UTILITY OF CIWA-A IN ALCOHOL WITHDRAWAL ASSESSMENT

S. MANIKANT, B.M. TRIPATHI AND B.S. CHAVAN

Forty-four patients of DSM-III-R diagnosis of alcohol withdrawal syndrome were assessed on CIWA-A scale. Most common withdrawal symptoms were tremors, sweating, anxiety, agitation, headache and flushing. Mostly symptoms subsided within four days. However, in half of the patients the symptoms like tremors, tactile disturbances, anxiety and headache persisted even beyond eight days. Usefulness of CIWA-A in alcohol withdrawal assessment is discussed.

The clinical manifestations of alcohol withdrawal state develop along a continuum (Gross et al., 1973; 1974). The earliest symptoms are insomnia, vivid dreaming and hangover. Anxiety, mild agitation, anorexia, tremor, sleeplessness, tachycardia and hypertension appear a few hours after cessation of drinking. The severe withdrawal reactions occur later only in a few subjects (Sellers & Kalant, 1976). In some patients, the initial symptoms are gradually followed by increasing psychomotor, verbal and autonomic hyperactivity, disorientation, confusion, and auditory or visual hallucination. The peak symptoms are recorded 24-150 hrs after alcohol consumption. The severity of alcohol withdrawal state varies with the amount and duration of alcohol intake; hence it is quite variable among patients (Sellers & Kalant, 1976; 1982; Gessner, 1979; Victor, 1966).

Gross et al. (1973) identified disturbances in 30 clinical variables during experimental alcohol withdrawal studies and developed two instruments namely, Total Severity Assessment (TSA) and Selected Severity Assessment (SSA). Subsequently, Shaw et al. (1981) modified this scale which has been referred to as Clinical Institute Withdrawal Assessment - Alcohol (CIWA-A). This 15-item scale has been used to follow the clinical course of alcohol withdrawal in various studies (Naranjo et al., 1983; Sellers et al., 1983). Foy et al. (1988) demonstrated the utility of this scale in a general hospital clinic. Sullivan et al. (1989) have suggested a revised version of CIWA-A. It was demonstrated that the total CIWA-A severity score correlated with the individual item severity scores. Some of the items like quality of contact and seizures have been deleted in the revised version.

In the present study, the CIWA-A (Shaw et al., 1981) was used to follow the clinical course of alcohol withdrawal symptoms in hospitalised alcohol dependent subjects.

MATERIAL AND METHOD

Forty-four patients of DSM-III-R (APA, 1987) diagnosis of alcohol withdrawal state who had taken ethanol within 48 hours of first assessment were studied. Patients with past history of head injury, psychiatric disorder and alcoholic hallucinosis were excluded from the study. Socio-demographic variables and drug use history were recorded on a semistructured schedule. The withdrawal symptoms were as-
essed with Clinical Institute Withdrawal Assessment-Alcohol (CIWA-A) (Shaw et al., 1981), at the intake and everyday subsequently for next eight days at fixed time of the day. Patients received 40-60 mg of diazepam per day for detoxification.

RESULTS

The mean age and mean duration of alcohol use were 36.62 ± 7.01 and 11.86 ± 6.03 years, respectively. The average daily intake of alcohol (in grams of ethonal) was 158.94 ± 41.22. Baseline assessment on CIWA-A scale was done after 22.58 ± 7.67 hours of cessation of drinking. Table 1 shows frequency of withdrawal symptoms recorded over eight days.

