

Use of ANAR for the Therapy of Opium Withdrawal Syndrome

A. G. Gofman, E. N. Krylov, T. A. Kozhinova,
T. I. Nizhnichenko, V. V. Khanykov, O. S. Sheveleva,
O. I. Epstein*, and I. V. Yashkina

We studied the efficiency of ANAR containing antibodies to morphine (dilutions C300 and C200) in the therapy of patients with the opium withdrawal syndrome. In patients with moderate to severe forms of the opium withdrawal syndrome therapeutic activity of ANAR was comparable to that of standard symptomatic drugs. ANAR possessed vegetostabilizing, sedative, and analgetic properties. Treatment with ANAR allowed us to reduce doses of psychotropic and analgetic preparations and delay the development of withdrawal symptoms by 18-24 h.

Keywords: *opium withdrawal syndrome; opium intoxication; ultralow concentrations; potentiated antibodies to morphine*

The search for pharmaceutics that can be used effectively to relieve the opium withdrawal syndrome (OWS) is an urgent problem of modern clinical narcology. Recent observations revealed high efficiency of potentiated medicinal preparation in psychiatry and narcology [1,5,8-10,12,16,17]. It was shown that potentiated substances in ultralow concentrations possess high biological activity [11,13-16].

Here we studied the efficiency and safety of ANAR synthesized at the "Materia Medica Holding" Research-and-Production Company, containing potentiated affinely purified antibodies (PAB) to morphine hydrochloride (C30 and C200), and used to relieve OWS in patients with heroin dependence.

MATERIALS AND METHODS

We examined 30 patients with heroin dependence admitted to the Hospital of the Moscow Institute of Psychiatry. Mild and moderate OWS resulted from long-term daily consumption of heroin. The average age of patients was 26.6 ± 0.9 years (19-40 years). The duration of heroin dependence was 4.5 ± 0.4 years (1-8 years). The average daily dose of consumed heroin was 0.77 ± 0.97 g.

During monotherapy the patients received ANAR in a single dose of 1 tablet at intervals of 20 (up to

falling asleep) and 40 min (after awaking). The preparation was not given in diurnal and nocturnal sleep.

For standardization we used the individual registration history of a patient that included anamnesis, results of somatoneurological and mental examination, and parameters for the severity of OWS. The following 20 symptoms of OWS were analyzed: yawning, watery eyes, salivation, sneezing, sweating, tremor, chill, gooseflesh, anorexia, vomit, liquid stools, fever, dyspnea, increase or decrease in blood pressure, tachycardia, anxiety, bustling, pain in muscles and joints, petulance, aggressiveness, insomnia, and narcotic addiction. The severity of symptoms was determined by a 3-point scale. We took into account side effects of the preparation.

The patients were examined before the start of therapy. On day 1 the severity of symptoms was evaluated after 1, 2, 3, 4, 6, 12, 18, and 24 h. Then the patients with persistent OWS were examined daily. The patients were excluded from observations when ANAR produced no therapeutic effect or their health failed over the first 4 h after the start of therapy.

Depending on the initial state of health, the patients were divided into 2 groups. Group 1 included 13 patients, only 3 of which had mild symptoms of OWS. Probably, group 1 patients consumed heroin immediately before hospitalization and had mild opium intoxication during the first examination. Symptoms of moderate OWS were found in 13 patients of group 2.

Moscow Institute of Psychiatry, Russian Ministry of Health; "Materia Medica Holding" Research-and-Production Company, Moscow

The patients of groups 1 and 2 did not differ in the age and main anamnestic parameters. Three patients were excluded from observations.

The efficiency of ANAR monotherapy was evaluated by changes in the severity of OWS and individual symptoms of the disease. The subjective evaluation of ANAR by patients was taken into account.

RESULTS

The state of health in patients was improved over the first 3 h of ANAR therapy, but slightly worsened after 6-12 h. The symptoms of OWS were progressively reduced from day 2 of treatment. On day 7 insignificant manifestations of OWS were found only in 5 patients. In patients receiving ANAR moderate to severe symptoms of OWS disappeared as rapidly as after treatment with standard symptomatic drugs Clophelin, Tiapridal, Tramal, Pyrroxan, and papaverine [2,3,7,8]. ANAR therapy was ineffective only in 3 of 30 patients that had to take additional preparations. Symptomatic preparations were given in reduced dosage during the continuing therapy with ANAR.

The development of OWS symptoms was delayed in group 1 patients with opium intoxication receiving ANAR. The first main symptoms of OWS appeared only 18-30 h after the start of therapy. ANAR progressively reduced the symptoms in group 2 patients with OWS. On days 2, 3, 4, and 5 the efficiency of ANAR in group 2 patients was much higher than in group 1 patients. However, no differences were found on days 6 and 7.

