

Chronic kidney disease (CKD) is a worldwide public health disease, with adverse outcomes of kidney failure, cardiovascular disease (CVD), and premature death. Hypertension and proteinuria are well-known predictors of chronic kidney disease (CKD) progression. Therapeutic interventions have different magnitude of albuminuria and hypertension.

This study was designed to evaluate the efficacy and safety of combined vs. single rennin-angiotensin-aldosterone system (RAAS) blockade in chronic kidney disease.

Forty (28 female) patients with chronic kidney diseases were collected from nephrology outpatient clinic, internal medicine department, Beni Suef University hospital. They were divided randomly into 2 groups. Group A was 24 (20 females) patients treated with Enalapril, as an Angiotensin converting enzyme inhibitor (ACE-I) alone. Group B was 16 (8 females) patients treated with combination of Enalapril and Irbesartan, as an angiotensin receptor blocker (ARBs). All patients were subjected to full history taking; thorough clinical examination; certain laboratory tests and renal function tests at the start of the study, 1.5 and 3 months later.

Proteinuria, urinary albumin/creatinine ratio (UACR), systolic blood pressure (SBP) and glomerular filtration rate (GFR) were significantly ( $p < 0.001$ ) decreased with dual therapy (ACEI and ARB) compared to monotherapy. In return serum potassium level (Ser.K), serum creatinine level (Ser.Cr) were significantly increased ( $p < 0.001$ ) with dual therapy (ACEI and ARB) compared to monotherapy.

The hypotensive and antiproteinuric effect of RAAS inhibitors should be compared with hyperkalemia and rise in serum creatinine level when prescribed as monotherapy or combination in patients with CKD. Decision of usage of RAAS system blockade should be made based on the risk and benefit ratio.