

SCENAR PSYCHOUNITROPE EFFECTS

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Long experience of using SCENAR-therapy in clinical practice show that alongside with general clinical improvement, patients display SCENAR-specific positive effects on their mental functions. The analysis of our own materials, proprietary research findings, and related publications allow to regard these 'psychotropic' effects as a particular group.

The effects are the following: pain relief, better mood (antidepressant), sedative or stimulating effects depending on the initial state, soporific and anticonvulsant effects, central relaxation of striated muscle, autonomic status correction (improved ANS status), activation of higher nervous activity, recovery of intellectual and cognitive functions, removal of neurological deficiencies, stimulation of metabolic processes in organs and tissues, antioxidant effect, better regulation of internal organs, central hypotensive effect as well as other clinical effects depending on condition.

First, we should note some publications on SCENAR effects mentioning their action similar to pharmacodynamic effects of psychotropic agents. They are the following:

- Yu.V.Gorfinkel. ON MECHANISMS OF ANALGESIC EFFECTS OF SCENAR-THERAPY (1995)
- E.R.Bogdanova, B.M.Zaidiner ANALGESIC SCENAR-THERAPY IN ONCOLOGY (1996);
- A.V.Tarakanov, E.G.Los. MULTIPLE MECHANISM OF SCENAR-ANALGESIA(2005);
- A.G.Tretyakov - TRIGEMINAL NEURALGIA TREATED WITH SCENAR THERAPY AND HOMOEOPATHY(1995);
- J.Z.Grinberg. PEPTIDE CONTINUUM: COMMONALITY OF TRADITIONAL AND ORTHODOX TREATMENT (2000).
- S.A.Chebkasov, Yu.I.Bereshpolova. CENTRAL ACTION OF SCENAR-THERAPY: SELF-HEALING THROUGH ACTIVATION OF ANTERIOR HYPOTHALAMUS (2001).
- P.Guzhavina. SCENAR-THERAPY FOR REHABILITATION OF CHILDREN IN PSYCHONEUROLOGICAL HEALTH CENTER (1999).
- I.I.Shabounina. TREATING PATIENTS WITH NERVOUS BREAKDOWN AND MUSCULOSKELETAL DISORDERS (1998).

- K.G.Ganeyev. EXPERIENCE OF SCENAR-THERAPY FOR EPILEPSY (1998).
- E.N.Kuptsova. INSTANCE OF EPILEPTIC SYNDROME TREATMENT (2001).
- E.G.Los, A.V.Tarakanov, E.V.Khatsova. USING SCENAR-THERAPY FOR TREATING HYPERTENSIVE CRISIS IN PREHOSPITAL PERIOD (2008).
- A.V.Tarakanov, E.V.Kutovaya. SLEEPING DISORDERS IN EMERGENCY DOCTORS (2007).
- I.A. Minenko. NON-DRUG TREATMENT OF STRESS CONSEQUENCES OF VARIOUS GENESIS (2003).
- M.V.Ovsiyannikov. ADDICTIVE DISORDERS IN SCHIZOPHRENIC PATIENTS (Clinical and Biochemical Study, 2008).
- I.V.Slyusareva. PECULIARITIES OF METABOLIC CHANGES IN ERYTHROCYTES AND SALIVA IN ISCHEMIC STROKE BEFORE AND AFTER CORRECTION (2007).

The background for this work was the following: growing rate of mental disorders, need of individual therapy, need of psychosomatic and somatopsychic disorder treatment, comorbidities, discrepancy between the expected effect of a great number of new psychotropic agents and the actual number of psychiatric patients (despite the growing number of new psychotropic agents, the number of psychiatric patients doesn't decrease).

Let us consider the Classification of Psychotropic Drugs that, at the same time, constitutes the basis of this research.

Psychotropic drugs include:

1. Antipsychotics (neuroleptics);
2. Antidepressants;
3. Anxiolytics (tranquilizers);
4. Sleep-improving drugs;
5. Agents that improve cerebral metabolism (nootropics);
6. Psychodisruptants;
7. Psychostimulants
8. Narcotic analgesics.

It is our belief that the latter group shall also be referred to psychotropic drugs.

Let us take a brief look at pharmacodynamic effects (PhDE) of the above groups and then compare them with clinical effects after course SCENAR treatment.

Neuroleptics provide the following PhDE: antipsychotic action (blocking of D2 dopamine receptors of mesolimbic and mesocortical systems); sedative (hypnotic) – blocking of adrenergic receptors of the brainstem reticular formation; analgesic (pain relief); antiemetic (anti-vomiting) (blocking of D2 dopamine receptors of the trigger zone of the vomiting center); hypothermal (blocking of hypothalamic dopamine receptors), histamine blocking, M-choline blocking, blood-pressure lowering.

Tranquilizers provide the following PhDE: anxiolytic, sedative, soporific, analgesic, anticonvulsant, central muscle-relaxing, vegetocorrective (i.e. improving ANS function).

Narcotic Analgesics Effects, in addition to pain relief, provide marked PhDE: soporific effect, respiratory depression, antitussive (cough-suppressing) action, blood-pressure lowering (orthostasis), obstipation, vomiting, miotic effect, antidiuretic effect, psychotropic effect (fear suppression, drug intoxication, sedation, addiction and others.).