Changes in the main symptoms of OWS were similar. In group 1 patients the symptoms were mild or not detected over the first days of therapy. Yawning, watery eyes, sneezing, sweating, chill, anorexia, anxiety, bustling, pain in muscles and joints, sleep disorder, and narcotic addiction were revealed in most patients of group 2 over the first day of treatment. Other symptoms were rarely observed. Vomit, diarrhea, and fever were found only in individual patients of both groups.

After 1-3 treatments with ANAR 12 patients of group 1 fell asleep. Sleep lasted 20-24 ($n=8$) and 6-18 h ($n=4$). In 10 patients of group 2 presomnic and intrasomnic disorders were observed over the first 24 h of therapy. On days 2, 3, and 4, main symptoms of OWS in group 1 patients were more severe than in group 2 patients (statistically insignificant).

OWS symptoms were rapidly reduced in patients of groups 1 and 2. Subjective evaluation of treatment by patients coincided with the results of clinical tests. Only 3 patients evaluated the results of ANAR therapy as unsatisfactory. It should be emphasized that the preparation did not cause side effects.

An open clinical standardized trial revealed high efficiency of ANAR, which was used to relieve main somatovegetative symptoms of OWS. The preparation possesses mild sedative and analgetic properties and does not cause side effects. ANAR has no euphoric activity and does not cause dependence.

ANAR may be used in combination with sedative, soporific, and other symptomatic preparations. Treatment with ANAR allows reducing the dose of symptomatic preparations in the therapy of patients with heroin dependence, which promotes the disappearance of withdrawal disorders.

REFERENCES

1. N. V. Aleksandrova, A. G. Gofman, E. N. Krylov, and O. I. Epstein, *Byull. Sib. Otd. Ros. Akad. Med. Nauk*, No. 1, 94-98 (1999).
2. E. A. Babayan and V. M. Bulaev, *Zh. Nevrol. Psichiatr.*, **89**, No. 1, 134-139 (1989).
3. E. A. Babayan and M. Kh. Gonopol'skii, *Narcology* [in Russian], Moscow (1987).
4. N. A. Beregovoi, N. S. Sorokina, M. V. Starostina, et al., *VIII Russian National Congress "Human and Medicine"*, Moscow (2001), Abstracts of Papers, p. 445.
5. Yu. V. Valentik and L. M. Savchenko, *VII Russian National Congress "Human and Medicine"*, Moscow (2000), Abstracts of Papers, pp. 32-35.
6. T. M. Vorob'eva, O. G. Berchenko, O. G. Geiko, et al., *VIII Russian National Congress "Human and Medicine"*, Moscow (2001), Abstracts of Papers, p. 555.
7. K. E. Voronin, M. L. Rokhлина, and L. B. Petrakova, *Urgent Problem of Medicosocial Rehabilitation for Patients with Alcohol and Drug Addictions* [in Russian], Moscow (1994), pp. 125-129.
8. A. G. Gofman, E. N. Krylov, N. V. Aleksandrova, et al., *VII Russian National Congress "Human and Medicine"*, Moscow (2000), Abstracts of Papers, p. 103.
9. A. G. Gofman, E. N. Krylov, A. V. Grazhenskii, et al., *XIII Convention of Russian Psychiatrists*, Moscow (2000), Abstracts of Papers, p. 236.
10. A. G. Gofman, A. P. Muzychenko, G. M. Entin, et al., *Medicinal Preparations in the Clinics of Alcoholism and Drug Addiction. Manual for Physicians* [in Russian], Moscow (1999).
11. I. F. Pavlov, M. B. Shtark, O. I. Epstein, et al., *VIII Russian National Congress "Human and Medicine"*, Moscow (2001), Abstracts of Papers, pp. 598-599.
12. E. A. Farrington, *Clinical Pharmacology. Homeopathic Preparations* [in Russian], Odessa (1910).
13. M. B. Shtark, *VII Russian National Congress "Human and Medicine"*, Moscow (2000), Abstracts of Papers, pp. 6-10.
14. O. I. Epstein, *Byull. Sib. Otd. Ros. Akad. Med. Nauk*, No. 1, 132-148 (1999).
15. O. I. Epstein, *Neurophysiological Mechanisms of Pharmacological Effects Produced by Potentiated (Homeopathic) Antibodies to Brain-Specific S100 Protein*, Abstract of Cand. Med. Sci. Dissertation, Tomsk (1999).
16. O. I. Epstein, *VII Russian National Congress "Human and Medicine"*, Moscow (2000), Abstracts of Papers, pp. 11-21.
17. O. I. Epstein, T. M. Vorob'eva, O. G. Berchenko, et al., *Informational and Ontological Models of Adaptation* [in Russian], Moscow (1997).