

Treatment of the Acute Alcohol Withdrawal State: A Comparison of Four Drugs

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A double-blind study of 537 patients evaluated the relative efficacy of four drugs—chlordiazepoxide, chlorpromazine, hydroxyzine, and thiamine—commonly used in treating alcohol withdrawal symptoms, specifically to prevent delirium tremens and convulsions. Of the 55 patients who developed these symptoms, two percent were in the chlordiazepoxide group; the incidence ranged from ten to 16 percent in the other treatment groups. The authors conclude that chlordiazepoxide appears to be the drug of choice among those tested.

IN THEIR CLASSICAL STUDY Isbell and associates(8) conducted an experiment in which ten former morphine addicts consumed large amounts of alcohol for prolonged periods, following which alcohol was abruptly withdrawn. Four of the subjects withdrew from the study before abstinence symptoms appeared. The six volunteers who consumed alcohol for 48 days or more exhibited significant symptoms on withdrawal: tremor, weakness, perspiration, nausea, vomiting, diarrhea, hyperre-

flexia, fever, elevated blood pressure, and insomnia. Seizures occurred in two of the subjects, delirium tremens in two others, and hallucinations without impairment of sensorium in two (one of whom also suffered convulsions).

Because these subjects consumed an excellent diet liberally supplemented with vitamins, it did not seem likely that their symptoms were due to a nutritional deficiency. The report by Isbell and associates strongly supported the thesis that withdrawal of alcohol is responsible for this syndrome.

In a more naturalistic setting Victor and Adams(18) studied 266 patients who were consecutively hospitalized for alcoholism. After the intake of alcohol was stopped, 32 (12 percent) of the patients suffered seizures, 14 (five percent) had delirium tremens, and 47 (18 percent) exhibited atypical hallucinatory states. These authors also considered the syndromes related to cessation of drinking.

Fraser(5) produced an abstinence syndrome in chronically intoxicated dogs (tremulousness, seizures, and a "canine delirium") when alcohol was abruptly withdrawn from them. The Lexington group (Isbell and associates) stated that complete cessation of drinking was not necessary to provoke abstinence symptoms, for they found that a 25 percent reduction in the average daily alcohol intake could result in a fall of blood alcohol values to zero.

Fraser(5) likens alcohol withdrawal to withdrawal from barbiturates, and he advises (in both cases) substitution of a drug with equivalent effects in order to avert delirium, seizures, or both. Isbell and associates(8) advise against alcohol for this purpose because its calories lack proteins, vitamins, and minerals, and it is difficult to adjust dosage to avoid intoxication. They

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