Women Wait Longer for Emergency Angioplasty

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Contributing Writer

Women who presented to Michigan hospitals with acute ST-segment elevation myocardial infarction waited significantly longer than men to undergo emergency angioplasty—and even men waited too long according to Mauro Moscucci, M.D., of the university.

"We have an ideal target for quality improvement, something we can easily try to correct," said Dr. Moscucci, who presented the data at the scientific sessions of the American Heart Association and discussed the findings in a later interview. "If we can improve our treatment times, we can substantially reduce the risk of death."

Dr. Moscucci and his associates analyzed data collected on 1,551 patients who had primary percutaneous coronary intervention for acute ST-segment elevation during a 20-month period ending in June 2004. Patients had the procedure at 1 of the 16 hospitals participating in the regional Blue Cross Blue Shield of Michigan Cardiovascular Consortium.

The investigators found that only 26% of the 442 women who had an emergency angioplasty—and 34% of the 1,069 men—had the procedure within the 90-minute time frame recommended by the American Heart Association and the American College of Cardiology.

On average, women waited more than 118 minutes before treatment began, compared with 106 minutes for men.

Patients of both sexes whose angioplasty began within 90 minutes of arrival at the hospital had a 50% lower risk of dying in the hospital than those who waited longer, said Dr. Moscucci, director of interventional cardiology at the University of Michigan Cardiovascular Center, Ann Arbor.

"Since there's been such a focus on angioplasty recently, we wondered whether the recommended door-to-balloon time of 90 minutes was still significant in terms of survival," he said. "We found that it's still an important predictor of in-hospital mortality, and that perhaps we're not doing as well as we should."

Women in the study were more than twice as likely as men to die in the hospital; their mortality rate was about 7%, compared with about 3% in men. When the investigators adjusted for the average older age of women and the higher frequency of comorbidities, they still found higher in-hospital mortality rates for women, Dr. Moscucci said.

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The gender-difference findings augment a growing body of research showing that women with heart attacks seek care later, present more often with atypical symptoms and comorbidities such as severe diabetes, and face delays in treatment, he said.

In addition to the greater delays in treatment, the Michigan study showed that it takes longer for women to get to an emergency department in the first place.

Women reported that their symptoms started an average of 105 minutes before they got to the emergency department; the average time for men was 85 minutes.

Dr. Moscucci said that hospital procedures for activating cardiac catheterization labs vary significantly. Labs could be activated faster—which, along with faster diagnosis, would help hasten door-to-balloon times—if more ambulances had the capability to automatically read or transmit ECGs and if more hospitals allowed emergency physicians and not just cardiologists to activate the labs directly, he said.

A recent survey of more than 1,000 women older than 35 years showed that only 47% of women who had head, neck, back, and jaw pain—typical heart attack symptoms—would call their doctor, and just 35% would call 911 or visit an emergency department.

"Women and their families still need a great deal of education. Their symptoms can be very atypical—perhaps only weakness, difficulty breathing, or dizziness," said Michael J. Bresler, M.D., professor of emergency medicine at Stanford (Calif.) University. Women in whom heart attack is diagnosed "should be rushed to the cath lab or quickly given a lytic drug if immediate catheterization isn't available," he said. ■