
**BACKGROUND:** To define better the efficacy of vasodilator therapy in the treatment of chronic congestive heart failure, we compared the effects of hydralazine and isosorbide dinitrate with those of enalapril in 804 men receiving digoxin and diuretic therapy for heart failure. The patients were randomly assigned in a double-blind manner to receive 20 mg of enalapril daily or 300 mg of hydralazine plus 160 mg of isosorbide dinitrate daily. The latter regimen was identical to that used with a similar patient population in the effective-treatment arm of our previous Vasodilator-Heart Failure Trial.

**RESULTS:** Mortality after two years was significantly lower in the enalapril arm (18 percent) than in the hydralazine-isosorbide dinitrate arm (25 percent) (P = 0.016; reduction in mortality, 28.0 percent), and overall mortality tended to be lower (P = 0.08). The lower mortality in the enalapril arm was attributable to a reduction in the incidence of sudden death, and this beneficial effect was more prominent in patients with less severe symptoms (New York Heart Association class I or II). In contrast, body oxygen consumption at peak exercise was increased only by hydralazine-isosorbide dinitrate treatment (P less than 0.05), and left ventricular ejection fraction, which increased with both regimens during the 2 years after randomization, increased more (P less than 0.05) during the first 13 weeks in the hydralazine-isosorbide dinitrate group.

**CONCLUSIONS:** The similar two-year mortality in the hydralazine-isosorbide dinitrate arms in our previous Vasodilator-Heart Failure Trial (26 percent) and in the present trial (25 percent), as compared with that in the placebo arm in the previous trial, (34 percent) and the further survival benefit with enalapril in the present trial (18 percent) strengthen the conclusion that vasodilator therapy should be included in the standard treatment for heart failure. The different effects of the two regimens (enalapril and hydralazine-isosorbide dinitrate) on mortality and physiologic end points suggest that the profile of effects might be enhanced if the regimens were used in combination.