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Comorbid of Obsessive-Compulsive Disorder and Schizophrenia: A Case Report

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A B S T R A C T

Introduction: Schizophrenia was a chronic mental disorder that is marked by abnormal social and impairment in reality testing ability. A person diagnosed with schizophrenia may experience a number of symptoms including hallucinations, delusions, disorganized thinking, bizarre speech, and behavior. Obsessive-compulsive disorder is well known as a comorbid of schizophrenia. Comorbid OCD will affect the treatment of schizophrenia and other mental disorder. **Case presentation:** A 14-year-old student Muslim boy from a rural household in Central Java, Indonesia who had 8 years of formal education and live with his parent was brought to the emergency department of a mental hospital by his parents who reported a one-year history of excessive washing of his body, soaking his body for hours in the bathtub and sleep in the bathroom. The patient first fell in January 2019; over a six-month period, he became progressively deteriorated, lost interest in his hobby, stopped going to school, and reduced his food intake. After one week treatment of with venlafaxine and risperidone, He became more cooperative and interactive with the examiner. At that time, the patient reported delusional beliefs about contamination and paranoid delusion, and there were several indications of formal thought disorder, including derailment, neologisms, concrete thinking, circumstantiality, and illogicality. An intelligence test revealed average intelligence (IQ=100). The total score of the Brief Psychiatric Rating Scale (BPRS) 3 dropped from 42 to 24, the score on the Yates-Brown Obsessive-Compulsive Symptoms (YBOCS)4 scale dropped from 24 to 18, and the score on the Global Assessment of Functioning scale (GAF)5 increased from 25 to 55. After discharge, the patient adhered to his medication regimen, and three months after discharge, his clinical improvement persisted; he was able to maintain his personal hygiene and take care of his daily needs, but he remained socially isolated and was unable to return to school. **Conclusion:** Obsessive-compulsive disorder and schizophrenia could happen together in one individual. The treatment should consider the underlying condition and cognitive function, especially if the patient is of productive age.

1. Introduction

Schizophrenia is a mental disorder characterized by abnormal social behavior and one can not differentiate between what is real and just fantasy. A person diagnosed with schizophrenia may experience a number of symptoms including hallucinations, delusions, disorganized thinking, bizarre speech, and behavior. On the other hand, obsessive-compulsive disorder (OCD) is a disease that is marked by obsessive thinking and compulsive behavior to relieve the thinking.[1]

Obsessive-compulsive disorder is well known as a comorbid of schizophrenia. Comorbid OCD will affect the treatment of schizophrenia and other mental disorder.[2] It is believed that a diagnosis of OCD may be related to an elevated risk for later development of psychosis and affective disorder.[1] In this case, we would present a 14 years-old boy that suffers from schizophrenia comorbid with obsessive-compulsive disorder.

2. Case Presentation

A 14-year-old student Muslim boy from a rural household in Central Java, Indonesia who had 8 years of formal education and live with his parent was brought to the emergency department of a mental hospital by his parents who reported a one-year history of excessive washing of his body, soaking his body for hours in the bathtub and sleep in the bathroom. The patient first fell in January 2019; over a six-month period, he became progressively deteriorated, lost interest in his hobby, stopped going to school, and reduced his food intake. At that time, he also showed excessive washing of his hands, a symptom that remained throughout the full course of his illness, which the patient explained as due to removing bacteria and contamination from his hand and whole body. This change, according to the family, began with the accident of a patient falling from a bicycle and resulting in a big wound on his left arm. The patient was worried that the wound will not heal due to contamination with viruses and dirt.

Since then, patients often felt chest pain, headaches, and nasal congestion. This often happens especially after the patient's school exam. Patients feel their friends cheat because they cheat the exam time and get good grades, while patients who study diligently only get grades below those friends. In addition, the patient claimed that he was often bullied by his friends at school.

Two months before admission to the hospital, the patient felt his father who worked outside the city always brought dirt into the house, because his father worked in a place that had many dogs. The patient splashed his father's steps with water and washed his hands repeatedly for fear of being unclean.

