CLINICAL CAPSULES

Sudden Death in First Month After MI

The risk of sudden death is dramatically higher in the first 30 days after MI than thereafter, and is particularly high in the first week and in patients with a low ejection fraction, according to Scott D. Solomon, M.D., of Brigham and Women's Hospital, Boston, and his associates.

Current American College of Cardiology/American Heart Association recommendations, which specify that implantable cardioverter defibrillators should be implanted 30 days or more after MI in patients with low ejection fractions or heart failure, may need to be reconsidered in light of these findings, they noted (N. Engl. J. Med. 2005;352:2581-8).

The investigators analyzed data from a randomized, controlled trial of 14,609 patients. They were followed for 2 years after MI complicated by an impaired ejection fraction, heart failure, or both. The rate of sudden death was 10 times higher within the first month after MI (1.4% per month) than it was 2 years later (0.14% per month). Even among patients with the highest ejection fractions, the rate of sudden death was six times higher in the first month than it was at 1 year. The findings suggest that early intervention would be beneficial, even in relatively low-risk patients, they said.

Staph Is Major Cause of Endocarditis

The epidemiology of *Staphylococcus aureus* infection has shifted so dramatically in recent years that the organism is now the leading cause of infective endocarditis in most of the developed world—a direct consequence of medical "progress," said Vance G. Fowler Jr., M.D., of Duke University Medical Center, Durham, N.C., and his associates.

For decades, infective endocarditis due to *S. aureus* has been considered a relatively minor problem linked with injection drug use, and patients with nosocomial *S. aureus* bacteremia were considered to be at low risk for endocarditis. But in the 48-month prospective cohort study of 1,779 endocarditis patients treated in 16 countries, *S. aureus* was found to be the single most common cause of endocarditis, and the infection was often associated with medical devices or procedures such as pacemakers, prosthetic valves, or hemodialysis (JAMA 2005;293:3012-21). Patients with such "health care–associated" staph endocarditis had much higher mortality and a much greater incidence of methicillin resistance than did those with other forms of the disorder. Methicillin-resistant *S. aureus* accounted for up to 40% of the cases in many areas, the researchers noted.

Impaired Memory in Hypertension

Impaired cerebral blood flow may contribute to the mild deficits in memory and other cognitive functions in people with hypertension, compared with their normotensive peers, according to J.R. Jennings, Ph.D., of the University of Pittsburgh, and associates.

The researchers assessed regional cerebral blood flow using MRI and PET brain scans in 37 hypertensive and 59 normotensive subjects (median age 60 years) who performed a battery of memory and sensorimotor tasks. The blood flow response to performance demands was significantly blunted in certain areas of the brain in hypertensive subjects, who also showed mild deficits in performance, compared with the normotensive subjects (Neurology 2005;64:1358-65).

"Our results are far from conclusive but suggest that vascular factors may play a role" in mild memory and cognitive deficits seen in hypertensive people, the researchers said. Moreover, the findings show that common systemic diseases such as hypertension can have unanticipated effects on brain function, they added.

Choosing Meds for Decompensated HF

When intravenous vasoactive medications are required for acute decompensated heart failure, patients who receive a vasodilator or natriuretic peptide are more likely to survive than are those who receive a positive inotropic agent, reported William T. Abraham, M.D., of Ohio State University, Columbus, and his associates.

There are no published guidelines for managing acute decompensated HF because the evidence base is inadequate. The investigators used data from a recently established national registry for this disorder to compare the effects of four medications on in-hospital mortality. They analyzed data on more than 65,000 patients hospitalized at 263 U.S. medical centers, which they said provides a better real-world picture of treatment safety and efficacy than has been available from "highly controlled, short-term, clinical trials of carefully selected patient populations" (J. Am. Coll. Cardiol. 2005;46:57-64).

Patients treated with the vasodilator nitroglycerin or the natriuretic peptide nesiritide had better survival rates and shorter hospital stays than did those treated with the positive inotropic agents dobutamine and milrinone, the researchers said.

—Mary Ann Moon

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