

IGT Rates Increasing in Overweight Italian Youth

BY PATRICE WENDLING
Chicago Bureau

VERONA, ITALY — The prevalence of impaired glucose tolerance is far more common among obese and overweight Italian children than was previously thought, Dr. Marco Cappa said.

He reported on a study of 215 overweight and obese Italian children in which the prevalence of impaired glucose tolerance (IGT) was 11%, compared with 4.5% as previously reported among this population (*Diabetes Care* 2003;26:118-24).

The finding is of concern, but it comes nowhere near the prevalence rate of 23% reported in a multiethnic cohort of 167 obese American children and adolescents (*N. Engl. J. Med.* 2002; 346:802-10), said Dr. Cappa, who presented the study at a joint meeting of the Italian Association of Clinical Endocrinologists and the American Association of Clinical Endocrinologists.

The increase in IGT may be caused by unknown factors or by inactivity and increased caloric intake, which are often cited for the alarming rate of IGT and obesity among American children, he explained. "Childhood obesity is an increasing problem in Italy, as in other developed countries," said Dr. Cappa, of the Bambino Gesù Children's Hospital in Rome.

National growth curves of Italian children published in 2006 show a dramatic shift toward obesity. Another recent Italian study (*Obesity* 2006;14:765-9) indicated that when using the U.S. Centers for Disease Control and Prevention reference charts, the prevalence of overweight and obesity in Italian children is close to that reported in U.S. children (32% vs. 32.7%).

The cross-sectional study also found that the prevalence of overweight and

obesity was higher in the southern sampling area of Messina than it was in the northern area of Verona, most likely because of differences in diet, Dr. Cappa said.

In his study, 24 of the 215 children had IGT, none had impaired fasting glucose, and one had type 2 diabetes mellitus. Their mean age was 12 years (range 5-18 years).

In a multivariate analysis that controlled for gender, family history of obesity and type 2 diabetes, and pubertal stage, age was the only parameter significantly related to glucose tolerance status, Dr. Cappa and his colleagues reported. The incidence of IGT was found to increase during midpuberty (Tanner stages 3 and 4), at around age 13.5 years.

Metabolic syndrome had an overall prevalence of 22% and was present in 20% of girls and 24% of boys, even though the average weight of the girls was higher, he said. Metabolic syndrome was defined by three or more of the following criteria: BMI greater than two standard deviations; triglycerides greater than the 95th percentile; an HDL cholesterol level less than the 5th percentile; systolic or diastolic blood pressure greater than the 95th percentile; and impaired glucose tolerance.

The findings compare favorably to an American study, in which the prevalence of metabolic syndrome was 39% in moderately obese participants and reached 50% in severely obese participants among 439 obese, 31 overweight, and 20 nonobese American children and adolescents (*N. Engl. J. Med.* 2004;350:2362-74).

Because patients with metabolic syndrome have an increased risk of cardiovascular disease prior to the development of IGT or diabetes, early identification and intervention is essential for these children, Dr. Cappa said. ■

Childhood Obesity Linked to Worsening Kidney Function

BY MARY ELLEN SCHNEIDER
New York Bureau

RENO, NEV. — Increased body mass index is correlated with worsening proteinuria in children, Dr. Carolyn Abitbol said at the annual meeting of the American College of Nutrition.

The findings, which are the result of a retrospective observational case-matched study of 60 children with proteinuria, confirm the hypothesis that obesity contributes to a decline in the glomerular filtration rate, an indicator of kidney function, said Dr. Abitbol of the Division of Pediatric Nephrology at the University of Miami.

Low-birth-weight infants may be more likely to develop obesity in childhood because of disproportionate height deficits in this population, making low birth weight an independent risk factor for the progression of chronic kidney disease in

children, she said. These children also are born with fewer nephrons, the functioning units of the mature kidney.

The study included 40 obese children: 16 low-birth-weight children (less than 1,200 g) and 24 children of normal birth weight (over 2,500 g). Obesity was defined as a body mass index of greater than the 95th percentile for age and gender.

The study also included 20 nonobese children of normal birth weight as clinical controls. All children in the study had proteinuric kidney disease. The researchers excluded any patients who had acute glomerulonephritis, immune-mediated nephritis, or overt diabetes, as well as patients who had HIV nephropathy.

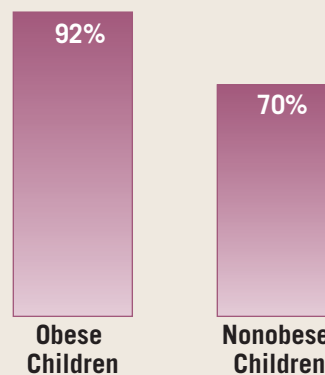
Dr. Abitbol and her colleagues performed kidney biopsies of nine children in the obese, low-birth-weight group and all had focal segmental glomerulosclerosis (FSGS).

