Diabetic Teens Often Underestimate Their Weight

Adolescents who did not recognize they had a weight problem were less likely to eat well and exercise.

BY HEIDI SPLETE
Senior Writer

More than half of adolescents with type 2 diabetes underestimate their weight, and so do their parents, according to results from interviews with 104 child-parent pairs.

"Clinicians should recognize that even extremely overweight children and their parents may not accurately perceive the presence of weight problems, let alone the negative consequences of failing to make difficult lifestyle changes that result in weight loss," wrote Asheley Cockrell Skinner, Ph.D., of the University of North Carolina, Chapel Hill, and her colleagues.

Recognition of overweight is essential for adolescents with diabetes so they can make diet and exercise choices to lose weight and reduce their risk of complications associated with the disease and with overweight, the researchers said.

To determine the accuracy of weight perception in adolescents with type 2 diabetes and the impact of their perceived weight on healthy behaviors, the researchers interviewed 104 adolescents aged 12-20 years, and their parents, by telephone. The average weight of the study population was 221 pounds; 69% were girls and 47% were black. The average hemoglobin A_{1c} level was 7.7%, and most were taking insulin, other medications, or both.

Overall, 87% of the adolescents met the Centers for Disease Control and Prevention's criteria for overweight, and the group's average body mass index was 36 kg/m^2. But only 35% of adolescents and 41% of their parents described an adolescent as "very overweight."

In parents who said the child's weight was "about right," 40% had children whose BMI was in the 95th percentile or higher; 55% of adolescents who said their weight was "about right" had a BMI in the 95th percentile or higher.

Adolescents were significantly more likely to underestimate their weight if their parents also underestimated it, compared with adolescents whose parents accurately estimated their weight (66% vs. 34%).

"Previous studies have shown that parents and adolescents often underestimate weight status, [but] we were surprised that in this population, where the adolescents were generally very overweight and already had type 2 diabetes, underestimation of weight status was still very common," Dr. Russell Rothman, study coauthor and deputy director of the Diabetes Research and Training Center at Vanderbilt University, Nashville, Tenn., said in an interview.

"Underestimation of weight was also associated with poorer dietary behaviors and more perceived barriers to following a healthy diet and exercising," he said.

The interview results showed that, overall, adolescents who underestimated their weight were significantly less likely than were those who estimated their weight correctly or overestimated to report healthy eating behaviors (31% vs. 52%) and exercise (27% vs. 44%). And parents who underestimated the adolescent's weight were significantly less likely to report that the adolescent exercised than were those who estimated the adolescent's weight correctly or overestimated it (26% vs. 46%).

No significant differences in weight perceptions according to race or insulin use were noted by parents or teens. Girls were significantly more likely than were boys to underestimate their weight, but the accuracy of the parents' estimates was not significantly different for boys versus girls.

Weight estimates by parents and adolescents were least accurate for adolescents aged 13-16 years compared with those older than 16 and younger than 13, but these differences were not significant (Diabetes Care 2008;31:227-9).

Dr. Rothman said although the findings seem obvious, they are worth noting so that doctors will raise the subject of weight with teen patients and ask about healthy eating and exercise.

He advised clinicians to practice shared goal-setting to help the adolescent set specific goals and then identify specific barriers. The next step is to guide the adolescent in problem solving, which will improve his or her self-management. "Try to avoid a lot of jargon and keep communication simple, clear, personal to the patient, and culturally sensitive," he said, adding the entire family should be in the process of diabetes management.

The researchers were funded by awards from Vanderbilt University, the National Institutes of Health, the Agency for Healthcare Research and Quality, and the Department of Veterans Affairs. ■

