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Editorial

Chronic Kidney Disease and Hepatitis B Virus Surface Antigenemia

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Chronic kidney disease (CKD) is a well-known risk factor to hospitalization, cardiovascular events, mortality, as well as, end-stage renal disease. The prevalence of CKD in Korea was notified as 13.7% among adult population aged more than 35 years indwelling in 7 major cities for the first time,[1] after then, several reports dealing with CKD problems were published. Recently, Park et al.[2] analyzed the data of phase V and VI from The Korean National Health and Nutrition Examination Survey (KNHENES) and reported the prevalence of CKD in population aged more than 20 years was 8.2%. The difference of the prevalence between studies may be resulted from the differences of measurement for serum creatinine and urine albumin, and calculation formula of estimated glomerular filtration rate (GFR). In addition, improved control of blood pressure and glucose level in diabetic patients and improved health related behaviors such as stopping smoking and controlled salt and energy intake were also related to changes of CKD prevalence considering the data from KNHENES (2005–2007).[3] Nevertheless, it is not too much to emphasize the clinical importance of decreased GFR and albuminuria estimating worse outcomes, such as all-cause mortality, cardiovascular mortality, and so on.[4]

Hepatitis B virus (HBV) infection is decreasing but, still, an important health-problem affecting liver disease as well as extrahepatic diseases. It is well-known that HBV infection is related to immune-complex mediated glomerulonephritis. In addition to glomerulonephritis, several studies found HBV infection was associated with an increased risk of CKD in cross-sectional and longitudinal studies. Recently, Kim et al.[5] reported HBV infection is related to decreased GFR and albuminuria. The association between hepatitis B virus surface antigen (HBsAg) positivity and estimated GFR or proteinuria by dipstick was evident in age and gender-matched population survey. Hematuria was nearly absent in all participants (7/50, 240), which suggested the association between HBsAg and CKD is not related to nephritis phenomenon because glomerulonephritis related to HBV infection is associated with hematuria, frequently. Although the authors were not sure about the pathophysiologic mechanisms in association between HBsAg positivity and CKD components, there might be the other processes to develop proteinuria and renal dysfunction other than immunological processes in the kidney of HBV infected patients. The paper by Kim et al.[5] leaves tasks to reveal mechanisms of renal functional deterioration in HBV infected patients to nephrologists and, also, hepatologists.

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