AMBULATORY INSULIN TREATMENT FOR CHRONIC SCHIZOPHRENICS*

BY OSCAR PELZMAN, M. D., AND CECIL L. WITTON, M. D.

The administration of effective therapy to the large number of patients in continued treatment wards of the state mental hospitals is a difficult and vexing problem. Chronic schizophrenia, accounting for about half of the hospitalized cases, is a disorder particularly refractory to treatment. Any therapy, therefore, that might have even limited chance of success for those patients, deserves investigation and attention. Ambulatory insulin therapy, discussed in this paper, has been tried on a relatively small scale but the reports have been optimistic enough to warrant further trial in the continued-treatment group setting.**

A special treatment ward for chronic schizophrenics was established in June 1947 in Central Islip State Hospital, to give the opportunity to evaluate several aspects of ambulatory insulin treatment:

1. The effect of sub-shock doses of insulin, given regularly for a prolonged period.

2. The effect of a psychotherapeutic program consisting of individual and group psychotherapy, occupational and recreational therapy, given in addition to the insulin therapy.

3. The relative value of insulin and the other factors in the treatment (by substituting a placebo injection for the insulin in a number of cases and omitting the injections altogether in another group).

4. Comparison of the improvement and the discharge rate in the specially-treated group with that of a similar group under usual conditions.

*At the New York State Department of Mental Hygiene Down-state Inter-hospital Conferences of 1948 and 1949 the authors presented two papers on the subject; this is a report combining both papers in condensed form.

**While the present investigation was in progress, P. J. Tomlinson, Gowanda State Hospital, published a report on “Ambulatory Insulin Therapy” (PSYCHIAT. QUART., 22:609-620, October 1948). His results are surprisingly good despite the application of the method to a fairly unselected group. Treatment is given every day, including Sundays, for 60 days. If indicated electric convulsive treatment or metrazol is given in combination. All kinds of psychoses are treated. The author’s conclusion, that the method has its merits and should be used more routinely, can be supported by the writers of this paper.
The special treatment unit was established in a continued treatment ward of 200 male patients suffering from various organic and functional psychoses. They were hospitalized from six months to 35 years. The building has two wings with a large dormitory and a dayroom on each side. Before the study started the patients were distributed about equally on both sides with no attention to diagnosis; the only criterion for their distribution was their behavior. The noisy patients and the ones more difficult to handle were placed in the east wing because it was somewhat more remote from the thoroughfare of the hospital. The quieter ones were located in the west wing with its porch near to the traffic of the hospital.

A number of the schizophrenic patients had received one or several types of shock therapy at some time without showing improvement. The patients in the two wards of the building were re-distributed in such a way as to remove all nonschizophrenic patients from one ward. On the other ward remained a mixed group, having all types of psychoses. The first ward was made as pleasant as possible by simple means, like new curtains, rugs (made by patients), book shelves, and so on. No criteria were applied to the selection of the patients for ambulatory insulin except that in the first group only cases of less than six years duration were included. Subsequently cases with durations up to 15 years were added. Treatment was started with a group of 20 patients who received insulin and all other increased attention, referred to as "total push." A second group of 10 patients received the same treatment, except that a placebo (saline solution) was substituted for insulin; and another control group of patients received only "total push" without either insulin or placebo.

**Procedure**

The following routine is used in the ambulatory, or sub-shock insulin treatment. The patients are not allowed to have breakfast, and care is taken that they do not conceal food. The insulin is given at 7 a.m. by a male nurse. All patients are started with 10 units, the amount being increased by 5 units every two to four days, until an amount is reached where the patient at 9 a.m. shows definite signs of hypoglycemia. He becomes drowsy, sleepy, sometimes unsteady, and starts to perspire. His pupils may dilate. He is kept in this state for one hour. About half of the treatment