Landmark study reveals superiority of bivalirudin in heart attack patients at 30 days

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The Cardiovascular Research Foundation (CRF) announced today that the New England Journal of Medicine published results of the HORIZONS AMI trial which showed the use of the anticoagulant bivalirudin following angioplasty in heart attack patients reduced net adverse clinical events by 24 percent compared to the standard treatment, as well as reduced the risk of overall mortality by 33 percent and cardiac mortality by 38 percent.

The study, led by Gregg Stone, M.D., Chairman of the Cardiovascular Research Foundation and professor of medicine at Columbia University Medical Center/New York-Presbyterian Hospital, compared bivalirudin to heparin plus glycoprotein IIb/IIIa inhibitors in more than 3,600 patients with the most severe form of heart attack called ST-elevation myocardial infarction (STEMI).

The CRF-sponsored trial is the largest study to focus on the appropriate use of anticoagulation medications and drug-eluting stents in STEMI patients. It was also named one of the “Top Ten Research Advances” for 2007 by the American Heart Association.

“The HORIZONS AMI data show that using bivalirudin instead of heparin with a GPI during angioplasty markedly reduced major bleeding and other complications, and thereby improved survival in patients with heart attacks,” said Dr. Stone. “As the first large-scale study in decades to show a reduction in death in patients with heart attack, we expect this new therapy, which is simple to use and cost-effective, to rapidly

become widely adopted around the world."

Dr. Stone emphasized the importance of reducing the risk of bleeding. "This study demonstrated that bivalirudin use is safer than previous standard anticoagulant therapy, effectively preventing the ischemic complications of AMI without causing excess bleeding or other blood disturbances. Bleeding is a strong predictor of short and long-term mortality in patients undergoing angioplasty, and its prevention may be directly linked to the improved survival we observed with bivalirudin in high risk heart attack patients in this trial."

Patients enrolled in the HORIZONS AMI trial were also randomly assigned to receive either Taxus drug-eluting stents or a bare-metal stent. Data on this portion of the study – also a landmark comparison of drug-eluting stents to bare-metal stents – will be available in October at CRF's annual scientific symposium, TCT 2008.

Source: Cardiovascular Research Foundation