Among children in the normal-birth-weight, obese group, 16 children were biopsied and 14 had FSGS. Additionally, one patient had focal mesangial proliferative glomerulonephropathy, which probably is an early form of FSGS, Dr. Abitbol said. One patient had a membranous nephropathy, which is unique and immune mediated; the diagnosis was made after the exclusion criteria had been applied, she said.

In the control group, all children were biopsied and 14 had FSGS, 4 had mesangial glomerulonephropathy, 1 had minimal change, and 1 was membranous.

The researchers also compared mean renal survival relative to birth weight and found that low-birth-weight patients had a loss of glomerular filtration rate significantly earlier than did those of normal birth weight, despite having a diagnosis at relatively the same age. ■

Obese Children Are at Higher Risk for FSGS



Note: Based on a study of 45 children with proteinuria.
Source: Dr. Abitbol

ELSEVIER GLOBAL MEDICAL NEWS

Lipid Management Gender Gap Persists

BY BRUCE JANCIN
Denver Bureau

CHICAGO — The gender gap in lipid management hasn't narrowed at all despite the March 2004 publication of American Heart Association evidence-based guidelines for prevention of cardiovascular disease in women, Dr. Lori Mosca reported at the annual scientific sessions of the AHA.

The percentage of high-risk women in two large southeastern health plans who attained an LDL cholesterol level below 100 mg/dL rose from 33% before release of the gender-specific guidelines to 40% afterward. At the same time, the proportion of high-risk men with an LDL cholesterol level below 100 mg/dL climbed from 41% to 50%. So the absolute difference in rates of good lipid control between

men and women—the gender gap—actually increased from 8% prior to release of the AHA guidelines to 10% afterward, according to Dr. Mosca, director of preventive cardiology at New York-Presbyterian Hospital.

Clearly these data indicate lipid control remains suboptimal in both sexes, she added, since half of high-risk men and 60% of high-risk women had LDL cholesterol values in excess of the National Cholesterol Education Program (NCEP) target of 100 mg/dL.

The NCEP optional, more aggressive goal—an LDL level below 70 mg/dL—was achieved in 10% of men and 6% of women prior to the AHA gender-specific guidelines, and in 15% of men and 10% of women since then.

Dr. Mosca's retrospective study used administrative claims data for 17,070 men and 17,357

women. All patients were high risk due to cardiovascular disease or diabetes. The percentage who met NCEP lipid goals was assessed from September 2002 to February 2004 (before the guidelines were issued), and again from March 2004 to August 2005, after the guidelines came out.

Prior to the guidelines, 53% of these high-risk men and 44% of high-risk women were on LDL cholesterol-lowering drugs. Post-guidelines, the proportions rose to 56% and 46%, respectively.

In an analysis controlling for age, metabolic syndrome, comorbidities, and other confounders, high-risk women were 32% less likely than men to attain an LDL cholesterol level below 100 mg/dL and 36% less likely to have a level below 70 mg/dL. But women were more likely to attain HDL cholesterol and triglyceride goals. ■

Waist-to-Hip Ratio Predicts CV Events in Elderly Women

Waist-to-hip ratio is an independent predictor of cardiovascular risk in elderly women, but waist circumference is not, according to Dr. Marcos A.S. Cabreira of the State University of Londrina (Brazil) and his associates. Abdominal adiposity, a component of metabolic syndrome, "is an important determinant of cardiovascular risk in middle-aged women, but its effects on the elderly are still poorly understood," the researchers said.

They assessed abdominal adiposity, as measured by both waist circumference and waist-to-hip ratio, and cardiovascular events in a prospective cohort study of 516 women aged 60-84 years when they presented for health care at a geriatric clinic in 1997-1998. The women were followed every 6 months for approximately 7

years. During that time, 89 subjects (17%) died and 94 (18%) experienced cardiovascular events.

Most of the study subjects had abdominal adiposity at baseline: 63% of the subjects had a waist circumference greater than 88 cm, and 86% had a waist-to-hip ratio greater than 0.85. However, only 29% were obese.

There was a significant association between waist-to-hip ratio values above the 75th percentile and cardiovascular events, but no association between waist circumference above the 75th percentile and such events, Dr. Cabreira and his associates said (*Int. J. Cardiol.* 2007;114:224-9). This indicates that waist-to-hip ratio is a better measure of cardiovascular risk than is waist size in elderly women, they suggested.

—Mary Ann Moon