Increasing trend of acute hepatitis A in north India: Need for identification of high-risk population for vaccination

https://onlinelibrary.wiley.com/doi/full/10.1111/j.1440-1746.2006.04232.x
https://doi.org/10.1111/j.1440-1746.2006.04232.x

Cited in:

Journal of Gastroenterology and Hepatology, 21(4): 689-693, 2006

Increasing trend of acute hepatitis A in north India: Need for identification of high-risk population for vaccination

Zahid Hussain Bhudev C Das Syed A Husain Nandagudi S Murthy Premashis Kar
PCR Hepatitis Laboratory, Department of Medicine, Maulana Azad Medical College, New Delhi
Corresponding Author: Dr Premashis Kar, Department of Medicine, Maulana Azad Medical College, New Delhi 110002, India. Email: pkar@vsnl.com
First published: 11 April 2006

Abstract

Background and Aims: Hepatitis A (HAV) is endemic in India and most of the population is infected asymptomatically in early childhood with lifelong immunity. Because of altered epidemiology and decreasing endemicity, the pattern of acute HAV infection is changing from asymptomatic childhood infection to an increased incidence of symptomatic disease in the 18–40 age group. The aims of the present study were to assess whether the proportion of adults with acute HAV infection has been increasing over the years and to analyze the seroprevalence of immunoglobulin G (IgG) anti-HAV antibodies in young adults above the age of 15 years as well as in cases of chronic liver disease.

Methods: Sera collected from 3495 patients with acute (1932) and chronic (1563) liver disease attending the Medical Outpatient Department of Lok Nayak Hospital during the previous five years (1999–2003) were tested for various serological markers of acute (HBsAg, HBcIgM, anti-HCV, HEV-IgM, and HAV-IgM) and chronic (HBsAg, HBcIgG, HBeAg, and anti-HCV) hepatitis. In addition, 500 normal healthy attendants of the patients above the age of 15 years were tested for IgG anti-HAV as controls.

Results: Of 1932 patients with acute viral hepatitis, 221 (11.4%) were positive for immunoglobulin M (IgM) anti-HAV. The patients who were IgM anti-HAV negative included hepatitis B (321 patients), C (39 patients), E (507 patients) and unclassified (844 patients). Although the frequency of HAV infection among children had increased (10.6% to 22.0%) in the 5-year period, the frequency of HAV infection among adults had also increased (3.4% to 12.3%) during the same period. A total of 300 patients with chronic liver diseases that were etiologically related to hepatitis B (169), C (73) or dual infection (10) and alcoholic liver injury (48) were tested for the presence of IgG anti-HAV antibody; 98% (294/300) were positive for the antibody.

Conclusions: Although universal vaccination against HAV is not currently indicated, selective vaccination of the high-risk population, based on their serological evidence of HAV antibody, would be a rational and cost-effective approach.

References

Tandon BN, Gandhi BM, Joshi YK, Irshad M, Gupta H. Hepatitis virus non-A, non-B: the cause of major public health problem in India. Bull WHO 1985; 63: 931- 934.