DELUSIONAL SUICIDE BEHAVIOR OF PATIENTS WITH SCHIZOPHRENIA AND METHODS OF ITS PREVENTION

The study involved 320 patients with schizophrenia hospitalized in a psychiatric hospital in connection with various forms of suicidal behavior. The study developed a typology of mechanisms of suicidal behavior of schizophrenics. Analysis of the experience of the Zyprexa (olanzapine) when treating patients with schizophrenia with delusional motivation for suicidal behavior has shown that the drug provides enduring reduction of delusional disorders and reduces the risk of recurrent suicidal behavior.

Keywords: Suicidal behavior, schizophrenia, psychopharmacotherapy

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Introduction

The results of numerous epidemiological studies indicate about stable tendency to increase number of suicide rates in different regions of the world (Dmitrieva and Polozhii, 2006; Wojciech, 2006; Agerbo et al., 2002; Qin et al., 2003; Hawton et al., 2005; Robert et al., 2006). In the last few years Kazakhstan is one of the states with the unfavorable situation of suicide. In 2008, deaths from suicide in the country amounted to 26.9 per 100 000 population. This figure is estimated as high: suicide rates exceeding 20 cases per 100 000 population per year is considered critical according the international standards.

Numerous foreign studies (Emborg, 1999; Appleby, 2000; Runeson and Asberg, 2003; Hoyer et al., 2004;) note that much of suicidal risk is associated with mental health. In particular, studies made in U.S. found that suicide risk is high among patients with schizophrenia: about 30% of patients commit suicide attempts and nearly 10% die from suicide (Vieta et al., 1998). High socio-medical significance of the problem of suicide prevention in schizophrenia patients determines the relevance of this study.

The paper aims to study mechanisms of formation of delusional motivation in suicidal behavior of patients with schizophrenia, the development of their clinical typology and prevention measures.

There were observed 320 patients with schizophrenia hospitalized in a psychiatric hospital in Almaty (Kazakhstan) in connection with various forms of suicidal behavior.

The main research methods used are clinical, psychopathological, experimental psychology, mathematical and statistical.

The study found that the risk of suicidal behavior in schizophrenic patients was determined by clinical-psychopathological, personality, psychological and situational (social stress) factors.

Systematic account of research data on risk factors for suicidal behavior in schizophrenic patients allowed developing the concept of the mechanism of suicidal behavior, which implies a leading system-link in the complex interaction of psychopathology, personality and situational factors determining the suicidal behavior of patients with mental disorder.

There were revealed 3 main groups of mechanisms of suicidal behavior: psychopathological-productive, negative-psychopathological, and personality-psychological.

Group of schizophrenic patients with productive-psychopathological mechanisms, assuming psychopathological disorders as leading factors of suicidal behavior, was found as the most numerous - 260 people (81.3%). Morbid motivation in these patients played the most significant role in developing suicidal behavior. Other factors, taking part in the
organization of behavior, played only a minor role. Implementation of risk of suicidal intentions in these patients was in direct proportion to the severity and intensity of painful experiences.

Leading in the structure of the productive-psychopathological mechanisms of patients with schizophrenia were the mechanisms of delusional motivation (178 patients); clinical typology are shown in the Table 1.

<table>
<thead>
<tr>
<th>The productive-psychotic mechanisms of delusional motivation</th>
<th>Number of patients</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>I Avoid Delusional</td>
<td>73</td>
<td>41</td>
</tr>
<tr>
<td>1 Delusional avoidance of chasing</td>
<td>33</td>
<td>18.5</td>
</tr>
<tr>
<td>2 Delusional avoid extraneous influence</td>
<td>30</td>
<td>16.9</td>
</tr>
<tr>
<td>3 Delusional avoid suffering from an imaginary disease</td>
<td>10</td>
<td>5.6</td>
</tr>
<tr>
<td>II Delusional self-punishment</td>
<td>61</td>
<td>34.3</td>
</tr>
<tr>
<td>4 Delusional self-deprecation</td>
<td>37</td>
<td>20.8</td>
</tr>
<tr>
<td>5 Delusional guilt</td>
<td>24</td>
<td>13.5</td>
</tr>
<tr>
<td>III Delusional demonstration</td>
<td>34</td>
<td>19.1</td>
</tr>
<tr>
<td>6 Delusional protest</td>
<td>25</td>
<td>14</td>
</tr>
<tr>
<td>7 Delusional call</td>
<td>9</td>
<td>5.1</td>
</tr>
<tr>
<td>IV Other delusional mechanism</td>
<td>10</td>
<td>5.6</td>
</tr>
<tr>
<td>8 Delusional revenge</td>
<td>3</td>
<td>1.7</td>
</tr>
<tr>
<td>9 Delusional mission</td>
<td>7</td>
<td>3.9</td>
</tr>
<tr>
<td>Total:</td>
<td>178</td>
<td>100</td>
</tr>
</tbody>
</table>

