The Use of Insulin in the Treatment of Diabetes: An Analogy to Methadone Maintenance

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A five-year study was conducted on 300 insulin-dependent diabetics. The purpose of the study was to determine if the use of insulin resulted in any long-term benefit to diabetics. The concept was based on two widely accepted hypotheses: (I) that a formerly insulin-dependent diabetic could learn to live a comfortable and responsible life without insulin, provided that he or she wanted to badly enough; and (2) that the use of any exogenous substance to replace or simply substitute for a deficient endogenous substance is conceptually unacceptable to modern scientific thinking and may be inherently evil.

It is obvious that exogenous insulin, being highly suspect at the outset, should be used in the lowest possible dose and for the shortest time possible. In this study, treatment with insulin was limited to two years and the daily dose was limited to a maximum of 40 units. The post-treatment follow-up period varied from three days to three years, depending on the duration of survival. During the treatment phase (insulin maintenance), random urine samples were collected under direct supervision and tested for glucose at least weekly. A positive urine glucose resulted in a warning to the patient. After three positive urine tests, the dose of insulin was reduced by five units daily for each positive urine test. This policy was intended to increase motivation on the part of the patient to

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provide urine specimens negative for glucose. If positives continued, the insulin was eventually discontinued and the patients were placed in the follow-up group. The authors of the study felt that patients would have a better chance of reentry into insulin maintenance at a later date if (a) patients survived and (b) patients accepted full responsibility for their insulin dependence and were willing to go to any lengths to recover.

All patients were required to endure one hour of individual or group counseling each week, which addressed such subjects as meal planning, hygiene for the feet, pancreatic imagery, and dietary assertiveness. Counseling patients fell into one of three categories: those who had no need or desire for counseling; those who might need counseling but were entirely unwilling to participate; and those who both wanted and needed extensive counseling, but the counselors were so busy spending an hour a week with the others that they were unable to meet the increased demands and needs of this group. A voiding this bothersome, time-consuming, and costly process of individualized treatment also served to reduce the risk of enabling the patients' maladaptive behaviors by what could seem to be a reward system. The resulting uniformity of service assured that the needs of no one were met. It was hoped that by making the treatment unpleasant that motivation for recovery would be enhanced.

Half of the participants failed to complete the two-year treatment with insulin maintenance. Some patients simply dropped out of treatment, but most were terminated for continued glucose-positive urines. This was despite repeated warnings and in absolute defiance of the reductions in insulin dosage with each glucose-positive urine. It was concluded that this population is poorly motivated, difficult to work with, and lacking the resources needed to effect the major life changes required for recovery. Many of this group died during follow-up. Some survived with amputations, blindness, neuropathies, and other conditions associated with the unhealthy lifestyle of the diabetic.

The remaining half did manage to complete the two-year treatment and even appeared to experience relatively good health and seemingly normal functioning. Of course, this illusion of apparent good health was at the expense of continuing to maintain the insulin-dependent status with daily insulin. Some investigators speculated that insulin might be continued over a longer period of time and at higher doses. This notion was quickly rejected as being absurd because good health should not be obtained at just any cost. As the patients approached the two-year period, the insulin doses were tapered over the final two months. All sub
jects began having positive urine tests and again were showing active insulin-dependent diabetes. The obvious conclusion is that insulin does not help the insulin-dependent diabetic and is not effective in treatment. The high mortality rate of post-treatment patients suggests that insulin may have had some delayed, deadly toxic effects. This concept should be the subject of future research.

**COMMENT**

This "insulin spoof" was originally written with the idea to share it among friends and colleagues. Somewhat surprisingly, the spoof was well received by many who urged that it be shared with a wider audience. Initially, the intention was to transpose rather typical and illogical clinical thought processes about methadone maintenance to another more familiar chronic and incurable disease.

The transposition to a disease that is much more widely understood made the line of reasoning clearly absurd in the new context. Yet when this pseudo-logic is applied to chronic opioid dependence and methadone maintenance, few people find anything wrong or out of place. One might conclude that the vision of some is clouded by philosophical and ideological considerations that erect barriers to understanding, accepting, and implementing this lifesaving treatment modality for those chronic intractable heroin addicts who need it.

Any humor in this parody is quickly lost when one estimates the loss of life and other costs associated with untreated heroin addiction that can be attributed to a persistent shortage of methadone treatment slots. This shortage is due, in part, to persistent negative attitudes toward the methadone treatment modality.