Comparison of Anti-Hepatitis C Virus Detection with ELISA Assay and RIBA 4 in Dialysis Patients: Our Experience

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Key Words

Anti-hepatitis C virus
ELISA assay
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Abstract

Hepatitis C virus (HCV) has been demonstrated to be the main cause of non-A, non-B hepatitis and the emergent infectious illness in dialysis units. At present, the anti-HCV 100 ELISA and an immunoblot assay in which 2 new antigens are included, are available. We have tested 110 patients on chronic dialysis with anti-C100 ELISA. Twenty-seven of them were anti-HCV positive. We tested the 27 anti-HCV-positive and 7 anti-HCV-negative patients with the RIBA 4 assay. The results were similar with both test.

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Since a diagnostic marker for non-A, non-B (NANB) hepatitis has become available, the hepatitis C virus (HCV) has been demonstrated to be the main cause of NANB hepatitis. At present, HCV is considered to be the emergent infectious illness in dialysis units. The anti-HCV ELISA assay of the 1 generation does not detect all HCV-infected sera, and positive results do not necessarily imply infectivity. Among the supplementary immunoblot assays, a new 4 RIBA (RIBA 4 of 2nd generation) has been developed, in which the presence of 1 antigen from the nonstructural region, c33-c, and a core-associated antigen, 22-c, seem to improve specificity. We have tested 110 patients on chronic dialysis treatment with C100 ELISA. Twenty-seven of them were anti-HCV positive. Five patients had normal values of ALT and no history of acute hepatitis, and 1 patient was HbsAg-positive. We have also tested the 27 anti-HCV-ELISA-positive and 7 anti-HCV-ELISA-negative patients with RIBA 4 assay. The results were similar with both tests. Our data indicate that the ELISA and RIBA 4 assays show a comparable sensitivity in detecting the HCV antibodies in dialysis patients. No difference in the pattern of positivity was found between the patients with no history of acute hepatitis and the others.

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