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**ANALYSIS OF THE USE OF ATYPICAL ANTIPSYCHOTICS IN PATIENTS
WITH PARANOID SCHIZOPHRENIA**

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Abstract: paranoid schizophrenia is one of the most common forms of schizophrenia. The treatment of this disease has a long history. But, for the last 60 years, it has been represented by the use of antipsychotic drugs. Second-generation drugs compare favorably with the first in effectiveness against not only positive but negative symptoms; a rare manifestation of the antipsychotic syndrome. At the same time, these drugs often cause neurometabolic disorders.

The aim of research was to study the effect of various antipsychotic drugs on weight gain.

Patients with obesity showed a more severe level of negative, general psychopathological symptoms. The study showed that not all atypical antipsychotics cause the same increase in body weight. Also, weight gain varies in the first year of therapy and in the subsequent.

Keywords: paranoid schizophrenia, antipsychotics, treatment, side effects, obesity, positive and negative psychopathological symptoms.

Schizophrenia – a chronic progressive disease characterized by the presence of splitting in all mental spheres, the productive and the deficit of psychosematic, and leading to the formation of a specific defect.

The most common form of schizophrenia according to WHO is the paranoid form.

According to the biopsychosocial model of understanding of schizophrenia treatment is antipsychotic medications (typical and atypical).

A reflection of the pathomorphism of neurotic symptoms, according to the authors, may serve to increase paranoia and so-called primary chronic forms [1, p.71]. On the other hand, the appearance of bright, sharp forms in recent years is a reflection of medicinal pathomorphism, represented by the increase in the number of patients, abruptly terminating therapy, due to the pronounced side effects and cost of treatment [2, p.618].

Typical antipsychotics have a potent Central inhibitory effect on the CNS, which is clinically manifested by sedation, autonomic effects, such as decreased blood pressure, smooth muscle relaxation, antiemetic effects, lowering the temperature [3, p.11]. The Central action carried out by blocking the nerve impulses in the reflex arcs, causing catalepsy (option subcortical syndrome).

Currently in the treatment of schizophrenia is dominated by atypical antipsychotics. Unlike typical antipsychotics, atypical (antipsychotics) do not have a pronounced sedative effect and cataleptogenic effect and have a low probability of development of neuroleptic complications [4, p.76]. This leads to a reduction not only productive, but also the deficit of psychosematic that is the key to improving cognitive function and quality of life of patients.

Choosing antipsychotic drug actions for a particular patient, it is necessary to consider many factors. Of major importance is the ratio of the global primary antipsychotic and sedative effects:

1. Global antipsychotic or "incisive" action – the General ability of the drug to reduce symptoms of psychosis and prevent progression of the illness, like shock therapy, as gradually, and on the type of a sharp cliff of psychosis.

2. Primary sedative (slow down) effect through sedation, the global inhibitory effect on the Central nervous system, the phenomena of bradycardia, impaired concentration, decreased level of activity, and hypnotic action.
3. Selective or selective antipsychotic, usually secondary, the effect on individual symptoms of the target.
4. Activating (releasing, disinhibitory and anticholinergic) effect on negative symptoms, which are usually associated nowadays with atypical antipsychotics
5. Effect on cognitive disorders (memory, attention, Executive activity, speech, communicative, and other cognitive processes) in the atypical antipsychotics.
6. Depressogenic action – the ability of neuroleptics with long-term use can cause neuroleptic specific (inhibited) depression.
7. Neurological effects associated with a dopamine-releasing effect on the extrapyramidal nervous system and manifests itself at different stages of therapy with a range of neurological disorders: from acute (paroxysmal) to chronic (practically irreversible). The neuroleptic effects minimum have a new group of atypical antipsychotics.
8. Somatotrophic action is found in the neuroautonomic and endocrine side effects including hypotensive reactions and is mainly associated with the severity of adrenergic and anticholinergic properties of the drug and also with the ability to cause hyperprolactinemia, hyperlipidemia, increased body mass [5, p.98].

Side effects of all drugs always complicate the healing process. And neuroendocrine side effects, especially arising in the treatment of schizophrenia, reduce the already low compliance.

Neuroendocrine side effects took the leading position in the modern world as the cause of rejection maintenance therapy and re-hospitalization.

The prevalence of obesity in the General population leads to the neglect of many doctors such side effects of second-generation antipsychotics as obesity, consider him insignificant in comparison with the extrapyramidal side effects of classical antipsychotics.

