

Effects of chlorthalidone, oxprenolol, and their combination in hypertensive blacks: a randomized double-blind crossover study

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Abstract:

One hundred twenty black patients with mild to moderate essential hypertension participated in a double-blind placebo-controlled crossover study of the efficacy and tolerability of slow release oxprenolol versus chlorthalidone singly and in combination. Oxprenolol as monotherapy produced no effect on blood pressure as compared with placebo even after doubling the dose. Chlorthalidone as monotherapy produced a significant decrease in blood pressure (p less than 0.01). Combining oxprenolol with chlorthalidone yielded hypotensive effects in excess of those of either of the components given singly. Oxprenolol produced a significant decrease in plasma renin activity (PRA) whereas chlorthalidone produced a significant increase in PRA. These results indicate that a beta-blocking agent alone is ineffective in lowering blood pressure in hypertensive blacks, even when the dose is high. Oxprenolol may increase the hypotensive effect of chlorthalidone by counteracting the hypokalemic effect of the diuretic and by attenuating the diuretic-induced increase in plasma renin activity.