



CARDIOLOGY

Silent MI More Common Than Suspected

Silent myocardial infarction (MI) has been a clinical mystery. The lack of unequivocal signs and symptoms makes silent MI hard to diagnose, which means the prevalence is also hard to determine. Moreover, say researchers from University Hospital Basel in Switzerland, silent MIs represent “missed opportunities” to start at-risk patients on statins and other preventive therapies.

In their study of 1,959 patients, the prevalence of silent MI was higher than previously thought: 1 in 4 patients with suspected coronary artery disease experienced a silent MI that went apparently unrecognized by the patient or caregivers. Prevalence was 50% higher in patients with diabetes.

A second finding was that median infarct size of these silent MIs was 10% to 12%, which may have meant that even more scars were being missed.

Patients with diabetes and silent MI had significantly lower left ventricular ejection fraction (median, 47%) than did patients with diabetes without MI.

Silent MI is usually diagnosed via the 12-lead electrocardiogram (ECG), but classical ECG criteria miss 2 of 3 silent MIs, the researchers say. For their study, they relied on rest/stress myocardial perfusion single photon emission computed tomography (myocardial perfusion SPECT [MPS]). Overall, the researchers say, their findings support the “rather liberal” use of imaging modalities capable of detecting myocardial scars. An ECG has a low sensitivity, the researchers note, because silent MI findings may not persist in the long-

term due to the regression of Q waves over time. Moreover, the small infarct size meant that a “relatively large proportion” of small silent MIs were not associated with characteristic Q waves. In this study, MPS was better than ECG at detecting scars.

The authors advocate “stringent control” of cardiovascular risk factors and more use of secondary prevention therapies, such as aspirin and high-dose statins.

Source: Arenja N, Mueller C, Ehl NF, et al. *Am J Med*. 2013;126(6):515-522.
doi: 10.1016/j.amjmed.2012.11.028.

DIABETES

FDA Approves First A1C Test for Diagnosing Diabetes

The FDA has approved the first A1C test that lets health care professionals diagnose diabetes.

In studies, investigators analyzed 141 blood samples and found < 6% difference in the accuracy of test results from the HbA1cDx assay, compared with the standard reference for hemoglobin analysis. The FDA notes that many health care providers have already been using some A1C tests to diagnose diabetes, in addition to the established procedures of a fasting blood glucose test and an oral glucose tolerance test. However, before today, A1C tests were not specifically designed or approved by the FDA to be marketed for diabetes diagnosis, making it difficult to know which tests were accurate enough for this purpose.

But this new laboratory-based test can be used to both accurately diagnose diabetes and monitor blood glucose control.

Hemoglobin A1C tests, including the HbA1cDx assay, should not be used to diagnose diabetes dur-

ing pregnancy and should not be used to monitor diabetes in patients with hemoglobinopathy, hereditary spherocytosis, malignancies, or severe chronic, hepatic, and renal disease. This test also should not be used to diagnose or monitor diabetes in patients with the hemoglobin variant hemoglobin F.

Source: U.S. Food and Drug Administration. FDA allows marketing of first A1C test labeled for diagnosing diabetes [news release]. U.S. Food and Drug Administration Website. <http://www.fda.gov/NewsEvents/Newsroom/PressAnnouncements/ucm353653.htm>. Updated May 23, 2013. Accessed July 15, 2013.

NUTRITION

Cash Back for Eating Better

Everyone likes a reward. But while studies have shown that financial incentives can help encourage healthier eating, large population interventions have been limited. Findings from a study in South Africa of 170,000 households enrolled in the Healthy-Food rebate program (60% of households were eligible) revealed more about what works best.

The program, launched in 2009 by a health insurer as part of a health promotion program, provides a cash-back rebate to those who buy more healthy foods, such as fruits and vegetables. Members immediately receive a 10% rebate for healthy foods; the rebate rises to 25% when the member completes a health risk-assessment questionnaire online. The rebate is capped at a maximum monthly purchase of about \$480 per household. Food items eligible for the rebate program were selected by a panel of nutritionists, physicians, and behavioral scientists, based on international guidelines on healthy nutrition. Some items are eligible only in certain forms: For instance, raw or mini-

mally processed fruits and vegetables are eligible, but those prepared with added sugars or salt are not. The more than 400 participating supermarkets have in-store signs identifying eligible foods; they are also marked on the store receipt.

