Use of Potentiated Preparations to Relieve Alcohol and Opium Withdrawal Syndromes

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The efficiency of potentiated preparations from ethanol and morphine hydrochloride in the therapy of patients with alcohol and opium withdrawal syndromes was compared in an open clinical trial. Potentiated ethanol relieved the major clinical manifestations, possessed hypnagogic properties, and reduced the severity of neurological and vegetative disorders in patients with the alcohol withdrawal syndrome. Potentiated morphine produced the anxiolytic, myorelaxing, and analgetic effects. Test preparations did not cause side effects.

Key Words: *potentiated preparations; alcohol withdrawal syndrome; opium withdrawal syndrome*

Potentiated preparations are used in medical practice for more than 2 centuries [1,3,5,7]. However, the mechanism of their action remains unclear. Here we studied the efficiency of potentiated ethanol (C1000, Anti-E) and morphine hydrochloride (C1000, Anti-13) in relieving the alcohol (AWS) and opium withdrawal syndromes (OWS).

MATERIALS AND METHODS

Anti-E underwent a clinical trial in 70 men (25-50 years) with stage II chronic alcoholism not accompanied by acute mental and somatic disorders. The patients with clear manifestations of AWS were hospitalized immediately after long-term alcohol consumption.

For standardization we used the individual medical history that included anamnesis, patient's identification data, and psychopathological, neurological, and somatovegetative characteristics of AWS [2,6]. The severity of symptoms and AWS were evaluated [4].

The patients were divided into 2 groups. Patients of the main group perorally received Anti-E in a dose of 8-10 drops per soupspoon water at 1-h intervals (first 2 days) and 5 times a day (days 3-5). Anti-E was given alone (monotherapy, n=25) or in combination with disintoxication drugs (n=5). Control patients (n=39) received standard disintoxication drugs (intramuscular injections of vitamins B_1 and B_6 and intravenous infusions of 30% sodium thiosulfate, 40% glucose, and vitamin C).

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The patients with OWS received Anti-13 alone (monotherapy, n=12) or in combination with Clophelin, Tiapridal, and Tramal (n=30). If required, the patients receiving Anti-13 monotherapy were treated with benzodiazepine hypnotics to relieve insomnia. Anti-13 was given perorally in a dose of 5 drops per soupspoon water at 40-60-min intervals for 5 days.

Control patients (n=40) received only standard therapy. The severity of OWS symptoms was evaluated daily by an adapted 5-point Himmelsbach scale. The efficiency of therapy was determined by the severity of withdrawal symptoms and subjective evaluation of patients.

RESULTS

AWS patients of the main group were older than control patients (Table 1). In patients of the main group the average duration of alcoholism and daily dose of alcoholic beverages consumed during the last drinking bout were higher than in the control. In control patients duration of the last drinking bout surpassed that in patients of the main group. However, these differences were statistically insignificant.

Initially the average severity of state in AWS patients of both groups surpassed 20 points. Differences in the severity of symptoms were most significant on days 2 and 3 of therapy. These data indicate that Anti-E possessed the selective activity, rapidly relieved symptoms of acute AWS, and was more potent than disintoxication drugs (Table 2). These differences were not observed on days 4 and 5 of treatment.

In patients receiving Anti-E neurological disorders, thirst, and sweating disappeared more rapidly than in control patients (Table 3). Anti-E reduced the

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TABLE 1. Average Anamnestic Parameters of Patients with AWS (Extreme Values, *M*±*m*)

Parameter	Main group (*n*=30)	Control (*n*=39)
Age, years	41.7±1.6; 26-58	39.3±1.4; 25-55
Duration of drinking bout, years	13.30±1.23; 4-30	11.7±1.4; 3-30
Duration of hangover, years	9.5±1.1; 2-25	7.7±0.8; 2-20
Duration of drinking bout during hangover, days	7.50±0.85; 3-15	8.3±0.9; 3-17
Average daily dose of alcohol consumed during the last drinking bout, liters	0.85±0.06; 0.5-1.7)	0.76±0.09; 0.4-1.5)

Note. Extreme values are shown in brackets. *$p<0.05$ compared to the control.

number of awakenings during nocturnal sleep, but had no effect on difficulties in falling asleep. After Anti-E therapy the severity of other AWS symptoms was lower than in control patients (insignificantly). However, in 24 patients of the main group arterial hypertension persisted for a longer period than in control patients.

In most patients the results of clinical examination coincided with their subjective evaluation of therapy. In 15 patients Anti-E decreased the severity of general weakness, lassitude, discomfort, and uncomfortable feeling in the stomach. The preparation improved sleep in 2 patients.

On day 2 of therapy 8 patients of the main group were full of energy, lively, and vigorous. Three patients had a feeling of euphoria that was similar to mild drunkenness. The degree of alcohol addiction increased only in 1 patient, which was manifested in tachycardia and restlessness.

Subjectively, Anti-E produced a small effect in 5 patients. One of these patients was excluded from further observations due to aggravation of AWS symptoms on day 1 of therapy.

Clinical trials of Anti-E in patients with acute AWS revealed its advantages over standard disintoxication therapy. The preparation possessed hypnagogic activity and relieved neurological disorders, vegetative disturbances, and gastric dyspepsia. Anti-E had no effect on anxiety, depression, alcohol addiction, and other psychopathological disturbances. Anti-E produced a moderate effect on asthenoadynamic and asthenodepressive disorders in patients with acute AWS.

