Hepatitis C virus infection in patients on renal replacement therapy

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Hepatitis C virus infection is a frequent clinical problem in patients on dialysis and renal transplant recipients. The local prevalence rates of hepatitis C virus infection in patients on peritoneal dialysis, hemodialysis, or after kidney transplantation are 2%, 9%, and 6%, respectively. Conventional diagnosis of hepatitis C virus infection is by anti-hepatitis C virus immunoassays. However, up to 10% of immunosuppressed patients may be negative for anti-hepatitis C virus but positive for hepatitis C virus RNA. Repeated blood transfusions and a long duration of dialysis are major risk factors for hepatitis C virus infection among patients with renal failure. Although the risk of acquiring hepatitis C virus infection through transfusions has decreased considerably with the advent of screening tests for anti-hepatitis C virus, precautionary measures should be instituted rigorously at renal units to prevent nosocomial transmission. Hepatitis C virus infection in dialysis patients often assumes a relatively mild course. In contrast, renal allograft recipients can develop potentially life-threatening exacerbations, as exemplified by fibrosing cholestatic hepatitis. Liver disease of variable severity can be observed in about two thirds of hepatitis C virus-positive renal allograft recipients. In the majority of patients, however, the adverse effect of hepatitis C virus infection on survival may not be evident in the first decade after renal transplantation. Hepatitis C virus-positive patients with renal failure should not be excluded from kidney transplantation, but should be assessed individually with regard to the severity of liver disease before transplantation. Dialysis patients with hepatitis C virus infection, especially those with a potential for kidney transplantation, should be considered for treatment with interferon, because the risk of interferon in inducing renal allograft dysfunction is too high to justify its routine use in renal allograft recipients. (Hong Kong J Nephrol 2002;4(1):3-12)

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