KETAMINE STUDY AT YALE: AN UPDATE

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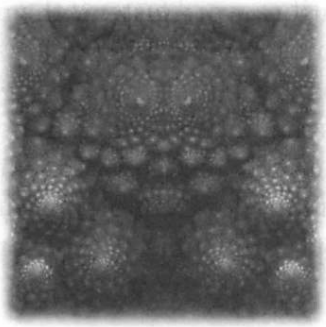
AS I WROTE in the Spring/Summer issue of MAPS, I have left my laboratory in St. Petersburg, Russia for a year to carry out studies of ketamine psychopharmacology in alcoholic patients at Yale with Dr. John Krystal. I have been working with Dr. Krystal at the Yale/West Haven VA Medical Center for about six months. I am thankful to Dr. Krystal and to all his colleagues who helped me and my family to get settled and adjusted in West Haven and feel ourselves comfortable here.

A protocol which I submitted has recently been approved. The protocol is focused on the study of



interactions of ketamine and nimodipine in alcoholic patients. The major underlying mechanism of ketamine action is a blockade of the calcium channel of the NMDA receptor. Nimodipine blocks another type of calcium channels, dihydropiridine-sensitive calcium channels. All these calcium channels are involved in the processes of thought, memory, emotions, seizures, and the development of alcohol withdrawal syndrome and alcohol dependence. Thus, our study could perhaps further clarify the subtle underlying mechanisms of ketamine-induced altered states of consciousness and shed light on the pathogenesis of alcoholism. It has been previously shown in rodents that nimodipine reverses memory disturbances and ambulatory activity induced by ketamine. Also, studies carried out in our laboratory in St. Petersburg have demonstrated that nimodipine significantly improved the patient's memory of the content of the ketamine psychotherapy session (about the psychedelic peak experiences and the psychotherapist's influence). Thus, we already have some positive preliminary data.

The protocol design is double-blind placebo-controlled and focused on the study of the broad range of effects of ketamine-nimodipine interactions such as behavioral and cognitive effects, long-term psychological consequences, and influence on the event-related potentials (ERP). I hope that the combination of behavioral, psychological and neurophysiological data will allow us to better discern some of the subtle underlying mechanisms of drug interaction and action on the brain. This can contribute to a better understanding of the treatment of alcohol dependence and other mental illnesses.

We hope to gather preliminary data with two to four patients before I return to Russia in March 1997. This data will lay a foundation for future joint research. •

MAPS has awarded $24,000 to Dr. Krupitsky to study the use of ketamine in the treatment of heroin addiction. This study will begin upon Dr. Krupitsky's return to St. Petersburg, Russia in Spring 1997.

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