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**A dose response analysis of dual Renin Angiotensin Aldosterone System (RAAS) blockade among diabetic nephropathy patients with albuminuria and proteinuria: A meta-analysis**

**Sultan Al Dalbhi**

Prince Sultan Military Medical City, Saudi Arabia

Treatment with Renin Angiotensin Aldosterone System (RAAS) blockade including Angiotensin-Converting Enzyme inhibitors (ACEis) and Angiotensin II Receptor Blockers (ARBs) have been shown to improve clinical outcomes. However, recent contrasting evidence regarding the dual RAAS blockade has also been presented. Very few studies have investigated the effectiveness of this dual blockade among Diabetic Nephropathy (DN) patients in association with albuminuria or proteinuria that is why we did this review. A review of Randomized Controlled Trial (RCT) studies (n=45) reporting on the dose response analysis among DN patients using the RAAS blockade and other monotherapies over a 25-year period was performed. Overall, 45 studies of DN patients (n=18,628) with albuminuria or proteinuria were included. An association between dual RAAS blockade and DN was observed in which 18 of the 45 datasets revealed that combination therapies were effective among DN patients. Although there was a decline in albuminuria (mean difference: -19.93 mcg/L; 95% CI -50.32-10.47; I<sup>2</sup>=87.8%, p=0.000) and a slight decline in proteinuria (mean difference: -0.19 mg/mmol; 95% CI -2.32-2.70; I<sup>2</sup>=99.2%, p=0.000) with dual RAAS blockade combination therapy, these results demonstrated high heterogeneity among studies with non-significant effects. Based on this study, it appears that dual RAAS blockade (or a combination of therapies) is a neutral treatment for patients with DN presenting with symptoms of albuminuria and/or proteinuria. Therefore, other factors must be considered when recommending therapies for DN patients.

**Biography**

Sultan Al Dalbhi has completed his Clinical Fellowship in Nephrology and Clinical Research Associate degree from School of Medicine in McMaster University and University of Toronto. He is currently a Consultant Nephrologist at Prince Sultan Military Medical City, Riyadh, Saudi Arabia. He is very active as Clinical Researcher in diabetic nephropathy care and prevention.

saldalbhi\_2014@hotmail.com

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