Long term effects of stress reduction on mortality in persons over 55 years of age with systemic hypertension.

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Psychosocial stress contributes to high blood pressure and subsequent cardiovascular morbidity and mortality. Previous controlled studies have associated decreasing stress with the Transcendental Meditation (TM) program with lower blood pressure. The objective of the present study was to evaluate, over the long term, all-cause and cause-specific mortality in older subjects who had high blood pressure and who participated in randomized controlled trials that included the TM program and other behavioral stress-decreasing interventions. Patient data were pooled from 2 published randomized controlled trials that compared TM, other behavioral interventions, and usual therapy for high blood pressure. There were 202 subjects, including 77 whites (mean age 81 years) and 125 African-American (mean age 66 years) men and women. In these studies, average baseline blood pressure was in the prehypertensive or stage I hypertension range. Follow-up of vital status and cause of death over a maximum of 18.8 years was determined from the National Death Index. Survival analysis was used to compare intervention groups on mortality rates after adjusting for study location. Mean follow-up was 7.6 +/- 3.5 years. Compared with combined controls, the TM group showed a 23% decrease in the primary outcome of all-cause mortality after maximum follow-up (relative risk 0.77, p = 0.039). Secondary analyses showed a 30% decrease in the rate of cardiovascular mortality (relative risk 0.70, p = 0.045) and a 49% decrease in the rate of mortality due to cancer (relative risk 0.49, p = 0.16) in the TM group compared with combined controls. These results suggest that a specific stress-decreasing approach used in the prevention and control of high blood pressure, such as the TM program, may contribute to decreased mortality from all causes and cardiovascular disease in older subjects who have systemic hypertension.

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