CLINICAL CAPSULES

Benefits of Moderate Drinking

Moderate alcohol consumption is associated with an approximately 30% reduction in the risk of type 2 diabetes in women and men, regardless of body mass index, reported Lando L.J. Koppes, Ph.D., of the Institute for Research in Extramural Medicine, VU University Medical Center, Amsterdam.

In a metaanalysis of 15 prospective cohort studies of 11,959 incident cases of type 2 diabetes among 369,862 adults, light drinkers (<6 g/day of alcohol) had a 0.87 relative risk (RR) of type 2 diabetes, similar to the 1.04 RR of heavy drinkers >48 g/day of alcohol). Moderate drinkers fared better (0.70 for 6-12 g/day of alcohol, 0.69 for 12-24 g/day, 0.72 for 24-48 g/day).

The researchers found no sex differences in RR for diabetes, except for alcohol consumption of 6-12 g/day (0.80 for men, 0.59 in women). In the six studies that reported body mass index, it was not related to RR for diabetes (Diabetes Care 2005;28:719-25).

Decline in Life Expectancy?

Life expectancy may decline because of the obesity epidemic, with important implications for the solvency of age-entitlement programs, said S. Jay Olshansky, Ph.D., of the University of Illinois at Chicago.

Obesity prevalence in adults increased by about 50% per decade in the 1980s and 1990s, the investigators reported. Today, two-thirds of adults are obese or overweight, with 34% of women, 28% of men, and nearly 50% of black women classified as obese. Evidence suggests that disability rates have risen as fitness levels have declined, and this has occurred at younger ages they added (N. Engl. J. Med. 2005;352:1138-45).

Obesity has been shown to reduce life expectancy by an estimated 5-20 years, Dr. Olshansky said. "If left unchecked, the rising prevalence of obesity that has already occurred in the past 30 years is expected to lead to an elevated risk of a range of fatal and nonfatal conditions for these cohorts as they age." If the trend continues, especially at younger ages, the negative effect on longevity "could be much worse."

The obesity epidemic's impact could improve the solvency of Social Security, but the cost of treating related illnesses may increase the burden on Medicare, they said.

Relatives of Type 2 Diabetics

Lifestyle interventions can significantly improve risk factors associated with insulin resistance and cardiovascular disease in healthy first-degree relatives (FDRs) of patients with type 2 diabetes, according to Hilde K. Brekke of Sahlgrenska Academy at Göteburg University, Sweden.

In a 16-week study of 72 nondiabetic FDRs aged 25-55 years, 25 patients were assigned to the diet-only group, 25 were in the diet-and-exercise group, and 22 controls were told to continue their current lifestyle. Group nutrition counseling was given twice, with telephone follow-up every 10 days, to the two groups with a diet component. The exercise goal was to increase physical activity for at least 30 minutes, 4-5 times per week.

In the diet-only group, total cholesterol was reduced significantly by 0.31 mmol/L, LDL cholesterol was reduced by 0.22 mmol/L, and apolipoprotein B was reduced by 9.5 mg/dL on average, compared with controls. The diet-and-exercise group had significant reductions in body weight (2.1%) and waist circumference (3.0 cm), compared with controls (Diabetes Res. Clin. Pract. 2005;68:18-28).

The diet-and-exercise group also had a significant 13% reduction in fasting insulin, compared with controls, but both the diet-only and diet-and-exercise groups showed no significant changes in fasting glucose, insulin or insulin sensitivity index. A subgroup of 13 patients who were particularly compliant with dietary goals and exercise targets had significantly improved insulin sensitivity index and lipid profiles.

Leukemia Drug and Diabetes

Imatinib (Gleevec), an antineoplastic agent used to treat chronic myeloid leukemia, may help to put type 2 diabetes mellitus in regression, according to Dino Veneri, M.D., of the University of Verona (Italy).

The investigators reported on a 70-year-old woman with an 8-year history of type 2 diabetes who was diagnosed with chronic myeloid leukemia. She began imatinib 400 mg/day, which resulted in hematologic remission 2 months later. Her blood glucose levels declined during treatment, and insulin was discontinued 3 months after her leukemia was diagnosed. Regression of diabetes was confirmed over the following months. "During the past year, the patient's diet, physical activity, and weight have not changed, and she has not taken any medication known to affect glucose metabolism," Dr. Veneri said (N. Engl. J. Med. 2005;352:1049-50).

Imatinib inhibits phosphorylation, which may improve signaling and the function of effectors such as enzymes; this may enhance insulin sensitivity.

—Kevin Foley