Dear Sir,

The high prevalence of hepatitis C virus (HCV) in dialysis patients has been largely ascribed to blood transfusion and transmission of HCV in dialysis units. However, a high incidence of anti-HCV positivity has been observed in hemodialysis patients given no blood transfusion [1-3]. The nosocomial transmission of HCV in hemodialysis units is too small to suffice as an explanation for the high incidence of the HCV antibody. It thus follows that factors other than transfusion and hemodialysis should be considered.

Recently, Garcia-Valdecasas et al. [4] reported that the prevalence of HCV antibody is high in patients with renal disease, particularly those with impaired renal function. Their data are important from the standpoint of the causes for the high prevalence of the HCV antibody in hemodialysis patients.

Therefore, the present study was conducted to assess the prevalence of the HCV antibody in 234 patients (153 men and 81 women, mean age 63.3 years old) with chronic renal failure just before the start of hemodialysis therapy and in 232 patients (134 men and 98 women, mean age 43.0 years old) following renal biopsy with serum creatinine of less than 2 mg/dl. As shown in table 1, the HCV antibody was positive in 41 of the 234 patients (17.5%) at the start of hemodialysis therapy.

Fifty-two of the 234 patients had undergone blood transfusion prior to this study and 21 (40.4%) of these 52 patients were positive for the anti-HCV antibody. The HCV antibody in patients without a history of blood transfusion was positive in 11.0% (20 of 182), a value significantly higher than that of blood donors in Shizuoka, Japan (0.9%) [5]. These results indicate that the prevalence of anti-HCV antibody in hemodialysis patients is thus shown to be high before hemodialysis therapy is started and this is not due to blood transfusion alone.
The anti-HCV antibody was present in 4.7% of all patients who had undergone renal biopsy. Eight patients (3.7%) among 217 patients given no blood transfusion were positive for the antibody as shown in table 2. This value was also significantly higher than in all blood donors studied [5]. The renal histology of these 8 patients were as follows: 4 mesangial proliferative glomerulonephritis; 2 minimal change disease; 1 diabetic nephropathy, and 1 progressive systemic sclerosis. The presence of cryoglobulin was not evaluated in this study.

It follows from this study that HCV infection before hemodialysis therapy is a factor that may account, in part, for the high prevalence of the HCV antibody in hemodialysis patients.

Table 1. Prevalence of anti-HCV antibody in patients with renal failure just before the start of hemodialysis therapy

<table>
<thead>
<tr>
<th>HCV antibody positive</th>
<th>p &lt; 0.001 compared with blood donors by $\chi^2$ test.</th>
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Table 2. Prevalence of anti-HCV antibody in patients with renal biopsy patients

<table>
<thead>
<tr>
<th>HCV antibody positive</th>
<th>p &lt; 0.001 compared with blood donors by $\chi^2$ test.</th>
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References


