

## COMPLICATIONS AND ADVERSE EFFECTS OF NEUROLEPTIC THERAPY FOR PATIENTS WITH SCHIZOPHRENIA: CLINIC, PROGNOSIS AND CORRECTION

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The clinical and pathogenetic patterns of the development of side effects and complications of antipsychotic therapy and the research of clinical and biological predictors of outcomes in the effectiveness of therapy has been studying for many years at the Department of Psychiatry, Narcology and Psychotherapy A.I. Yevdokimov Moscow State University of Medicine and Dentistry (MSUMD).

New data were obtained about the etiopathogenesis of neuroleptic complications by the type of neuroleptic malignant syndrome (NMS) and generalized allergic reaction (GAR), which are determined by autoimmune processes with a primary lesion of the hypothalamus.

The introduction into psychiatric practice new class of antipsychotics, called "atypical" from the beginning of the 80s of the last century in comparison with the widely used "typical", allow to identify the specific side effects and complications of this group of drugs. Therapy with atypical antipsychotics (AN) reduces the risk of extrapyramidal side effects and in the same time leads to neuroendocrine dysfunctions and diseases much more often.

Neuroendocrine disorders during the atypical antipsychotic therapy are defined as an imbalance in the functional state of the endocrine glands caused by the pathogenetic mechanisms of the disease itself, premorbid status and side effects of the drugs. According to epidemiological studies regarding the frequency of symptoms and syndromes of neuroendocrine disorders from AN therapy vary significantly. Weight gain (antipsychotic obesity) occurs in 40-92% of cases, metabolic syndrome in 49.3% of cases, type II diabetes mellitus in 6.2 - 25% of cases.

Clinical and biological studies of neuroleptic complications like NMS and GAR make possible to predict the severity of neuroleptic complications, the degree of blood-brain barrier damage, and evaluate the effectiveness of the therapy. The enzymes and their amount in blood serum and cerebrospinal fluid were determined as reliable predictors of the therapy effectiveness. Endocrinological changes in the dynamics of neuroleptic complications indicated neuroendocrine dysregulation in the central and peripheral units, as well as the functional state of the endocrine glands. The developed and implemented treatment system for NMS and GAR, taking into account the clinical and biological predictors of their development and dynamics, allowed to prevent deaths in the territory of the Russian Federation in most cases.

The first comparative analysis of therapy with typical and atypical antipsychotics in paranoid schizophrenia patients performed with a large clinical material, including the results of long-term outpatient monitoring, inpatient treatment of paranoid schizophrenia patients at different time periods; the dynamics of cognitive and negative disorders in the process of psychopharmacotherapy has been determined.

Determination of differentiated indications for prescribing various groups of antipsychotics will allow optimizing the psychopharmacotherapy of patients with paranoid schizophrenia, including through a more focused use of modern expensive drugs

The study revealed that rate of achievement of remission with different classes of antipsychotics was not statistically significant, and associated more with course of paranoid schizophrenia. Study of the antipsychotics effect on negative symptoms during remission also did not reveal any advantages in the compared classes of drugs. In order to establish the effect features on cognitive impairment in patients with schizophrenia in each group of antipsychotics, a comparative analysis of changes in cognitive functions in the dynamics of "psychosis - remission" was carried out. Study of cognitive functions showed that atypical antipsychotics due to less sedative effect provide better neurocognitive tests in patients at the initial stages of psychosis therapy. However, after the onset of remission and a reduction in the dosages of both typical and atypical antipsychotics to supportive ones, differences in the pharmacological subgroups were smoothed out and the course of the disease played the key role.

Further development of perspective scientific research is due to the high social relevance of studying the course of schizophrenia in the context of modern methods of its therapy. The complex nature of the study of biopsychosocial factors of the individual course of disease and individually oriented biological and socio-rehabilitation therapy at different stages of the disease is assumed. The development of interdisciplinary clinical, psychopathological, psychoneurophysiological, immunological, biochemical, endocrinological, biochemical and genetic aspects of individual intolerance to antipsychotic therapy will significantly increase therapeutic efficacy while saving material resources for the correction and treatment of somato-endocrinological complications.