M2BPGi for Liver Fibrosis Assessment in Chronic Liver Diseases in Indonesia

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Hepatitis B is still known as a major public health concern in Indonesia. The prevalence of hepatitis B surface antigen (HbsAg) has decreased from 9.4% in 2007 to 7.1% in 2013, putting Indonesia in moderate endemicity region.[1] The liver fibrosis assessment is important part of chronic hepatitis B (CHB) infection evaluation for treatment, disease monitoring, as well as prognostication.

The gold standard for liver fibrosis assessment is liver biopsy. However, it is invasive, prone to sampling error, and has intra- and inter-observer variability so it is not suitable for surveillance. Therefore, recently, the use of non-invasive liver fibrosis assessment has increased worldwide. In general, non-invasive liver fibrosis assessment can be divided into blood-based (such as APRI, FIB-4 index) and imaging-based tools (such as, transient elastography, point shear wave elastography, acoustic radiation force impulse, 2-dimensional shear wave elastography, and magnetic resonance elastography).[2] Mac-2 binding protein glycosylation isomer (M2BPGi) is a novel serum glycol-biomarker for assessing liver fibrosis in chronic liver disease. Previous study showed that serum M2BPGi level had better accuracy than AST to platelet ratio index (APRI), hyaluronic acid, and type 4 collagen for liver fibrosis prediction.[3]

In the study by Haryono et al, the role of serum M2BPGi level for liver fibrosis assessment were studied in 119 CHB patients. Consistent with previous study, the author found that there was a positively significant correlation between serum M2BPGi level and liver stiffness measurement using transient elastography (TE). Studies on the use of M2BPGi in different population are valuable and can help validate the use of M2BPGi for liver fibrosis assessment in Indonesia.

A limitation of this study is that liver biopsy was not performed. Thus, several questions remain to be unanswered. For example, can M2BPGi be accurately identify compensated advanced liver disease and predict clinically significant portal hypertension? Previous study showed that among cirrhotic patients in Indonesia, M2BPGi measurement can be used to rule out high risk varices with negative predictive value > 90%.[4] Furthermore, considering the rising prevalence of metabolic associated-fatty liver disease (MAFLD) in Indonesia, it is also important to evaluate the diagnostic performance of M2BPGi level in CHB patients with MAFLD. Further studies on the role of M2BPGi and the factors that influence its performance will provide valuable insight into liver fibrosis and chronic liver diseases.

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