
Communications

Ambulatory Alcohol Withdrawal

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Alcohol withdrawal has traditionally been accomplished by pharmacologic means in a hospital or without medication in a social setting.¹⁻⁶ Many patients, however, choose not to enter an institutional setting for financial, employment, family, or other reasons and prefer to withdraw from alcohol on an ambulatory basis. This is a report of 60 consecutive patients who underwent such a withdrawal. The techniques used are simple and can be used by most primary care clinics and family physicians.

Methods

Sixty patients were admitted to ambulatory alcohol withdrawal in a clinic located in eastern Los Angeles County (Community Health Projects, Inc). The mean age of these patients was 39.4 years, with 48 males and 12 females; 35 (58 percent) were employed. All patients had been drinking on a compulsive, daily basis for at least one

month. The overall length of self-reported alcohol abuse ranged from one to 31 years, with a mean abuse length of 9.7 years. Table 1 lists the patients' primary reason for preferring ambulatory withdrawal. In order to be admitted, the patient had to be accompanied by a spouse, relative, or close friend who agreed to help administer medication and ensure daily clinic attendance for one week.

Table 2 gives the stepwise description of the withdrawal process. Each patient completed a written alcohol and health history prior to physical examination. A breath test was done to help assess level of intoxication.⁷ Hydroxyzine was chosen as the primary withdrawal agent since it has previously been shown to relieve mild-to-moderate alcohol withdrawal symptoms, and it has a low abuse and overdose potential compared to the benzodiazepines.^{1,8} If the alcohol breath test was less than 0.10 percent, the first day's dose of hydroxyzine was 25 to 50 mg, given every four hours. When the breath test was negative and withdrawal signs were present, a dose of 50 to 200 mg was given every four hours. Patients returned to the clinic daily for five to seven days at which time vital signs, mental status, breath-alcohol content, and withdrawal signs and symptoms were assessed. Disulfiram (Antabuse) was administered as soon as a negative breath test was recorded to help ensure that no more drinking would occur. Injectable diazepam was given if hallucinations, delusions, nausea, tremor, or agitation occurred.

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Table 1. Primary Reason for Preferring Ambulatory Alcohol Withdrawal	
Reason	Number of Patients
Employed and cannot leave work	33
Cannot afford hospitalization	12
Cannot leave family	10
Not sufficiently addicted to require hospitalization	5
Total	60

Table 2. Stepwise Description of Ambulatory Alcohol Withdrawal Process
<ol style="list-style-type: none"> 1. Patient accompanied by spouse or other person. 2. Alcohol and health history. 3. Physical examination to screen for acute medical problem requiring hospitalization. 4. Alcohol breath test. 5. Breath alcohol, 0 percent: Hydroxyzine, 50-200 mg, given every four hours. Exact dose dependent upon severity of withdrawal signs and symptoms. 6. Breath alcohol between 0 percent and 0.10 percent: Hydroxyzine, 25 to 50 mg, given every four hours. Exact dose dependent upon severity of intoxication and anticipated withdrawal symptoms. 7. Breath alcohol over 0.10 percent: Patient returns four to six hours later to begin medication. 8. Daily clinic attendance for five to seven days: <ol style="list-style-type: none"> A. Monitor breath test and withdrawal signs and symptoms each day. B. Administer intramuscular diazepam, 10 to 20 mg, if hallucinations, delusions, tremor, or agitation occur. C. Begin daily disulfiram as soon as breath test is negative. D. Daily dose of hydroxyzine tapered each day after Day 3 until zero dose is reached by Day 7. 9. After withdrawal, enter self-help group, psychotherapy, and/or disulfiram maintenance.

After the third day, the total daily dose of hydroxyzine was lowered each day so that all medications, with the possible exception of Antabuse, were stopped by the seventh day. Following withdrawal, the patient was encouraged to enter long-term treatment with a self-help group, residential program, outpatient counseling, or Antabuse maintenance.

Results and Outcome

Fifty-seven (57) of 60 (95.0 percent) patients successfully completed withdrawal. No seizures occurred, although six (ten percent) persons experienced mild hallucinations, delusions, tremor, nausea, or agitation that required injectable di-

Table 3. Outcome of Ambulatory Alcohol Withdrawal in 60 Consecutive Patients

Outcome	Number of Patients
Entered long-term treatment following withdrawal	55
Hallucinations, delusions, tremor, nausea, or agitation requiring ancillary medication	6
Did not complete withdrawal	3
Seizures	0

azepam in addition to hydroxyzine. Fifty-five (91.7 percent) entered a long-term treatment program following withdrawal (Table 3).

Discussion

The high cost of alcohol withdrawal in a hospital or other institution makes ambulatory withdrawal an attractive alternative for patients without severe medical complications. Many patients cannot afford the cost of institutional treatment or are unable to leave employment or family obligations. Three of the cases in this series did not complete withdrawal, suggesting that an alternative form of withdrawal may have been more appropriate.

An unexpected finding in this series was the high percentage of patients who entered long-term alcohol treatment following ambulatory withdrawal. Smart and Gray have recently reported that alcoholics who receive outpatient medical intervention such as Antabuse maintenance tend to remain in treatment longer than other patients.⁹ Other studies report that advice or supportive counseling in outpatient clinics is as effective as more intensive alcohol treatment.^{10,11}

Several pharmacologic techniques, including the one used here, have been developed that effectively prevent the serious complications of alcohol withdrawal.^{1,4} Nonmedical withdrawal in a social setting has recently been described which indicates that alcohol withdrawal with no phar-

macologic intervention is safe in many cases.^{5,6} The ambulatory alcohol withdrawal technique presented here has been an effective and safe procedure. Ambulatory alcohol withdrawal, therefore, appears to be a procedure that can be used by primary care clinics and family physicians.

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