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Case Report

The Relationship Between Mental Health and Reproductive Function in Women with Mental Illness and Infertility: A Clinical Observation Based on the Results of a Catamnestic Study

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Abstract

Background. Infertility in mentally ill women is largely determined by the nature of the mental disorder, its severity, duration, the presence of remissions and the possibility of recovery. Stabilization of the mental state in patients with mental disorders leads to the restoration of menstrual function and, as a result, reproductive function in some women with infertility.

Methods: A woman with an established diagnosis of mental disorder was examined twice using the clinical, follow-up method using the clinical scales HDRS, HARS, CGI to assess her menstrual and reproductive function, and the influence of her mental state on the presence of infertility.

Results: The influence of the mental state of a woman with a schizophrenic spectrum disorder on her menstrual function and fertility is described. Exacerbations of the mental condition after childbirth were revealed. Features of psychopharmacotherapy and their impact on achieving a qualitative remission are described.

Conclusion: Five psychotic episodes were recorded in the clinical picture of a chronic mental disorder that combined both manic, depressive and mixed affective disorders as well as schizophrenic delusional symptoms with catatonic inclusions. This mental disorder corresponds to bipolar type schizoaffective psychosis. Postpartum periods were accompanied by aggravation of mental state. Hospital treatment with psychotropic medications made it possible to achieve a high-quality remission during which the patient did not require maintenance therapy. Inter-onset periods consisted mainly of long-term remissions, with complete restoration of adaptation, supported by psychometric indicators, and restoration of menstrual and reproductive functions. All pregnancies occurred spontaneously, against a background of stable mental state, without intervention from gynecologists, and ended in childbirth, confirming the idiopathic nature of the infertility.

Keywords: hypotension; low blood pressure; vascular wall tension

Introduction

Gender research in psychiatry has become more relevant in recent years. The study of the relationship between female reproductive health and mental health is an important area of psychiatric research and practice [1]. There is evidence of the influence of a woman's mental state on her sexual activity, menstrual cycle, and reproductive function [1, 10]. This can lead to infertility. Traditionally, infertility has been associated with gynecological conditions as a possible cause, which in some cases may require not only medical, but also surgical interventions. Women with mental health issues are less likely to seek gynecological treatments for infertility, and the role of gynecologists in helping with infertility treatments is not always emphasized in the context of achieving a successful pregnancy (8,9,10,11). The family, labor, and social maladjustment that arise as a result of mental illness are "layered" with reproductive issues, which leads to a mutual exacerbation of these destabilizing factors [12,15]. Women with mental disorders face the problem of pregnancy and the exercise of their reproductive rights

throughout their lives [16]. And the presence of a mental disorder largely determines the onset, course and outcome of pregnancy.

Case presentation.

Patient Z., 34 years old, accountant. She is married and has two children. She was initially examined by a psychiatrist at an outpatient appointment during pregnancy of 4 weeks and 4 days. There are no complaints at the time of the examination.

Anamnesis: heredity is psychopathologically burdened; the patient's father and mother suffered from alcohol addiction, her own older brother committed suicide (he had a "bad temper", stole as a teenager, left home. From the age of 17, he started drinking alcohol, sniffing volatile solvents. He was characterized by aggressive behavior, rushed at relatives with a knife. After another family conflict at the age of 28-29, he left home and did not appear for two weeks. He was found hanged in the woods).

The patient was born from the first unplanned pregnancy out of wedlock. Her mother's pregnancy was uneventful, the delivery was on time, rapid. Early development without special features. During her school years, she was a diligent, responsible, and executive child, and the head of the class. The teachers entrusted her with many assignments, and friendly relationships developed in the children's team. She describes herself as a shy, deeply troubled girl with family conflicts. The home environment was tense due to parents' alcoholism, difficult financial situation, and unsatisfactory housing conditions. At that time, I lived in rural areas. According to the patient, since she was a teenager, she dreamed of leaving her parents' home in a big city, meeting a decent young man, and starting a family. Mensis from the age of 14, was not established immediately, within a year. They were characterized by soreness, and 4-5 days before the onset of menstruation, the mood changed: it was elated, then the periods lasted for 3-4 days; or "sad", when the discharge was disturbed for 5-7 days, it was more abundant. Sex life since the age of 20. After graduating from high school, she left her parents' home and entered a technical college. After receiving secondary special education, she studied at the correspondence department of the university, successfully studied, and was the head of the group. In the new student group, where her story was unknown to others, she stopped feeling tension about her parents' family. At the age of 20, she met her future husband and soon became pregnant. The parents did not support her desire to keep the pregnancy, but her partner insisted and they legalized the relationship. The child was born into marriage, and the patient's reaction to the pregnancy was expressed through intense anxiety and fear. During this time, she "didn't know what to do, lost sleep, couldn't eat, and her academic performance decreased. She was sad." After the wedding, the anxiety decreased somewhat, but her mood remained "steadily low for no reason." Her husband suggested a change of scenery and the newlyweds traveled to a neighboring city for the weekend, after which she "perked up".

