Psychiatr. Pol. 2023; 57(5): 995–999
PL ISSN 0033-2674 (PRINT), ISSN 2391-5854 (ONLINE)
www.psychiatriapolska.pl
DOI: https://doi.org/10.12740/PP/OnlineFirst/143044

Persistent delusional disorder with delusions of poverty – a case study

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Summary

We present a case study of a patient who was hospitalized with the initial diagnosis of psychotic depression with predominant delusions of poverty. During his hospital stay despite antidepressant and antipsychotic treatment with 150 mg of sertraline and 20 mg of olanzapine per day, no symptomatic improvement was achieved. Besides, the psychotic features have risen to the fore along with inadequately vaguely expressed affective component. What drew attention was the coherence and permanence of delusional judgements, which, albeit variable in expression, always concerned one theme – the belief of an inevitable bankruptcy. The whole clinical picture, both with the objectifying interview defining the order of emerging symptoms, was suggestive and the verification of diagnosis was made. Persistent delusional disorder with delusions of poverty with subsequent mood disorder was diagnosed. The treatment with 275 mg of clozapine per day was started and we observed a slow gradual withdrawal of psychosis as well as a total normalization of the affective range. The case illustrates the importance of differential diagnosis of mental states in which psychotic features coexist with affective symptoms. It is helpful to determine the sequence of the symptoms development. It should be noted that although the ICD-10 classification distinguishes exclusively 7 subtypes of persistent delusional disorder, in the clinical practice we can encounter other thematic areas of psychosis. It brings substantial therapeutic and prognostic implications.

Key words: persistent delusional disorder, psychotic depression, delusions of poverty

The patient's history

Mr. W, a 40-year-old businessman with no psychiatric history, presented to hospital accompanied by his wife deeply concerned about her husband's recent abnormal behavior. For over 20 years he has been successfully running a family business. He has always been head of the family and could cope with stressful situations, business meetings and public speeches. Two years ago, according to objectifying interview,

he entered into a relationship with one of his employees, who expected to benefit financially from the situation. The growing tension within the company changed him. Living under the constant pressure, he became anxious and irritable. He was afraid that his wife might discover the relationship between him and his subordinate, what he considered particularly overwhelming, given the common belief that he was a righteous and honorable man, fully devoted to his family. For five months he has gradually, more frequently and with greater firmness begun to express pessimistic judgements regarding the situation of his business and its financial liquidity. He expected bailiffs watching his every move in order to start recovering all the goods that he and his wife possessed. He stated that he had lost everything, his bank accounts were cleaned out of any financial resources and that without money he meant nothing. His wife and son helplessly tried to persuade him by showing him the account statements, invoices and bills clearly showing that the situation of the business was stable. With the coronavirus pandemics and related stoppage of world's economy, the turnover of the business slightly decreased and this contributed to his conviction about the inevitable catastrophe. He became gloomy, overcome by constant grief and guilt for leading the whole family to bankruptcy. He started to paint catastrophic visions of the children's and grandchildren's future loomed by poverty and hunger. He would often sit in an empty room with the lights and TV off, hunched with his head down waiting for the imminent end. He would sometimes eat the dog's food saying that he could not afford any more expenses. He also called his friends many times asking about a way to solve problems at work which until then had never caused him any trouble. His decisions became hasty and imprudent, he tried to sell all his remaining assets as soon as possible by signing unfavorable contracts for the sole purpose of protecting his family and himself from bankruptcy.

He attended two telemedical psychiatric consultations and he was diagnosed with the severe episode of major depression with psychotic features followed by the treatment with escitalopram (20 mg), mianserin (30 mg) and olanzapine (5 mg) during 3 weeks prior to his hospitalization. No improvement was achieved despite the implementation of the pharmacotherapy, moreover, the delusional thoughts regarding his financial impoverishment intensified and were present in nearly every sentence making it impossible to have any substantive conversation with him. After numerous attempts to persuade him made by his family, he finally agreed to be hospitalized in the psychiatric ward despite his initial resistance to medical treatment. On admission his mental state was described as follows: "clear awareness, well-oriented to place, time and self, logical verbal contact, deeply depressed mood without major circadian fluctuation almost constantly showing psychotic fear, weakly modulated synthymic affect, reduced drive, form of speech congruent, slight psychomotor retardation, present delusions of poverty, no hallucinations of any modality, significantly reduced sleep, impaired induction with prolonged latency of sleep, low appetite." During his life he had never received psychiatric treatment nor required psychological help. He suffered from chronic arterial hypertension and type II non-insulin-dependent diabetes. Six years prior to his hospitalization, he had undergone a pacemaker implantation due to sick sinus syndrome. He denied abuse of alcohol and other psychoactive substances

which was confirmed by an objectifying interview. No mental disorders were notified among the family. Computer tomography of the brain did not show any pathology and the blood tests were normal except for slightly increased fasting glucose.