The main feature of the suicidal behavior of these patients was the presence of pathological motive arising from the content of delusional experiences. Psychopathological mechanism of “delusional avoidance” was the most frequent in the delusional motivation of suicidal behavior (73 patients, 41%). It appeared in 3 versions: “delusional avoiding of chasing,” “delusional avoiding of extraneous influence” “delusional avoiding of suffering from an imaginary disease”.

The mechanism of delusional avoidance of chasing, detected in 33 patients (18.5%), was characterized by extreme form of defense (protection) from chasing. Suicidal acts in these patients were often preceded by other forms of protection, sometimes manifested in the aggression against imaginary pursuers. Unsuccessful attempts to escape from chasing led patients to think about suicide as the only way out of this stressful and painful for the patient a situation of continuing chasing. Risk in the implementation of suicidal intent, as a rule, was highest during the expansion and complication of crazy storylines on the background of anxiety and fear. Although the conflict was as an “external pseudo-character” (Tikhonenko and Larichev, 1974), patients characterized the situation as “desperate situation”, “full circle”, “cornered”, etc. Suicidal intentions of these patients differed stamina and perseverance in their implementation. Following the same delusional mechanism of suicidal behavior, the patients made repeated attempts to kill themselves, changing ways of suicidal actions and combining them with aggressive forms of protection.

The second option psychopathological mechanism of “delusional avoidance” was characterized by aspiration of patients for committing suicide as the only way to “avoid any external influence”. This mechanism of delusional suicidal behavior was identified in 30 patients (16.9%). Intolerable characteristic, leading patients to think about death as a way of getting rid of suffering, was a constant feeling of openness of thoughts, violence of thought processes, feelings, movements and emotions. Patients said: “something is open in my head, everyone around knows my thoughts, I always feel a naked among the people”, “something constantly crawls in the brain and intestines, manages my feelings, movements, moods, changes my appearance; I want to smile, but have no smile on my
face”, “external forces instill the negative energy and control the body, some forces do not give the rest, my will is at their disposal, they make experiments”, “Brains stir, flip, burn with ray, it is not possible tolerate”. Clinico-psycho-pathological analysis of observations of this group of patients showed that the most painful tolerable for the patients were experiencing related to ideational and senestopathic automatisms, to lesser extent - kinesthetic ones.

The third mechanism of suicidal behavior was characterized by “delusional avoidance of suffering from an imaginary illness”; psychopathology of this mechanism was conditioned by hypochondriacal delusional experiences. This subgroup in the study included 10 patients (5.6%). These patients tend to show a lot of complaints of preposterous, pretentious content: “pain all over my body”, “tumor pressing into the chest, prevents the breath”, “blood does not flow inside of me, the intestine fails”, “nerve yanks, because this cannot urinate, stool does not come out, “the whole endocrine system is damaged, backache in the head, the skin on the head is raised, crawling under the skin of the head”, “the stomach burned with fire, it is transferred to the whole body”. Subjectively, hardly portable senestopaties constantly reinforced patients’ delusional confidence if they had severe physical illness, impending painful death, and in some cases were categorically stated that they had a “cancer”, “purulent infection”, “overpowered by parasites”, etc. Patients’ delusional behavior was shown in with multiple calls to the physicians of various specialties, and numerous examines. Patients often expressed dissatisfaction with the incompetence of the doctors who could not reveal in their condition the signs of somatic pathology. Unsuccessful attempts to find a really effective way of getting rid of the pain, thinking about the progression of an imaginary incurable disease and impending painful death led patients to a delirious decision to withdraw from life, as the only way of deliverance from suffering and to avoid inevitable impending doom.

The next group of psychopathological mechanisms of suicidal behavior in delusional motivation included patients with delusions of self-deprecation and guilt. The main motive in the decision of suicide in these patients is formulated on the basis of the internal pseudo-conflict (Tikhonenko and Larichev, 1974) and sounded like a “self-punishment” or redemption of the imaginary, delusional guilt. Delusional suicidal behavior with a certain degree of conditionality could be differentiated into two subgroups: “delusional self-abasement” and “delusional guilt”.

