KSN 2019
Seoul, Korea · May 23 - 26

Abstract Type : Oral
Abstract Submission No. : OR-1064

The influence of blood pressure patterns on renal outcomes in patients with chronic kidney disease: the long-term follow up result of the APrODiTe-2 study

Ran-hui Cha[1], Hajeong Lee[2], Jung Pyo Lee[3], Yon Su Kim[2], Sung Gyun Kim[4]
[1]Department of Internal Medicine-Nephrology, National Medical Center, Korea, Republic of
[2]Department of Internal Medicine-Nephrology, Seoul National University College of Medicine, Korea, Republic of
[3]Department of Internal Medicine-Nephrology, SMG-SNU Boramae Medical Center, Korea, Republic of
[4]Department of Internal Medicine-Nephrology, Hallym University Sacred Heart Hospital, Korea, Republic of

Objectives: Blood pressure (BP) control is the most established practice for preventing the progression and complications of chronic kidney disease (CKD). We examined the influence of BP patterns on target organ damage in hypertensive patients with CKD by using long-term follow-up data of the APrODiTe-2 study.

Methods: We collected 5 years of data of APrODiTe-2 study participants (n=378).

Results: Initially, the BP control and the dipping states were as follows: true controlled (16.5%), white-coat (2.9%), masked (50.0%), and sustained uncontrolled (30.6%); extreme-dipping (11.4%), dipping (22.2%), nondipping (31.3%), and reverse-dipping (35.0%). Only 18.8% and 20.8% of participants showed a better change in BP control patterns (to true controlled and white-coat) and a dipping pattern change to dippers over 1 year, respectively. Twenty-two patients (5.8%) died. Composite of new cerebro-cardiovascular (CCV) accidents occurred in 43 patients (11.4%), and no BP patterns were associated with the occurrence of new CCV accidents. A worse change in BP control categories over 1 year was associated with increased occurrence of composite of doubling of serum creatinine, a 50% decrease in the estimated glomerular filtration rate (eGFR), the initiation of dialysis, and kidney transplantation after adjustment for age, sex, and the cause of CKD. Patients with a worse initial BP control category, a worse change in BP control categories over 1 year, and higher clinic systolic BP and pulse pressure (PP) (> median level) were more likely to have faster eGFR progression (absolute eGFR and eGFR ratio).

Conclusions: Higher BP burden (a worse change in BP control categories, higher initial clinic systolic BP and PP) was associated with faster eGFR progression and increased occurrence of renal outcomes.