The course of the first pregnancy was physiological, with a weight gain of 10 kg. She was monitored by an obstetrician-gynecologist from early gestation at a women's clinic. The delivery took place at 39 weeks, 4 days after the start of labor. The first stage of labor involved the discharge of a small amount of amniotic fluid, followed by a rest period with oxytocin stimulation and episiotomy, and suturing of the perineal incision under intravenous anesthesia.

The child was born weighing 3800 grams, with a height of 53 centimeters. He immediately screamed, and his Apgar score was 9. The patient said that, after an ice pack had been placed on her lower abdomen after giving birth, she thought that "the ice would melt the milk in her breasts, making it transparent, and she wouldn't be able to breastfeed her baby." She was very worried and irritated at the same time, because she believed that medical staff had "carelessly thrown the baby onto her chest," and "they didn't bring her son because something had happened to him." Her sleep was disturbed, and she constantly went to the door of the children's ward demanding to take out her son, thinking that she would not recognize him or remember him. On the second day after delivery, her temperature rose to 38.3 degrees Celsius, and her uterine cavity was scraped under general anesthesia. On day 10 after giving birth she was discharged from the hospital with her child. The behavior in the postpartum ward was orderly.

In the second week after giving birth, despite the initial difficulties in caring for the baby, she felt a surge of strength. She did not want to sleep and developed strong irritability towards smells, bright lights and louder sounds.

Running, jumping, having sex, the feeling of hunger never subsided. The feeling of unreasonable anxiety did not leave. I cooked and cleaned a lot. I sorted and measured things, dressed up, wanted to take care of myself. After applying a mask to her face, she decided to have a bath with her son. At that moment, her husband came home from work and there was a conflict because he considered the situation dangerous for their child's wellbeing. The patient didn't understand the reason for his anger. She explained that she wanted to look attractive. There were no criticisms of her condition. The next day, while on public transport with an infant, she spontaneously decided to visit the gynecologist who had been monitoring her during pregnancy to show him her son. Upon returning home there was another argument with her husband. On another sleepless night, she became "very hot" and opened the windows wide in the house. She constantly went to check on her husband and son to see how they were sleeping. In the morning, when the mother arrived, she was abruptly pushed away by her, as she did not want to be touched by her. The mother believed that her child's hands were frozen due to her arrival at night. An ambulance team was called and the paramedics were met with hostility. They wanted to shake everyone and run away with the child.

The medical staff insisted on contacting a local psychiatrist. She whispered prayers at the medical facility, although she had never been religious. She was hospitalized in the acute women's department of a psychiatric hospital. In the department, she experienced terrible fear and fright, began to scream and ask her relatives to take her away. There was a terrible resentment towards the family. In connection with her agitated state, physical restraint measures were applied, which she actively resisted. In the conditions of separation, "her breasts burned, she believed that milk was holy. She could sprinkle it on everyone and heal them from diseases, make them happy. She did not want lactation to stop. She longed to breastfeed her son. I wanted to eat a lot. I didn't eat enough. I ate the bread crusts thrown away by patients. I couldn't sleep. Against the background of psychopharmacotherapy (aminazine, olanzapine, quetiapine, diazepam, phenazepam, gabapentin), behaviour became orderly. She stopped expressing delusional ideas. But "energy disappeared. It became difficult to wash. Combing her hair. Could not smile. Emotions disappeared." "I wanted to stay in the department. I began to miss my child. Worried about him. Asked my husband to bring my son to hospital." She was in department for two months. Burdened by fact that her mother-in-laws had to take care of child. Tried to follow all prescriptions attending physician. She was discharged with a diagnosis of acute polymorphic psychotic disorder. Maintenance treatment with quetiapine 100 mg / day was recommended.

