THE KOREAN SOCIETY OF NEPHROLOGY
APCN & KSN 2024
June 13(Thu) - 16(Sun), 2024 Coex, Seoul, Korea
APSN
Promoting Sustainable Kidney Health: The Asia-Pacific and Beyond

Abstract Submission No.: A-0162

Optimal Early Systolic Blood Pressure and Renal Outcome of Sepsis-associated Acute Kidney Injury in Non-critically Ill Patients: A Retrospective Cohort Study

Teerawat Sriwalosakul[1], Surachet Vongsanim[1], Prit Kusirisin[1], Phoom Narongkiatikhun[1], Kan Pongsuwan[1], Surapon Nochaiwong[2], Chidchanok Ruengorn[2], Kajohnsak Noppakun[1]
[1]Department of Internal Medicine-Nephrology, Division of Nephrology, Department of Internal Medicine, Faculty of Medicine, Chiang Mai University, Chiang Mai, Thailand, Thailand
[2]Department of Department of Pharmaceutical Care, Department of Pharmaceutical Care, Faculty of Pharmacy, Chiang Mai University, Chiang Mai, Thailand, Thailand

Objectives : Sepsis-associated acute kidney damage (SA-AKI) is a common condition that can lead to various negative kidney consequences. There is a lack of sufficient evidence on the ideal early systolic blood pressure (BP) in non-critically ill patients to determine the most favorable renal outcome in patients with SA-AKI. This study aims to determine the optimal levels of systolic BP that result in the most favorable kidney outcomes in non-critically ill patients with SA-AKI.
Methods : A retrospective study in non-critically ill patients diagnosed SA-AKI between 2011 and 2020 was conducted. SA-AKI was defined as an increased in the sequential organ failure assessment (SOFA) score ≥2 in patients who met the KDIGO criteria for an AKI diagnosis. Patients categorized classified into 4 groups according to their mean systolic BP during the first 48 hours after SA-AKI diagnosis: ≤100, 101-120, 121-140, and >140 mmHg. All patients were followed for 1 year. The primary outcome was a composite outcome of a ≥25% eGFR reduction, long-term kidney replacement therapy, and all-cause mortality.
Results : 2,920 patients were screened and 476 non-critically ill patients with SA-AKI were included. The mean age was 68.4±14.5 years, 54.8% were male, and serum creatinine level at time of SA-AKI diagnosis was 2.8±1.8 mg/dL. Patients were diagnosed with AKI stages I, II, and III in 54.8%, 20.8%, and 24.4%, respectively. A composite outcome was observed in 255 patients (53.6%). Compared to those with mean SBP of 101-120 mmHg, the adjusted hazard ratio (95% confidence interval) for the primary outcome in patients with mean SBP of ≤100 mmHg, 121-140 mmHg, and >140 mmHg was 1.89 (1.31-2.73, p<0.01), 1.04 (0.77-1.41, p=0.78), and 1.12 (0.69-1.82, p=0.64), respectively
Conclusions : In non-critically ill patients with SA-AKI, a mean systolic blood pressure of ≤100 mmHg within the initial 48 hours was associated with unfavorable composite kidney outcomes.