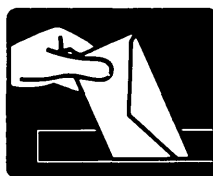

Letters to the Editor and Comments on Practice



Readers will note a change in the title of this section. The intent of this change is to provide a forum for clinical commentary on patient care. As has been the policy with *Letters to the Editor*, in order to encourage free exchange of ideas, this section will not be peer reviewed. The opinions presented here do not necessarily reflect the opinions of the Editors or the American Diabetes Association.

Crises of Diabetes

I read with interest the article by Hamburg and Inoff in the July-August 1983 issue of *DIABETES CARE*.¹ The article is excellent and refers to a variety of crises that may impact in the care of patients with diabetes mellitus. I would like to call attention to another anticipatable crisis. The institution of an insulin pump into a pregnant woman's day-to-day functions can produce a significant problem. In many cases, women using the pump have, for the first time, a visible reminder of their diabetes. I have had experiences with women who, once having tried the pump, refuse to use the pump again despite their recognition that it offers clear benefits to them. Sexual rejection is not an uncommon fear among pregnant women and because of the pump may become an overwhelming concern. Additionally, we have found that women who are not pregnant may have similar perceptual difficulties concerning their own femininity and sexuality in association with this device, which they may perceive for the first time as a neon sign describing to the world at large their "impairment."

I'm sure my observation is not unique, but at least for those health care providers dealing with the pregnant diabetic woman, it seems worth the warning. We can likely blunt the impact of such a potential crisis by making the patient aware of this issue.

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REFERENCE

¹ Hamburg, B. A., and Inoff, G. E.: Coping with predictable crises of diabetes. *Diabetes Care* 1983; 6:409-16.

Crises of Diabetes: A Reply

I thank Dr. Goldstein for his comments. It is useful to point out the predictable stress that is likely to be associated with the use of insulin pumps by women. It is my informal understanding that the overall use by women is significantly lower than by men. I am interested to learn that even where the motivation for careful control is greatly heightened by pregnancy that the negative emotional reactions to the pump have been so pervasive in his patients.

Nonpregnant women have commented on the bulkiness of the pump and believe that their acceptance would be far greater if the size could be reduced to something in the range of a package of cigarettes. Even some of these women express concern about the potential for infection posed by use of insulin pumps.

Dr. Goldstein's comments would seem to indicate the necessity for systematic reports on reactions to the use of the pump now that there is a considerable body of experience. This is the kind of data needed if physicians are to provide soundly based anticipatory guidance.

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Insulin-dependent Diabetes Mellitus and Maternal Age

In a recent article in *DIABETES CARE*, Dr. Flood reported an increased incidence of insulin-dependent diabetes mellitus (IDDM) in children of older mothers and requested data from

TABLE 1
Age of mother at the time of birth of diabetic child

| Maternal age (yr) | Observed (Fi) | Expected (Ei) | (Fi - Ei) ² | |
|-------------------|---------------|---------------|------------------------|-------------|
| | | | Fi - Ei | Ei |
| 15-19 | 9 | 16.30 | -7.3 | 3.27 |
| 20-24 | 53 | 82.20 | -29.2 | 10.37 |
| 25-29 | 84 | 81.19 | +2.81 | 0.10 |
| 30-34 | 63 | 42.74 | +20.26 | 9.60 |
| 35-39 | 27 | 15.36 | +11.64 | 8.82 |
| 40-45 | 5 | 3.90 | +1.1 | 0.31 |
| >45 | 1 | 0.31 | +0.7 | 1.54 |
| Total | 242 | 242.00 | $\chi^2 = 34.01$ | (P < 0.005) |

other Centers.¹ We were thereafter prompted to review the cases in our Clinic.

During the period from January 1972 through December 1982, we have seen 242 children affected by strictly insulin-dependent, ketosis-prone diabetes mellitus. Mean age at onset of disease was 7.14 ± 6 yr. All the patients came from Turin City and surrounding areas (Northern Italy). Control data for expected maternal age of women from our region at birth of first and subsequent live-born children were derived from the National Institute of Statistics (ISTAT) reports for 1979.² No significant change was noted from 1960 through 1978 in median maternal age at birth of first and subsequent children. We used χ^2 analysis to determine whether the distribution of maternal age at birth of a diabetic child differed from that in the general population.³

As shown in Table 1, we too found a lower incidence of affected children born to younger mothers and a significant excess among the offspring of mothers over 30 yr of age ($\chi^2 = 34.01$; $P < 0.005$). Moreover, the sibling order seems to be related to an increased incidence of IDDM. In fact, in our population 25 of 242 families (10.3%) had more than three children and, among them, the diabetic child was last-born in 23 families.

Our data support the observation of Dr. Flood concerning a higher incidence of IDDM in children of older mothers and corroborate the hypothesis of a population subset with greater IDDM risk. A survey of these patients should include, besides studies of HLA haplotypes and detection of islet cell antibodies (ICA), an evaluation of the clinical course and incidence of microvascular complications.

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Increased Glycosylated Proteins in Opiate Addicts

The occurrence of a nonenzymatic glycosylation of proteins in diabetes has been recently described.¹ We have shown impaired glucose tolerance and increased HbA_{1c} levels² in opiate addicts probably due to morphine addiction.

Consequently we measured blood glucose, HbA_{1c}, and glycosylated proteins in 20 male addicts [age: 23 ± 4.2 yr; weight: 68.4 ± 4.5 kg (mean \pm SD)] and in 20 healthy male controls matched for age (24 ± 3.6 yr) and weight (69 ± 3.87 kg). Glycosylated serum proteins were measured, in duplicate, by the Kennedy method.¹ HbA_{1c} and glycosylated protein levels were increased in addicts versus controls (HbA_{1c}: 7.1 ± 0.15 versus $6.2 \pm 0.18\%$, $P < 0.001$; glycosylated proteins 0.66 ± 0.09 versus 0.61 ± 0.2 nmol HMF/mg protein, $P < 0.02$).

No correlation has been found between HbA_{1c} and glycosylated protein levels. Our data demonstrate the presence of increased nonenzymatic glycosylation of proteins in addicts. Our other studies confirm that these subjects have other changes very similar to patients with diabetes,^{3,4} including increased platelet aggregation⁵ and fibrinogen levels,⁶ polycythemia and increased reticulocyte counts,⁷ and decreased HDL and apolipoprotein A levels.⁸

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