Intensive Therapy Is Found to Lower Mortality by 20% in Type 2 Patients

BY MARY ANN MOON
Contributing Writer

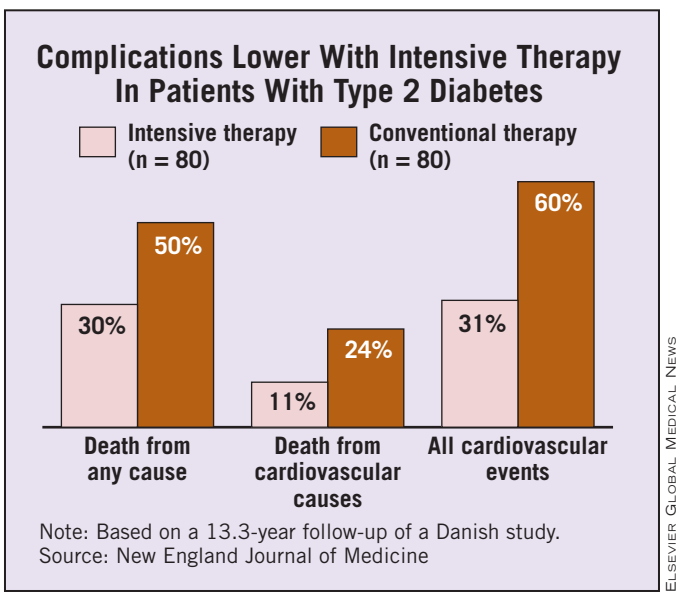
Intensive intervention for type 2 diabetes, which addressed microalbuminuria, cholesterol, triglycerides, and blood pressure in addition to glucose control, reduced the risk of death by 20% over the course of 13 years in a Danish study.

Diabetes patients with persistent microalbuminuria who received about 8 years of intensive medical and behavioral therapy and were followed for an additional 5 years showed a 20% decline in absolute risk of death from any cause and a 13% decline in absolute risk of death from cardiovascular causes, compared with those receiving conventional care, said Dr. Peter Gaede of the Steno Diabetes Center, Copenhagen, and his associates.

They reported the 8-year results of their study previously; the current report reflects extended follow-up through 2006 of a cohort of 130 patients randomly assigned to receive either conventional diabetes treatment or therapy that targeted a glycated hemoglobin level of less than 6.5%, a fasting total cholesterol level of less than 175 mg/dL, a fasting serum triglyceride level of less than 150 mg/dL, a systolic blood pressure of less than 130 mm Hg, and a diastolic blood pressure of less than 80 mm Hg.

In addition to medications and lifestyle modifications to achieve those targets, those in the intensive-therapy group also received renin-angiotensin system blockers for microalbuminuria and low-dose aspirin. Overall mortality was 30% in the intensive-therapy group, compared with 50% in the conventional-care group. Nine of the patients (11%) in the intensive-therapy group died from cardiovascular causes, compared with 19 (24%) of the patients in the conventional-care group. There were 51 cardiovascular events in the intensive-care group and 158 in the conventional-care group. "The rate of death in the conventional-therapy group was 50%, a finding that underscores the poor prognosis for such patients in the absence of intensive treatment," they said (N. Engl. J. Med. 2008;358:580-91).

Few serious effects were reported during regular follow-up interviews. ■



ELSEVIER GLOBAL MEDICAL NEWS

Hyperuricemia Named a Risk Factor for Type 2 Diabetes

BY ROBERT FINN
San Francisco Bureau

High serum uric acid level is an independent risk factor for the development of type 2 diabetes, according to data from a large population-based study.

In a study of 4,536 people who were free of diabetes at baseline, those who had serum uric acid levels that were in the top quartile were 68% more likely to develop type 2 diabetes than were those in the lowest quartile after adjusting for potential confounders, according to a report in the journal Diabetes Care.

The study found a quarter of diabetes cases can be tied to a high level of serum uric acid; other data have linked it to hypertension, stroke, and cardiovascular disease.

The population-attributable risk of high serum uric acid for diabetes was 0.24, indicating that, "One-quarter of diabetes cases can be attributed to a high serum uric acid level," reported Dr. Abbas Dehghan and colleagues of Erasmus Medical Center in Rotterdam, the Netherlands (Diabetes Care 2008; 31:361-2).

The participants were part of the Rotterdam Study, a population-based, prospective cohort study involving subjects aged 55 years and older who were followed for a mean of 10.1 years.

During that time, 462 of the participants developed diabetes, giving an incidence rate of 10.1/1,000 person-years.

After adjustment for age, sex, body mass index, waist circumference, HDL cholesterol level, and systolic and diastolic blood pressure, participants with serum uric acid levels above 370 micromol/L had a hazard ratio of 1.68, compared with those with levels of 267 micromol/L or below. The difference was statistically significant.

Although gout and renal disorders are currently the only confirmed consequences of hyperuricemia, findings from other studies have implicated high serum uric acid as a potential risk factors for hypertension, stroke, and cardiovascular disease, and the current study has now added type 2 diabetes to the list.

The importance of this finding is that "lowering serum uric acid in subjects in the highest quartile may decrease the incidence of diabetes by 24%, if the relationship is causal," the investigators wrote. ■