

Two groups of patients were examined: a control group (65 people), in which only standard psychopharmacotherapy was performed, and the main group (49 people), in which standard therapy was combined with complex psychotherapy. A specially developed program of psychotherapeutic correction was based on methods of cognitive-behavioral therapy, relaxation techniques, and was conducted in a group format.

**Results:** Patients suffering from anxiety-depressive disorders that occur against a background of moderate neurological disorders are characterized by clinical-psychopathological features, which aggravate the course of the disease. Statistically, in the integrated processing of the obtained data, there were considered complex statistical characteristics that describe the significance and relationship of the psychometric indicators. They can be combined into groups of signs: "tension in interaction with the society", "negative subjective assessment of the state", "anxiety". These factors were used in determining the strategy and targets of group psychotherapy.

In the main group, 87.8% of patients showed a decrease in anxiety and vegetative disorders after treatment, in contrast to the control group. Also depressive symptoms and explosiveness reducing, subjectively assessed well-being improving, activity increasing were noted. When examining patients after 1.5 years, the stable effect of the proposed therapeutic model was noted in 52.4% of cases in the main group and only in 38.2% of cases in the control group.

**Conclusions:** The detection of organic neurological disorders allows us to correctly identify the optimal therapeutic tactics, and significantly improve the effectiveness of treatment of neurotic disorders that occur against its background. There is a need to work with the reaction of the intact part of the psyche. The proposed combination of psychopharmacotherapy and psychotherapy was effective for relieving anxiety, depressive symptoms and vegetative disorders in patients with exogenous organic pathology of the brain.

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## COMPREHENSIVE ANALYSIS OF PROGESTERONE RECEPTORS DISTRIBUTION IN THE MOUSE BRAIN

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A growing body of evidence point that steroid hormone progesterone, in addition to its "canonical" reproductive functions, exerts different effects on the brain, such as neuroprotection and neuromodulation. Some of the progesterone effects that have recently attracted attention are anxiolytic and antidepressive effects, mitigating effect on euphoric response to psychostimulants as well as reduction of impulsive choice for opiates. These observations suggest that progesterone receptors, as a key mediators of progesterone action, could be involved in the pathogenesis of many psychiatric disorders. However, so far, the distribution of progesterone receptors in the brain has been poorly investigated and mostly limited to the hypothalamus and the limbic system.

In the present study we performed comprehensive analysis of the progesteron receptors distribution throughout the mouse brain parenchyma, using highly sensitive and specific Dako EnVision immunohistochemical system. We found abundant expression of progesteron receptors in neurons of frontal and parietal cortex, hippocampal CA1 region and dentate gyrus, thalamus and amygdala, which are all regions that can be dysfunctional in a variety of psychiatric entities. Our findings underline the need for further research on possible association between functional variants (polymorphisms) of progesterone receptors and psychiatric diseases.

*This work has been fully supported by the University of Rijeka under the project uniri-biomed-18-187 1341 (Neuroprotective role of progesterone receptors).*