

CARDIOLOGY

Watch for the Patient with AMI-Plus

About 30% of patients newly admitted for an acute myocardial infarction (AMI) have at least one other acute, noncardiac (NC) condition that would warrant hospital admission, according to a study of 1,145 patients at Yale New Haven Hospital (YNHH), New Haven, CT. Moreover, the NC condition may be just as dangerous—if not more so. In the study, almost one in 12 patients with AMI presented with an acute, life-threatening, NC condition (such as pneumonia that required intubation, stroke, or end-stage cancer). One in five presented with another significant, but not immediately life-threatening, condition (such as delirium, acute renal failure without dialysis, or chronic obstructive pulmonary disease).

The severity of the disease is crucial, say the researchers—from YNHH, Yale University School of Medicine, New Haven, CT; Massachusetts General Hospital, Boston; and New York University Medical Center, New York. Roughly one quarter of patients who had AMI plus an acute, life-threatening, NC condition died in the hospital, compared with 9% of those with another significant NC condition and 4.6% of those with AMI alone.

Notably, clinical presentation of the AMI differed for patients with accompanying NC conditions. For example, they were less likely to have documented chest pain and had higher rates of hypotension and elevated pulse than patients who presented without NC conditions. And the time from symptom onset to hospital presentation, though recorded less frequently, was shorter for the “AMI-plus” group.

The researchers acknowledge that treating patients who present with comorbidities is a Gordian knot for physicians—who face at least two complicated conditions with the knowledge that interventions to help one may worsen another. In this study, patients with AMI plus life-threatening or significant NC conditions were less likely to have been given angiotensin-converting enzyme inhibitors, antiplatelet agents, intravenous heparin, intravenous nitroglycerin, and beta-blockers within the first 24 hours. They also had lower rates of cardiac catheterization, percutaneous coronary intervention, coronary artery bypass graft surgery, and intra-aortic balloon pump use.

Furthermore, these patients (especially those with life-threatening NC conditions) were at higher risk for adverse clinical events in the hospital. They had higher rates of heart failure, hypotension, cardiac rupture, and unexpected cardiac arrest and a longer mean length of stay.

Current medical literature doesn't describe this high risk subgroup of patients with AMI, the researchers say, nor do current guidelines address their treatment—in part because many are excluded from studies by the very condition that puts them at risk.

Source: *Am J Med.* 2006;119:843–850.

NEUROLOGY

What Kind of Back Pain?

Lower back pain (LBP) can have both nociceptive and neuropathic components—and knowing which type a patient is experiencing is crucial to treatment. Researchers from Universitätsklinikum Düsseldorf in Düsseldorf, Universitätsklinikum Schleswig-Holstein in Kiel, Pfizer Pharma GmbH in Karlsruhe, and

Technische Universität München in München, all in Germany, think they have the answer to differentiating the two. Working with the German Research Network on Neuropathic Pain, they developed the painDETECT questionnaire (PD-Q) in a prospective, multicenter study and subsequently applied it to patients with various LBP problems.

To detect neuropathic pain (NeP) components, the PD-Q addressed the quality of pain, the pain course pattern, and the presence of radiating pain. Of the 7,772 patients who completed the PD-Q, 2,876 (37%) were found to have predominantly NeP (a score of 19 or greater) and 2,743 (35%) had predominantly nociceptive pain (a score of 12 or less).

Patients with NeP showed higher ratings of pain intensity, with more—and more severe—comorbidities, such as depression and panic, anxiety, and sleep disorders. On the basis of average pain intensity reported for the previous four weeks, 43% were suffering severe pain (indicated by a score of higher than 7 to 10 on an 11-point scale), compared with 24% in the nociceptive group. In addition, patients with NeP visited a physician more often, were more likely to have different therapists, had more psychotherapy, and had a longer duration of pain treatment.

The PD-Q showed 84% sensitivity, specificity, and positive predictive accuracy in a hand-held computer version and 85%, 80%, and 83%, respectively, in a pencil-and-paper version—a slightly higher sensitivity and specificity in comparison to other NeP screening tools, the researchers say. The PD-Q is particularly suitable for initial LBP screening, they say, such as in a waiting room. ●

Source: *Curr Med Res Opin.* 2006;22:1911–1920.