

Study Shows Atherosclerosis in Seniors Reversed by Multimodality Natural Medicine Approach

Older persons with multiple risk factors for cardiovascular disease may substantially reduce atherosclerosis through a multimodality treatment program derived from a traditional system of natural medicine, according to a report released in April.

The report's findings are published in the April 15 issue of *The American Journal of Cardiology* (2002). "Our study of generally healthy seniors, including a subgroup at higher risk for cardiovascular disease, suggests that the treatment program of Maharishi Vedic Medicine significantly reversed atherosclerosis," says Jeremy Fields, PhD, lead author of the study and Research Coordinator for the Center for Healthy Aging at Saint Joseph Hospital in Chicago, Illinois.

Atherosclerosis is the hardening of the arteries accompanied by the buildup of fat deposits, or plaque, in the artery walls. The condition can lead to cardiovascular disease – heart attack and stroke – the number one cause of death among Americans.

Significant Decreases in Thickness of Carotid Artery Wall

In the study, 57 seniors with an average age of 74 were randomly assigned into three treatment groups: (1) a multimodality intervention of Maharishi Vedic Medicine (MVM) involving dietary, exercise, antioxidant herbal food supplement, and stress reduction approaches; (2) health education involving standard recommendations in diet, exercise and a multivitamin supplement; and (3) usual care with no added intervention. Participants with multiple risk factors for coronary heart disease were also classified into a "high-risk" subgroup for each group.

The primary measurement used in the study was carotid intima-media thickness (IMT), a noninvasive measure of atherosclerosis that is known to correlate with coronary heart disease and stroke. IMT of the carotid artery wall was evaluated in subjects by standard B-mode ultrasound before and after one year of treatment. Of the 57 participants in the study, 46 subjects completed the IMT post-testing.

The results of this pilot study showed that IMT in the MVM subjects decreased 10.6% for the entire group and 19.4% for the high-risk subgroup. Eighty percent of subjects in the entire MVM group and 100% of subjects in the MVM high-risk

subgroup showed regression in atherosclerosis. Comparing high-risk subgroups, IMT decreased significantly more in the MVM subjects than in the health education or usual care subjects.

"Although the onset and progression of coronary heart disease (CHD) involve multiple risk factors, surprisingly few intervention studies have attempted to modify these factors simultaneously," says Kenneth Walton, PhD, coauthor of the study and Senior Fellow in the Center for Natural Medicine and Prevention at Maharishi University of Management in Fairfield, Iowa.

"Our findings suggest that this multimodality approach of Maharishi Vedic Medicine can significantly reduce atherosclerosis in older people, particularly those with marked CVD risk, and therefore can reduce the risk of heart attack and stroke," says Walton.

The Maharishi Vedic Medicine treatment includes stress reduction through the Transcendental Meditation (TM) program, which a randomized clinical trial showed can by itself, reduce atherosclerosis as indicated by a decrease in carotid IMT in African Americans with hypertension (*Stroke*, March 3, 2000). Studies have also indicated that other components of MVM, such as herbal food supplements rich in antioxidants (Maharishi Amrit Kalash), may also lower the risk of atherosclerosis and coronary heart disease.

Walton said, however, that this was the first randomized, controlled study to test all of the MVM components together in older people at high risk for cardiovascular disease. Previous studies evaluated one component at a time, and in the case of the above study on the TM program, the decrease in IMT, while significant, was not as large as in the current study on MVM.

According to Fields, the reduction in carotid IMT in the Maharishi Vedic Medicine group, relative to that in the combined control groups, was also greater than those reported in studies on conventional approaches, such as the use of beta blockers, cholesterol-lowering drugs, or the combination of vitamins E and C.

Breakthrough in Treatment

"The present research supports targeting multiple risk factors as an effective approach to preventing heart attack and death from coronary heart disease," says Robert Schneider, MD,

coauthor of the study and Director of the Center for Natural Medicine and Prevention, one of 12 NIH-supported centers of specialized research.

"However, unlike other non-drug approaches, the MVM treatment does not require radical changes in lifestyle. This represents a breakthrough in treatment of atherosclerosis because it not only suggests that a traditional, non-drug, natural medicine approach may regress cardiovascular disease, but that this program is one that ordinary people can do," says Schneider.

Significant Decreases in Risk of Heart Attack and Stroke

"The decreases in atherosclerosis observed in this study are clinically significant. For those older people with a risk factor for heart disease, such as high blood pressure, high cholesterol, obesity, or diabetes, this would translate into a 33% reduction in risk for heart attack and stroke over the long term. Even for relatively healthy older people, this program appears to result in an 8% decrease in risk for cardiovascular disease. As a next step, these results will need to be replicated in larger trials with more culturally diverse groups," says Schneider.

How Multimodality Natural Medicine Approach May Work

When asked how this multimodality natural medicine approach may produce greater regression of atherosclerosis than that of single behavioral or drug approaches, Schneider says, "When used together, these traditional approaches of Maharishi Vedic Medicine appear to have a synergistic effect that enlivens the body's own self-repair and homeostatic mechanisms. This results in restoration of more healthy functioning of the cardiovascular system and prevention of heart disease." The study was funded by grants from the Retirement Research Foundation in Chicago, Illinois and from the NIH's National Center for Complementary and Alternative Medicine, in Bethesda, Maryland.

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