

## CLINICAL CAPSULES

### Predicting Metabolic Syndrome

The energy patients expend during physical activity helps predict progression to the metabolic syndrome independent of aerobic fitness, obesity, and other confounding factors, reported Ulf Ekelund, Ph.D., of the Elsie Widdowson Laboratory, Cambridge, England, and his associates.

In a study of 605 healthy middle-aged adults (41% of whom were men), nearly 11% had the metabolic syndrome at a median 5.6 years of follow-up.

After adjustment for age, sex, smoking, socioeconomic status, fasting insulin lev-

els, aerobic fitness, and duration of follow-up, baseline physical activity energy expenditure was significantly associated with fasting insulin at follow-up (Diabetes Care 2005;28:1195-200).

Baseline energy expenditure predicted systolic blood pressure at follow-up independently of potential confounders and predicted progression to metabolic syndrome.

Aerobic fitness was not significantly associated with any characteristics of the metabolic syndrome.

The data suggested that "physical activ-

ity is an important etiological factor in the development of the metabolic syndrome," they said.

### Sibutramine Metaanalysis

Sibutramine use was significantly associated with weight loss and appears to improve glycemic control and lipid profile in type 2 diabetics, reported Roberto Vettor, M.D., of the University of Padova, Italy, and his colleagues.

In a metaanalysis of eight placebo-controlled, double-blind trials, 552 obese patients with type 2 diabetes were randomized to sibutramine treatment, and 541 were randomized to placebo. Body weight

decreased by a mean of 5.5 kg in sibutramine users and by 0.9 kg in placebo users. Waist circumference decreased a mean of 5.3 cm in treated patients and by 1.1 cm with placebo (Diabetes Care 2005;28:942-9).

Mean changes in basal blood glucose were small, but the difference between the two groups was statistically significant, the investigators said.

### BMI Tied to Meniscal Tears

Knee meniscal tears are associated with obesity and overweight status in older men and women, reported Gregory M. Ford of the University of Utah, Salt Lake City, and his associates.

In a retrospective, case-control study of two Utah hospitals, body mass index (BMI) data were obtained for 231 men and 260 women ages 50-79 years who had meniscal surgeries, and for 786 healthy men and 846 healthy women who served as controls.

Elevated age-adjusted odds ratios for knee meniscal surgery were statistically significant at a BMI of at least 27.5 kg/m<sup>2</sup> in men and at least 25 in women. With adjustment for age, men with BMIs of at least 40 were 15 times more likely to undergo meniscal surgery, while women with BMIs of at least 40 were 25.1 times more likely to need meniscal surgery (Am. J. Prev. Med. 2005;28:364-8).

Because 57% of the U.S. adult population is overweight or obese, the observed relationship between BMI and meniscal surgery in older Americans has potentially large implications, as the average cost of meniscal surgery was \$3,000 in the study, Mr. Ford and his associates said.

### Predicting Stroke Mortality

Subscapular skinfold thickness, an indicator of trunk versus peripheral distribution of fat, helped predict long-term stroke mortality in middle-aged men free of heart disease at baseline 23 years earlier, reported David Tanne, M.D., of the Chaim Sheba Medical Center, Tel-Hashomer, Israel.

Dr. Tanne and his associates used stratified sampling to find 8,638 healthy male civil servants and municipal employees aged 40 years or older at baseline, who were participating in the Israeli Ischemic Heart Disease project. The men were evaluated in 1963, 1965, and 1968, and had no history of myocardial infarction or chest pain. The mean body mass index (BMI) was 25.6 kg/m<sup>2</sup>, subscapular skinfold (SSF) was 19 mm, and the ratio of subscapular to triceps skinfold thickness (SFR) was 1.6. Overall, 4% of the men were very lean, 49% were overweight, 9% were obese, and the remaining 38% were within normal weight range.

During the 23-year follow-up, 316 men died of stroke, and 865 died of coronary heart disease. As BMI rose, stroke mortality rates per 10,000 person-years of follow-up went from 15.7 at a BMI less than 23.4 to 21.9 at a BMI greater than 27.7. Stroke mortality rates per 10,000 person-years of follow-up increased as SSF did, rising from 15.1 at an SSF of less than 13 mm to 20.6 at an SSF greater than 24 mm. Stroke mortality rates also increased with greater SFR, going from 13.4 at an SFR of less than 1.12 to 22.3 at an SFR greater than 1.95 (Stroke 2005;36:1012-5).

—Kevin Foley

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