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A case of hepatitis B virus reactivation 12 years after seroconversion: spontaneous or occult?

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Dear Editor,

Reactivation of hepatitis B virus (HBVr) is defined as the detection of HB surface antigens (HBsAg) in the absence of antibodies against HBs (anti-HBs) in a patient with a previously resolved HBV infection (1). This condition is primarily triggered by immunosuppressive therapies in patients with cancer, immunologic diseases, or transplantation (1). Spontaneous HBVr is mainly attributed to changes in the immunological control of viral replication or to varying influences of HBV genotypes or HBV mutant strains in the presence of a predisposing

condition such as male sex, older age, pregnancy, hepatitis C virus (HCV), human immunodeficiency virus (HIV), concurrent bacterial infections, or surgery (2). However, spontaneous HBVr has been reported in very few cases and only four cases have been reported due to either older age, previous surgery, accompanying cancer, or fulminant hepatitis (3-5). We report on an otherwise healthy patient in whom spontaneous HBVr developed 12 years after HBV resolution.

Case report

A 55-year-old male was found to have HBsAg in October 2023 during annual blood screening. He had been negative for HBsAg and positive for anti-HBs since October 2011. Previously, he tested positive for HbsAg, however, no further investigations were performed, such as HBV-DNA testing or a liver biopsy, nor was he referred to a specialist for a more comprehensive evaluation. In addition, during the periods of seroconversion, the patient did not undergo HBV-DNA testing to rule out occult HBV infection. Currently, he reported no complaints. A detailed history-taking showed no immunosuppressive drug use, nor any condition that might could have led to immunosuppression, e.g., continual use of medications, or previous surgery. He has not consumed alcohol in the past five years, although he had rarely consumed alcohol previously, and had never used illicit drugs. He was married and had a happy family life with three children. Polymerase chain reaction tests showed elevated viral loads of HBV-DNA, at 1,843 IU/ml in October 2023, 10,433 IU/ml in January 2024, 2,900 IU/ml in September 2024, and 23,000 IU/ml in January 2025. ELISA assays were positive for anti-HBe and anti-HBc, and negative for HBeAg and anti-hepatitis D virus antigen. Serum markers of HCV and HIV were negative. Hepatic function tests were normal, including alanine aminotransferase, aspartate aminotransferase, and alpha-fetoprotein. Abdominal ultrasonography showed normal parenchymal findings; a liver biopsy was recommended, which the patient denied. Based on the elevated HBV-DNA, treatment with 0.5 mg of entecavir daily was initiated, which resulted in undetectable HBV-DNA a month later.

Conclusion

The present case emphasizes the need for continual monitoring of patients with inclusion of HBV-DNA testing from the first diagnosis of HBV throughout the periods of seroconversion due to the possibility of reactivation, regardless of whether a triggering condition exists.

References

1. Lau G, Yu ML, Wong G, et al. APASL clinical practice guideline on hepatitis B reactivation related to the use of immunosuppressive therapy. Hepatol Int 2021;15:1031-48. DOI: 10.1007/s12072-021-10239-x

2. Sarin SK, Kumar M, Lau GK, et al. Asian-Pacific clinical practice guidelines on the management of hepatitis B: a 2015 update. Hepatol Int 2016;10:1-98. DOI: 10.1007/s12072-015-9675-4

3. Kamitsukasa H, Iri M, Tanaka A, et al. Spontaneous reactivation of hepatitis B virus (HBV) infection in patients with resolved or occult HBV infection. J Med Virol 2015;87:589-600. DOI: 10.1002/jmv.24115

4. Kim DH, Kim SB. Hepatic failure by spontaneous reactivation of hepatitis B virus without a trigger factor in a patient with anti-HBs. Case Rep Gastroenterol 2018;12:286-91. DOI: 10.1159/000490099

5. Suárez-Saro Fernández A, Muñoz Codoceo C, Muñoz Gómez R, et al. Fulminant hepatitis due to spontaneous reactivation of virus B in an immunocompetent patient. Rev Esp Enferm Dig 2024;116(4):232-3. DOI: 10.17235/reed.2023.9707/2023