renal response to MMF and CNI dose reduction promotes long-term survival in liver transplant patients with CNI-induced renal dysfunction.