

PFO Tied to Cryptogenic Stroke at Age 55 and Up

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Patent foramen ovale is significantly associated with cryptogenic stroke in people aged 55 years and older, as well as in younger stroke patients.

Findings from previous studies have suggested such an association, but few earlier investigations have included older patients as subjects. "Proof of a significant relationship" in older patients will have

"significant implications for diagnostic and therapeutic management," Dr. Michael Handke and his associates wrote.

Routine diagnostic testing fails to identify the cause of stroke in approximately 40% of patients. One potential cause is patent foramen ovale (PFO), which can predispose to embolism because it allows right-to-left intracardiac shunting. However, "it has long been debated whether the presence of patent foramen ovale actually does play a causal role in stroke or

whether there is only a noncausal statistical relationship," they noted.

The foramen ovale remains open in approximately 25% of the general population.

To clarify whether the presence of PFO is associated with cryptogenic stroke in older adults, Dr. Handke and his associates at University Hospital Freiburg (Germany) assessed 503 consecutive stroke patients treated at their institution during a 16-month period.

Stroke was classified as cryptogenic in 227 patients.

The prevalence of PFO, with or without a concomitant atrial septal aneurysm, was significantly higher in patients with cryptogenic stroke (34%) than in those whose stroke had a known etiology (12%), judging from findings from transesophageal echocardiography performed within 2 days of stroke onset.

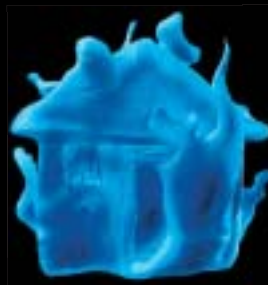
The higher prevalence of PFO in patients with cryptogenic stroke held true both for patients aged 55 years and older and for younger patients. In patients aged 55 and older, PFO was present in 28% of those with cryptogenic stroke, compared with only 12% of those who had stroke of known etiology. In younger patients, the respective prevalences were 44% and 14%, the investigators said (*N. Engl. J. Med.* 2007;357:2262-8).

At present, "there are no clear guidelines based on randomized trials for therapy if patent foramen ovale is present." But three ongoing randomized trials are examining the issue and "may clarify the effectiveness of percutaneous closure, as compared with medical therapy," Dr. Handke and his associates said.

However, as with previous studies of stroke in patients with PFO, all three of these trials enrolled only subjects aged 60 or younger. "Studies that include older patients are needed to develop diagnostic and therapeutic management strategies for this large group of patients," they noted. ■

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PLATELETS ARE TOUGH TO CONTROL



THE POWERFUL CHAIN REACTION OF PLATELET ACTIVATION AND AGGREGATION CAN POSE A DANGEROUS THREAT TO ACS PATIENTS

Cardiovascular disease remains the number one killer in the United States.¹ In 2004 alone, approximately 1.5 million Americans were hospitalized for acute coronary syndrome (ACS), and in 2007, an estimated 500,000 Americans will have a recurrent cardiac event.¹



ACS is an umbrella term that encompasses the clinical conditions of acute myocardial infarction (designated as STEMI or NSTEMI) and unstable angina.^{1,2} Platelet activation and aggregation play integral roles in these thrombotic complications, which can result from

either percutaneous coronary intervention (PCI) or spontaneous plaque rupture.

In patients with ACS, plaque rupture can trigger a rapid and powerful cascade of platelet activation and aggregation that contributes to thrombus formation.³ Platelets also can be tough to control in the chronic stage because underlying vascular disease can stimulate platelets to aggregate.⁴ Thus, ACS patients need platelet management to help protect them against future ischemic events.⁵

References: 1. Rosmond W, Flegal K, Friday G, et al. *Circulation*. 2007;115:e69-e171. 2. Cannon CP. *Contemporary Diagnosis and Management of Acute Coronary Syndrome*. Newtown, Pa: Handbooks in Health Care Co; 2007:5. 3. Fuster V, Badier L, Cohen M, et al. *Circulation*. 1998;77:1213-1220. 4. Bassand JP, Hamon GW, Ardissino D, et al. *Eur Heart J*. 2007;28:1598-1660. 5. Anderson JL, Adams CD, Antman EM, et al. *Circulation*. 2007;118:503-577.

Report on Global Pediatric Cardiac Health Released

Diagnosing and treating congenital heart disease outside of developed countries remain major problems for pediatric health across the world, despite some recent improvements in strategies and infrastructure in selected nations.

The disparity is tremendous, with about one facility capable of performing open-heart surgery for every 120,000 people in America, compared with one similarly capable center for every 33 million people in Africa, or for every 16 million people in Asia. This means that "the majority [of children with congenital and acquired heart diseases] will never receive the treatment they need," according to a release by the Children's HeartLink, an international medical charity founded in 1969. The charity produced a report entitled "Linked by a Common Purpose: Global Efforts for Improving Pediatric Heart Health," available at www.childrensheartlink.org

The report details the incidence and prevalence of congenital and acquired heart disease. Although congenital heart problems occur at similar rates in both the developed and developing world, diagnosis and treatment are often delayed in the poorer countries, which creates a significant backlog of cases for treatment centers, even when treatment is available.

—Mark Lesney

