Table 1—*Peak concentration (C_{max}), time to peak concentration (t_{max}) and time detection (t_{det}) following a single dose of 5 mg glipizide in seven NIDDM patients, during hyperglycemia and normoglycemia*

	C_{max} (μg/ml)		t_{max} (min)		t_{det} (min)	
Patient	Hyperglycemia	Normoglycemia	Hyperglycemia	Normoglycemia	Hyperglycemia	Normoglycemia
1	542	139	150	90	150	90
2	399	1,572	90	90	90	45
3	239	484	90	150	90	45
4	99	415	150	45	150	45
5	397	780	90	45	45	45
6	224	446	150	150	90	45
7	1,747	1,475	150	90	15	15
Means ± SE	521 ± 211	758 ± 210	124 ± 12	94 ± 16	90 ± 18*	47 ± 8*

* $P < 0.05$.

glycemia may cause a delay in the absorption of sulfonylurea drugs. The glipizide absorption rate varies greatly between subjects, probably because of differences in the rate of gastric emptying and hence in glipizide dissolution rate (3). Hyperglycemia slows gastric emptying, and this factor can modify drug absorption (4,5). The mechanisms responsible for the inhibitory action of hyperglycemia on gastric motility are not known. Alterations in gastrointestinal hormone secretion (such as motilin, pancreatic polypeptide, somatostatin, glucagon, gastrin, and gastric inhibitory polypeptide) may be important (6–8). On the other hand, hyperglycemia stimulates pyloric motility (9) and may supress vagal nerve activity, producing an autonomic nerve dysfunction (10). According to our results, hyperglycemia per se could influence the therapeutic efficacy of the sulfonylureas, delaying their absorption and, therefore, their hypoglycemic effect in relation to the meal-induced increase of blood glucose.

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Impaired Glucose Tolerance of Pregnancy by WHO and NDDG Criteria

Pettitt et al.'s article "Comparison of World Health Organization and National Diabetes Data Group procedures to detect abnormalities of glucose tolerance during pregnancy" (17:1264, 1994), is an important paper to help rationalize the diagnostic approach to gestational diabetes. However, I feel the authors may be unduly harsh on the two-step procedure (1-h screening test and then an oral glucose tolerance test). Using the World Health Organization (WHO) criteria, there are three possible outcomes after diagnostic testing: normal, impaired glucose tolerance, or diabetes. Using the formal criteria of the National Diabetes Data Group for diabetes in pregnancy, it's an all or nothing result, either normal or diabetic. Previous studies have shown that one abnormal value is of some predictive value for neonatal morbidity (1,2), and thus I think that the data on the sub-

jects for the two-step test who have one abnormal value should be provided in Tables 1 and 2. I suspect that subjects with one abnormal value on the 100-g test, who would be considered by many to have impaired glucose tolerance of pregnancy, may correlate with those who had impaired glucose tolerance by WHO criteria. Of more importance would be the finding that these subjects with one abnormal value on the 100-g oral glucose tolerance test also fell into the group with macrosomia or requiring a cesarean section. Provision of this additional information would be beneficial.

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