Is losartan 50 mg effective in reducing blood pressure among post-dialysis euvolemic hypertension and survival trend; findings from a randomized control trial

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The aim of current study was to assess the effectiveness of losartan 50 mg (OD) in reducing blood pressure among post-dialysis euvolemic hypertensive patients, observing their survival trends and adverse events during the course of study. A multicentre, prospective, randomised, single-blind trial was conducted to assess the effect of losartan 50 mg every other day (EOD), once a morning (OM) among post-dialysis euvolemic hypertensive patients. Post-dialysis euvolemic assessment was done by a body composition monitor (BCM). Covariate adaptive randomization was used for allocation of participants to the standard or intervention arm, and these participants were followed up for twelve months. Pre-, intra- and post-dialysis session blood-pressure (BP) measurements were recorded, and any adverse events were confirmed using Naranjo scale. Survival trends were analysed using Kaplan-Meier analysis. Of the total 229 patients, 96 (41.9%) were identified as post-dialysis euvolemic hypertensive. A final sample of 88 (40.1%) patients was randomized into standard and intervention arms. A total of 44 [21 (47.7%) male] were randomized to the standard arm, compared to 44 [24 (54.5%) male and 20 (45.4%) females] to the intervention arm. After follow-up of 12 months' pre-dialysis systolic (p<0.001) and diastolic (p<0.01), intradialysis diastolic (p=0.02), post-dialysis systolic (p<0.001) and diastolic (p<0.001) blood pressure was reduced from the baseline among intervention-arm patients. However, a significant decline in pre-dialysis systolic blood pressure (p=0.003) after 12 months of follow-up was observed for standard-arm patients. A total of six deaths were reported among standard-arm patients compared to 2 deaths among the intervention arm. Among the intervention arm, two patients suffered hyperkalemia. Losartan 50 mg achieves an overall significant decline in blood pressure among post-dialysis euvolemic hypertensive patients and these patients also had lower mortality rates.

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Biography

Amer Hayat Khan joined Discipline of Clinical Pharmacy, School of Pharmaceutical Sciences, Universiti Sains Malaysia, as a Senior Lecturer. He is involved in teaching (Undergraduate Pharmacy & Master in Clinical Pharmacy i.e. M.Pharm) and hospital visits regarding pharmacy students clerkships. He is also involved in research supervision of PhD’s, Master’s either in Pharmacy and/or Medical students’ research project, community activities, university services etc. He is a Journal Editor and a Reviewer. He shared his skill and research on international platform as a resource person for workshop or as an invited speaker in a conference. In addition to this, he is a Visiting Staff for Chronic Kidney Disease & Resource Center, Hospital USM. Furthermore, he is also acting as a Program Consultant and Visiting Staff for Pharmacy Department at Quaid-e-Azam University, Islamabad, Pakistan. He has supervised 5 PhD’s and 19 Master’s students by research and/or course work research project, while 6 researchers are reaching to defence, whereas 5 are under active supervision. All research projects are published and or publishing in indexed journal.

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