

Prior cardiac surgery does not mean worse outcomes for STEMI patients who receive stent

October 23 2012

Contrary to previous data, patients with prior open heart surgery, or coronary artery bypass graft surgery (CABG), who have a severe heart attack (STEMI) and receive a coronary stent have similar outcomes to patients without previous CABG, based on study of a large, prospective, regional STEMI network, being presented Oct. 23 at the 2012 Transcatheter Cardiovascular Therapeutics (TCT) conference.

Recognizing that the majority of data indicating worse outcomes for STEMI patients with prior CABG came from an older era of heart attack treatment, researchers at the Minneapolis Heart Institute Foundation and Minneapolis Heart Institute® (MHI) at Abbott Northwestern Hospital in Minneapolis sought to assess contemporary outcomes in its regional STEMI network from April 2003 to December 2011.

"Traditionally, it is believed that patients with prior CABG are at much higher risk, are less likely to receive reperfusion therapy and have worse outcomes; thus, these patients have been frequently excluded from clinical trials," explains Timothy D. Henry, MD, an interventional cardiologist at the MHI at Abbott Northwestern and director of research with the Minneapolis Heart Institute Foundation. "As a result, there is limited contemporary data on these challenging patients, and they often didn't receive the current standard of care for STEMI, which is percutaneous [coronary intervention](#) (PCI)."

Of the 3,552 consecutive STEMI patients in the study, 7.1 percent had prior CABG. These patients were older, more frequently male and had increased prevalence of diabetes. The prior-CABG group also had lower baseline [ejection fraction](#), lower current smoking rates and were less likely to have a lesion identified as the clear culprit of the heart attack.

"In addition, these patients frequently have abnormal baseline EKGs and challenging coronary anatomy," Dr. Henry said. "While patients with prior-CABG in this study did have a slightly lower rate of reperfusion, our reperfusion rate was still much higher compared with previous studies."

Patients in both groups had similar door-to-balloon times and both in-hospital stays (4.8 vs. 5 percent) and 30-day stays (4.8 vs. 5.7 percent) were similar. At one year, patients with prior CABG had numerically higher mortality (10.8 vs. 9 percent) which was not statistically significant.

Prior studies have suggested increased mortality in patients with prior CABG, but that "may have reflected the lower rates of reperfusion and older PCI strategies," according to the study authors.

"The outcomes of both arms are excellent and very similar, which is promising," Dr. Henry states. "The one group in whom the outcomes were slightly worse—but not statistically worse—were those prior-CABG patients in whom the saphenous vein graft was the culprit lesion for the heart attack."

Based on their findings, the researchers concluded that STEMI outcomes in patients with prior CABG, regardless of the culprit lesion, may be as good as STEMI patients overall when treated with a uniform protocol with the same rapid treatment.

"These results are another example of the benefits of a regional STEMI network, and its ability to provide more unified care," Henry states.

Provided by Minneapolis Heart Institute Foundation

Citation: Prior cardiac surgery does not mean worse outcomes for STEMI patients who receive stent (2012, October 23) retrieved 19 April 2024 from

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