

비전격성 A형 간염에 동반된 급성 신부전

울산대학교 의과대학 서울아산병원 신장내과

김현우 · 유미현 · 이장한 · 장재원 · 양원석 · 김순배 · 이상구 · 박정식 · 박수길

Acute Renal Failure Complicating Non-fulminant Hepatitis A

Kim Hyun Woo, Mi Hyun Yu, Jang Han Lee, Jai won Chang
Won Seok Yang, Soon Bae Kim, Sang Koo Lee, Jung Sik Park, Su-Kil Park

University of Ulsan College of Medicine, Asan Medical center, Department of Internal Medicine, Division of Nephrology

Hepatitis A is usually, a mild and self-limiting infection of the liver. The disease is often asymptomatic in children and symptomatic in adults, who may occasionally have a fulminant form, a relapsing form or a prolonged clinical course. Acute renal failure (ARF) complicating acute viral hepatitis A is uncommon in the absence of fulminant liver failure. We report 15 patients with acute viral hepatitis A, who developed acute renal failure from May 1998 to October 2006 (8 males, 7 females, mean age of 27 years old). Main presenting laboratory tests on admission showed serum aspartate transaminase (AST) 4825 (mean) IU/L (range, 111–15046 IU/L), alanine transaminase (ALT) 4124 IU/L (449–7712 IU/L), total bilirubin 5.3 mg/dL (2.0–20.1 mg/dL), direct bilirubin 3.3 mg/dL (1.4–12.2 mg/dL), albumin 3.2 mg/dL (2.2–4.2 mg/dL), blood urea nitrogen 38 mg/dL (13–78 mg/dL), creatinine 6.5 mg/dL (1.5–10.1 mg/dL), prothrombin time 24.5 seconds and international normalized ratio (INR) of 1.80. The fractional excretion of sodium was 1.8% (0.2–9.3%). Hepatitis serology revealed a positive IgM antibody to hepatitis A (anti HAV), negative hepatitis B surface antigen (HBs Ag) except one, who diagnosed with chronic carrier of hepatitis B virus (HBV DNA negative, HbeAg negative, and anti-HBe positive), negative IgM antihepatitis B core antibody (anti HBe-IgM), and negative hepatitis C antibody (anti-HCV). The maximum values for renal and liver function impairment were: creatinine 6.8 mg/dL (1.5–15.3 mg/dL) on day 5 (range, day 1–15) and total bilirubin 11.0 mg/dL (2.9–20.1 mg/dL) on day 8 (day 1–18). Renal function returned to normal baseline value on day 23 (day 3–73) and liver function tests on day 54 (day 9–134). Four of 15 patients received hemodialysis therapy (mean 9 times, range 5–12 times), and all patients recovered without sequelae. Renal biopsy was performed in only one patient, and showed acute tubular necrosis. The exact mechanism by which the hepatitis A virus cause renal damage is uncertain. Not only host factors such as age or underlying liver disease but also virological factor such as mutation of the hepatitis A virus themselves may have potential to alter the clinical features of hepatitis A.