The most interesting are the PhDE of nootropics. They are as follows: activation of higher nervous functions; recovery of intellectual and cognitive functions; removal of neurological deficiencies; boosting of the body's resistance to extreme factors; stimulation of liver metabolism; less intensity of vestibular disorders; sedative effect; antihypoxic effect; better regulation of internal organs.

There is another group of agents, which is worth mentioning – the antidepressants. They have the following PhDE: properly antidepressant, sedative or stimulating; somatoregulating effects: antiulcer, anti-neuralgic, antidiuretic, antibulimic, antianorexic.

For illustrative purposes, let's run through some research that observed the psychotropic effects of SCENAR-therapy. SCENAR-monotherapy was given to osteochondrosis patients that were divided into groups considering the affected region of the spine and pain location. The 1st group I included neck pain patients (n=11) – 3 male, 8 female, average age was 50.4. The 2nd group included patients with low back pain (n=17) – 6 male, 11 female, average age was 51.7. We applied standard SCENAR-therapy techniques that are commonly used for treating such patients.

To assess the results of treatment, we used the Neck Disability Index by H.Vernon, J.Mior, 1989 (*H.Vernon, J.Mior, 1989*). This 10 section assessment was carried out before and after the treatment. Besides general clinical improvement, significant improvements were observed in 4 sections. We regarded them as psychotropic effects. The sections are as follows: pain intensity (which decreased in the affected organ), headaches, concentration, and sleeping.

In the Group 2 we used Roland-Morris (RM-18) Disability Questionnaire “Low Back Pain and Disability” (*M.Roland, R.Morris, 1983*) that includes 18 statements. So, the patients were monitored and assessed in these 18 categories. The intensity of pathological signs have

significantly decreased in 4 categories: (My back or leg is painful almost all the time; I sleep less well because of my back; Because of my back, I am more irritable and bad tempered with people than usual; Because of my back problem, I go upstairs more slowly than usual).

Another research. The following patient population was given standard SCENAR-techniques. The total number of patients was 21 – 5 male, and 16 female. They included 8 patients with osteochondrosis and disk protrusion and 13 patients with various diseases (neuritis, cholecystitis, stomach ulcer, migraines, chronic bronchitis etc.). The results were assessed in dynamics using common clinical parameters, and the quality-of-life was evaluated on Hospital Anxiety and Depression Scale consisting of 14 statements (each scoring between 0 to 3 points). Irrespective of pathology, one-directional effects related to the patient's mental functions were observed: sleep improved significantly in 8 of 21 patients (those who had sleep disorders) and hasn't changed in 13 patients who had normal sleep prior to the treatment.

The quality of life also improved, the Hospital ANXIETY and DEPRESSION Scale scores decreased from 13 to 7 points on average.

Our investigations show that people whose occupations contribute to sleep deprivation, also have other serious health troubles. We investigated sleep patterns in 342 emergency doctors, aged on average 43 years, with the average time of emergency employment 13 years. 23.7% testees had chronic insomnia, and 28% – borderline sleep disorders.

The patients with chronic insomnia were treated with Zopiclone (a pharmaceutical preparation) vs. SCENAR monotherapy. From patient's subjective assessment 10 days after the treatment, both Zopiclone and SCENAR-therapy were equally clinically effective. After Zopiclone therapy, the score increased from 16.3 to 22.7, and after SCENAR – from 16.6 to 23.1 points. However, SCENAR provided more effective regression of clinical signs of neurocirculatory asthenia (NCA): from 37.6 to 49.1 for Zopiclone against 38 to 61.3 points for SCENAR. SCENAR-therapy was most effective in cardiovascular (cardialgia), psycho-emotional (bad or short temper, anxiety), cerebral disorders (headache, dizziness, memory and attention disturbance), and neurocirculatory asthenia.

The comparative analysis of changes in the indices of LPO and AOS activity of the blood plasma in neurocirculatory asthenia patients following Zopiclone vs. SCENAR-therapy, proved higher effectiveness of the latter in alleviating oxidative stress. SCENAR-therapy reduced generation of active oxygen and decreased accumulation of secondary as well as end products of lipid peroxidation. It also decreased the content of extra-erythrocyte hemoglobin and reduced the accumulation of circulating immune complexes.

As is obvious from the foregoing examples, considering the cumulative effect, SCENAR-therapy produces the changes in the body that are typical for various groups of psychotropic

agents: neuroleptics, nootropics, tranquilizers, antidepressants, narcotic analgesics. No wonder, as these groups of agents have been made artificially to control disturbed mental functions. Based on clinically proven beneficial, normalizing effects of SCENAR-therapy, one may think of triggered endogenous regulators that imitate exogenous drugs and medications.

The uniform mechanism of SCENAR-therapy is the release of *endogenous ligands in different ways*. They are various substances and systems: endorphins and enkephalins, gamma-aminobutyric acid, serotonin, cytokines, activation or inhibition of enzyme systems. It takes years of practice, science and experience to show these endogenous regulators.

So, we can introduce the concept of SCENAR psychoneurotropic effect that shows a unidirectional action of neuroadaptive stimulation on the systemic activity of the body, and specifically the brain.