Rebates of 10% were associated with a 6% increase in the ratio of healthy to total food expense; upping the rebate to 25% led to a 9.3% increase. The ratio of fruits and vegetables to total food expense increased by 5.7% and 8.5%, respectively, and the ratio of less desirable to total food expense dropped by 5.6% and 7.2%, respectively. The changes appeared immediately after participants became eligible and remained consistent over time.

Although their findings suggest that rebates can change purchasing patterns in a meaningful way, the researchers emphasize that their study looked at ratios, not total amounts. In other words, people could be buying healthier foods and still be eating too much. Even a large price change for healthy foods (eg, 25%), the researchers point out, can “at best address a small part of the discrepancy between population dietary patterns and dietary guidelines.”

Source: Sturm R, An R, Segal D, Patel D. *Am J Prev Med*. 2013;44(6):567-572.
doi: 10.1016/j.amepre.2013.02.011.

WEIGHT CONTROL

Counting the Real Calories

Calorie counting seems easy, but many people have trouble with it. In fact, research has shown that fast-food consumers consistently underestimate calories. However, that research has been conducted in experimental settings with no monitoring of con-

sumer choices at actual restaurants, has focused on a narrow range of fast-food restaurants in samples with limited ethnic and racial diversity, and has not examined differences between age groups or between restaurant chains, say researchers from the Obesity Prevention Program at Harvard University and the Massachusetts and Connecticut Departments of Public Health.

They addressed those gaps with a cross-sectional study of repeated visits to 6 fast-food chains (total of 89 restaurants) in 4 New England cities. In the study, 1,877 adults and 330 school-aged children (aged 3-15 years) visited restaurants at dinner-time, and 1,178 adolescents (aged 11-20 years) visited restaurants at lunchtime or after school. The children aged 11 to 15 years were eligible for either sample, depending on the time of day. More than 40% of participants in each sample ate at the chain restaurant, where they were interviewed at least once a week.

At the time of the survey, none of the chains in the sample routinely printed calorie contents on their menus. They did offer calorie contents and nutrition information on posters, food containers, napkins, and cups, or on limited menus identifying food choices with less than a specified number of calories. All the chains presented comprehensive nutritional information on their websites.

The mean actual calorie content of fast-food meals was 836 calories for adults, 756 calories for adolescents, and 733 calories for school-aged children. At least two-thirds of all participants underestimated the calorie content of their meals. About 25% underestimated by at least 500 calories. Adults who ate at Subway and

adolescents and children who ate at any chain were more likely to underestimate the calorie count.

Of the adults who provided weight and height information, 65% were overweight or obese, as were 34% of adolescents and 57% of school-aged children. Interestingly, adults with higher body mass index estimated higher calorie content and were less likely to underestimate calories.

For every additional 10 years of age, participants estimated 9% lower calorie content compared with younger adults. By contrast, older adolescents estimated higher calorie content than did younger adolescents. Black, Hispanic, Asian, and “other” race/ethnicity or multiracial adults and adolescents estimated lower caloric content compared with white participants.

Noticing calorie information in the restaurant had no effect on the accuracy of the estimation. What made a difference was advertising. Subway diners consistently estimated lower calorie counts, which led the researchers to speculate that Subway was endowed with a sort of “health halo”—Subway’s media positioning as a “healthier” fast-food restaurant may lead consumers to view the food as lower calorie. The researchers suggest that forthcoming regulation from the Patient Protection and Affordable Care Act on labeling calorie content on menus may help alter that “health halo”: It will require a statement that indicates recommended total daily calorie requirements. ●

Source: Block JP, Condon SK, Kleinman K, et al. *BMJ*. 2013;346:f2907.
doi: 10.1136/bmj.f2907.



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