Hospitals without on-site cardiac surgery can perform non-emergency angioplasty safely and effectively

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(Medical Xpress) -- Patients who have non-emergency angioplasty to open blocked heart vessels have no greater risk of death or complications when they have the procedure at hospitals without cardiac surgery backup. That is the conclusion of a national a study to assess the safety and effectiveness of such procedures at community hospitals.

Results of the study, called the Cardiovascular Patient Outcomes Research Team Elective Angioplasty Study (C-PORT-E), are being presented on March 25 at the American College of Cardiology (ACC) annual meeting in Chicago. The study also will be published online by the New England Journal of Medicine to coincide with the ACC presentation.

The study, led by Johns Hopkins cardiologist Thomas Aversano, evaluated the nine-month outcomes of 18,867 patients who were randomly assigned to have elective heart artery-opening angioplasty or stenting at hospitals with or without cardiac surgery capability.

“Our composite endpoints in the study—death, heart attack, and blockage again in the vessel that was opened with angioplasty—showed similar results at nine months whether the procedure was performed at a hospital with or without cardiac surgery backup,” says Aversano, who is an associate professor of medicine at the Johns Hopkins University School of Medicine.

He says that there was a small difference among the two groups regarding the need for revascularization—a second procedure to open the same vessel.

“We found that more patients treated at community hospitals without surgery backup required a repeat procedure within 9 months. The size of the difference in repeat procedure rates between hospitals with and without on-site cardiac surgery is small, between 11 and 17 additional procedures for every 1,000 treated patients.” He adds, “The reason for the difference is not clear except that it may reflect a more conservative approach at treating the blockage among interventional cardiologists at hospitals without cardiac surgery capability.”

The study included 60 hospitals in 10 states without cardiac surgery backup. In order to participate in the study, those hospitals had to perform a minimum of 200 angioplasty procedures each year and develop a formal angioplasty development program to prepare their staff and establish protocols and policies.

Emergency angioplasty is performed during a heart attack, when a vessel needs to be opened right away to restore blood flow in the heart. Non-emergency procedures are offered to patients with blockages that may be causing chest pain.

During angioplasty, a tiny balloon is inflated within a coronary artery to push away plaque that is causing a blockage in the vessel. Stents, which act like tiny scaffolds, also can be put in place to keep the artery open. In rare cases, the procedure can cause a tear in the vessel or closing of the artery, requiring open heart surgery to repair the problem.

Until a recent change in guidelines by the American College of Cardiology and the American Heart Association, non-emergency angioplasty was not recommended at community hospitals without

cardiac surgery backup in case there were complications that required emergency surgery. Dr. Aversano says results of the study support the change in the guidelines.

The researchers do not believe that every hospital should be performing angioplasty. However, they wanted to know if hospitals that already offer emergency angioplasty to open blocked coronary arteries in heart attack patients can also safely and effectively perform elective angioplasty.

About 850,000 angioplasties are performed in the United States each year. “The goal of our study,” says Aversano, “is to give health care planners the best possible information on which to base their decisions about the allocation of resources, so that patients can have access to the highest quality of care.”

The CPORT study centers, which include Johns Hopkins, Duke University and Clinical Trials and Surveys Corp. (formerly the Maryland Medical Research Institute), are funded by the hospitals participating in the study.

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