



## Comorbid of Obsessive Compulsive Disorder and Schizophrenia:

### A Case Report

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### Abstract

#### Introduction

Schizophrenia was a chronic mental disorder that marked by abnormal social and impairment in reality testing ability. A person diagnosed with schizophrenia may experience amount of symptoms including hallucinations, delusions, and disorganized thinking, bizzare speech and behaviour. Obsessive compulsive disorder are well known as a comorbid of schizophrenia. Comorbid OCD will affect treatment of schizophrenia and others 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 emergency department of mental hospital by his parents who reported a one year history of excessive washing of his body, soaking his body for hours in bathtub and sleep in 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 venlafaxine and risperidone, He became more cooperative and interactive to the examiner. At that time, the patient reported delusional beliefs about contamination, 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) <sup>3</sup> dropped from 42 to 24, the score on the Yates-Brown Obsessive Compulsive Symptoms (YBOCS)<sup>4</sup> scale dropped from 24 to 18, and the score on the Global Assessment of Functioning scale (GAF)<sup>5</sup> increased from 25 to 55. After discharge the patient adhered to his medication regimen and at three months after discharge his clinical improvement persisted; he was able to maintain is 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 underlying condition and cognitive function, especially if patient in productive age.

**Keywords:** *obsessive compulsive disorder, comorbid, schizophrenia*



## **Introduction**

Schizophrenia is a mental disorder characterized by abnormal social behavior and can not differ what is real and just in the fantasy. A person diagnosed with schizophrenia may experience amount of symptoms including hallucinations, delusions, and disorganized thinking, bizzare speech and behaviour. In the other hand, obsessive compulsive disorder (OCD) is a disease that marked by obsessive thinking and compulsive behaviour to relief the thinking.<sup>1</sup>

Obsessive compulsive disorder are well known as a comorbid of schizophrenia. Comorbid OCD will affect treatment of schizophrenia and others mental disorder.<sup>2</sup> It is believed that a diagnosis of OCD may be related with elevated risk for later development of psychosis and affective disorder.<sup>1</sup> In this case, we would presented a 14 years-old boy that suffer from schizophrenia comorbid with obsessive compulsive 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 emergency department of mental hospital by his parents who reported a one year history of excessive washing of his body, soaking his body for hours in bathtub and sleep in 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 troughout the full course of his illness, which the patient explained as due to remove 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 feel chest pain, headaches and nasal congestion. This often happens specially after the patient's school exam. Patients feel their friends cheating 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.

2 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.

5 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 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 auditory hallucination and paranoid delusion. Patient believed all people and environment around him was 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 m 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 thought that was so prominent and paranoid delusion with 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 first week of treatment.



He became more cooperative and interactive after first week of admission. At that time, the patient reported delusional beliefs about contamination, 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 former regimen, that was risperidon 2 mg/day and venlafaxine 75 mg/day. The total score of the Brief Psychiatric Rating Scale (BPRS) <sup>3</sup> dropped from 42 to 24, the score on the Yates-Brown Obsessive Compulsive Symptoms (YBOCS)<sup>4</sup> scale dropped from 24 to 18, and the score on the Global Assessment of Functioning scale (GAF)<sup>5</sup> increased from 25 to 55.

After discharge the patient adhered to his medication regimen and at 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.

## **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. <sup>6,7</sup>Obsessive-compulsive symptoms (OCS) may occur in the prodromal phase of schizophrenia, may be a secondary effect of using neuroleptic medication, or may occur as a comorbid condition with schizophrenia. <sup>8</sup> OCS may be difficult to distinguish in the



presence of a formal thought disorder or when they are part of a psychotic delusional system.<sup>9-10</sup> 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 antipsychotic in patients with comorbid OCD and schizophrenia is complicated. Because the patient still in adolescent age, the treatment should consider 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.

## **Conclusion**

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

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