Within a week of being discharged from the psychiatric hospital, I was terribly restless. I walked from corner to corner all night, had no strength, and tried to endure it, but did not seek psychiatric help. Two months later, my mental state worsened - my mood decreased, I refused to take supportive treatment at home, lost sleep and appetite, and was readmitted to a psychiatric hospital. There, I was withdrawn, silent, slow to contact the attending physician, refusing to take pills. After discharge, there was a sense of responsibility towards my family, no joy, and I continued on maintenance treatment with antidepressants and antipsychotics. Subsequently, she did not seek help from a psychiatrist for 7 years. The patient said that "there was always fear that the condition would happen again."

After 7 years, the patient's mother underwent surgery, to which she was strongly attached. There were conflicts with her husband based on sexual activity - the patient was more sexually active than her husband. During that time, her mood, activity and sexual desire increased, menstruation became irregular with a delay of 7-10 days. While in the country with her daughter, she had spontaneous sexual intercourse with a neighbor. After this betrayal, she experienced terrible emotions, fearing that she would wake up in the night and say the other person's name. She lost sleep, argued with her

husband and became very irritable, sometimes hitting him and tossing from side to side. She went to the psychiatric hospital for the third time on her own, where she stayed for a month. There, she received valproic acid, quetiapine and phenazepam.. She was discharged in satisfactory condition and underwent maintenance treatment with valproic acid 750 mg / day, which she took for three months and then stopped on her own. After this hospitalization, she did not seek psychiatric help.

At the age of 30, she decided to have her second child. Pregnancy did not occur during that year. Then, there were "menstrual irregularities." The cycle was irregular, menstrual discharge was abundant and painful, mood during PMS was unstable, and she was irritated by the slightest provocation. She was under the supervision of a gynecologist with a diagnosis of secondary female infertility N97.9, unspecified. The second pregnancy was threatened with termination, and she was hospitalized twice at the Department of Pregnancy Pathology at 16 and 22 weeks of gestation. She consulted with a clinical psychologist at the department and hid from him that she had previously been admitted to a psychiatric hospital. The second childbirth was on time with a mature full-term baby weighing 4,020 grams, who screamed immediately and had an Apgar score of 9 points. In the postpartum ward, sleep was disrupted due to the conditions. On the second day after giving birth, a child was suspected of pneumonia and was transferred to the children's hospital. The mother was very worried and did not sleep. The child was restless and constantly crying. She began to think that the medical staff were looking at her suspiciously and hinting that she was a bad mother. There was a desire to open the closet in the ward wide so that everyone could see that everything was in order and everything was there for the child. She was afraid of being judged by others. A surge of energy began and she did not sleep at night. She listened to music on her headphones in the bathroom.; It was hot. My chest was burning. I leaned against the wall. "I thought about the discharge, invited a photographer and all my relatives beforehand." She left the department by herself, asked her husband to take her to the forest to breathe fresh air, walk, there was a desire to leave and take the child with her, move to her mother's place so that nobody would look after her. She wanted to go back to nature, back to her little homeland.

The patient's condition alerted her family. Her husband called the children's hospital and forbade his wife from visiting the child. While waiting for the child to be discharged, she began preparing the nest, laying blankets, doing laundry, and wanted to bring the child home and be with him. She repeatedly went to the hospital to pick up the child, had rows with the medical staff, spent a lot of money on the sea, and lost herself in the child.

She was admitted to a psychiatric hospital for the fourth time. She swore obscenities in the department, was aggressive, then "her conscience woke up, she told me that she had cheated on her husband. I realized that I was completely dependent on my husband, that I could stay here forever." At the hospital, if she saw similar clothes, makeup, or hair color on the staff and patients, she recognized the mother in them -"it seemed that mom had arrived." In the department, she "bent over like a column, wanted to degenerate from this state, laid a sheet on the floor" – she tried to prove that she could make the sheet correctly, she was afraid to forget who she was and where she was. "I kept a piece of soap, its smell reminded me of my mother, of home. There was a heightened sense of smell. Pictures of family and children appeared in my head." She was in a psychiatric hospital for 3 months, receiving sedalite (lithium carbonate), valproic acid, aminazine, zalasta (olanzapine), truxal (chlorprotixene), quetiapine, phenazepam. She was discharged in satisfactory condition with a diagnosis of F 25.2 schizoaffective disorder, mixed type.

