

Letter to the Editor

Seroprevalence of hepatitis A antibodies in patients with cirrhosis of liver

Mayank Jain

Arihant Hospital and Research Centre, India

Address for correspondence:

Mayank Jain, Arihant Hospital and Research Centre, India, e-mail: mayank4670@rediffmail.com

Patients with cirrhosis have significant immune dysfunction. They are at increased risk of bacterial and viral infections, including hepatitis A virus (HAV) [1, 2]. Acute HAV infection in these patients may result in acute-on-chronic liver failure, which is associated with poor outcomes. Indian studies in the past, done more than 10 years back, noted that 93.2-99% of patients with chronic liver disease or cirrhosis have evidence of past infection with HAV [1-4]. However, with improving standards of hygiene and sanitation, it is likely that seroprevalence of HAV antibodies is on the decline. With this background, the present study was conducted to ascertain the seroprevalence of antibodies against HAV in adult patients with cirrhosis of the liver.

The study cohort included all patients (> 18 years) with cirrhosis of the liver seen by the author between May 2019 to December 2021. Diagnosis of cirrhosis was based on clinical, endoscopic, biochemical and radiological parameters. Patients with age < 18 years and those who did not provide consent for testing were

excluded. Immunoglobulin G (IgG) anti HAV antibodies were tested using the chemiluminescent magnetic microparticle immunoassay (CMIA) test. A value equal to or greater than 1 was taken as reactive/positive. A total of 548 adult patients with cirrhosis were seen during the study period. Three hundred and forty-nine consented to participate in the study. As noted from Table 1, the median age was 43 (18-68 years) and 66.7% (233) were male. The aetiology for cirrhosis of liver included alcohol (210, 60.2%), hepatitis B (58, 16.7%), hepatitis C (11, 3.15%), non-alcoholic steatohepatitis (51, 14.6%) and others (10, 2.9%). IgG anti-HAV antibodies were detected in 238 (68.2%) cases.

The results highlight that seroprevalence of anti-HAV antibodies in cirrhotic patients is much lower than previously reported in Indian studies. The Association of Physicians of India (API) and the Indian Society of Nephrology (ISN) have noted that non-seropositive patients with chronic liver disease, those with other hepatitis virus infections such as hepatitis B/C, and those waiting for or after a liver transplant are at increased risk of HAV infection. The ISN recommends vaccination for all transplant candidates with chronic liver disease or those endstage renal disease patients who have chronic hepatitis B or C [4, 5].

Based on the present study findings, it seems that serological testing prior to HAV vaccination is needed and vaccination of susceptible patients is advisable rather than offering vaccination of all. The present study is limited by being a single-centre study and having a small sample size. Larger, multicentric studies are needed to address the questions raised by the present study.

Disclosure

The author declares no conflict of interest.

Table 1. Baseline parameters of study cohort

Parameters	Number (%)
Total no. of cases	349
Age (years), median (range)	43 (18-68)
Males	233 (66.7)
Aetiology of cirrhosis, n (%)	
Alcohol-related	210 (60.2)
Hepatitis B	58 (16.7)
Hepatitis C	11 (3.15)
Non-alcoholic fatty liver disease	51 (14.6)
Others	10 (2.9)
Model of end stage liver disease score (median, range)	10 (5-30)

References

1. Joshi N, Rao S, Kumar A, et al. A vaccination in chronic liver disease: is it really required in a tropical country like India? *Indian J Med Microbiol* 2007; 25: 137-139.
2. Hussain Z, Das BC, Husain SA, et al. Increasing trend of acute hepatitis A in north India: need for identification of high-risk population for vaccination. *J Gastroenterol Hepatol* 2006; 21: 689-693.
3. Shalimar SV, Singh SP, Duseja A, et al. Acute-on-chronic liver failure in India: the Indian national association for study of the liver consortium experience. *J Gastroenterol Hepatol* 2016; 31: 1742-1749.
4. Expert Group of the Association of Physicians of India on Adult Immunization in India. Executive summary: the association of physicians of India evidence-based clinical practice guidelines on adult immunization. *J Assoc Physicians India* 2009; 57: 345-356.
5. Indian Society of Nephrology. Indian Society of Nephrology guidelines for vaccination in chronic kidney disease. *Indian J Nephrol* 2016; 26 (Suppl 1): S1-S30.