Anti-E practically did not cause side effects. In patients with acute AWS we observed only an increase in the duration of arterial hypertension, which persisted for no more than 3 days. The number of patients with this disorder was not sufficient to make the ultimate conclusion. However, this fact should be taken into account during further clinical tests of the preparation.

Anti-13 was effective in 15 of 42 patients with OWS (36%). This preparation produced the therapeutic effect immediately after the start of therapy, which was manifested in reduction of anxiety, trouble, and feeling of general weakness. The severity of sweating, chill, sneezing, and watery eyes and feeling of pain (primarily

TABLE 2. Severity of Symptoms in Patients with AWS and OWS (Points, *X*±*m*)

Days	AWS				OWS	
	control (*n*=39)		Anti-E (*n*=30)			
	abs.	%	abs.	%	control (*n*=40)	Anti-13 (*n*=42)
1	21.1±0.1 (17-27)		23.2±0.8 (10-29)		8.7±0.9	26.8±1.1
2	16.9 (7-22)	80.1	11.2 (3-23)	48.3*	20.3±1.1	19.7±1.1
3	10.3 (2-18)	48.3	5.3 (0-20)	22.8	18.5±0.8	18.4±1.5
4	3.2 (10-29)	15.2	3.16 (0-13)	13.6	5.30±0.51	4.8±0.5
5	1.0 (0-8)	4.7	2.1 (0-12)	9.1	2.30±0.31	2.40±0.36

Note. Extreme values are shown in brackets. *$p<0.05$ compared to the control.

TABLE 3. Duration of Major Manifestations of Acute AWS (Days, *X*±m)

Symptom	Control (*n*=39)	Anti-E (*n*=39)
Anxiety	2.40±0.25	2.30±0.35
Bad mood	3.10±0.41	3.00±0.25
Alcohol addiction	2.80±0.21	2.30±0.27 (26)
Difficulties in falling asleep	2.90±0.33	2.80±0.28 (29)
Conscious sleep	3.50±0.51	2.4±0.2***
Tremor	4.8±0.58	2.6±0.25**
Ataxia (Romberg's test)	3.80±0.45	2.2±0.2**
Tachycardia	3.20±0.23	3.00±0.25
Arterial hypertension	1.6±0.17	2.70±0.24** (28)
Loss of appetite	2.30±0.22	2.20±0.23
Thirst	2.90±0.28	1.50±0.12*
Sweating (*n*=29)	3.10±0.34	1.8±0.2** (29)

Note. Number of patients is shown in brackets. Here and in Table 4: *p<0.001, **p<0.01, and ***p<0.05 compared to the control.

TABLE 4. Duration of Major Symptoms of Acute OWS in Patients of the Main and Control Subgroups (Extreme Values, *M*±*m*)

Symptom	Control	Anti-13
Yawning	1.3±0.1; 1-3 (27)	1.70±0.14; 1-3 (32)
Watery eyes	2.2±0.23; 1-3 (29)	1.40±0.14***; 1-2 (27)
Salivation	1.2±0.2; 1-3 (30)	1.40±0.15; 1-4 (26)
Sneezing	2.1±0.2; 1-3 (31)	1.40±0.11***; 1-3 (33)
Sweating	2.60±0.27; 1-4 (39)	1.70±0.11***; 1-3 (42)
Tremor	2.50±0.19; 1-4 (38)	1.50±0.12*; 1-3 (31)
Chill	3.20±0.22; 1-4 (38)	2.30±0.14**; 1-5 (31)
Gooseflesh	1.50±0.13; 1-2 (27)	1.4±0.1; 1-3 (29)
Anxiety and restlessness	3.40±0.43; 1-4 (35)	2.3±0.1; 1-4 (32)
Pain in muscles and joints	3.50±0.33; 1-4 (40)	2.70±0.13; 1-4 (42)
Mydriasis	2.7±0.3; 1-4 (40)	2.50±0.13; 1-4 (42)
Dyspnea	1.10±0.12; 1-2 (25)	1.2±0.1; 1-2 (23)
Arterial hypertension	1.20±0.18; 1-3 (28)	1.60±0.12; 1-3 (33)
Tachycardia	3.30±0.34; 1-5 (40)	2.40±0.11***; 1-4 (40)
Drug addiction	3.20±0.32; 1-7 (38)	2.54±0.20; 1-6 (36)

Note. Number of patients is shown in brackets.

pulling muscle pain) decreased. Appetite was improved. However, the preparation had no effect on nausea, vomit, and dyspepsia. Besides this, the patients with insomnia required additional treatment with hypnotics.

Anti-13 more rapidly relieved vegetative and neurological symptoms of acute OWS than standard drugs (Table 4). The preparation possessed anxiolytic, myorelaxant, and analgetic properties.

The duration of other OWS symptoms did not differ between patients of the main and control groups (Table 2). Most patients (84%) had a feeling of euphoria, general relaxation, and speechlessness 5-10 min after single treatment with Ant-13. Objectively, we revealed dysarthria, mild stammering, and changes in the quality of the voice. It should be emphasized that these results may be inaccurate. A special laboratory assay is required to evaluate the doses of consumed narcotic substances and severity of intoxication.

Our results show that Anti-E and Anti-13 may be used to relieve withdrawal disorders in patients with alcoholism and opium (heroin) addiction. These preparations produce the selective effect on clinical manifestations of AWS and OWS. They hold much promise for combination therapy of patients with these disorders. The advantage of Anti-E and Anti-13 is that they do not cause side effects.

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