The psychometric assessment of depression severity showed 30 points in the Hamilton scale. During the medical interview all his responses regarding his health focused on the loss of resources and bankruptcy. Although he did not present suicidal thoughts, there were elements of resignation related to the meaninglessness of life without money and not being able to provide for his closest ones. Escitalopram and mianserin were tapered, discontinued, and replaced by sertraline 100 mg per day, while the dose of olanzapine was increased to 10 mg per day. As no improvement was achieved in the psychotic and affective symptoms, in the following days the dose of olanzapine increased to 20 mg and sertraline to 150 mg per day which lasted 3 more weeks. Despite this change the delusional system paradoxically consolidated and began to include new aspects of daily life such as his physical health. In individual conversations he clearly emphasized that any pharmacological treatment is pointless and that the pills could not change the reality he had found himself in. He declared no intention to continue any treatment after being discharged from the hospital as he would not afford to pick up any prescription. He worried about the state of his pacemaker and envisioned certain death caused by its battery running out, because, as he stated, he could not afford to replace it and see a specialist. The patient asked about the funding of the healthcare system. He was afraid that his stay at the hospital would become another financial burden which would only contribute to his inevitable and imminent bankruptcy. The clinical picture and the lack of efficacy of the antidepressants led to the necessity of verifying the diagnosis of psychotic depression. The affective symptoms were relatively weakly expressed. The sadness and anhedonia were solely present during the periods of greater intensity of psychosis and rather arose from the theme of delusions than were its possible source. Olanzapine and sertraline were discontinued and clozapine was introduced in doses gradually increasing for 14 days. Having reached the daily dose of 300 mg, the patient presented inacceptable sedation and sialorrhea, thus the dose was reduced to 275 mg per day until the end of hospitalization.

As the pharmacotherapy intensified the psychotic symptoms started to fade away slowly. The themes of previous delusions became "awaiting circumstances", that he would face once discharged from the hospital. They were no longer the cause of such tremendous anxiety and helplessness and turned into a subject of numerous analyses on the potential ways out of the crisis. Although the belief of the financial ruin of his business was still present, he started to picture the future in slightly brighter colors. There was a clearly growing distancing from the subjects of delusions. The mood disorders ceased completely resulting in 4 points in the *Hamilton Depression Scale*. The MMPI-2 questionnaire was carried out to determine the patient's personality profile and it demonstrated the presence of significant paranoid personality features with cognitive rigidity predominance and lack of psychological elasticity. In the ward he eagerly participated in socio-therapeutic sessions and got effortlessly involved in friendly relations. However, until the last day of hospitalization he did not acknowledge the possibility of being mentally ill, thus he felt no need to take any medication,

however, out of consideration for his wife and son he agreed to do so. Despite the great reduction in symptoms, psychosis did not cease entirely and the delusions of poverty remained on a constant low level.

Discussion

To our knowledge this is the second case study of persistent delusional disorder with delusions of poverty firstly documented in 2006 by Shaligram and Choudhury [2]. The delusions of bankruptcy generally fall into the wider picture of affective psychoses' psychopathology, mainly depression, and co-occur with delusions of guilt, sin, punishment or, in its greatest severity, with the nihilistic ones [3]. In the presented case the initial mental state indeed indicated a diagnosis of psychotic depression, though even then the affective component appeared disproportionately to the severity of psychotic symptoms. The lack of response to antidepressant treatment used in an adequate dose was significative, as well as the satisfactory reduction of symptoms during antipsychotic treatment. Furthermore, while the delusional activity gradually ceased, remission in mood disturbances was achieved and anhedonia disappeared completely. It is another example that anhedonia does not need to arise from primary mood disorders and may be an expression of direct experiencing of delusional content and frequently accompanies other mental illnesses and disorders.

The frequency of such correlation when basically persistent delusional disorder triggers secondary mood disorders remains an open question. In differential diagnosis of each psychiatric entity that consists of mood disturbances and psychotic symptoms it is crucial to establish rigorously the sequence of appearing symptoms and their dynamics. In this case establishing the chronology and circumstances of symptoms confirmed by the objectifying interview from patient's wife vastly contributed to making the final diagnosis.

It is worth mentioning the role of chronic stress as potential risk factor inducing psychotic disorders. Neurobiological mechanisms of increased dopamine release mediate the neurons' response to stressor in the striatum along with the frontal lobe dysfunction [4–6]. The cognitive rigidity characterizing people with paranoid personality features was the reason why the patient's familial difficulties together with the necessity to adjust to the new pandemic reality became a sufficient trigger factor to induce a persistent delusional disorder.

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