She received maintenance treatment with valproic acid (1000 mg/day) and quetiapine (25 mg per night) for six months, then canceled it on her own. I didn't go to a psychiatrist. In 33, she decided to have her third child. Menstruation at that time was irregular – "menstruation was confused", could go twice a month, accompanied by pain in the lower back and lower abdomen. Despite regular sexual activity, pregnancy did not occur for a year. Gynecologists classified infertility as secondary unspecified N97.9. No therapy was performed, just observed. When spontaneous pregnancy occurred against the background of an established menstrual cycle, she was referred for psychiatric consultation.

Somatic status: normosthenic physique, increased nutrition, height 171 cm, weight 85 kg, body mass index 29.1 (overweight, pre-obesity), skin and visible mucous membranes clean and normal color, no swelling, peripheral lymph nodes not enlarged, painless on palpation, lungs breathing vesicular, respiratory rate 18 / min, no wheezing, heart tones clear, rhythmic, no murmurs, arterial pressure 125/85 mmHg, heart rate 70 bpm, abdomen soft, painless and participates in breathing, liver does not protrude beyond costal arch, shaking symptom negative on both sides, healthy bladder and bowel habits, concomitant diagnosis: N97.9 secondary female infertility, unspecified.

Neurological status: consciousness is clear, there are no meningeal signs. Eye slits, pupils D=S. Photoreaction is direct and friendly. Face is symmetrical. Pharyngeal reflex is active. Tongue is in the midline. Muscle tone is normal. No paresis. Reflexes are D=S, no pathological signs were found. Coordination tests performed correctly. Stable in Romberg's pose. No meningitis or focal symptoms. Laboratory and instrumental study results: General and biochemical blood test, general urinalysis - indicators within normal range. ECG - rhythm sinus, heart axis not deviated.

Chest organ fluorography: Chest X-rays show pulmonary fields in the right and left lateral projections without focal or infiltrative shadows. The roots are not expanded; they are structurally normal. The diaphragms are clear, the sinuses are empty, and the cardiovascular shadow is normal. There are no visible pathological changes in the chest organs.

Mental status (at the time of initial examination): her mind is clear and she is correctly oriented in all ways. Speech is at a normal rate. Thinking is adequate, logical and consistent. She does not show any symptoms. She is worried about the outcome of her pregnancy, the possibility of deterioration of her mental state after childbirth and possible hospitalization in a psychiatric hospital. Despite her unwillingness to save this pregnancy, she does not consider the possibility of artificial termination. Her emotions are adequate and stable, her mood is normal, facial expressions are lively and active, volitional activity is not increased, and criticism of her condition is sufficient.

Psychometric assessment at the time of initial examination: HDRS - 5 points; HARS - 8 points. Indicators of the General Clinical Impression Scale (SGI): Severity of the Disease (CGI-S) - 3 points; Global Improvement (CGI - I) - 4 points; Efficiency Index (CGI E) was not evaluated because the patient did not receive psychopharmacotherapy.

Diagnosis: F25.2 Schizoaffective Disorder, Mixed Type. Supervision of a Dynamic Psychiatrist and Gynecologist is Recommended.

The patient was examined in dynamics 2 years after the initial examination. Complaints about the results of catamnesis do not actively present. Occasional anxiety occurs when thinking about self-esteem and the future of children.

Catamneses: the third pregnancy proceeded physiologically, under the supervision of gynecologists at a regional antenatal clinic, and did not receive psychopharmacotherapy, birth on time with a full-term healthy fetus, apgar score 9 points.

In the postpartum ward, she suddenly lost sleep, fought, flirted with male doctors, stripped the newborn naked, placed icons on the windowsill and "pushed him out of the window to drink God's grace." On the third day after childbirth, she was transferred to a psychiatric hospital's acute women's department. When she arrived at the department, she was angry and irritable and sexually disinhibited - she insisted that the male doctors touch her breasts and tried to expose herself. She believed that they were trying to poison her and ran around the ward shouting, "Nothing can stop me!" She was treated with sedalite (lithium carbonate), valproic acid, haloperidol, diazepam, and bromocriptine due to increased prolactin levels in her blood. After treatment, she left in a satisfactory condition under the supervision of a local psychiatrist. As a maintenance treatment, 50mg amisazine was prescribed at night.

