Dear Sir,

Patients on maintenance hemodialysis run a high risk of acquiring a viral hepatitis, such as hepatitis B, C or the newly discovered hepatitis G. Recently, a new parenterally transmissible RNA virus, designated GB-C virus (GBV-C), has been isolated [1]. As HBsAg plays an important role in the etiology of polyarteritis nodosa and the role of the hepatitis C virus (HCV) still remains under-termined, we wanted to know if GBV-C is of any relevance for ANCA-positive vasculitis patients on maintenance hemodialysis. To investigate the clinical importance of this virus we determined the prevalence of hepatitis B (HBV), hepatitis C (HCV) and the GBV-C by PCR in ANCA-positive hemodialysis patients. We then correlated these data with age, duration of dialysis and ALT levels. After all we compared these results with prevalence data of ANCA-negative hemodialysis patients to clarify the role of ANCA positivity for various forms of viral hepatitis.

GBV-C was detected by RT-PCR using primers derived from the helicase region NS3 sequence deposited in Genbank (em-new, hg 25538). All PCR products were then cloned into blunt-ended pUC18 plasmids and sequenced partially using the T7 sequencing kit to confirm GBV-C.

We investigated 73 (38 male, 35 female) ANCA-positive hemodialysis patients with a mean age of 64 years and an average duration of dialysis of 4.7 years. All patients were negative for anti-HIV1/2. None of these pa-

HBsAg positive
HCV RNA positive
GBV-C RNA positive

5/73 individuals were positive for HCV RNA resulting in an overall prevalence of 6.8%. However, 4/5 HCV-RNA-positive patients were anti-HCV negative. 7/73 (9.6%) ANCA-positive patients were positive for GBV-C RNA. 5/7 GBV-C-positive patients were p-ANCA positive. 1/7 GBV-C-positive patients were coinfected with...
HCV. Concerning age and ALT levels we did not find any differences among HBsAg-positive, HCV-RNA-positive and GBV-C-RNA-positive patients. ALT levels remained within the lower range of normal in all patients. However, GBV-C-positive patients were hemodialyzed for a significantly (p < 0.04) longer time than GBV-C-negative patients (7.5 ± 4.9 vs. 4.5 ± 3.1 years).

As a control group we investigated 266 (163 male, 103 female) ANCA-negative hemodialysis patients with a mean age of 60 years, being dialyzed for 6.0 years on an average. All patients were negative for anti-HIV1/2. 5/266 patients were positive for HBsAg with a prevalence of 1.8%. 9.6% (25/266) of these ANCA-negative patients were HCV RNA positive. The prevalence of GBV-C was 7.9% with 21/266 patients positive for GBV-C RNA. Only 3/21 GBV-C-RNA-positive patients were coinfected with HCV. Age and ALT levels did not differ between GBV-C-positive and GBV-C-negative patients. Despite a trend to longer duration of dialysis in the GBV-C-positive group (6.8 ± 6.4 years) compared to GBV-C-negative hemodialysis patients (6 ± 6.1 years), a significant difference could not be detected (p < 0.16). ALT levels remained within the normal range in all patients (table 1).

References

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