Patients with a predominant motivation of suicidal behavior mechanism of the “delusional self-abasement” made up 37 persons (20.8%). Ideas of self-abasement of these patients included both imaginary physical and mental defects. Clinical observation of this subgroup of patients allowed identifying three variants of syndrome kinesis with the formation of suicidal delusions of self-abasement: 1. Psychopathological states with a leading depressive affect when the delusions of self-abasement were part of the depressive experiences and were directly related to the depth of depression; 2. Psychopathological states whose structure delusions of self-deprecation were formed against the backdrop of delusions relationships, often combined with delusions of physical handicap or deformity; 3. Psychopathological states whose structure was dominated by pseudohallucination hearing, combined with certain kinds of Kandinsky psychic automatism syndrome, and delusions of self-abasement cause by condemning “voices”.

The second subgroup of delusional mechanisms of suicidal behavior could be described as “delusional guilt”; this subgroup included 24 patients (13.5%).

Clinical observation of this subgroup of patients allowed to identify some types in syndromal structure of psychotic states with delusional suicide ideas of guilt: 1. Delusions of guilt were formed against the backdrop of real stressful situations (the arrest of his son, the gap in romantic relationships, financial problems, death of loved ones, one's husband's suicide, etc.), when patients felt guilty for the mistakes and misfortunes, followed by delusional interpretation of real events; 2. Delusions of guilt were transformed from delusions of other content, more often hypochondriacal, when the patients felt guilty as they thought that their imaginary illness put their families in a difficult financial situation; 3. Delusions of guilt were formed secondarily by influenced pseudohallucination disorders
accusing nature in the structure of complex psychopathological states with elements of Kandinsky syndrome.

The mechanism for “delusional demonstrations” occupies a special place among the productive-psychopathological mechanisms of suicidal behavior. Performed by patients autoaggressive actions conditioned by the mechanism were often similar to the demonstrative blackmail, but differed from it by delusional interpretation of the situation.

The mechanism of “delusional demonstration” was found in 34 examined patients (19.1%). Delusional suicidal behavior in these patients was directly related to intentions to change delusional evaluated unfavorable situation by suicide threats and non-hazardous autoaggressive actions. Clinical observation of these patients showed that delusional motivation of demonstrative suicidal behavior could be subdivided into two subgroups: 1. “Delusional protest” (25 patients, 14%) - suicidal behavior expressing the delirious patient's negative attitude to any events or actions of others; 2. “Delusional calls” (9 patients, 5.1%) - suicidal behavior aimed at drawing attention to the delusional issues surrounding the patient in order to prevent unfavorable, according to the patient, developments or to attract compassion.

In all cases, the basic suicidal motivation of patients of this subgroup assumed “external pseudo-conflict” often based on delusional ideas connected with their intention to involve to participation the micro-social surrounding the patient. Demonstratively expressing disagreement with the delusional evaluated family situation, wanting to attract attention and sympathy, proving unfair attitude of to them, the patients often expressed a threat of suicide, wrote “farewell note”, but did not perform in fact life-threatening suicide attempts.

Psychopathological mechanism of “delusional mission” (7 cases, 3.9%) was observed in patients with schizophrenia; the clinical picture of these patients revealed symptoms of hallucinatory paraphrenia. Delusional experiences, shaped by auditory pseudohallucination and served as motivation for suicidal behavior, often had religious motive. In this case, patients often feel in the heart of the global struggle between good and evil, represented themselves messengers of either a God or Devil. Herewith their suicidal behavior was motivated by the desire to “save the world”, sacrifice himself “for the triumph of goodness on earth”.

3 cases (1.7%) were detected with psychopathological mechanism of suicidal behavior of “delusional revenge”: this mechanism assumed desire of patients to punish alleged perpetrators through their own death. Pathological grounds for the formation of the motives of suicidal behavior on the mechanism of “delusional revenge” were delusional ideas with persecutory content: relationships, harassment, and exposure. In this case, the patients committed suicide to expose alleged pursuers in the unfriendly attitude towards them, to attract the attention of law enforcement, to get punished those who brought them to suicide. Patients also thought on suicide as way to stop, in their delusional beliefs, the persecution and impact on their relatives.

Our study showed that delusional mechanism of suicidal behavior has a persistent feature and as a rule is repeated in its recurrence. Moreover, the likelihood of its repetition on a similar delusional mechanism increases with increasing multiplicity of episodes of suicidal behavior: from 67.7% in repeated suicide to 86.4% during repeated.

