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Editorial

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Is the Prevalence of Chronic Hepatitis B Really Increasing in Korea?

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▸ See the article "The Epidemiology of Hepatitis B Virus Infection in Korea: 15-Year Analysis" in volume 39, e22.

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According to the recent World Health Organization (WHO) report, 296 million people worldwide were infected with chronic hepatitis B virus (HBV). The seroprevalence of hepatitis B surface antigen (HBsAg) was estimated at 3.8% in 2019, and new infections occur in 1.5 million people yearly.[1] In South Korea, according to the Korea National Health and Nutrition Examination Survey (KNHANES), the prevalence of hepatitis B (HBs Ag positivity rate) in people aged ten years or older dropped from about 4.5% in 1998 to about 2.7% in 2021. However, South Korea is still an intermediate-endemic area for HBV infection.[2] Chronic hepatitis B (CHB) is a significant public health concern as it can lead to liver cirrhosis and hepatocellular carcinoma (HCC), potentially resulting in death. Fortunately, the management of this disease has improved significantly with the introduction of national HBV vaccination programs, the development of antiviral treatments, and increased health checkups.

In the current issue of the *Journal of Korean Medical Science*, Kim et al.[3] reported the epidemiology of hepatitis B virus infection and the impact of COVID-19 in an endemic area based on a 15-year analysis. They analyzed data from the National Health Insurance Service (NHIS) in Korea. This study found that the prevalence of CHB consistently increased from 0.65% in 2007 to 1.11% in 2021. The proportion of men among CHB patients decreased over time, and the average age of patients increased. CHB patients had significantly higher outpatient visits and medical costs than the control group. During the COVID-19 pandemic, outpatient visits and total medical costs dropped in the HBV group compared to the control group. As a result of subgroup analysis based on the severity of liver disease, the number of patients in the cirrhosis, HCC, and liver transplant groups showed a continuous increase. At the same time, the number of decompensated patients started to decline in 2019. However, among all HBV patients, the rates of HCC, cirrhosis, and decompensation tended to decrease, while the rate of liver transplantation tended to increase continuously.

The results of this study provide important information about changes in the epidemiology and disease burden of chronic hepatitis B over the past 15 years in Korea and the impact of COVID-19 on the treatment patterns of CHB patients. However, the results may need to be clarified as they show results different from generally known facts. As mentioned above, based on KNHANES data, the prevalence of hepatitis B in Korea is decreasing over time. In this study, the authors defined CHB patients based on ICD-10 codes rather than HBsAg positivity within a specific population. However, there are limitations in using clinical visit data according to specific ICD codes as the sole criterion for determining CHB prevalence.

The NHIS data primarily includes cases where patients visited hospitals for specific ICD codes, possibly missing those who do not seek hospital care. Therefore, the observed increase in CHB patients might reflect more clinical visits rather than an actual rise in CHB prevalence. For this reason, the NHIS data can provide information or insight into the medical use of a specific disease. However, it may have inherent limitations in understanding epidemiological changes in a specific disease. Moreover, increased HBsAg testing during health checkups in recent years could explain the higher diagnosis rates. Therefore, it would be better to identify HBsAg-positive cases among those tested for HBsAg to represent CHB prevalence more accurately.

This study, despite its limitations, is significant for highlighting the disease burden based on the severity of chronic hepatitis B and the impact of COVID-19 on CHB treatment based on large-scale HNIS data registered by more than 98% of the entire population. Further research is essential to understand the clinical care situation better based on such large-scale data.

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