Elevated Risk of MI Seen in Men Who Are Anxious

A 10-year study of 740 initially healthy men found that anxiety independently predicted chances of MI.

BY DAMIAN McNA马拉
Miami Bureau

MIAMI — Anxiety in men may be a robust, independent predictor of the 10-year incidence of myocardial infarction, according to a study presented at the annual conference of the Anxiety Disorders Association of America.

“This is kind of exciting because most work has been done with psychosocial factors like depression and hostility,” Yael Avivi, a doctoral student in the department of psychology at the University of Miami. Her associates, including lead author Bing-Jiun Shen, Ph.D., analyzed data that included a more comprehensive assessment tool to look for a possible association between anxiety and subsequent MI. The study assessed follow-up data for 740 healthy men who entered the Veterans Administration Normative Aging Study in 1986. Initial assessments included the Minnesota Multiphasic Personality Inventory, a comprehensive physical examination, and risk factors for cardiovascular disease. The participants did not have diabetes or a history of MI. The mean age at study entry was 60 years.

The researchers calculated an overall anxiety factor for each participant based on a combined score from four anxiety scales used in the Minnesota Multiphasic Personality Inventory. Those included measures for psychasthenia and social introversion, as well scores from the Wiggins phobia scale and the Taylor Manifest Anxiety Scale.

During the 10 years of follow-up, there were 60 new-onset myocardial infarctions, including two fatal heart attacks. The researchers used hierarchical logistic regression to predict the likelihood of an MI using the composite score and each of the four anxiety constructs.

“We looked at the odds ratios for predicting new MI incidence when controlling for age, education, marital status, weight, blood pressure, glucose, cholesterol, drinking, smoking, and caloric intake,” Ms. Avivi said. “We could control for those and still see a significant effect.”

The overall anxiety factor was an independent and significant predictor of subsequent MI in the sample population (odds ratio, 1.46). Also, each of the four anxiety components independently and significantly predicted MI: psychasthenia (odds ratio, 1.42), social inhibition (odds ratio, 1.36), phobia (odds ratio, 1.44), and Taylor Manifest Anxiety (odds ratio, 1.50). In addition, being single and having lower HDL cholesterol levels predicted onset of MI in a multivariate analysis.

“We can see that depression and other psychosocial factors explain this association,” she said. Interestingly, these other psychosocial factors could not explain the link between anxiety and the new cases of MI that emerged in this study. After controlling for depression, anger, hostility, type A personality, and perceived stress, anxiety remained an independent predictor of a subsequent MI.

The researchers divided patients into quartiles based on their anxiety scores. “We also saw a dose-response effect,” Ms. Avivi said. “People with the highest anxiety scores had the highest incidence of MI.”

The association between anxiety and acute myocardial infarction was not surprising to Dr. James J. Ferguson, chairman of the Research Committee at the Texas Heart Institute, Houston. Still, he commented, the results could have important implications for any physician treating patients with anxiety. “Yes, these people are at risk, but what can we do about it?” he asked. He described the findings as an important first step, but added that “there is a long way to go before we understand how changing anxiety or stress can affect outcomes” and noted that the study did not address that point.

Mechanisms that would explain the relationship between anxiety and CHD are not clear, and subsequent MI remain unknown and require further study, Ms. Avivi said. Anxiety might adversely affect health behaviors, promote arteriosclerosis, or trigger fatal coronary events through arrythmia, plaque rupture, coronary vasospasm, or thrombosis (Ann. Behav. Med. 1998;20:47-58).

General distress across a range of negative emotions might play an important role in the relationship between psychosocial factors and coronary heart disease. According to a recently published study that also was based on follow-up data from the Veterans Administration Normative Aging Study (Ann. Behav. Med. 2006:31:21-9).

Those researchers also concluded that aspects of anxiety may independently increase the risk for coronary heart disease. However, they also assessed anger and depression in their cohort, and they urged future researchers to consider a shared component of these features as a possible explanation for the elevated coronary disease risk.

Be Culturally Sensitive in Screening

BY JANE SALODOF MaccNeIl
Southwest Bureau

SANTA ANA, PUEBLO, N.M. — Different populations may require different screening instruments for depression, according to investigators who compared the accuracy of methods for detecting depression in 209 terminally ill cancer patients in Japan.

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