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Blood pressure control in advanced CKD

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Blood pressure (BP) control plays a crucial role in managing chronic kidney disease (CKD). While recent KDIGO guidelines advocate for a lower target systolic BP < 120 mmHg based on the SPRINT study, suggesting cardiovascular and mortality benefits, this study revealed a higher incidence of CKD with this target, questioning its efficacy for kidney protection. In contrast, European guidelines recommend a primary BP goal < 140/90 mmHg for all CKD patients, with a lower target < 130 mmHg for those with albuminuria or high cardiovascular risk. However, caution is advised against lowering BP < 120/70 mmHg due to insufficient evidence in certain subgroups, especially CKD patients. Few randomized controlled trials have explored the impact of lower BP targets on kidney outcomes, with gaps in understanding optimal BP control for advanced CKD. Despite renin-angiotensin-system blockers being standard therapy for CKD, their clinical benefits remain uncertain in advanced CKD, particularly with estimated GFRs < 45 ml/min/1.73 m². Observational studies suggest a lower BP target is associated with decreased risk of CKD progression in advanced CKD patients. Our recent study on a Korean CKD cohort also showed the beneficial association of SBP < 120 mmHg with a composite kidney outcome of ≥50% decline in eGFR or kidney failure requiring renal replacement therapy. In my talk, I will cover the complex issue of optimal BP control in advanced CKD patients, highlighting the need for well-designed randomized controlled trials and personalized approaches.

Keywords: blood pressure, advanced CKD, CKD progression, cardiovascular outcome