Pretransplant Alpha-Interferon Therapy in Hemodialysis Patients with Hepatitis C Virus Related Chronic Liver Disease

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Dear Sir,

Hepatitis C virus (HCV) related chronic liver diseases are important causes of morbidity and mortality in patients undergoing renal replacement therapy. α -Interferon therapy is widely used to treat HCV-related chronic liver disease in recent years. Because α -interferon has immunostimulant properties, it is not well known how pretransplant α -interferon therapy affects the course after renal transplantation in hemodialysis patients with HCV-related chronic liver disease [1, 2]. Two patients with HCV-related chronic liver disease who were treated with α -interferon before renal transplantation are presented.

Case 1: A 25-year-old male patient with end-stage renal disease of unknown etiology had begun hemodialysis therapy in April 1990. His serum liver enzyme levels were found to be elevated (alanine aminotransferase 160 U/l, aspartate aminotransferase 62 U/l) in November 1990. Serology revealed positive anti-HBs, positive cytomegalovirus (CMV) IgG, negative CMV IgM, and positive HCV antibodies. A liver biopsy was performed in April 1991 because of continuously high serum aminotransferase levels. The biopsy specimen was consistent with chronic hepatitis due to HCV infection. Following liver biopsy, α -interferon treatment was started (3 million U s.c, three times weekly for 6 months). His serum aminotransferase levels dropped to normal values during the 2nd month of therapy, and thereafter we did not observe any elevation. After the end of the α -interferon therapy, a second liver biopsy was performed in February 1992 which showed prominent regression of the inflammatory

findings as compared with the first biopsy specimen. The patient received a kidney transplant from his brother with triple immunosuppressive treatment (azathioprine 2 mg/kg, ciclosporin 5 mg/kg, and prednisolone) in November 1992. We have not observed any liver or graft function abnormalities since kidney transplantation.

Case 2: A 46-year-old male patient with end-stage renal disease of unknown etiology started hemodialysis treatment in March 1991. In June 1991 his serum liver enzyme levels were found to be high (alanine aminotransferase 178 U/l, aspartate aminotransferase 257 U/l). Serology results were positive anti-HBs, negative CMV IgM, positive CMV IgG, and positive HCV antibodies. His serum aminotransferase levels continued to be high, and a liver biopsy was performed 6 months later which disclosed chronic HCV hepatitis. α -Interferon therapy (3 million U s.c., three times weekly for 6 months) was instituted. His aminotransferase levels normalized during the 2nd month and remained normal throughout the therapy. After α -interferon therapy had been completed, a second liver biopsy specimen (July 1992) showed improvement as compared with the first biopsy findings. A kidney transplantation from his sister was performed in February 1993 with triple immunosuppressive treatment (azathioprine 2 mg/kg, ciclosporin 5 mg/kg, and prednisolone). We have not observed any hepatic or graft dysfunction at follow-up 12 months after kidney transplantation. The serum aminotransferase levels of both patients were within normal limits during the pre- and posttransplant periods following α -interferon therapy. We also have not observed any liver or graft dysfunction after transplantation. Data concerning the effects of α -interferon therapy on graft function during the perioperative period are limited [1, 3]. Although the presence of HCV RNA in the sera of both patients before and after α -interferon therapy and following kidney transplantation could not be clarified, our results suggest that α -interferon therapy may be effective in patients with HCV-related chronic liver disease undergoing renal replacement therapy, without any adverse effect on graft function. However, because number and follow-up periods of such patients are limited, more studies are necessary.

References

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