Diet, Weight Loss, and Exercise a Potent Combo

BY MITCHEL L. ZOLER

ORLANDO — Weight loss and exercise were effective complements to a low-salt and low-fat diet for driving down blood pressure in patients with mild hypertension in a controlled study with about 150 people.

The combined exercise, weight loss, and healthy-diet regimen led to an average systolic blood pressure reduction of 16 mm Hg during 16 weeks of treatment, Dr. Alan L. Hinderliter said at the annual meeting of the American College of Cardiology.

The combined lifestyle regimen also led to significant improvements in several other health measures, including aerobic capacity, left ventricular mass, vascular stiffness, and glucose tolerance, said Dr. Hinderliter, a cardiologist at the University of North Carolina, Chapel Hill. "The results reinforce the importance of exercise and weight loss as part of a comprehensive lifestyle modification strategy in people with high blood pressure," he said.

The Exercise and Nutritional Interventions for Cardiovascular Health (ENCORE) study enrolled patients with a blood pressure of 130-159/85-99 mm Hg who were older than 35 years of age, had a body mass index of 25-40 kg/m^2, and did not perform any regular exercise. The participants also could not be on any antihypertensive medication, and did not have secondary hypertension, cardiac disease, diabetes, or chronic kidney disease. The enrolled patients had an average age of about 51, about two-thirds were women, about 60% were white and about 40% were African American. Their average blood pressure was about 138/85 mm Hg.

Dr. Hinderliter and his associates randomly assigned the patients to three treatment groups: 46 went onto a diet modeled on the one used in the Dietary Approaches to Stop Hypertension (DASH) study, which included a high intake of fruits, vegetables, and low-fat dairy products but was not designed to result in weight loss; 49 patients began the DASH diet with a reduced calorie level designed to produce weight loss, plus a cognitive-behavioral weight-management program, plus an exercise program that included three sessions a week of supervised exercise; and 49 control patients continued their usual care. The DASH diet used by both intervention groups led to significantly reduced intake of sodium and fat and a significantly increased intake of potassium and magnesium.

The triple-intervention group had an average blood pressure reduction of 16/10 mm Hg.

DR. HINDERLITER

After 16 weeks of treatment, the average blood pressure reduction, compared with baseline, the study's primary end point, was a 16/10–mm Hg drop in the total lifestyle modification group, an 11/8–mm Hg decline in the DASH diet–only patients, and a 3/4–mm Hg reduction in the control group.

The blood pressure reduction in the diet-only group was significantly reduced, compared with the controls, but the decline was even better in the diet, exercise, and weight loss patients, Dr. Hinderliter reported. The average weight loss in the triple-intervention group was about 19 pounds, while people in the diet-only group did not have significant weight loss.

By the end of the study, patients in the complete lifestyle modification group had an average resting blood pressure of about 123/76 mm Hg.

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