A prospective clinical study of isoniazid-rifampicin-pyrazinamide-induced liver injury in an area endemic for hepatitis B

李俊年

Hwang SJ;Wu JC;Lee CN;Yen FS;Lu CL;Lin TP and Lee SD

摘要

Abstract

In order to evaluate the incidence, predisposing factors and clinical course of antituberculous drug-induced liver injury in hepatitis B surface antigen (HBsAg)-positive carriers and non-carriers, in an area endemic for hepatitis B, we prospectively followed 240 patients (154 male, 86 female; mean age 40 years) who had received daily isoniazid, rifampicin, ethambutol and pyrazinamide for the treatment of pulmonary tuberculosis. Patients with heavy alcohol consumption, with pretreatment serum alanine aminotransferase (ALT) elevation and who had less than 3 months post-treatment follow-up were excluded from the study. Thirty-one (13%) patients were positive for serum HBsAg before treatment. Sixty-three (26%; 95% CI: 21-32%) patients developed antituberculous drug-induced liver injury. The incidence of drug-induced liver injury was significantly more frequent in patients > 35 years of age than in patients < or = 35 years of age (33 vs 17%; $P < 0.05$), but was not different between HBsAg carriers and non-carriers (29 vs 26%; $P > 0.05$). Using step-wise logistic regression analysis, patient age > 35 years was the only independent variable for predicting antituberculous drug-induced liver injury, while sex, acetylator phenotype, HBsAg carrier status and severity of tuberculosis were not. The peak serum ALT levels in antituberculous drug-induced liver injury were not significantly different between HBsAg carriers and non-carriers. Only one 61-year-old HBsAg carrier developed severe jaundice after 6 months antituberculous therapy; he subsequently died of hepatic failure. In conclusion, the incidence of antituberculous drug-induced liver injury was significantly higher in patients > 35 years of age than in patients < or = 35 years of age, but was not different between HBsAg carriers and non-carriers. Mortality occurred in an aged HBsAg carrier superimposed with

antituberculous drug-induced liver injury.

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