PCI Beats Repeat Thrombolysis Treatment for MI, Study Shows

BY MITCHEL L. ZOLER
Philadelphia Bureau

NEW ORLEANS — When thrombolysis fails to fully unblock the infarct-related artery of a patient with an acute myocardial infarction, percutaneous coronary intervention (PCI) bears the brunt of treating patients, said Dr. Gershlick, a cardiologist at University Hospital in Leicester, England. The results of the new study “tell us that you need to assess patients 90 minutes after thrombolysis with ECG to see if thrombolysis was successful.”

“These results should have an impact on practice,” commented Eric R. Bates, M.D., a professor of internal medicine at the University of Michigan in Ann Arbor. Community hospitals that use thrombolysis but lack a catheterization laborato- ry will need to collaborate with an angioplasty cen- ter that can treat their patients who fail thrombo- lysis, Dr. Bates said.

The study was done at 35 United Kingdom hos- pitals. Patients with an acute MI who received standard lytic therapy and aspirin underwent a repeat PCI, 30% of 141 patients treated with conservative therapy, and 31% of 142 patients treated with re- peat thrombolysis, a statistically significant differ- ence in favor of PCI. PCI led to consistent reduc- tions in death, repeat MI, and severe heart failure. Stroke incidence was similar in all three groups. Treatment with PCI also led to a higher rate of major bleeding events, 19%, compared with 5% in the repeat lytic group and 16% in the conservatively managed group. Of the 27 patients with major bleeds in the PCI group, 22 cases involved shear complications during coronary catheterization. The incidence of severe complications from bleed- ing were similar in the three groups.

The average time from the onset of pain to when patients received their first thrombolytic treatment was 140 minutes. Patients who received a second dose of a lytic drug got it an average of 190 min- utes later; patients who received PCI were treated an average of 274 minutes later, an average delay of 84 minutes beyond the thrombolytic group. Thus, the patients treated by rescue PCI got their definitive treatment nearly 7 hours after onset of chest pain. Despite this long delay to definitive treatment, these patients still did better than the comparator groups, Dr. Gershlick said.

Factors ID Poststroke Cardiac Risk

BY SHERRY BOSCHERT
San Francisco Bureau

SAN FRANCISCO — Patients with at least two of five risk fac- tors after a transient ischemic attack or acute ischemic stroke should be admitted to a hospi- tal’s telemetry bed, be- cause they have a high- er risk for a significant cardiac event, Peter D. Panagos, M.D., said. Dr. Panagos and his coinvesti- gators after a transient ischemic attack or acute ischemic stroke (AIS) found that 16% developed a significant cardiac event within 48 hours of admission to the hospital, he said at the annual meeting of the American Col- lege of Emergency Physicians. A significant cardiac event consist- ed of ECG changes consistent with new-onset arrhythmia or new ischemia, elevated heart en- zymes (troponin I), or cardiac re- lated death. Significant cardiac events were more likely to occur in patients with diabetes, hypertension, a current smoking habit, coronary artery disease, and/or a suspect- ed cardioembolic stroke subtype, said Dr. Panagos of Brown Uni- versity, Providence, R.I. At his institution, if a post- TIA or post-AIS patient has two of these five risk factors, “we tend to admit these patients to telemetry beds instead of floor beds now,” he said.

Patients without these risk fac- tors may not need high-acuity beds, which free the telemetry beds for those who need closer monitoring, he added.

Among all patients studied, 26% had diabetes, 70% were hy- pertensive, 27% were smokers, and 23% had cardiovascular dis- ease. When the strokes were classified by subtypes, 26% were found to be cardioembolic, 32% were large-artery atherothrom- boembolic, 32% were small-ves- sel thrombotic, and 10% had other etiologies.

Demographic factors and oth- er risk factors did not influence the risk for a significant cardiac event. Other risk factors includ- ed cerebrovascular disease (found in 33% of patients), hy- perlipidemia (in 41%), atrial fibril- lation (in 20%), and a family history of heart disease (in 30%). Patients in the study had a mean age of 70 years, and 55% were women.

The current study is one of the first to evaluate the short- term risk for cardiac morbidity after a TIA or AIS. Previous studies identified a 13% risk for a recurrent TIA or death within 90 days of the in- dex event. Dr. Panagos and his coinvesti- gator, Alyson J. McGregor, M.D., said the PCI treated group went on to review more patient records to increase the size of this relative- ly small study.

Breathing Check Improves Cardiac Arrest Detection

BY BRUCE JANCIN
Denver Bureau

NEW ORLEANS — Tweaking emergency dispatcher as- sessment protocols to add a few simple questions regarding ago- nal breathing markedly increas- es the rate of cardiac arrest de- tection over the phone,Ahamed H. Idris, M.D., reported at the annual scientific sessions of the American Heart Association.

The net result is a greater than 30% increased likelihood that CPR will be started by by- standers as a result of the 911 call, well before emergency medical services (EMS) person- nel can arrive on the scene. And that in turn substantially increases the chances for survival, added Dr. Idris, professor of emergency medicine at the University of Texas, Dallas.

In a separate presenta- tion, investigators de- scribed another novel ap- proach to improving the rate of prompt CPR by lay rescuers in out-of-hospital cardiac arrests. This time, they probed through the use of a new, brief, self-guided CPR video instruction method for the general public that takes only one-eighth the time of the traditional 4-hour CPR group class.

Dr. Idris noted that studies from Sweden, Seattle, and Dallas have independently shown that CPR is withheld from up to 40% of people with out-of-hospital cardiac arrest because potential rescuers or 911 dispatchers mis- interpret agonal breathing as an indication that the individual is not in cardiac arrest. In fact, agonal breathing—a dis- tinctively slow breathing pattern in which the collapsed person ap- pears to be gasping for air—is an extremely common occurrence shortly after the respiratory cen- ter in the brainstem becomes de- prived of oxygen-rich blood.

“That’s the time people are most likely to actually be saved if they receive interven- tion,” according to Dr. Idris, a member of the AHA Emergency Cardiovascular Care Committee. “We can’t attract a younger crowd. The AHA has set an ambi- tious goal of training 20 million people per year and is now train- ing 9 million. To train more members of the general public in CPR, the AHA commissioned the development of a 30-minute CPR self-training kit designed for home or work settings.

The kit was tested in a ran- domized controlled trial in 285 Portland, Ore. area 40- to 70- year-olds. Three-fifths used the kit, one fifth took the standard 4- hour CPR course, and the re- mainder received no training. CPR skills testing by blinded evaluators immediately after the training demonstrated that the kit users were as skilled as those who had completed the stan- dard class. When skills retention was tested 2 months later, the two groups remained closely comparable. The study was sponsored by the National Heart, Lung, and Blood Institute and the American Heart Association. Because of the kit’s success, the AHA decided to seek funding from the federal government to produce and distribute the kit to the public. The kit should be commer- cially available by midyear.