

Analysis of serological evidence of different hepatitis viruses in acute viral hepatitis in prisoners in relation to risk factors.

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Analysis of serological evidence of different hepatitis viruses in acute viral hepatitis in prisoners in relation to risk factors.

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Abstract

Background & Objectives: The present study describes an outbreak of acute viral hepatitis in an institutional population (inmates of a prison) with an aim to delineate the etiological agents of this outbreak and to analyse the clinical, biochemical and serological evidence of different hepatitis viruses in relation to risk factors.

Methods: Fifty patients of acute viral hepatitis identified during the outbreak were evaluated on the basis of history, clinical examination, risk factor distribution, biochemical profile and serological markers for hepatitis A-E infection. Adequate epidemiological data were collected from prison administration including housing of prisoners, food and water supply.

Results: Of the 50 patients, 35 (70%) had serological evidence of HEV infection. Evidence of HBV infection was found in 17 patients (34%), HAV infection in 2 (4%) and HCV in 8 (16%) patients. While 16 patients (32%) had evidence of multiple viral infections, none of the viral markers could be detected in 8 patients (16%). One or more risk factor(s) could be identified in more than half of the subjects (26/50; 52%). There were 11 patients who gave history of more than one risk factor while 24 (48%) patients had none of the risk factors.

Interpretation & Conclusions: HEV was found to be the major cause of the outbreak and contamination of drinking water supply could be the possible source of infection. This outbreak was seroepidemiologically similar to other outbreaks of hepatitis occurring in the country with HEV being the most common cause. However, there was evidence of multiple viral infections, particularly HBV and HCV in the high-risk predisposed prison population.

Reference

Tandon BN, Gandhi BM, Joshi YK. Etiological spectrum of viral hepatitis and prevalence of markers of hepatitis A and B virus infection in north India. Bull World Health Organ 1984; 62 : 67-73.