Patients with schizophrenia have increasingly begun to suffer from excessive body weight, which in some cases reaches the level of obesity and related cardiac problems: hypertension, hyperlipidemia, hyperglycemia, and complications such as cerebral stroke and myocardial infarction. This in turn reduced their life expectancy by an average of 20%.

When gaining weight, patients with schizophrenia suffer from the effects of obesity, such as hypertension, atherosclerosis, diabetes mellitus, which leads to additional stigmatization and worsening of the symptoms of the disease due to refusal of treatment due to weight gain.

Patients with schizophrenia and obesity are 3 times more likely to miss medication than patients without obesity.

Obesity in this population is produced by a group of factors. First, the clinical characteristics of the process. On its development as affected by the deficit, as positive symptoms, and lifestyle of patients with schizophrenia. Social isolation, apathy, and apatho-abulic condition reduce the patient's motivation to care about their health [6, p. 23]. An important role in the fight against obesity plays a fact of awareness of what's always missing in these patients.

Not all products are equally lead to a sharp increase of body weight. This is related with different influence of these drugs on neuroreceptors.

The choice of the antipsychotic and its group membership (first and second generation) nominally has its graduation, but practically, based on the opinion of a doctor. Despite relatively long use of second generation antipsychotics, the drugs of the first has not lost its positions both in overall and in monotherapy. First of all, it depends not only on efficiency, chlorpromazine index, but also from side effects, in most cases reducing compliance.

The purpose of the study. To study the effect of atypical antipsychotics on the dynamics of the increase of body weight.

Contingent and methods. Our study involved 47 women suffering from paranoid schizophrenia for at least 5 years. The age contingent of the study was from 20 до 35 years. All patients taking therapy atypical antipsychotics for at least 2 years. The

study group was 24 patients with presence of concomitant obesity. The comparison group consisted of 23 patients with normal body weight.

Exclusion criteria were the presence of decompensated somatic-neurological disorders, comorbid mental disorders, including addiction. The presence of insulin coma and electro-convulsive therapy in history.

Research methods included clinical-psychopathological, clinical-anamnestic, diagnostic, anthropometric.

The results of the study. The entire contingent of the study were homogeneous by type of progression of the underlying disease. There was no significant difference in the number of hospitalizations per year, duration of the disease. The main psychopathological syndrome in the entire cohort was halucinating-paranoid.

Patient study group showed greater severity of negative and General psychopathological symptoms, the results of the methods of PANSS.

Table 1

Assessment of the mental state of the contingent by the PANSS method

Symptoms	Group of research	Control group
Positive symptoms	23,8±0,5	24,9±0,6
Negative symptoms	31,8±0,4***	24,2±0,5***
General symptoms	46,5±0,6***	40,3±0,8***
Total value	102,1±1,1***	89,4±0,9***

(* p≤0,05; **p≤0,01; ***p≤0,001)

Also, the study group had a significantly greater severity of negative symptoms (31.8 ± 0.4) compared with the comparison group (24.2 ± 0.5; p≤0.001).

The entire study population was taking atypical antipsychotic therapy in monotherapy and combination. In most cases, the preparations of amisulpride, quetiapine, olanzapine, aripiprazole were in the form of monotherapy. Clozapine and risperidone preparations were both in monotherapy and as part of combination therapy.

The contingent of the study showed a significant difference in the total value of the PANSS scale. Thus, the study group had a result of 102.1 ± 1.1, against the comparison group, the total result of which was 89.4 ± 0.9. The entire contingent of