Table 1 Alcohol withdrawal symptoms (N = 44)

| Symptoms day | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|--------------|---|---|---|---|---|---|---|---|
| Nausea / Vomiting | 44 | 17 | 7 | 2.5 | 2.5 | 2.5 | 0 | 0 |
| Tremor | 100 | 97.5 | 97.5 | 92.5 | 85.5 | 83 | 68.5 | 49 |
| Sweating | 97.5 | 29 | 2.5 | 2.5 | 0 | 0 | 0 | 0 |
| Tactile Disturbance | 66 | 32 | 39 | 17 | 19.5 | 14.5 | 7 | 12 |
| Auditory Disturbance | 17 | 14.5 | 4.5 | 4.5 | 2.5 | 0 | 2.5 | 0 |
| Visual Disturbance | 78 | 44 | 27 | 16 | 12 | 7 | 0 | 0 |
| Clouding of Sensorium | 46.5 | 24.5 | 12.5 | 2.5 | 0 | 0 | 0 | 0 |
| Quality of Contact | 46.5 | 9.5 | 2.5 | 4.5 | 0 | 0 | 0 | 0 |
| Anxiety | 100 | 97.5 | 90 | 85.5 | 85.5 | 73.5 | 58.5 | 44 |
| Agitation | 87.5 | 61 | 42 | 14.5 | 12 | 0 | 0 | 0 |
| Headache | 97.5 | 73 | 48.5 | 38.5 | 16.5 | 12 | 12 | 2.5 |
| Flushing | 87.5 | 21.5 | 9.5 | 2.5 | 0 | 0 | 0 | 0 |

Figures in percentages indicate patients experiencing withdrawal symptoms.

Most common withdrawal symptoms experienced by the patients were tremors, sweating, anxiety, agitation, headache, visual disturbances and flushing. Less common symptom were nausea/vomiting, clouding of sensorium, quality of contact and auditory disturbances. Only two patient reported auditory hallucination. The withdrawal symptoms like nausea, vomiting, flushing, sweating, clouding of sensorium, auditory and visual disturbances resolved within three to four days. However, in about half of the patients, symptoms like tremors, tactile disturbances, anxiety and headache persisted even beyond eighth day. The WA-A score on the first day was 13.68 ± 2.37 which showed gradual reduction till eighth day (1.68 ± 1.47) with benzodiazepine therapy.

DISCUSSION

The findings of the study are consistent with earlier reports that the alcohol withdrawal symptoms appear 0-48 hours after last ethanol consumption and disappear in 5 to 10 days.
None of our patients experienced severe reaction in the form of seizures and delirium tremens. Withdrawal seizures have been reported in 5-15% alcoholics (Victor, 1967; 1969; Josephson, 1978). The absence of severe withdrawal symptoms in our patients might be related to lesser quantity of preceding ethanol consumption as compared to some of earlier studies (Sellers et al., 1983). The mean baseline CIWA-A score in our subjects was 13.68 ± 2.37 which is comparatively low to mean scores of 20.1 ± 7.3 reported by Sellers et al. (1983). Foy et al. (1988) reported that some patients developed complicated withdrawal despite their low scores in the beginning. This phenomenon was not observed in our patients. Seizure as a withdrawal symptom is not very common. It has been given a very high score in CIWA-A scale. The change in the score immediately after seizure may not reflect the change in clinical condition. Post ictal confusion can also change the score and at times seizure can be a change association particularly when it occurs at later stage of withdrawal. It is argued that this item may be dropped from the scale. Similarly, quality of contact is a subjective symptom and it has been dropped from revised version (CIWA-Ar) by Sullivan et al. (1989).

Distinction needs to be made between alcohol withdrawal symptoms and symptoms secondary to alcohol related damage. The tactile disturbance included in CIWA-A scale may be a manifestation of alcohol related neurological disturbances and this symptom might persist for longer time.

In some patients few withdrawal symptoms like anxiety and sleep disturbance persisted even after eight days. The persistence of these symptoms might increase the risk of benzodiazepine abuse and resumption of drinking. Thus non-pharmacological interventions need to be considered for the management of such symptoms.

In conclusion, CIWA-A is a useful instrument to monitor clinical course of alcohol withdrawal. Mostly symptoms of alcohol withdrawal subside within four days. However, some symptoms like anxiety and sleep disturbances persist even after eight days.

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