Five days before hospital admission, the patient went angry without any reason, threw plates and aquariums, the patient splashed water into the living room, and broke the bathroom glass. The patient then sleeps in the bathroom and soaks in the bathtub for 6 hours. This happened after the patient's father came home from work out of town. The patient was then taken to a religious leader in town then the patient was advised to be taken to the Mental Hospital.

On arrival at the emergency department, the patient was uncooperative and responded to questions in monosyllables. There was an auditory hallucination and paranoid delusion. The patient believed all people and the environment around him were so dirty. His general physical examination and routine blood tests (including hematocrit, liver function tests, kidney function tests, electrolytes, serum proteins, blood sugar, thyroid function tests, serum B12, and folic acid) were all within normal limits. He weighed 50 Kg and was 1.60 cm in height, so his body mass index (BMI) was 19.5, well within the normal range (effectively excluding the diagnosis of anorexia nervosa). There was no family history of mental illness or seizures.

The patient was diagnosed with schizophrenia paranoid comorbid with obsessive-compulsive disorder due to obsessive thinking that was so prominent and paranoid delusion with a lack of insight. He was treated with venlafaxine (starting at 60 mg/day and gradually increasing to 75 mg/day) and risperidone (starting at 2 mg/day). His symptoms improved significantly after the first week of treatment. He became more cooperative and interactive after the first week of admission. At that time, the patient reported delusional beliefs about contamination and paranoid delusion, and there were several indications of formal thought disorder, including derailment, neologisms, concrete thinking, circumstantiality, and illogicality. An intelligence test revealed average intelligence (IQ=100). Based on these findings his diagnosis was set to schizophrenia paranoid with concurrent symptoms of obsessive-compulsive disorder and average intelligence. The medication regimen was continued based on the former regimen, which was risperidone 2 mg/day and venlafaxine 75 mg/day. The total score of the Brief Psychiatric Rating Scale (BPRS) [3] dropped from 42 to 24, the score on the Yates-Brown Obsessive-Compulsive Symptoms (YBOCS)[4] scale dropped from 24 to 18, and the score on the Global Assessment of Functioning scale (GAF)5 increased from 25 to 55.

After discharge the patient adhered to his medication regimen and three months after discharge, his clinical improvement persisted; he was able to maintain his personal hygiene and take care of his daily needs, but he remained socially isolated and was unable to return to school. Ongoing support and education of the parents helped them provide the patient with the supervision he continued to require.

3. Discussion

This case highlights important issues and challenges. The main challenge was obsessive-compulsive symptoms and schizophrenia which can be the result of delusions, command hallucinations, catatonia, or obsessive concerns about contamination. Clearly, determining the underlying condition is essential to managing the condition.

Comorbidity of schizophrenia and OCD is relatively common with a reported prevalence of 8 to 52% in patients with schizophrenia.[6,7] Obsessive-compulsive symptoms (OCS) may occur in the prodromal phase of schizophrenia, may be a secondary effect of using a neuroleptic medication, or may occur as a co-morbid condition with schizophrenia.[8] OCS may be difficult to distinguish in the presence of a formal thought disorder or when they are part of a psychotic delusional system.[9-10] These issues present diagnostic and management challenges when treating such patients. In the index case described, incomplete information, the uncooperativeness of the patient, and the unavailability of past treatment records delayed the final determination of the diagnosis. Inpatient treatment, direct observation on the ward, and the administration of various psychometric tests were needed to clarify the situation. The choice of antipsychotics in patients with comorbid OCD and schizophrenia is complicated. Because the patient is still of adolescent age, the treatment should consider the cognitive function of the patient. For this reason, we decided to treat the patient with risperidone.

This case was accompanied by the presence of average intelligence. Individuals with average intelligence with psychosis could experience some delusion, especially systematic delusion. This made it almost impossible to determine whether his delusional beliefs about contamination were part of an underlying psychotic disorder (i.e., schizophrenia), part of an OCD syndrome with poor insight, or both. Moreover, other signs of formal thought disorder such as illogicality, concrete thinking, and circumstantiality may occur both in schizophrenia and in individuals with average intelligence in absence of psychosis.

4. Conclusion

Obsessive-compulsive disorder and schizophrenia could happen together in one individual. The treatment should consider the underlying condition and cognitive function, especially if the patient is of productive age.

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