Positive Elisa 2 Is Pathologically Relevant in Elisa-1-Negative Patients on Hemodialysis

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Dear Sir,

Recently, second generation determinations have been developed for detecting antibodies against hepatitis C virus (HCV) [1, 2], including additionally derived proteins, e.g. Elisa 2, with anti c22-3, anti c33. The purpose of this new method is to detect cases of HCV hepatitis which had been falsely negative with the original cl00-3 Elisa (Elisa 1). We studied by the Elisa 2 method (Ortho Diagnostic System, Raritan, N.J., USA), a group of 59 individuals undergoing hemodialysis, who were negative for HCV antibody by Elisa 1; from a total of 163 dialysis patients; 49 were positive by Elisa 1. Sixteen out of these 59 patients (27%) were definitely positive by Elisa 2. Thirteen of those Elisa-2-positive patients had a clear-cut antecedent of elevated transaminases, and 12 have received more than 10 blood transfusions since starting dialysis. These figures are similar to those found in the anti-HCV-positive patients by Elisa 1. However, there is still a small group of patients with both negative Elisa 1 and 2, including only 4 patients in our unit.

To further ascertain the actual relationship between the Elisa 2 positivity and the presence of histological liver disease, we examined 7 liver pathology samples (four biopsies, three autopsies) from Elisa-2-positive, Elisa-1-negative patients, taken from the group of 16 Elisa-2-positive individuals. The liver pathology in these cases corresponded to chronic active hepatitis (n = 2), liver cirrhosis

(n = 1), perisinusoidal fibrosis (n = 2), unspecific lymphoid infiltrates (n = 1) and hemosiderosis (n = 1). These findings therefore suggest that: (a) there exists a significant number of anti-HCV-negative hemodialysis patients by Elisa 1, who are positive by a method directed to different viral protein fragments. This group may account for approximately 25% of the anti-HCV-positive population in a hemodialysis unit; (b) the Elisa 2 anti-HCV positivity is pathologically significant, as judged by the presence of advanced liver damage in Elisa-1-

negative, Elisa-2-positive patients, and (c) with the use of both Elisa 1 and Elisa 2, the number of patients with elevated transaminases and no markers of hepatitis is extremely reduced.

References

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0028-2766/92/
0614-0474\$2.75/0