

Quinapril + hydrochlorothiazide attenuates hypokalaemia

Warner-Lambert researchers report that the combination of quinapril and hydrochlorothiazide produces predictable additive antihypertensive effects and also lessens the hypokalaemic effects of hydrochlorothiazide. They concluded that the 2 drugs can be safely given to patients with mild to moderate hypertension.

The company researchers conducted a multicentre trial using a factorial design involving placebo, monotherapy with 3 doses of each drug, and 9 corresponding drug combinations, for a total of 16 parallel treatments. 460 patients with diastolic BPs between 100 and 115mm Hg received fixed doses of the treatment option they were randomised to for 8 weeks.

The additive effect of quinapril and hydrochlorothiazide was greater than the corresponding individual components as monotherapy. The combination produced sustained reductions in diastolic BP of 8–15mm Hg after 24 hours, to a degree that was predictable according to the dose-relationship. Quinapril lessened the fall in serum potassium levels caused by hydrochlorothiazide, even at the lowest dose of 2.5 mg/day.

The drug combination was considered to be well tolerated. Even doses as high as quinapril 40mg + hydrochlorothiazide 25mg from day 1 produced no unusual adverse events.

The researchers believe that the principle of using as small a dose of diuretic as possible and adjusting the dose of the ACE inhibitor to reach the desired diastolic BP should reduce the prevalence of hypokalaemia, glucose intolerance, gout and other adverse effects related to thiazide diuretics.

Canter D, Frank GJ, Knapp LE, Phelps M, Quinapril Investigator Group, et al. Quinapril and hydrochlorothiazide combination for control of hypertension: assessment by factorial design. *Journal of Human Hypertension* 8: 155-162, Mar 1994

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