

Letter to the Editor

Occult hepatitis B in thalassemia: a need for further study

Seyed Moayed Alavian

Baqiyatallah Research Center for Gastroenterology and Liver Diseases, Tehran, Iran

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I read with interest the recently published article by Shaker *et al.* in your journal [1]. The authors' observation that OHB was found in all HCV-infected patients is very interesting. Hepatitis B virus (HBV) infection is a major problem, especially in thalassemia patients in developing countries [2]. Thalassemia patients are at high risk of contracting hepatitis C virus (HCV) and HBV infection, and despite recent improvements in the safety of transfusion services in Middle Eastern countries, concerns regarding the role of blood transfusion and the spreading of HBV and HCV infections in this region still exist [2,3]. The number of published studies related to occult hepatitis B (OHB) infection in thalassemia patients is quite low; however, I agree with the information already reported in the literature that HCV-infected patients are at higher risk of OHB, as [4,5].

I would like to present some further points that the study did not address. Detection of OHB requires assays with high sensitivity and specificity and a low limit of detection of less than 10 IU/mL for hepatitis B virus (HBV) DNA and less than 0.1 ng/mL for hepatitis B surface antigen (HBs Ag) [6]. Prevalence of OHB infection varies greatly in different countries and the discrepancy related to its prevalence depends on the accuracy and performance of the tests [6]. The serum of the HBV DNA levels of occult HBV subjects are expected to be very low; therefore, to reduce the chance of false-positive results due to contamination or real-time PCR noise signals as well as to enhance the detection rate of the PCR test, the HBV DNA test should be performed three times on three separate occasions with all the samples. Definite OHB is defined as at least two of the three

runs of assays showing detectable HBV DNA levels [7]. The HBV DNA levels of OHB cases are usually extremely low, and the clinical outcomes of existence of OHB in severity of liver disease are unknown [4]. It might have been better to present the severity of liver disease in OHB-positive patients in comparison with OHB-negative cases in the study.

Finally I would like to thank the authors for such a valuable study. I feel that their results should attract the attention of health policy makers for better control of HBV infection in thalassemia patients.

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Corresponding author

Seyed Moayed Alavian, MD
Professor of Gastroenterology and Hepatology
Head of Baqiyatallah Research Center for Gastroenterology and
Liver Diseases
PO Box 14155/3651
Tehran, Iran
Telephone: +98 21 88945186-8, Fax: +98 21 81262072
Email: alavian@thc.ir

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