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Comparative study of efficacy and tolerability of Olmesartan with Ramipril in Type II diabetic and hypertensive Patients

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Abstract

Background: Type 2 Diabetes Mellitus is commonly associated with hypertension. The renin-angiotensin-aldosterone system (RAAS) plays a pivotal role in the pathogenesis of insulin resistance and cardiovascular disease in diabetes. Interruption of the RAAS with Angiotensin II type 1, (AT) receptor blockers (ARB) has been shown to prevent or reduce cardiovascular and renal disease progression in diabetic patients with hypertension. With this background we tried to evaluate the efficacy and tolerability of Olmesartan and Ramipiril. Methods: Study was conducted on 60 patients who were known diabetics and hypertensive attending the General Medicine clinic of Prathima Institute of medical Sciences Karimnagar. Results: The mean difference of 16 in SBP and mean difference of 7.69 in DBP in Ramipril group. Similarly mean difference of 19.8 in SBP and mean difference of 10 in DBP in Olmesartan group. The changes in both groups were statistically significant t-test shows the changes in Olmesartan group was found to be significant. There was mean difference of 4.19 in serum urea, mean difference of 0.05 in serum creatinine and mean difference of 8.21 in albuminuria in Ramipril group. Similarly mean difference of 4.44 in serum urea, mean difference of 0.13 in serum creatinine and mean difference of 24.8 in albuminuria in Olmesartan group. The changes in both groups were statistically significant ttest comparison of the changes in Olmesartan group was found to be significant. Conclusions: Olmesartan is a better choice in patients with type 2 Diabetes Mellitus with hypertension in comparison to Ramipril because of Better antihypertensive effect with achievement of target level blood pressure Better glycemic control (both short term and long term). Better improvement of serum creatinine and Urinary Albumin to Creatinine ratio and Good tolerability.