

Depression after heart disease diagnosis tied to heart attack, death

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New research shows patients with a history of chest discomfort due to coronary artery disease—a build up of plaque in the heart's arteries—who are subsequently diagnosed with depression are much more likely to suffer a heart attack or die compared with those who are not depressed. The study, scheduled for presentation at the American College of Cardiology's 65th Annual Scientific Session.

These results are in line with previous research showing that [depression](#) is associated with worse outcomes after a [heart attack](#) or bypass surgery. But this is the first large population study to look at how a new diagnosis of depression might affect people with [coronary heart disease](#), according to researchers.

The study included 22,917 patients from 19 medical centers in Ontario, Canada, who received a diagnosis of stable [coronary artery](#) disease following [coronary angiogram](#) for chest pain ([chronic stable angina](#)) between Oct. 1, 2008, and Sept. 30, 2013. Individuals with CAD who were found to be depressed were 83 percent more likely to die of any cause compared with those with the same condition who were not depressed during follow-up (average of three years). They were also 36 percent more likely to present at a hospital having a heart attack during the same time period. Depression did not, however, impact the likelihood of needing bypass surgery or coronary stent placements.

"Patients who develop depression after being diagnosed with heart disease have a much worse prognosis," said Natalie Szpakowski, M.D., an internal medicine resident at the University of Toronto and lead author of the study. "Our findings suggest that these patients may need to be screened for mood disorders, whether it's by their family doctor or cardiologist."

She said that because there was no interval of

time within which these patients were more likely to develop depression, any screening should be done at regular intervals of time to avoid missed opportunities to intervene.

Patients diagnosed with depression were more likely to be women and report more severe chest pain based on a validated angina scale. Other factors that predicted depression included smoking, diabetes or having a greater number of co-existing medical conditions.

"This is consistent with the literature in that women are more prone to depression, whether it's due to sex hormones or social roles we don't fully know," Szpakowski said. "Other studies have also found that more severe [chest pain](#) has been linked to depression, and we know people with more medical illnesses are more susceptible to being depressed."

To be included in this study, patients had to show evidence of more than 70 percent narrowing in the arteries of the heart and more than 50 percent in the left main coronary artery. Researchers excluded patients if they had a history of depression or ever had a heart attack, other cardiac event requiring hospitalization, [bypass surgery](#) or a stent placed. Physician billing codes and hospital admissions were used to determine new diagnoses of [major depression](#). Data was collected for all-cause mortality and time to readmission for heart attack and revascularization, and analyses controlled for other cardiovascular risk factors.

"Based on these findings, there may be an opportunity to improve outcomes in people with coronary heart disease by screening for and treating mood disorders, but this needs to be further studied," Szpakowski said. "Stable chronic angina due to narrowing of the coronary arteries is common, and our findings show that many of these patients struggle with depression. Our follow-up was at most five years, so many more might be affected."

Szpakowski said she cautions that the study design may have captured patients with psychosocial distress in addition to major depressive disorder. She said this could have diluted the findings, meaning that the impact of depression on outcomes could be even stronger in patients with true depression. The research is also restricted to [patients](#) who had a coronary angiogram, who may have had more severe disease or symptoms.

Additional studies are needed to evaluate the utility of screening for and treating depression in this population. The study was funded by the Canadian Institute of Health Research and the Sunnybrook Health Sciences Centre.

More information: The study, "Clinical Consequences Of A New Diagnosis Of Major Depressive Disorder In Patients With Stable Ischemic Heart Disease," will be presented on April 4, 2016, at 10:15 a.m. CT/11:15 a.m. ET/4:15 p.m. UTC at the American College of Cardiology's 65th Annual Scientific Session in Chicago. The meeting runs April 2-4.

Provided by American College of Cardiology

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