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Increased incidence of non-insulin-dependent diabetes mellitus among adolescents.

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Abstract

OBJECTIVE: To determine whether a rise in the diagnosis of non-insulin-dependent diabetes mellitus (NIDDM) has accompanied the rise in obesity in the pediatric population, as it has among adults.

STUDY DESIGN: Medical records of 1027 consecutive patients from birth to age 19 years with a diagnosis of diabetes from 1982 to 1995 at a regional, university-affiliated pediatric diabetes referral center were reviewed and classified according to criteria of the National Diabetes Data Group.

RESULTS: The number of patients with a diagnosis of NIDDM rose from approximately 4% of new diagnoses of diabetes in patients from birth to age 19 years before 1992, to 16% in 1994. Among patients 10 to 19 years of age, NIDDM accounted for 33% of diagnoses of diabetes in 1994. The incidence of adolescent NIDDM in Greater Cincinnati increased tenfold, from 0.7/100,000 per year in 1982 to 7.2/100,000 per year in 1994. The mean (+/- SD) age and body mass index at presentation were 13.8 +/- 1.9 years and 37.7 +/- 9.6 kg/m², respectively. The overall female/male ratio was 1.7:1, and female patients were seen 1 year earlier than male patients (p < 0.01). Male subjects had a higher body mass index than female subjects (p < 0.05). A first-degree relative with NIDDM was identified for 65% of patients. At presentation, 21% of the patients had had a diagnosis of at least one other condition associated with obesity.

CONCLUSION: There is an increasing incidence of NIDDM among adolescents in Greater Cincinnati, accompanying the national rise in adolescent obesity.

Obesity and strong family histories of NIDDM are important risk factors. Because NIDDM leads to long-term morbidity, the prevention of obesity as well as early identification of overt disease, is critical.

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Incidence of adolescent NIDDM up in Greater Cincinnati 1000% from 0.7/100,000 in 1982 and before to 7.2/100,000 by 1994 The female to male ratio was 1.7/1.