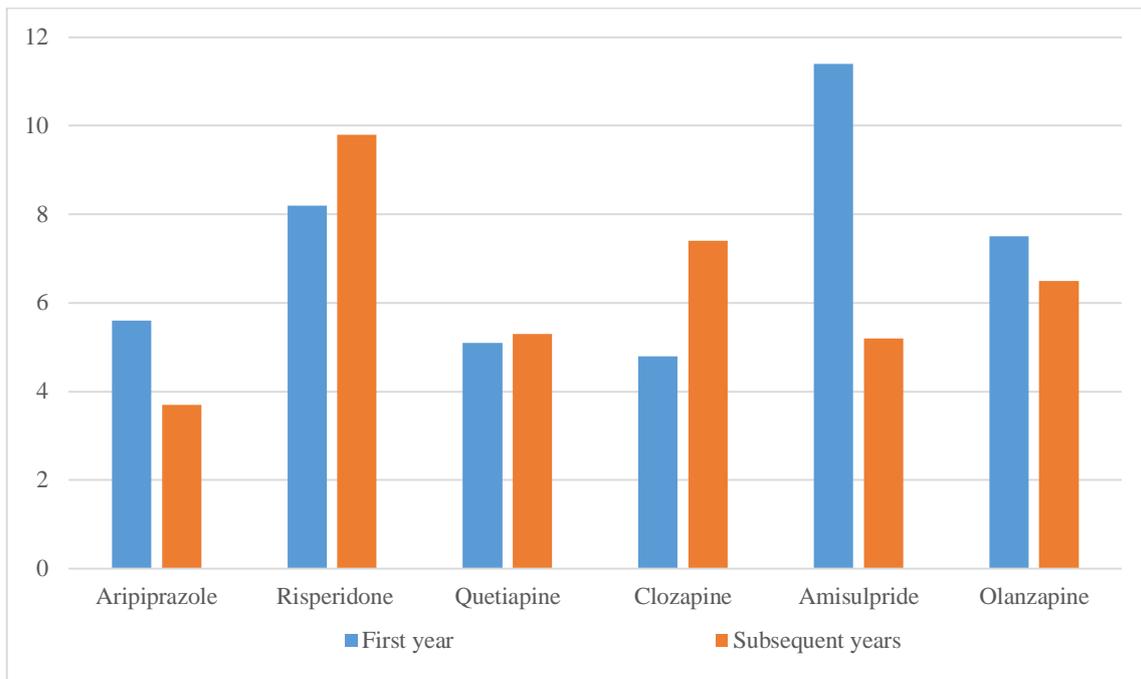
the study showed an increase in body mass. But this effect was not permanent and had significant differences.

In the first year for maximum growth in body mass were observed in patients who took the drugs amisulpride in monotherapy was 11.4 ± 1.1 kg. Minimum weight gain, had the patients taking monotherapy quetiapine, regardless of the dose, and she was 5.1 ± 1.1 kg in the year and monotherapy of aripiprazole prepartum of 5.6 ± 0.9 kg. of Monotherapy drugs risperidone was 8.2 ± 0.5 kg, with drugs olanzapine was 7.5 ± 0.4 kg, medications, clozapine was 7.2 ± 0.8 kg. At the same time, in the analysis of body weight gain in subsequent years, therapy the greatest weight increase showed the admission of risperidone 9.8 ± 0.7 kg and clozapine 7.4 ± 0.6 kg, and the medication of aripiprazole and 3.7 ± 0.5 kg, amisulpride of 5.2 ± 0.8 kg, quetiapine of 5.3 ± 0.4 kg, olanzapine at 6.5 ± 0.7 kg showed less increase of body weight. Therefore, considering the increase in body mass in the dynamics (more than 2 years of follow-up), aripiprazole (5.6 ± 0.9 kg; 3.7 ± 0.5 kg; $p < 0.010$); risperidone (8.2 ± 0.5 kg; 9.8 ± 0.7 ; $p \leq 0.005$); amisulpride (11.4 ± 1.1 kg; 5.2 ± 0.8 ; $p \leq 0.001$) (table 1).

Combination therapy was represented by the combination of risperidone and clozapine. During the first year of treatment gave an increase in body weight of 8.5 ± 0.6 kg, and in the subsequent years of therapy of 9.1 ± 0.5 kg.

Despite this pattern, the patients with the severe stage of obesity (BMI over 40) were on long-term (more than 3 years) administration of risperidone at a dose of 4 mg per day.

The contingent of the study showed a significant difference in the total value of the PANSS scale. Thus, the study group had a result of 102.1 ± 1.1 , against the comparison group, the total result of which was 89.4 ± 0.9 . The entire contingent of the study showed an increase in body mass. But this effect was not permanent and had significant differences.



Pict. 1. Dynamic of weight gain on the year and subsequently

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Despite this pattern, the patients with the severe stage of obesity (BMI over 40) were on long-term (more than 3 years) administration of drugs of risperidone at a dose of 4 mg per day.

Thus, we can say that all atypical antipsychotics cause an increase in body weight. Thus, the percentage increase in body weight in the first and subsequent years of therapy is different. The contingent of the study has a more pronounced negative and general pathological symptoms compared to patients with no concomitant obesity.

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