Clinical Capsules

Stents for Limb Ischemia

Percutaneous angioplasty with stent placement improved ankle-brachial indexes, prevented amputations, healed ulcerations, relieved pain, and improved ambulation—all with minimal adverse effects—in patients who had either critical limb ischemia or severe, lifestyle-limiting claudication, reported Andrew J. Feiring, M.D., and his associates at Columbia St. Mary's Medical Center, Milwaukee.

Until now, patients with these conditions had a "dismal" clinical course, with a 20%-30% 1-year mortality and the expectation that if they survived, they would have continued pain and infection, eventually requiring amputation. Tibial bypass has been the only treatment to improve hemodynamics, as measured by the ankle-brachial index, but most patients forgo the surgery because of its considerable associated morbidity and mortality.

The investigators attempted stent placement in 82 patients with 92 involved limbs. Mean age was 74.2 years; one-third of the subjects were over age 80, and most had numerous comorbidities (J. Am. Coll. Cardiol. 2004;44:2307-14).

In 6 patients, the angioplasty wire could not cross the arterial occlusion, but blood flow to the ankle was restored in each of the remaining 76 patients (86 limbs). There were no procedure-related deaths, MIs, amputations, embolizations, thromboses, or perforations, and 93% of patients were discharged within 1 day.

Global Trends in Hypertension

More than 25% of the world's adults—nearly 1 billion people—had hypertension in 2000, and that proportion will rise to 29% by 2025, according to Patricia M. Kearney, M.D., of Tulane University School of Public Health and Tropical Medicine, New Orleans, and her associates.

To estimate worldwide prevalence, the researchers pooled data from 30 national and regional population-based studies involving as many as 484,000 subjects each. Overall, 26% of the population had hypertension in 2000, with 333 million affected people living in economically developed countries and 639 million in developing countries. Given the aging of the population, that number is projected to increase by 60% to a total of 1.56 billion people by 2025, the investigators said (Lancet 2005;365:217-23).

Hypertension was more common in developed countries, affecting 37% of the population there, compared with 23% of people in developing nations. But the much larger populations of developing countries results in a considerably larger absolute number of individuals affected.

CV Events Down 50% in Diabetics

People with diabetes have benefited just like those without diabetes from the decline in cardiovascular disease rates over the last several decades, according to Caroline S. Fox, M.D., of the National Institutes of Health, Bethesda, Md., and her associates.

Using data from the Framingham Heart Study, the researchers tracked cardiovascular events in 4,118 subjects (including 113 with diabetes) who were examined in the 1950s and 1960s and in 4,063 subjects (including 317 with diabetes) who were examined in the 1970s, 1980s, and 1990s. The incidence of cardiovascular events in subjects with diabetes was 286 per 10,000 person-years in the earlier period, and declined by half to 147 events per 10,000 person-years in the later period. Subjects without diabetes showed a statistically similar decline in cardiovascular events (JAMA 2004;292:2495-9).

However, the absolute risk of cardiovascular events remains at twofold greater for people with diabetes, compared with nondiabetics, the investigators said.

Hypoglycemia Mimics Stroke

Hypoglycemia can masquerade as stroke in elderly patients, particularly when it progresses to the point where brain function is impaired, said M.S. Kühne, M.D., and associates at St. Claraspital in Basel, Switzerland.

They reported the case of a 90-year-old woman with a recent history of falling who was found lying on the floor of her home. On arrival at the hospital, the woman was confused, had difficulty speaking, and showed paresis of her left arm with absent reflexes. Cranial CT results were normal, but the woman had a low plasma glucose level that resolved, along with all symptoms, after she received an infusion of glucose solution. A PET scan revealed a pancreatic insulinoma. The patient refused surgery but responded well to monthly administration of long-acting octreotide (Lancet 2004;364:2152).

Insulinomas often produce neurologic signs and symptoms such as confusion, coma, convulsion, and visual disturbances; paralyses—such as the one in this patient—and paresthesias are less common. The correct diagnosis can be confirmed by a 72-hour fast, which will decrease the patient's plasma glucose level and reproduce the neuroglycopenic symptoms.

—Mary Ann Moon