Liver enzyme elevation after lamivudine withdrawal in HIV-hepatitis B virus co-infected patients: the Swiss HIV Cohort Study

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Background The principal causes of liver enzyme elevation among HIV-hepatitis B virus (HBV) co-infected patients are the hepatotoxic effects of antiretroviral therapy (ART), alcohol abuse, ART-induced immune reconstitution and the exacerbation of chronic HBV infection. Objectives To investigate the incidence and severity of liver enzyme elevation, liver failure and death following lamivudine (3TC) withdrawal in HIV-HBV co-infected patients. Methods Retrospective analysis of the Swiss HIV Cohort Study database to assess the clinical and biological consequences of the discontinuation of 3TC. Variables considered for analysis included liver enzyme, HIV virological and immunological parameters, and medication prescribed during a 6-month period following 3TC withdrawal. Results 3TC was discontinued in 255 patients on 363 occasions. On 147 occasions (109 patients), a follow-up visit within 6 months following 3TC withdrawal was recorded. Among these patients, liver enzyme elevation occurred on 42 occasions (29%), three of them (2%) with severity grade III and five of them (3.4%) with severity grade IV elevations (as defined by the AIDS Clinical Trials Group). Three patients presented with fulminant hepatitis. One death (0.7%) was recorded. Conclusions HBV reactivation leading to liver dysfunction may be an under-reported consequence of 3TC withdrawal in HIV-HBV co-infected patients. Regular monitoring of HBV markers is warranted if active therapy against HBV is discontinued.

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