

Symptoms of depression linked to early stages of artery disease

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Depressive symptoms—especially physical signs, such as fatigue and loss of appetite—may be associated with thickening arteries, which may reflect an early sign of coronary artery disease, according to a report in the February issue of *Archives of General Psychiatry*, one of the JAMA/Archives journals.

Considerable evidence suggests that depression, anger and other negative emotions are associated with the risk for coronary artery disease, which occurs when the vessels carrying blood to the heart become narrowed and thickened. However, most studies have assessed the risk for heart attack or sudden cardiac death, according to background information in the article. Because these events are later steps in the development of coronary artery disease, it is currently unclear whether depression, anxiety and other negative emotions play a role in early disease processes.

Jesse C. Stewart, Ph.D., then at the University of Pittsburgh School of Medicine and now at Indiana University–Purdue University Indianapolis, and colleagues studied 324 men and women who were an average of 60.6 years old. At the beginning of the study, participants attended 11 visits in a five-month period, including a medical screening; testing for cardiovascular risk factors, including high blood pressure and high cholesterol; questionnaires to assess depression, anxiety, hostility and anger; and ultrasound tests to determine carotid artery intima-media thickness (IMT), a measure of the inner layers of the arteries that is related to early-stage coronary artery disease. Cardiovascular risk factors

and IMT were assessed again after three years.

"Regression analyses indicated that higher depressive symptoms at baseline were associated with greater three-year change in carotid intima-media thickness, even after taking into account demographic factors, cardiovascular risk factors, medication use, medical conditions and other correlated negative emotions," the authors write. "Measures of anxiety symptoms, hostility, anger experience and anger expression were each unrelated to intima-media thickness change."

To further understand the role of specific depressive symptoms in IMT, the researchers separated the condition down into two components: a somatic-vegetative score, which includes physical indicators such as fatigue and appetite disturbance, and a cognitive-affective score, which includes sadness, pessimism and other emotions associated with depression. Analysis of each component revealed that the somatic-vegetative score, but not the cognitive-affective score, was linked to IMT thickness.

"Taken together, our results indicate that depression, but perhaps not anxiety and hostility/anger, may be involved in the initiation and/or progression of atherosclerosis," or hardening of the arteries, the authors write. "More specifically, our findings suggest that the somatic-vegetative features of depression that are not shared with other negative emotions may play an important role in the earlier stages of coronary artery disease development."

Source: JAMA and Archives Journals

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