**Packer, M., O’Connor, C., Ghali, J. et al. Effect of amlodipine on morbidity and mortality in severe chronic heart failure.**


**BACKGROUND:** Previous studies have shown that calcium-channel blockers increase morbidity and mortality in patients with chronic heart failure. We studied the effect of a new calcium-channel blocker, amlodipine, in patients with severe chronic heart failure.

**METHODS:** We randomly assigned 1153 patients with severe chronic heart failure and ejection fractions of less than 30 percent to double-blind treatment with either placebo (582 patients) or amlodipine (571 patients) for 6 to 33 months, while their usual therapy was continued. The randomization was stratified on the basis of whether patients had ischemic or nonischemic causes of heart failure. The primary end point of the study was death from any cause and hospitalization for major cardiovascular events.

**RESULTS:** Primary end points were reached in 42 percent of the placebo group and 39 percent of the amlodipine group, representing a 9 percent reduction in the combined risk of fatal and nonfatal events with amlodipine (95 percent confidence interval, 24 percent reduction to 10 percent increase; *P*=0.31). A total of 38 percent of the patients in the placebo group died, as compared with 33 percent of those in the amlodipine group, representing a 16 percent reduction in the risk of death with amlodipine (95 percent confidence interval, 31 percent reduction to 2 percent increase; *P*=0.07). Among patients with ischemic heart disease, there was no difference between the amlodipine and placebo groups in the occurrence of either end point. In contrast, among patients with nonischemic cardiomyopathy, amlodipine reduced the combined risk of fatal and nonfatal events by 31 percent (*P*=0.04) and decreased the risk of death by 46 percent (*P*<0.001).

**CONCLUSIONS:** Amlodipine did not increase cardiovascular morbidity or mortality in patients with severe heart failure. The possibility that amlodipine prolongs survival in patients with nonischemic dilated cardiomyopathy requires further study.