Committee Report 13

Chronic Kidney Disease

Executive Summary of the Japan Atherosclerosis Society (JAS) Guidelines for the Diagnosis and Prevention of Atherosclerotic Cardiovascular Diseases in Japan – 2012 Version


Committee for Epidemiology and Clinical Management of Atherosclerosis

The results of a meta-analysis of 26 clinical studies using statins demonstrated that statins significantly decreased the total mortality by 19% and the cardiovascular mortality by 20% in patients with chronic kidney disease (CKD), excluding dialysis patients, and also demonstrated that statins can be safely used with the same incidence of adverse events compared with placebo. Furthermore, the SHARP study, which compared combination treatment with a statin and ezetimibe with placebo in patients with CKD, including dialysis patients, demonstrated that lipid-lowering therapy significantly decreased the cardiovascular risk in patients with CKD by 17%. It should be noted that the mean LDL-cholesterol (LDL-C) level before treatment was 108 mg/dL, and patients with relatively low LDL-C levels were included in the SHARP study. A sub-analysis of patients with CKD in the MEGA study conducted in patients with hypercholesterolemia in Japan showed that the cardiovascular risk decreased in patients who received lipid-lowering therapy using a statin. However, in randomized controlled trials (4D, AURORA) conducted exclusively in dialysis patients, the decreases in cardiovascular events in a broad sense, including heart failure and cerebral hemorrhage, were not significant. Nevertheless, the analyses in these studies using the endpoint of only atherosclerotic cardiovascular disease (CVD) in patients with diabetes mellitus (DM) and an analysis of only patients with high LDL-C levels before intervention (>145 mg/dL) have shown significant risk reduction.

There is no evidence indicating the optimal lipid management targets in patients with CKD. On the other hand, the sub-analyses of the SHARP and 4D studies showed that the inhibitory effects of lipid-lowering therapy on CVD were greater in patients with high LDL-C levels before intervention. Because the cardiovascular risk in patients with CKD was similar to or even higher than that in patients with DM, it is appropriate to consider CKD as a high-risk condition for CVD, and to establish lipid management targets, comparable to DM. Whether the management targets should be subdivided according to the CKD stage classification will be discussed in the future, because a new CKD stage classification is being investigated in Japan and overseas.

In order to decrease the cardiovascular risk in patients with CKD, comprehensive management of various risk factors is as important as it is for patients with other diseases. The significance of the lipid management in patients with CKD is summarized in a recent review by the Committee of Renal and Peripheral Arteries of the Japan Atherosclerosis Society.

Footnotes

This is an English version of the guidelines of the Japan Atherosclerosis Society (Chapter 13) published in Japanese in June 2012.

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References


