Effectiveness of chlorthalidone/amiloride versus losartan in patients with stage I hypertension: results from the PREVER-treatment randomized trial.


Abstract

OBJECTIVES: To compare the blood pressure (BP)-lowering efficacy of a chlorthalidone/amiloride combination pill with losartan, during initial management of stage I hypertension.

METHODS: In a randomized, double-blind, controlled trial, 655 participants were followed for 18 months in 21 Brazilian academic centers. Trial participants were adult volunteers aged 30-70 years with stage I hypertension (BP 140-159 or 90-99 mmHg) following 3 months of a lifestyle intervention. Participants were randomized to 12.5/2.5 mg of chlorthalidone/amiloride (N = 333) or 50 mg of losartan (N = 322). If BP remained uncontrolled after 3 months, study medication dose was doubled, and if uncontrolled after 6 months, amlodipine (5 and 10 mg) and propranolol (40 and 80 mg twice daily) were added as open-label drugs in a progressive fashion. At the end of follow-up, 609 (93%) participants were evaluated.

RESULTS: The difference in SBP during 18 months of follow-up was 2.3 (95% confidence interval: 1.2 to 3.3) mmHg favoring chlorthalidone/amiloride. Compared with those randomized to diuretic, more participants allocated to losartan had their initial dose doubled and more of them used add-on antihypertensive medication. Levels of blood glucose, glycosilated hemoglobin, and incidence of diabetes were no different between the two treatment groups. Serum potassium was lower and serum cholesterol was higher in the diuretic arm. Microalbuminuria tended to be higher in patients with diabetes allocated to losartan (28.5 ± 40.4 versus 16.2 ± 26.7 mg, P = 0.09).

CONCLUSION: Treatment with a combination of chlorthalidone and amiloride compared with losartan yielded a greater reduction in BP.

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