

## RAAS차단제가 투석환자의 임상성적에 미치는 영향

서울대학교병원 내과<sup>1</sup>, 보라매병원 내과<sup>2</sup>, 연세대학교 의과대학 내과학교실<sup>3</sup>  
가톨릭대학교 서울성모병원 내과학교실<sup>4</sup>, 경북대학교병원 내과<sup>5</sup>

유경돈<sup>1</sup>, 이정표<sup>2</sup>, 안정남<sup>1</sup>, 오윤규<sup>2</sup>, 강신욱<sup>3</sup>, 양철우<sup>4</sup>, 김용림<sup>5</sup>, 임춘수<sup>2</sup>, 김연수<sup>1</sup>

### Effect of Renin Angiotensin Aldosterone System blockade on Clinical Outcomes in Patients with End-stage Renal Disease: A Prospective Cohort Study in Korea

Kyung Don Yoo<sup>1</sup>, Jung Pyo Lee<sup>2</sup>, Jung Nam An<sup>1</sup>, Yun Kyu Oh<sup>2</sup>, Shin-Wook Kang<sup>3</sup>  
Chul Woo Yang<sup>4</sup>, Yong-Lim Kim<sup>5</sup>, Chun Soo Lim<sup>2</sup>, Yon Su Kim<sup>1</sup>

Department of Internal Medicine<sup>1</sup>, Seoul National University College of Medicine, Seoul, Korea  
Department of Internal Medicine<sup>2</sup>, Seoul National University Boramae Medical Center, Seoul, Korea  
Department of Internal Medicine<sup>3</sup>, Yonsei Medical School Severance Hospital  
Department of Internal Medicine<sup>4</sup>, Catholic University, St. Mary's Hospital, Seoul  
Department of Internal Medicine<sup>5</sup>, Kyungpook National University

**Background:** Adequate blood pressure control plays a key role in the management of patients with end-stage renal disease (ESRD). Although renin angiotensin aldosterone system (RAAS) blockade is known as the best treatment option for chronic kidney disease with hypertension, there is debate in the ESRD patients maintaining dialysis.

**Methods:** A total of 5,223 patients in the Clinical Research Center for ESRD (CRC for ESRD) prospective observation cohort from Aug 2008 to Dec 2014 were enrolled to this study. We compare overall survival and major cardiovascular event (MACE)-free survival between RAAS group and control group for using 1:1 propensity score matching (PSM) analysis. We defined the RAAS group as using ACE inhibitor or angiotensin receptor blocker more than 3 month.

**Results:** Before matching, the RAAS group was younger; however, had more comorbidities such as diabetes and cardiovascular disease. The RAAS group had higher systolic blood pressure and was prescribed more number of other antihypertensive drugs than control group. After matching, there were no differences in age, sex, dialysis modalities, comorbidities and number of other antihypertensive medications. Before PSM, patient survival was significantly better in the RAAS group using the Gehan-Wilcoxon test ( $p=0.001$ ), however, this difference disappeared after matching ( $p=0.450$ ). Cardiovascular event-free survival was not different between RAAS group and control group before and after PSM analysis.

**Conclusion:** RAAS blockade did not affect all-cause mortality and MACE-free survival in the Korean ESRD patients. Further researches such as randomized control study will be needed.

**Key Words:** RAAS차단제, 혈액투석, 복막투석

RAAS blockade, Hemodialysis, Peritoneal dialysis