Mental status (according to catamnesis): Her mind is clear and she is correctly oriented in all ways. The voice has a normal timbre without

modulation. Speech is at a normal pace, thinking is logical and consistent, and there are no productive psychopathological symptoms. Emotions are adequate and stable, mood is even, volitional activity is not impaired, she copes well with daily household chores and actively participates in children's life, taking them to various extra classes. Material and living conditions are satisfactory, as is the psychological atmosphere in the family. She plans to return to work after her parental leave ends, and criticism of her condition is preserved.

Psychometric assessment (according to catamnesis): HDRS - 2 points; HARS - 4 points.

Diagnosis: F 25.2 schizoaffective disorder, mixed type.

Recommendation: Follow-up with a district psychiatrist.

Conclusion: The patient has had mental illness for many years and has complicated psychopathological history.

The onset of the first menstrual period is quite late, at the age of 14, with an unstable cycle. It took a year to form. Menstruation was irregular and painful. The patient's mood changed from high to low a few days before menstruation began, and improved after it ended. Mood swings were accompanied by changes in discharge: when mood was high, menstruation lasted 3-4 days; when it was low, 5-7 days.

The onset of mental disorder at age 20 on the background of pregnancy. Pregnancy was unplanned and rejected by the family, which was an emotionally significant factor. Disease manifested as mild depressive syndrome, psychogenic and psychoendocrine in origi, followed by spontaneous remission. In the postpartum period after the first birth, there was a change in affect with the symptoms of hypomanic syndrome, which later developed into anxiety and manic anger. At that time, altered affect was accompanied by psychotic symptoms such as ideas of attitude, obsessions, and religious delusions. She was treated in a psychiatric hospital and received psychopharmacological treatment. Repeated hospitalization was due to a depressive episode on the background of refusing to continue treatment. For 7 years she was employed, had a child and did not seek help from a psychiatrist. The third psychotic episode was provoked by psychotrauma (surgery on her mother, conflicts with her husband). It manifested clinically as hypomanic syndrome, which later developed into anxiety and mania. The patient was hospitalized for a month in a psychiatric hospital (the third time in a row), and received psychopharmacological treatment. She left the hospital in a satisfactory condition and was not followed up with a psychiatrist.

At the age of 30, she decided to have a second child. But pregnancy did not occur for a year. Menstrual irregularities (heavy and painful menstruation) and the predominance of mental symptoms of premenstrual syndrome were present. The pregnancy that did occur was complicated, threatening with termination and had to be preserved twice. In the postpartum period, the fourth psychotic episode developed. The patient experienced a mixed affective phase, characterized by disturbed sleep, increased purposeful activity (when she tidied up the closet and noted a surge of energy), financial impulsiveness (spending a lot of money), agitation (washing clothes and carpets), dysphoria (arguing with medical staff).. During hospitalization in a psychiatric ward (fourth hospitalization), depressive content of associations (conscience woke up, I realized that I was completely dependent on my husband and could stay in the psychiatric hospital forever), Capgras syndrome, catatonic phenomena, lack of criticism. Against the backdrop of psychopharmacotherapy, the state of drug remission was achieved and she was discharged from the department in satisfactory condition. She received six months of supportive treatment, then canceled it on her own and did not return to the psychiatrist.

At the age of 33, due to an irregular menstrual cycle, she was unable to conceive a child for a year. She was observed by a gynecologist for secondary infertility of unknown etiology, and no specific treatment was given. Pregnancy occurred spontaneously when her menstrual cycle normalized. The pregnancy progressed normally, and the birth took place on time.

The final (fifth) admission to a psychiatric hospital was after the third childbirth due to the development of a manic-depressive syndrome. After being discharged, she received supportive normotimic therapy, which led to drug-induced remission confirmed by psychometric tests, restoration of social function, and absence of personality defects.

Thus, five psychotic episodes were recorded in the clinical picture of a chronic mental disorder, which combines both manic, depressive and mixed affective disorders as well as schizophrenic delusional symptoms with catatonic inclusions. This mental disorder corresponds to bipolar type schizoaffective psychosis. The postpartum period was accompanied by an exacerbation of the mental condition. Inpatient treatment with psychotropic medications made it possible to achieve a high-quality remission during which the patient did not require maintenance therapy. Inter-onset periods were primarily long-term remissions, with complete restoration of adaptation (as evidenced by psychometric indicators), as well as restoration of menstruation and reproductive function. All pregnancies were spontaneous, occurring against the background of stable mental health without intervention from gynecologists, and resulted in childbirth, confirming the idiopathic nature of infertility.

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