Given that the formation of motivation of suicidal behavior in delusional mechanisms is followed by psychopathological-syndrome, priority treatment and rehabilitation measures should be aimed at medicamentous cupping of psychotic disorders and the prevention of exacerbation of the disease.

In clinical practice, antipsychotics are the most commonly used for relief of acute psychotic disorders in schizophrenia. One of their side effects is a high risk of extrapyramidal disorders and neurotic depression with an increased risk of suicidal behavior. Therefore, in treatment of suicidal dangerous psychotic states in patients with schizophrenia the priority should be given to antipsychotics, which combine a powerful antipsychotic effect with minimal risk of neuroleptic side effects.
Olanzepin (Zyprexa) represents a drug that combines high performance and maximum security. Zyprexa is a drug that is most indicated for the treatment of schizophrenic patients with predominant symptoms of hallucinatory-paranoid circle. As shown by clinical studies, the drug primarily respond well to Kurt Schneider’s first rank symptoms; that is effectively acts on psychotic disorders performing as basis of delusional motivation for suicidal behavior.

Application of Olanzepina (Zyprexa) for treating suicidal dangerous psychotic states was performed in therapy of 30 patients with schizophrenia who were treated at Republican Scientific Practical Centre of Psychiatry (Kazakhstan). All these patients had a history of repeated psychiatric hospitalization; they were diagnosed with paranoid schizophrenia according to the criteria headings (F20) ICD-10. First appearance of schizophrenia in these patients often falls on the age of 25-30 years. Initial manifestations of the disease were diverse: from neuropathic and psychopathic disorders to autochthonous affective fluctuations. On their background, there were appeared overvalued ideas of reference, reformation, senesto-hypochondriacal experiences that served as the basis of delusional motivations of their suicidal behavior. Manifest psychosis in 9 patients (13.4%) lead to prevalence of delusional paranoid schizophrenia: 4 patients showed the formation of systematic hypochondriac delusions of aggravated physical illness as cancer pathology; 5 patients revealed systematized delusions of persecution and relationships. Due to the need for a quick relief of positive symptoms (delusions, hallucinations, psychomotor agitation, anxiety, fear) in the first hours of stay in hospital these patients were prescribed Zyprexa parenteral administration at a dose of 10mg. intramuscularly 2-3 times a day. Some patients agreed to receive instant Zidis tablets in doses of 10 - 20mg per day. Further observation of these patients in the hospital showed that the tablet form Zidis had a similar sedative and antipsychotic effect as the injection preparation of this drug. During the first week of systematic medication Zidis at a dose of 10-20 mg. daily delusional experiences decreased, became fragmented, the behavior of patients acquired an adequate situation in nature, suicidal tendencies were reduced.

Given that delusional suicide behavior has persistent and sometimes irreversible disorders of mind, treatment with Zidis had been continuing during the entire hospital stay; this approach provided a stable positive effect. Before discharge from hospital, taking into account the formation of therapeutic remission, some patients were receiving Zyprexa in tablet form 10 mg. at night. They were also recommended to continue the medication on an outpatient basis for a long time under the supervision of the district psychiatrist. Effectiveness of Zyprexa was shown by the fact that patients were increasingly becoming communicative, involved into family matters, demonstrating care on relatives and friends. Meanwhile, patients had been expressing liveliness, motion, enthusiasm, openness, those feelings that were absent in the acute stage of illness. Patients had been demonstrating improved concentration, working memory, learning ability and the acquisition of employable skills.

To achieve a favorable clinical and social prognosis of schizophrenia with persistent reduction of suicidal behavior risk, the patients were recommended specified algorithm of therapy with Zyprexa (olanzapine): timely (as early as possible) start of therapy; using the drug at all stages of treatment; adherence to long-term maintenance and prophylactic therapy. This approach contributed to the restoration of social and professional activity of patients, provided improvement of their life quality.

Thus, the overall goal of therapeutic and rehabilitative actions aimed at prevention of delusional suicidal behavior in schizophrenic patients is not limited to eliminating symptoms and functional deficits. Importantly, treatment should help patients to achieve maximally possible level in quality of his life. Modern antipsychotic olanzapine (Zyprexa), featuring a safe and well tolerated, appears as drug for long-term treatment of schizophrenia, providing effective prevention of recurrent suicidal behavior, formed by the mechanism of delusional motivations.


