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Meditation May Improve Cardiac Risk Factors in Patients with Coronary Heart Disease

CHICAGO – A relaxation technique known as Transcendental Meditation may decrease blood pressure and reduce insulin resistance among patients with coronary heart disease, according to a report in the June 12 issue of *Archives of Internal Medicine*, one of the *JAMA/Archives* journals.

Transcendental Meditation, derived from the ancient Vedic tradition in India, is taught through a standard protocol involving lectures, personal instruction and group meetings, according to background information in the article. It has previously been shown to lower blood pressure but its effect on other risk factors associated with coronary heart disease, including those linked to the metabolic syndrome, has not been thoroughly examined. The metabolic syndrome refers to a cluster of symptoms that increase cardiac risk, including high blood pressure (hypertension), abdominal obesity, high cholesterol and insulin resistance, which occurs when the body is unable to use the insulin produced by the pancreas to process sugar into energy.

Maura Paul-Labrador, M.P.H., Cedars-Sinai Medical Center, Los Angeles, and colleagues conducted a 16-week trial of Transcendental Meditation in patients with coronary heart disease. Fifty-two participants (average age 67.7 years) were instructed in transcendental meditation and 51 control patients (average age 67.1 years) received health education. At the beginning and end of the trial, the patients fasted overnight and then gave a blood sample, participated in a medical history review and underwent tests of blood vessel function and heart rate variability. Heart rate variability testing assesses the functioning of the autonomic nervous system, which controls the heart and other involuntary muscles.

Overall, of the 103 participants who were enrolled, 84 (82 percent) completed the study. At the end of the trial, patients in the Transcendental Meditation group had significantly lower blood pressure; improved fasting blood glucose and insulin levels, which signify reduced insulin resistance; and more stable functioning of the autonomic nervous system. “These physiological effects were accomplished without changes in body weight, medication or psychosocial variables and despite a marginally statistically significant increase in physical activity in the health education group,” the authors write.

“These current results also expand our causal understanding of the role of stress in the rising epidemic of the metabolic syndrome,” they continue. “Although current low levels of physical activity, unhealthy eating habits and resultant obesity are triggers for this epidemic, the demands of modern society may also be responsible for higher levels of chronic stress.” Such stress causes the release of cortisol and other hormones and neurotransmitters, which over time damage the cardiovascular system.

“Our results, demonstrating beneficial physiological effects of Transcendental Meditation in the absence of effects on psychosocial variables, suggest that Transcendental Meditation may modulate response to stress rather than alter the stress itself, similar to the physiological impact of exercise conditioning,” the authors write. This method of controlling the body’s response to stress may provide a new target for the treatment and prevention of coronary heart disease, warranting further study, they conclude.

(*Arch Inter Med.* 2006;166:1218-1224. Available pre-embargo to the media at www.jamamedia.org.)

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