

Comparison of Losartan And Enalapril Effects on Renal Function in Hypertensive Adults with Chronic Kidney Disease at a Kenyan Referral Hospital

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Abstract

Objective: The objective of this study was to compare renal function in diabetic hypertensive chronic kidney disease patients receiving enalapril or losartan.

Design: This was a retrospective analytic cohort study.

Setting: Kenyatta National Hospital, Nairobi, Kenya.

Subjects: Two hundred adult patients with hypertension and diabetic nephropathy.

Interventions: One hundred and sixteen participants received an enalapril regimen while 84 were on a losartan regimen.

Main outcome measures: time to doubling of serum creatinine and changes in the levels of proteinuria.

Results: There was a higher risk of doubling of serum creatinine with losartan (Adjusted HR=1.572; [95% CI:1.015-2.434]; p=0.043) than enalapril. There was a significant difference in time to doubling between the two arms – losartan 18 months, enalapril 36 month (p=0.046). The changes in the levels of proteinuria between the two arms were not statistically significant for most of the follow up period except at the 15th month from treatment initiation (p=0.05).

Conclusions: Enalapril was found to be more reno-protective compared to losartan. Where feasible, we suggest local use of enalapril as opposed to losartan for diabetic hypertensive chronic kidney disease patients