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LETTER TO THE EDITOR

Antiviral treatment standards for hepatitis B: An urgent need for expansion

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Abstract

The present letter to the editor is related to the review with the title "Past, present, and future of long-term treatment for hepatitis B virus." Chronic hepatitis B (CHB) represents an important and pressing public health concern. Timely identification and effective antiviral therapy hold the potential to reduce liver-related mortality attributable to chronic infection with hepatitis B virus (HBV) substantially. However, the current global treatment rates for CHB remain conspicuously low, with the excessively stringent treatment criteria advocated by national CHB guidelines being a contributing factor to these low rates. Nevertheless, recent strides in comprehending this malady and the emergence of novel antiviral agents prompt the imperative re-evaluation of treatment standards to extend the sphere of potential beneficiaries. An impending need arises for a novel paradigm for the classification of patients with CHB, the expansion of antiviral treatment eligibility for HBV-infected individuals, and even the streamlining of the diagnostic process for CHB to amplify cost-effectiveness and augment survival prospects.

Key Words: Hepatitis B virus; Chronic hepatitis B; Antiviral treatment criteria; Serum alanine aminotransferase; Liver-related mortality; Letter to the Editor

Core Tip: Chronic hepatitis B (CHB) is a serious public health problem. Early detection and effective antiviral treatment can remarkably reduce liver-related mortality caused by CHB. However, the global diagnosis and treatment rates of CHB are only 10% and 2%, respectively. Expanding the standard of antiviral treatment for patients with hepatitis B is urgently needed to improve cost-effectiveness and survival further.

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TO THE EDITOR

We read with great interest the review by Broquetas and Carrión[1]. This review discusses the need to expand the antiviral treatment criteria for patients with hepatitis B to improve cost-effectiveness and overall survival in the future.

We strongly concur with the proposition that a new paradigm is required for classifying patients with chronic hepatitis B (CHB). Such a paradigm includes streamlining the diagnostic process to enhance diagnosis and treatment accessibility. Presently, treatment guidelines for CHB primarily emphasize antiviral therapy for individuals exhibiting high viral loads and liver inflammation. However, recent advancements in our understanding of CHB and the availability of novel antiviral agents necessitate a reassessment of treatment criteria to benefit a broadened range of patients potentially. Research conducted by Professor Lim *et al*[2] has demonstrated that expanding the treatment criteria to encompass individuals meeting the conditions for CHB treatment can reduce hepatitis B virus (HBV)–related mortality rates and improve cost-effectiveness[2]. Similar conclusions have been drawn by Professor Zhang *et al*[3]. Moreover, Professor Li *et al*[4] have utilized modeling to investigate HBV clearance in different diagnostic and treatment scenarios, proposing that achieving 90% diagnostic coverage and 80% standardized treatment coverage, as opposed to the current situation, could prevent approximately two million HBV-related deaths[4]. These findings underscore the remarkable potential of early detection and effective antiviral treatment in reducing liver-related mortality associated with CHB. However, a recent review has highlighted that the global diagnostic and cure rates for CHB are currently only 10% and 2%, respectively[5]. The primary issue lies in the existing CHB guidelines that recommend overly stringent treatment criteria, thereby resulting in the ineligibility of a substantial number of HBV-infected individuals for antiviral therapy. This situation could potentially contribute to disease progression.

As a country burdened heavily by chronic HBV, China may consider expanding the antiviral treatment criteria to meet the World Health Organization's (WHO) goal of reducing mortality by 65% by 2030. Serum alanine aminotransferase (ALT) is currently used as the initial indicator for commencing antiviral treatment for chronic HBV infection, with varying thresholds utilized globally. A multicenter cohort study has demonstrated that ALT levels and liver inflammation are closely correlated with histological progression[6]. The European Association for the Study of the Liver (EASL) suggests that the upper limit of normal of ALT is 40 U/L. The current ALT threshold may be unsuitable as an indicator for initiating antiviral treatment for chronic infection with HBV because a notable proportion of HBV-infected patients with normal ALT levels exhibit remarkable liver inflammation and fibrosis[7-9]. Therefore, lowering the threshold for ALT can improve the identification of considerable liver damage in patients with CHB[10]. The American Hepatitis B Foundation organized a report meeting with the title "Expanding Hepatitis B Treatment Guidelines" to propose a strategy for the antiviral treatment of all HBV DNA–positive individuals. The primary goal of antiviral therapy is to suppress HBV DNA levels to undetectable levels given that this end point is associated with an improvement in liver inflammation and fibrosis, cirrhosis reversal, and reductions in HCC risk and liver-related mortality.

The in-progress development of the new WHO guidelines for hepatitis B was introduced at the 2023 EASL Congress. These guidelines aim to expand simplified treatment standards, improve service provision, and provide innovative diagnostic approaches.

Consequently, the expansion of antiviral treatment criteria for patients with hepatitis B and simplification of diagnostic standards for hepatitis B are imminent. However, the expansion of treatment criteria necessitates the consideration of long-term outcomes, including assessing the risk of hepatocellular carcinoma, liver-related complications, and improvements in quality of life, alongside evaluating the cost-effectiveness of interventions to ensure broadened treatment access in resource-limited settings. As a result, future research will require increased sample sizes and multicenter randomized controlled trials.

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FOOTNOTES

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