CSII, treatment with insulin pen does not increase the risk of skin infections and ketoacidosis in insulin-treated diabetic patients.

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Nonuremic Pancreas Transplantation

The University of Texas Southwest Medical Center physicians stated in their article "Is Pancreas Transplantation in Nonuremic Patients a Viable Option?" that this surgery "is not a therapeutic option" (1).

Some of us in other states (i.e., Michigan and Minnesota) think that the patients should have some right to choose correct options for themselves. With a success rate of >50% in some institutions, who should have the power to determine if pancreas transplantation options are offered to the individual? As a diabetes educator, I have the duty to provide information on all aspects of diabetes care, which includes research. There are no absolutes and no guarantees in any area of the treatment of diabetes. What we finally have to offer in this decade is hope. Because the authors chose to reuse the word *theoretically*, I will use reality here. The reality is my own experience with nonuremic pancreas transplantation.

In 1983, after 23 yr of diabetes, I was given the opportunity to choose cyclosporin instead of insulin and immunosuppression instead of progressing complications. My neuropathy has completely reversed, my retinopathy has been stable for 5 yr, and creatinine clearance has remained unchanged since the transplant. My quality of life has drastically improved. In his editorial, Sutherland (2), of the University of Minnesota, discussed similar transplant successes.

Vinik (3), of the University of Michigan, challenged the community of health-care providers "who care for patients with diabetes" to develop criteria for pancreas transplantation. I challenge health-care providers to do more than "care for" people with diabetes—listen to them with an open mind. Provide the facts and let those who live with this devastating disease determine their own future.

Should the decision of what is a therapeutic option be left to those without dreams? I think not.

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Systolic Hypertension in IDDM Patients With Hyperfiltration and Normal Albumin Excretion Rates

The prognostic significance of a high glomerular filtration rate (GFR) in the absence of microalbuminuria remains uncertain in insulin-dependent diabetes mellitus (IDDM) patients (1). We report higher levels of systolic blood pressure in normoalbuminuric hyperfiltering IDDM patients than in a matched group of normoalbuminuric and normofiltering IDDM patients. As far as we know, this association has not been previously reported.

Seventeen patients with IDDM (8 women, 9 men) with a mean ± SD age of 30.6 ± 6.0 yr (range 22–43 yr), mean body mass index (BMI) of 21.6 ± 2.8 kg/m^2 (range 17.8–27.0 kg/m^2), and diabetes duration of 5.8 ± 5.2 yr (range 1–24 yr) were studied. These patients were selected from all IDDM patients attending our outpatient clinic from December 1985 to July 1986. Our purpose was to prospectively observe the evolution of early abnormalities of the diabetic kidney. Informed consent was obtained from each patient. Inclusion criterion were

>18 yr of age; duration of disease >1 yr; no obesity, history or clinical evidence of hypertension, cardiovascular disease, or urinary infection or other renal disease; and 24-h urine protein <0.5 g.

During the selection period, each patient was seen on two occasions, 1–3 mo apart, and on each visit, blood pressure was measured by the same observer with a standard clinical sphygmomanometer (cuff 25 × 12 cm) on the right arm in the seated position after 5 min rest. Diastolic blood pressure was recorded at the Korotkoff sound phase IV. All subjects were conventionally treated with insulin, and no other medication was used.

Patients were divided into two groups according to their GFR. Hyperfiltering (H) IDDM patients had a GFR >134.0 ml · min^{-1} · 1.73 m^{-2}, and the normofiltering (N) group had a GFR <134.0 ml · min^{-1} · 1.73 m^{-2}. This value corresponds to the mean + 2SD measured in 20 healthy control individuals matched for age, sex, and BMI (GFR 114.9 ± 9.9 ml · min^{-1} · 1.73 m^{-2}). GFR was measured with the technique of a single injection of ^{51}Cr-EDTA (2), and urinary albumin excretion (UAE) was measured by radioimmunoassay (DPC, Los Angeles, CA) on 24-h urine.

H and N groups were compared for age, duration of diabetes, BMI, systolic and diastolic blood pressure, a cardiovascular autonomic test (the Valsalva ratio; 3), sensory neuropathy, and diabetic retinopathy. Diabetic retinopathy was classified as present (background or proliferative retinopathy) or absent (normal fundoscopy). Symmetrical sensory polyneuropathy was present when there was a reduction in vibratory-perception threshold when measured with a tuning fork applied to the malleolus. Metabolic control of the two groups was analyzed with measurement of fasting glucose, glycosylated hemoglobin, urinary glucose, triglycerides, and cholesterol with routine methods. The excretion of urinary sodium was measured in 24-h urine samples.

In statistical analyses, data are presented as means ± SD. Nonparametric tests were used (Wilcoxon's-Mann-Whitney test, Fischer exact test) except in analyses of systolic and diastolic blood pressure, in which the two-tailed unpaired Student's *t* test was used. The level of significance was 5%.

The GFR of H IDDM patients (n = 9) was 160.3 ± 16.6 ml · min^{-1} · 1.73 m^{-2} and in the N group (n = 8) was 117.1 ± 17.6 ml · min^{-1} · 1.73 m^{-2}. UAE in the H group was 5.3 ± 5.9 μg/min and in the N group was 6.0 ± 7.5 μg/min with no difference between these values. Although one patient in each group (H group, 17.5 μg/min; N group, 21.6 μg/min) had UAE above the upper limit of our normal range (13 μg/min), the values are below those predictive of late nephropathy (1). Clinical characteristics of patients in H and N groups, respectively, were age 29.4 ± 4.1 and 31.8 ± 7.7 yr, duration of IDDM 4.1 ± 2.7 and 7.3 ± 7.0 yr, BMI 22.1 ± 2.4 and 20.9 ± 3.1 kg/m^2, systolic blood pressure 122.4 ± 13.9 and 108.7 ± 12.1 mmHg, diastolic blood pressure 73.6 ± 7.2 and 70.6 ± 10.1 mmHg, Valsalva ratio 1.98 ± 0.4 and 2.11 ± 0.5, symmetrical sensory polyneuropathy (presence) 33.3 and 37.5%, and diabetic retinopathy (background or proliferative) 11.1 × 12.5%. The only difference between the two groups was the systolic blood pressure, which was higher in the H group. No difference was observed in the parameters of metabolic control, which in H and N IDDM patients, respectively, were fasting plasma glucose 9.0 ± 4.9 and 10.8 ± 8.0 mM, glycosylated hemoglobin 9.6 ± 1.8 and 11.9 ± 3.7%, urinary glucose 33.7 ± 34.5 and 11.0 ± 14.9 g/24 h, cholesterol 5.6 ± 1.3 and 4.6 ± 1.4 mM, and triglyceride 82.9 ± 24.9 and 74.9 ± 34.8 mg/dl. No difference was found in the 24-h urinary sodium-creatinine ratio (meq/g) in the H group (267.7 ± 137.8) and N group (156.4 ± 90.3). Duration of diabetes in these subjects (5.6 ± 5.3 yr) was shorter than the mean duration of diabetes in patients (11–19 yr old) studied by other authors in whom systolic and diastolic hypertension were observed in the presence of microalbuminuria (4–7).

Microalbuminuria may represent a more advanced stage of the natural history of diabetic renal involvement and a marker of early kidney disease rather than an indicator of susceptibility. This could be confirmed after continuous observation of these patients. These data suggest that the role of altered hemodynamic factors observed early in some IDDM patients may eventually predispose those patients to later complications of diabetic kidney disease.

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