Hepatitis C virus infection increases hepatitis risk during anti-tuberculosis treatment.

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Abstract

OBJECTIVE: To study the impact of hepatitis B virus (HBV) and hepatitis C virus (HCV) co-infection on clinically significant transaminase elevation during short-course anti-tuberculosis treatment.

DESIGN: Retrospective observation study.

RESULTS: During standard anti-tuberculosis treatment of 295 patients with active pulmonary tuberculosis (TB) and normal baseline liver biochemical tests, 25 (8.5%) developed hepatitis and had a significantly higher mortality rate (32% vs. 7%, OR 6.22, 95%CI 2.0-17.6, P = 0.001). Multivariate analysis showed that HCV co-infected individuals were more likely to develop transaminase elevations (OR 3.43, 95%CI 1.14-10.35, P = 0.03) than those without HCV co-infection. They also had a longer duration of transaminase elevation than controls (43.3 +/- 40.4 vs. 13.5 +/- 8.6 days, P = 0.01).

Co-infection with HBV was not associated with a higher rate of hepatitis but was associated with later onset (102 +/- 68.7 vs. 37.0 +/- 31.9 days, P = 0.01), higher peak alanine aminotransferase level and slower recovery (55.5 +/- 62.9 vs. 15.4 +/- 10.8 days, P = 0.01).

CONCLUSION: Even with normal baseline liver biochemical tests, HCV co-infection had a higher incidence and longer exacerbations of hepatitis during anti-tuberculosis treatment. We suggest that screening for HCV infection before starting anti-tuberculosis treatment is helpful in planning the frequency of follow-up visits.