

Quantification Hepatitis B Surface Antigen: Does It Really Matter in Clinical Practice?

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Chronic hepatitis B (CHB) infection is still becomes a major problem in the world and the most prevalent etiology of advanced liver disease in Indonesia. Vertical route of transmission is the predominant route in Asian countries. The different phases of CHB patients who seek for medical consultation would give the different prognosis, and sometimes it is also difficult to find out in which stage of the disease in some of those patients as might be influenced by many factors, such as co-infected with other viral hepatitis, other metabolic liver condition (non-alcoholic fatty liver disease), hepatotoxic drugs, etc.^{1,2,3,4,5}

The routine biomarkers such as ALT level and hepatitis B virus (HBV) DNA quantitative have been used for many years either for diagnosis or monitoring the progression of the disease. However, these biomarkers are seemed not very ideal markers liver disease progression might continue even when the biomarkers showed inactive carrier stage.^{5,6,7} The main key players in CHB infection are covalently closed circular (ccc) DNA and Pre-genomic (Pg) RNA where both of players modulate viral replication in the hepatocyte and these markers can be defined as the true markers of viral replication activity. Studies have shown that quantitative serum of HBV DNA could not predict the virion intrahepatic and its replication especially in the small amount. Other factor such as viral mutation also might influence the history of the disease. The difficulty of assessing these intrahepatic markers, it should be through invasive procedure (liver biopsy) where most of the patients are reluctant to undergo this procedure. The other advantage of performing liver biopsy is that the liver condition might be better predicted or we could even know very well when the treatment should really be considered.^{8,9,10} In the era of fatty liver disease, liver biopsy could become more and more important for assessing the

liver condition instead the liver stiffness measurement using new technology such as Fibroscan.

Revisiting old marker becoming new marker such as surface antigen (HBsAg) recently made a better life in the liver world. Many studies have shown the utility this new marker as a promising tool in the CHB management. Quantification of HBsAg seemed can be a predictive tool for immune response in treatment monitoring, but when we discuss about immune response, only pegylated interferon (Peg-interferon) treatment might be benefit of this new marker. The different of genotype makes a new controversial, as the genotype might give an important role in CHB progression.^{11,12,13,14}

At the end, we need to see patient to patient's history because each CHB patient might have different prognosis as the family history and genetic polymorphism are also play important role in liver disease progression. The rational of using new marker should be reconsidered when we are in the real clinical practice. Looking and investigate the new concept of CHB management are always challenging as the disease is quite complicated and sometimes unpredictable.

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