Primary focal segmental glomerulosclerosis--long-term outcome after pediatric renal transplantation.

Abstract:
Recurrence of the primary disease is a significant issue in pediatric renal transplantation (RTx). According to data reported by the North American Pediatric Renal Transplantation Cooperative Study, patients with focal segmental glomerulosclerosis (FSGS) as primary renal disease have a recurrence rate of 30% after the first RTx. The relative risk of an early graft loss because of recurrent disease is increased to 1.6-3.1 in pediatric patients with FSGS. In a German open multicenter study, which was initiated to investigate mycophenolate mofetil (MMF) after pediatric RTx [Transplantation 2001:71:638, Transplantation 2003:75:454], patients with FSGS were evaluated for recurrence rate, risk factors for recurrence, long-term graft function, glomerular filtration rate and transplant survival. All patients received immunosuppression with MMF, cyclosporine A and prednisone without induction therapy. Renal function and survival data for FSGS patients were compared with the results of patients with other primary renal diseases within the same study population. Among 86 patients transplanted between 1996 and 1999 eight patients suffered from FSGS as primary disease. Recurrence was diagnosed in two of the eight patients. One out of these two patients lost his graft as a result of recurrence. Risk factors such
as time between diagnosis and end stage renal disease (ESRD) and age at onset did not predict recurrence. A three-year patient survival in the FSGS group was 100%, graft survival 87% vs. 97% in the non-FSGS group. Acute rejections occurred in three out of eight FSGS patients and in 37 out of 78 among the non-FSGS group. Long-term renal function, calculated using mathematical modeling based on glomerular filtration rate (GFR) data during 3 yr after RTx, was similar in FSGS patients - including a patient who had recurrence with a functioning graft - and those without FSGS. In patients with FSGS, recurring disease after RTx remains an important cause of graft loss (one of two patients in this population) even under modern immunosuppressants. Nevertheless, the immunosuppressive regimen used was associated with a similar graft survival rate and long-term renal function of FSGS patients compared with patients with other primary diseases.