Abstract

This study was planned to investigate the changing epidemiology of acute hepatitis attacks caused by hepatitis A virus (HAV), hepatitis B virus (HBV), hepatitis C virus, hepatitis D virus (HDV), hepatitis E virus (HEV), drugs or other unknown etiologies in Taiwan. The progress has been according to the original plan. We have already analyzed 1143 patients (from 1985 to 2001) with acute hepatitis attacks due to various kinds of etiologies 95 cases of intravenous (IV) drug abusers, and 1048 cases of prostitutes. The etiologies of acute hepatitis attacks were observed every 5 years and were compared with those of the recent 2 years.

Acute hepatitis A, all sporadic cases, accounted for 4% of cases of acute hepatitis attacks. Acute hepatitis B changed from 19%, 12%, 8%, to 6%. Acute hepatitis C remained around 9% to 11%. The change of the incidence of acute HDV superinfection was most marked. It drastically decreased from 35%, 15%, 3% to 2% in recent 2 years. In retrospective analysis of stored serum samples, there had been no acute hepatitis E discovered before 1990. Since 1990, acute hepatitis E accounted for 4% to 7% of acute hepatitis attacks. Chronic hepatitis B with acute exacerbation (CHB with AE)has been an important etiology of acute hepatitis attacks through the studied period. Due to the decrease of acute HDV superinfection, the relative incidence of CHB with AE was further increased from 26%, 22%, 46$ to 42%. Drug-induced hepatitis accounted for 10% to 12% of cases and did not show significant change. Of note, non-A to non-E hepatitis increased from 5%, 2%, 19% to 20%. It deserves further study.

In the study of high risk groups, The prevalence of anti-HCV in intravenous drug abusers decreased from 80% to 31%. Although, the HBV carrier rate in IV drug abusers did not show significant decrease (17%), the prevalence of HDV infection in HBV carrier drug abusers markedly decreased from 80% to 31%. The prevalence of anti-HCV in prostitutes slightly decreased from 12% to 9%. The HBV carrier rate in prostitutes did not show significant decrease (13%), the prevalence of HDV infection in HBV carrier prostitutes markedly decreased from 35%-56% to 7%.

In summary, we have already analyzed a lot number of patients with acute hepatitis and high risk groups in the first year. The decrease of acute hepatitis D may be multi-factorial. The finding of the main transmission routes of HDV infection and the sustained education from all health workers may lead do this reduction. The less frequent use of non-disposable needles and more safe sex possibly also contribute to this decrease. The decrease of the prevalence of HDV

infection in prostitutes may be the cause as well as the consequence of the decrease of HDV infection in patients with acute hepatitis attacks. The gradual increase of acute hepatitis E is likely due to more frequent and liberal traveling and visiting to endemic areas of HEV infection. The increase of non-A to non-E hepatitis deserves more attention and study. In the coming year, we will focus on the change of molecular epidemiology of acute hepatitis.

Key Word：Viral hepatitis、Transmisison routes、Molecular epidemiology、Phylogenetic analysis