

Comparison of anticoagulants for angioplasty show similar outcomes

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In a comparison of anticoagulants and stents for use with angioplasty following a heart attack, the anticoagulants abciximab and tirofiban had similar outcomes for some cardiac measures within 90 minutes after the procedure, while patients who received stents that released the drug sirolimus had a lower risk of major adverse cardiac events within 8 months than patients who received uncoated stents, according to a JAMA study being released early online March 30 to coincide with its presentation at the annual conference of the American College of Cardiology. The study will be published in the April 16 issue of JAMA.

Infusion with abciximab and implantation of an uncoated-stent is a treatment strategy used to reduce major adverse cardiac events (MACE) in patients undergoing angioplasty (percutaneous coronary intervention [PCI]) for ST-segment elevation myocardial infarction (STEMI; a certain pattern on an electrocardiogram following a heart attack). It is uncertain whether there may be similar benefits in replacing abciximab with tirofiban, which could have clinical and economical implications. Drug-releasing stents reduce the need for repeat subsequent procedures to open obstructed blood vessels after elective PCI compared with uncoated stents, however their use in this patient population is discouraged because of conflicting efficacy results and safety concerns.

Marco Valgimigli, M.D., Ph.D., of the Cardiovascular Institute, University of Ferrara, Italy, and colleagues evaluated the effect of high-dose tirofiban and sirolimus-releasing stents compared with abciximab infusion and uncoated-stent implantation in 745 patients with STEMI

undergoing PCI. The trial was conducted in Italy, Spain, and Argentina between October 2004 and April 2007.

The researchers found that among the 722 patients (97 percent) who had an interpretable electrocardiogram, at least 50 percent resolution of ST-segment elevation on the electrocardiogram at 90 minutes following PCI occurred in 302 of 361 patients (83.6 percent) and 308 of 361 patients (85.3 percent) in the abciximab and tirofiban groups, respectively. Ischemic and hemorrhagic outcomes were similar in these groups.

At 8 months, the MACE rate was similar among those who received tirofiban (9.9 percent) and those who received abciximab (12.4 percent) but was higher among those who were treated with the uncoated stent (54 patients, 14.5 percent) compared with those who were treated with the sirolimus-releasing stent (29 patients, 7.8 percent). Revascularization (repeat procedure to unblock a blood vessel) was reduced from 10.2 percent with the uncoated stent to 3.2 percent with the sirolimus-releasing stent.

“In summary, our study provides evidence that in a broad population of largely unselected patients undergoing PCI for STEMI, tirofiban therapy is associated with a noninferior resolution from ST-segment elevation at 90 minutes postintervention compared with abciximab, and at 8-month follow-up, MACE are approximately halved by sirolimus-eluting stent implantation compared with uncoated stents,” the authors write.

Source: JAMA and Archives Journals

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