



The Brazilian Journal of INFECTIOUS DISEASES

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Letter to the Editor

Does hepatitis E deserve more attention?



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ARTICLE INFO

Article history:

Received 17 January 2022

Accepted 16 February 2022

Available online 8 March 2022

Dear Editor,

Hepatitis E virus (HEV) infection is a public health problem worldwide, with a higher prevalence in low- and middle-income countries, mainly in Asia and Africa. According to data from the World Health Organization (WHO), approximately 20 million people are infected annually with this virus, with more than three million cases becoming symptomatic. WHO estimated that in 2015 this virus was responsible for about 44,000 deaths. Li et al., in a recent systematic review, estimated that currently about 939 million individuals globally have been exposed to this virus at some point in their lives and up to 110 million are currently infected.¹

In Brazil, even though viral hepatitis is a notifiable disease, there is no official data on the seroprevalence of HEV infection.² Unfortunately, diagnostic tests for HEV are not currently available in the Brazilian public health system. The diagnostic investigation of suspected cases is carried out exclusively in the context of clinical research, in specialized centers, or within private laboratories.

A recent meta-analysis by Tengan et al. analyzed data from 20 different Brazilian studies, evaluating data from 6,465 patients who were tested for anti-HEV antibodies in different regions of the country. Anti-HEV seroprevalence in the general adult population was shown to be 6.0%.³

According to the Brazilian Ministry of Health, the definition of a confirmed case of HEV infection, for purposes of compulsory notification, depends on the presence of one or more serological markers (anti-HEV IgM and anti-HEV IgG) or the presence of HEV RNA by molecular testing.²

To contribute with additional data on this topic, we surveyed the results of all serological tests for HEV infection performed in a Brazilian private diagnostic laboratory. This investigation included all serological tests requested in the period from January 1, 2006 to October 20, 2021.

Following the diagnostic criteria proposed by the Ministry of Health, we identified 204 cases of HEV infection among 2,497 serological tests performed in the study period. This translated into a prevalence of anti-HEV antibodies of 8.2%. About half (50.5%) of subjects were female, with a median (range) age of 40 (0-94) years. Out of those with anti-HEV antibodies, IgM only was detected in 103 (50.5%), IgG only in 87

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<https://doi.org/10.1016/j.bjid.2022.102338>

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(42.6%), both IgM and IgG in 13 (6.4%), and one individual (0.5%) had positive IgM and indeterminate IgG. Most of the samples (2,101, 84%) collected in study period were from the state of São Paulo. The remaining samples came from several other Brazilian states, with no predominance of any specific state. As the information in this manuscript was obtained from a database, the immunological status of the individuals was not available. The serological tests were performed at the Mayo Clinic, using an ELISA assay.

Information regarding other laboratory tests of anti-HEV positive patients were available for 131 (64.2%). Out of this group, 53 (26.0%) had normal alanine aminotransferase (ALT) levels, while 30 (14.7%) had an elevation at least two times the upper limit of normality. Bilirubin level was normal in 66 (32.4%) cases and elevated in 36 (17.6%), with a predominance of the direct fraction in 29 of these individuals.

Most of those infected with HEV clear the virus spontaneously. However, especially immunosuppressed patients, such as those living with HIV or after solid organ or bone marrow transplantation, can develop acute liver failure, prolonged cholestasis or chronic hepatitis E.^{4,5}

Our data is consistent with prior studies and substantiates that the frequency of HEV infection in Brazil is not negligible. It also suggests that the diagnostic investigation for HEV undertaken by the public health system should be extended to encompass all cases of liver disease that are unrelated to the most commonly investigated hepatotropic viruses, taking

into account the possibility of clinical complications associated with this infection.

Conflicts of interest

The authors declare no conflicts of interest.

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