Editorial

Depression, Peripheral Artery Disease and Exercise; Is there a link?

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Editor

Depression may increase the risk for PAD (peripheral artery disease), which commonly results from narrowed leg arteries, a new study suggests.

The study results demonstrate that there is an association between depression and PAD. We know that if you have depression, your risk for PAD is likely related to poor health behaviors like smoking and physical inactivity. People who are depressed may be more likely to smoke and less likely to exercise and eat a healthy diet, all of which could raise the risk of heart disease and PAD.

The findings were presented at the American Heart Association's Arteriosclerosis, Thrombosis, and Vascular Biology 2012 Scientific Sessions in Chicago. In the study, 1,018 people with heart disease were followed for more than seven years. When the study began, 12% of people with depression had PAD, as did 7% of those who were not depressed. People who were depressed were more likely to be younger and female.

They were also more likely to have lower HDL ("good" cholesterol), high levels of C-reactive protein, which is a sign of inflammation in the body, and a history of heart attack, heart failure, or diabetes. They also tended to smoke and be physically inactive, and were less inclined to take their medications as directed.

7% of depressed people and 5% of those without depression had a PAD-related event during the study period. These included surgery to open blocked leg arteries or other treatments.

PAD occurs when arteries away from the heart become narrowed and blocked. The leg and pelvis arteries are most commonly affected. PAD involving the leg arteries can cause pain while walking, climbing stairs, or exercising. This pain usually stops during rest.

Risk factors for PAD are similar to those of heart disease, including smoking, diabetes, high blood pressure, and elevated cholesterol.

PAD treatment includes lifestyle changes -- such as eating a healthy diet, quitting smoking, and getting more exercise - that are aimed at reducing these risks. Medications to treat conditions that increase risk for PAD and/or surgery to open blocked leg arteries are also options. People having pain with walking or lesions on their feet, should be evaluated by a doctor to see if it is PAD.

Depression in itself cannot be called a red flag for PAD. But, we need to look at other risk factors in patients with depression. People who have depression are at increased risk for heart disease and PAD in the future, but at present, they are more at risk of having certain poor health behaviors that could increase their risk of heart disease.

Exercise helps people with heart failure feel a bit better, physically and emotionally, a new study shows. It may also lower a person's risk of dying or winding up in the hospital.

Up to 40% of people with heart failure grapple with depression. The combination often leads to poor health outcomes. One study found seriously depressed people with heart failure were more than twice as likely to die or be hospitalized over the course of a year compared to other people with heart failure who were not depressed. Whenever patients are more depressed, their motivation goes down. Their ability to keep up with their doctors' recommendations and do basic physical activities like walking goes down, thus making it a vicious cycle.

This study shows a non drug way to try to improve patients' mood and motivation. For this study, which is published in the journal of the American Medical Association, researchers assigned more than 2,322 stable heart failure patients to a program of regular aerobic exercise or usual care. Usual care consisted of information on disease management and general advice to exercise.

The exercise group started with a standard exercise prescription for patients in cardiac rehab: three, 30 minute sessions on either a treadmill or stationary bike each week. After three months, they moved to unsupervised workouts at home. At home, their goal was to get 120 minutes of activity a week. Just as happens in the real world, most exercisers fell short of their weekly goals. Despite the fact that they were not as active as they were supposed to be, they still had slightly better scores on a 63 point depression test than the group assigned to usual care. There was a little less than a one point difference between the two groups. But the differences persisted even after a year, leading researchers to think the result was not a fluke. And the exercisers were about 15% less likely to die or be hospitalized for heart failure compared with the group getting usual care.

Researchers think the differences between the two groups were small because most people in the study were not depressed to begin with. Only 28% had test scores high enough to indicate clinical depression. But the more depressed a person was, the more they had to gain from regular exercise. After a year, test scores of depressed patients were about 1.5 points better in the exercise group compared to those assigned to usual care.

We already know that exercise is beneficial in terms of improving cardiovascular fitness. Now we know that depression is also reduced in these patients after working out. For people who were more depressed, they experienced a greater reduction in their depressive symptoms with exercise, according to the study. The study shows exercise "is in the same ballpark" as other established treatments, particularly antidepressant medications.

This, places exercise as one of our most versatile tools to help combat a myriad of diseases, which now also includes depression and by its link, could also help reduce the incidence of Peripheral Artery Disease.