

Post-AMI Anxiety Raises Risk of Complications

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CHICAGO — The high anxiety that many women have after an acute myocardial infarction may explain their high complication rate, compared with men, and it may offer a new way to improve patient outcomes.

“Early recognition and effective treatment of anxiety immediately after a myocardial infarction may decrease morbidity and mortality,” Debra K. Moser, D.N.Sc., said while presenting a poster at the annual scientific sessions of the American Heart Association. “Anxiety is a target for intervention.

“One of the things most lacking in clinical cardiology today is the assessment of anxiety and depression” in AMI patients, she said.

The Brief Symptom Inventory (BSI) is the way that Dr. Moser and her associates have measured anxiety in patients after an acute myocardial infarction (AMI), and treatment can include an anxiolytic drug as well as psychosocial interventions such as cognitive-behavioral therapy, said Dr. Moser, professor of nursing at the University of Kentucky, Lexington.

She and her associates examined the role of anxiety after AMI in 635 men and 244 women who were enrolled at several centers in the United States and four other countries. Their anxiety levels were measured within 72 hours of their hospital admission for their AMI using the BSI.

The BSI is a reliable and validated measure that uses six questions to measure anxiety, said Dr. Moser. Each question is rated on a scale of 0-4 (0 is the lowest level), and the scores from all six questions are summed and then averaged. A score of 0.33 or less indicates no anxiety. A score of 0.4 or more indicates clinically significant anxiety, especially if the score persists at this level over time. A score of 1.7 is what is typically seen in psychiatric patients who are hospitalized for anxiety disorders. Results from prior studies by Dr. Moser and her associates showed that about 44% of AMI patients have mild or moderate anxiety, and about 25% have a BSI score of 1.7 or higher (the remaining patients do not have anxiety).

The average post-MI BSI score among the women in this study was 0.77, compared with an average score of 0.57 among the men, a statistically significant difference. Complication rates also showed a gender split, with a rate of 33% in women and 24% in men, a significant difference. The complications included in this tally were repeat infarctions, ventricular tachycardia that was sustained or that required intervention, ventricular fibrillation, acute recurrent ischemia, heart failure, cardiogenic shock, or death.

In a multivariate analysis that controlled for clinical and demographic differences among the patients, patients who had a BSI score that indicated anxiety had a significant 66% higher rate of complications, compared with patients who were not anxious. Other significant determinants of an increased complication rate were smoking and a Killip class of II-IV. The analysis

also showed that two factors were linked with significant protection against complications: treatment with a thrombolytic drug, and treatment with an anxiolytic drug, which was associated with a 44% drop in the rate of complications.

The results also showed that the complication rates of men and women were similar if they were treated with an anxiolytic drug.

Activation of the sympathetic nervous system probably forms the physiologic

link between anxiety and complications after an AMI. Sympathetic activation then causes effects such as vasoconstriction and platelet activation, Dr. Moser said.

Typical anxiolytic drugs used on AMI patients by Dr. Moser’s group include alprazolam (Xanax) and diazepam (Valium). It’s important to start such drugs quickly once anxiety is first diagnosed post MI, but they can be stopped once the anxiety is relieved, often within a day. Dr. Moser recommended assessing anxiety levels early

during AMI treatment, and then again when a patient is discharged from the intensive care unit, at the time of hospital discharge, at the first physician visit after hospital discharge, and then at 3, 6, and 12 months after the MI.

It’s also important to use nonpharmacologic treatments too, although few data exist on the best approaches to treatment. Dr. Moser’s group is currently testing the efficacy of cognitive-behavioral therapy in post-AMI patients. ■

