Treadmill Walking Offers Means to Improve PAD

BY MARY ANN MOON
Contributing Writer

Treadmill exercise three times a week improved walking endurance, lower extremity blood flow, and quality of life in patients with peripheral arterial disease, according to findings from a randomized trial.

The intervention increased brachial arterial flow-mediated dilation, which in PAD patients is associated with lower rates of cardiovascular events. This suggests that treadmill exercise may confer systemic vascular benefits in PAD, said Dr. Mary M. McDermott of Northwestern University, Chicago, and her associates.

"Based on findings reported in this trial, physicians should recommend supervised treadmill exercise programs for PAD patients, regardless of whether they have classic symptoms of intermittent claudication," they said.

The investigators compared two 6-month exercise interventions with no intervention in 156 PAD patients with an average age of 73 years.

Fifty-one patients were randomly assigned to supervised treadmill exercise three times per week, beginning with 15-minute sessions and working up to 40-minute sessions. Fifty-two patients were assigned to lower-extremity resistance training three times per week, performing three sets of eight repetitions of knee extensions, leg presses, and leg curls using standard equipment, as well as squat and toe-rise exercises. The remaining 53 patients served as controls.

After 6 months, patients in the treadmill group increased their distance in a 6-minute walk test by a mean of 21 meters, while those in the control group de-

AAA Screening Advised for Some Over 59

CHICAGO — One of every nine men over age 59 years with a diagnosis of stroke or transient ischemic attack had an abdominal aortic aneurysm in a prospective study of 499 patients.

Among all patients admitted for stroke or TIA, the prevalence of abdominal aortic aneurysm (AAA) on ultrasound evaluation was 5.8%. This is comparable to the prevalence in other populations and was not significant.

AAA prevalence was 11.1% in a subgroup of 235 men aged 59 years and older (median 72 years), Dr. Niels H.A. Van Lindert and colleagues reported at the annual meeting of the Radiological Society of North America. The prevalence in the subgroup was significantly higher than the 4.0%-8.1% prevalence found in three recent population-based screening studies in men over 59 years of age.

The finding could lead to improved screening and earlier treatment of this high-risk group, said Dr. Van Lindert, of the Gelre Hospitals Apeldoorn (the Netherlands). Although the use of ultrasound is noninvasive, low-cost, accurate, and fast, most abdominal aneurysms are found by chance in men of older age and with a history of smoking.

"In our group, 55% of aneurysms were in nonsmokers, which meant that detection would not have occurred following task force rules," he said. The United States Preventive Services Task Force (USPSTF) recommends a one-time ultrasonography screening of all men aged 65-75 years with a history of smoking.

The USPSTF makes no recommendation for or against screening for AAA in men aged 65-75 years who have never smoked, and recommends against routine screening for AAA in women.

Dr. Van Lindert advised that all men older than 59 years of age admitted with a stroke or TIA be screened for an AAA.

Further studies are needed to determine the cost-benefit aspects of screening in this patient population with a shorter life expectancy, he said.

The investigators reported having no conflicts of interest.

—Patrice Wendling

creased their distance by a mean of 15 meters—a net difference of 36 meters between the two exercise groups, the investigators said (JAMA 2009:301:165-74).

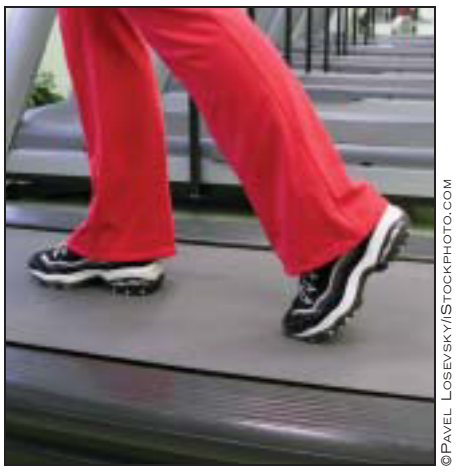
The treadmill group also showed increased brachial arterial flow-mediated dilation, greater improvement in overall physical functioning, and better quality of life, compared with controls.

Patients in the resistance-training group showed no change in their 6-minute walk performance or in brachial arterial flow-mediated dilation, but showed significant increases in stair climbing, overall physical functioning, and quality of life, compared with controls.

Patients without classic symptoms of intermittent claudication, as well as those who did have intermittent claudication, benefited from both interventions. This is the first randomized controlled clinical trial of exercise in PAD to include subjects without intermittent claudication, Dr. McDermott and her colleagues noted.

The exercise interventions were associated with three serious adverse events. One patient had a cardiac arrest during treadmill exercise, and another developed chest pain on the treadmill, which required coronary catheterization. A third patient fell and fractured her arm during follow-up walk testing.

Dr. McDermott reports having received consulting fees and honoraria from Sanofi-Aventis and Bristol-Myers Squibb. She is also a contributing editor for the JAMA. ■



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