Missed opportunities: Most heart attack patients are not taking preventive medications

November 15 2010

Despite a high frequency of cardiac risk factors, patients without known coronary artery disease (CAD) presenting with acute heart attacks, or ST-elevated myocardial infarction (STEMI), are rarely on primary prevention medications, according to study findings to be presented Nov. 15 at the 2010 annual American Heart Association (AHA) Scientific Sessions in Chicago.

The decreasing incidence of STEMI due to acute coronary thrombosis is at least partially related to increased use of primary and secondary prevention, in particular anti-platelet and lipid-lowering therapies, according to the study authors. Still, nearly 400,000 present annually with STEMI in the United States.

"We hypothesized that the use of evidence-based preventive therapy in patients presenting with STEMI would be sub-optimal," says study investigator Kevin J. Graham, MD, president of the Minneapolis Heart Institute® at Abbott Northwestern Hospital in Minneapolis.

As part of the Minneapolis Heart Institute Level 1 MI program, which uses a standardized protocol for percutaneous coronary invention (PCI) in STEMI patients in 32 rural and community hospitals, preadmission medications in patients admitted with STEMI are recorded using each patient's electronic medical record.

The researchers assessed the percentage of patients treated with aspirin, statins, and ACE-inhibitors in patients with and without previously diagnosed CAD. From May 1, 2007 to March 1, 2010, they enrolled 1,174 patients with documented STEMI—358 with known CAD and 816 without known CAD.

"For those patients with known CAD, 100 percent should be taking aspirin and 90 percent on a statin, but we found only 70 percent were taking aspirin and only 61 percent were taking a statin," explains Graham. "Equally disconcerting is the 815 patients without known coronary disease, half of whom had hypertension and slightly less than half had known hyperlipidemia, and only 22 percent were taking aspirin and 16 percent were taking a statin."

The study authors suggest that the potential reasons for this gap include absence of indications for primary prevention by current guidelines, no previous medical care, inadequate risk factor identification and modification or non-compliance. They add that the use of secondary prevention medication in patients with known CAD was "significantly lower than expected."

"Efforts aimed at detecting early cardiovascular disease and better compliance with appropriate preventive cardiovascular medications may, if successful, produce even further reductions in cardiovascular morbidity and mortality," the researchers conclude.

"Prevention works. These findings speak strongly to the benefits of initiating and maintaining appropriate medication regimens in at-risk patients to prevent vascular events," concludes Graham.

Provided by Minneapolis Heart Institute Foundation