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Electrosleep—A Clinical Trial

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Electrosleep is a technique of psychiatric treatment that has been undergoing development in the USSR for approximately 20 years, with a great flurry of interest in the past five years. The authors report briefly on a clinical evaluation of electrosleep in the United States to alert other investigators in this country to a new area of possible interest.

“ELECTROSLEEP” refers to the technique of inducing sleep or a relaxed state by the transcranial application of a low-intensity electrical current. It has been in the process of development in Russia for the past 20 years, and a series of recent reviews describes the intensification of activity and investigation in the areas of electrosleep and electroanesthesia in the past four years (1-4). The Soviet bloc and the USSR in particular seem to have allocated a good

deal of time, energy, and human resources for research and development in this area. In spite of this, there has been little effort at investigation in the United States, probably in part because of a traditional distrust in the use of electrical devices in psychiatry by a large portion of the psychiatric population. We have attempted to give electrosleep a clinical trial in a university setting in the United States and through this paper to alert other investigators in this country to a new area of investigation.

We have been treating a group of more than 40 outpatients with chronic anxiety, depressive states, and associated insomnia. Most patients who were selected had not responded to the usual antianxiety and anti-depressive medications.

We have employed the Electrosone 50 machine, which is an American-made instrument modeled after the Russian machine. It is about the size of a table model portable radio and does not run on wall current but on batteries. The treatment involves a course of five to ten half-hour treatments given on consecutive days. The machine is set at a frequency of 100 pulses per second and a

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duration of one millisecond, the zero baseline bias current and current amplitude adjusted so that the patient feels a slight, but not uncomfortable, tingling over his eyes. This is usually produced by an amplitude of 12 to 20 volts and a current reading of 0.1 to 0.2 milliamps.

With this population of patients who were previously refractory to standard medication therapy, we found, to our surprise, that approximately two-thirds showed a rapid and relatively complete remission of symptoms. The most immediate effect was an almost total and complete improvement in the nighttime insomnia; the patients reported sleeping through the night following the first, second, or third treatment. Improvements in anxiety and depressive symptoms were usually seen by the fifth treatment. We are quite aware that this study was uncontrolled and that there was a tremendous potential for possible effects of suggestion. Further controlled studies are anticipated.

It is to be noted that electrosleep avoids

many of the conditions that make electroconvulsive therapy aesthetically unattractive to some people. In electrosleep therapy, the patient does not feel any discomfort at any time, is not unconscious at any time (indeed he may remain awake throughout the entire treatment), and does not experience any convulsion of any kind. It seems to be a humane treatment, and no significant side effects have been reported.

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A man lives not only his personal life, as an individual, but also, consciously or unconsciously, the life of his epoch and his contemporaries.

—THOMAS MANN