parable) (4), we estimate that those with diabetes and albuminuria are in effect ~26 years more advanced in this process than those in the general community.

KAREN A. WILLEY, RN
JENIFER F. KIDD, RN, RVT
JOHN P. HARRIS, MS, FACS
ZHANG R. XU, MD
DENNIS K. YUE, MBBS, PHD

From the Diabetes Centre (K.W., D.K.Y.), Royal Prince Alfred Hospital, and the Camperdown Vascular Laboratory (J.F.K., J.P.H.), NSW, Australia; and Beijing 514 Hospital (Z.R.X.), Beijing, China.

Address correspondence to Karen A. Willey, Diabetes Centre, Royal Prince Alfred Hospital, Level 2, QEII Building, 59 Missenden Rd., Camperdown NSW 2050, Australia.

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Eating Attitude and Behavior in IDDM Patients

A case-controlled study

Discordant data have been reported on the prevalence of anorexia nervosa (AN) and bulimia (B) in insulin-dependent diabetes mellitus (IDDM) patients, depending on diagnostic criteria and assessment methods (1–6), while comorbidity of binge eating disorder (BED) with IDDM has not been described so far. Subclinical alterations of eating behavior, which can impair metabolic control (7,8), have been reported to be more frequent in IDDM women than in control subjects (7–9), but the point is controversial (4,5,10). Furthermore, insulin manipulation seems to be used frequently by IDDM women to control body weight (1,2,6).

In order to evaluate eating attitude and behavior, we examined a consecutive series of 118 IDDM patients (62 women, 56 men), aged (means ± SD) 34.4 ± 11.7 years (range 15–60), with duration of diabetes 13.9 ± 11.0 years (range 1–44), HbA_{1c} 7.5 ± 1.7% (range 4.6–11.8), and body mass index (BMI) < 28 kg/m^2. Two patients with BMI > 28 kg/m^2 were excluded as unrepresentative and unsuitable because they were undergoing a weight-reduction program. For the selection of controls, each IDDM patient was asked to indicate at least three nondiabetic subjects of their same sex and approximate age among collegues at work and school and these people were subsequently contacted by the investigators. Subjects with BMI > 28 kg/m^2 were excluded for consistency, obtaining a control sample of 263 (148 women, 115 men).

Patients and controls were examined by a psychiatrist using a structured interview (11), Hamilton rating scale for depression (Ham-D) (12), and Social Adjustment Scale (SAS) (13). BED was diagnosed using the Diagnostic and Statistic Manual-IV criteria (14). Eating attitudes were also investigated using two self-reported questionnaires: Bulimic Investigation Test Edinburgh (BITE) (15) and diabetes-adapted Eating Attitude Test-36 (EAT-36) (9). Finally, anxiety was measured with State Trait Anxiety Inventory (STAI) (16) and, in IDDM patients, quality of life was evaluated with Diabetes Quality of Life (DQOL) (17).

Clinical eating disorders were found in six IDDM patients (5 women, 1 man) and nine control subjects (7 women, 2 men). Among women, prevalence of AN was 1.6% in IDDM patients and 0.9% in control subjects, prevalence of B was 1.6% and 2.7%, respectively; prevalence of BED was 4.9% and 2.7%, respectively. Manipulation of insulin therapy to control body weight was reported by eight patients, all women (12.9%). Subclinical eating disorders (defined as BITE scores ≥ 10 or ≥ 8 with severity score ≥ 2) were found in 33% of IDDM women and 22.5% of control women. Differences in BITE scores and in prevalence of clinical and subclinical eating disorders were not statistically significant. EAT-36 scores were significantly ($P < 0.01$) higher in IDDM women than in control women, but this difference may also be ascribed to diabetes-biased items in the questionnaire. No such difference was found among men. In IDDM patients, BITE scores significantly correlate with STAI-1 ($r = 0.35$, $P < 0.01$), STAI-2 ($r = 0.34$, $P < 0.01$), SAS ($r = 0.23$, $P < 0.05$), and DQOL ($r = 0.21$, $P < 0.05$), but not with Ham-D ($r = 0.12$, P = NS), unlike that observed in control subjects ($r = 0.33$, $P < 0.01$). In IDDM patients, disturbances of eating attitude seem to be related to anxiety more than depression. No significant correlation of BITE with age, IDDM duration, and age at onset of diabetes was observed. BITE scores significantly correlate with HbA_{1c} ($r = 0.40$,

$P < 0.01$). Higher HbA_{1c} values were found in patients with clinical or subclinical eating disorders (8.5 ± 1.9 vs. 7.2 ± 1.5, $P < 0.05$), and the difference was still significant after the elimination of patients who manipulated insulin doses. The routine assessment of eating attitudes should therefore be recommended in all IDDM women patients and in men with poor metabolic control.

EDOARDO MANNUCCI, MD
VALDO RICCA, MD
BARBARA MEZZANI, MD
MILENA DI BERNARDO, MD
FIORELLA PIANI, MD
ROBERTO VANNINI, MD
PIER LUIGI CABRAS, MD
CARLO M. ROTELLA, MD

From the Section of Metabolic Diseases and Diabetology, Division of Endocrinology, and the Psychiatric Unit, Department of Neurologic and Psychiatric Sciences, University of Florence, Italy.

Address correspondence to Prof. Carlo M. Rotella, Section of Metabolic Diseases and Diabetology, University of Florence, Viale Pieraccini 6, 50134 Firenze, Italy.

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Size of the Pancreas in Type I Diabetic Children and Adolescents

Functional and pathological studies on the pancreas have been performed in diabetic subjects (1,2). Autopsy findings have revealed a significant reduction of weight and size of the gland in patients with type I diabetes (3).

The reasons why the destruction of β-cells (which constitute only 2% of the gland) induces a significant reduction of the exocrine pancreatic tissue are not clarified. It has been shown that the exocrine function of the pancreatic gland is impaired in diabetic subjects, and this deficit is closely related to the β-cell damage (4). The paracrine trophic effect of insulin seems to be responsible for the reduction of structure and size of the pancreatic gland (5,6).

In the present study, ultrasonography of the pancreas was performed in 60 children and adolescents with type I diabetes randomly selected in a large group of diabetic patients participating in the study; their age ranged from 3–15 years. The patients were subdivided into three groups of 20 (10 boys, 10 girls) aged 3–7 years (group A), 8–12 years (group B), and 13–15 years (group C), respectivey. Diabetic patients were not receiving any drug except insulin. No child was suffering from a chronic disease other than diabetes.

The control group consisted of 60 healthy subjects, sex- and age-matched, with no familiar history of type I or type II diabetes and pancreatic disease. They were selected among relatives of physicians and nurses in our hospital. Also, they were not receiving any drugs and were comparable with diabetic patients for height, weight, flanks, and waist circumferences. Informed consent was obtained by the parents and children older than 10 years. In diabetic patients, dura-