CKD 病人高血壓診療指引: 強調 ACEI/ARB

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It has long been recognized that hypertension is one of the important factors contributing to the development as well as progression of chronic kidney disease (CKD). However, blood pressure (BP) is usually not treated appropriately and cardiovascular mortality remains the leading cause of death among CKD population.

Previously, renin-angiotension-aldosterone system (RAAS) is considered as an endocrine system with adaptation capability to maintain the homeostasis of tissue perfusion and volume status. On the other hand, activation of angiotensin receptor plays a crucial role in disease initiation and progression such as cardiovascular and renal disorders. Besides classical RAAS, the recent discovery of renin receptor, ACE2, various metabolites of RAAS such as angiotensin 1-7, MAS receptor all these newly identified components are potential therapeutic targets.

Accumulating evidence has confirmed the efficacy of both ACE inhibitors and angiotensin receptor blockade (ARB) on disease progression of CKD. Comparison between ACEi and ARB reveals similar efficacy in their renal effect such as in DETAIL and ONTARGET. Despite of supportive evidence, there remains to have space for optimizing RAAS inhibition. Rationales for increasing its blocking effect derived from the recognition of residual proteinuria and aldosterone escape during therapy of ACEi or ARB. Several clinical studies have shown their effect in proteinuria reduction, but as observed in the ONTARGET, ALTITUDE and VA-NEPHRO studies, the long-term outcome was not positive. It is therefore combination regimen is not recommended. Recently, the ADTS-DN study proved the efficacy and safety of finerenone add-on effect in diabetic nephropathy. Other strategies that can enhance RAS blocking such as vitamin D is still under investigation for outcome evaluation.

Treatment goal of blood pressure in CKD patients depends on the presence/absence of proteinuria. The current guideline suggests patients with office BP consistently greater than 130/80 mmHg should be treated with BP lowering agent to maintain $\leq 130/80$ mmHg consistently. For those without proteinuria, goal is set at 140/90 mmHg. However, due to insufficient data, we do not recommend specific BP target for elderly CKD patients. Adverse effects should be evaluated in these risky patients when anti-hypertensive drugs are administered.