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## Case Report: Organic Hallucinosi s in Viral Encephaliti s

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### ABSTRACT

**Introduction:** Organic mental disorders are diseases we need to put more attention to because they are related to systemic disorders or disorders of the brain and can cause high mortality. Organic mental disorders often manifest in the form of psychiatric symptoms so that they can be treated too late because the physician is not able to recognize the symptoms which can be fatal. Sequelae can be found in organic mental disorders and may affect the patient's quality of life, so fast and proper management is needed to get a better outcome. **Case presentation:** A case of organic hallucinosi s in viral encephaliti s had been reported in an 18-year-old male with a history of sudden changes in behavior. The symptoms appeared after the patient had problems during OSPEK and was threatened by someone. The patient was the only child in the family and was often spoiled by his parents. Laboratory and imaging studies showed that there was a cerebritis in the CT scan result, a decrease in CD4 count, and an increase in anti-Rubella IgG titers in which the patient was finally diagnosed with viral encephaliti s. **Conclusion:** The diagnosis of organic mental disorders can easily be overlooked in daily clinical practice so patients do not receive proper management.

## 1. Introduction

Organic mental disorders are diseases that are important to pay attention to because they are related to systemic disorders or disorders of the brain and can cause high mortality. Organic mental disorders often manifest in the form of psychiatric symptoms so that they can be treated too late due to the lack of recognition of symptoms that can be fatal. In this case, the patient with the manifestation of organic hallucinations in the case of viral encephaliti s received neurological and psychiatric management in order to obtain rapid management learning that could improve outcome improvement. A case of organic hallucinosi s in viral encephaliti s has been reported at Dr. Sardjito Yogyakarta.<sup>1-2</sup>

## 2. Case Presentation

It has been reported that an 18-year-old male patient with a sudden change in behavior was restless and confused as if he was in a trance. The patient feels that the surrounding environment feels strange, sees demons, sees objects turning into demons, feels his thoughts can be known by other people, feels like someone is following him, and suspects that people are talking about him. During treatment, the patient experienced symptoms of stiffness, a lot of silence, and a blank vision. this occurs after the patient has experienced problems during OSPEK and was threatened by someone.

From the aloanamnesis, it was found that the patient had never experienced mental disorders before. The patient is an only child whose parenting style is often pampered and served by his parents. His

mother gave birth to him at the age of 40 after 8 years of marriage. The patient's personality tends to be closed and doesn't have many friends.

From the examination of the patient's mental status, impression according to age, adequate self-care, awareness of *compos mentis*, the orientation of people/place/time/situation is difficult to assess because the patient is silent, non-realistic forms of thought, the content of thought is difficult to assess, progression of thought mutism, limited effect, mood difficult to assess, perceptual disorders are difficult to assess, attention is difficult to draw difficult to quantify, mental relationships are difficult, self-view cannot be assessed. Physical and other neurological examinations were within normal limits.

Laboratory tests and CT scan images showed a picture of cerebritis, a decrease in CD4 count, and an increase in anti-Rubella IgG titers which contributed to the presence of viral encephalitis. Patients receive neurological and psychiatric management. After being treated for 8 days and his condition improved, the patient was then discharged. The patient's condition after going home is quite good, but there are still sequelae where the patient occasionally has to be hospitalized because of changes in behavior. In undergoing college, the patient is still assisted by his parents.

### 3. Discussion

Rubella or German measles is a disease caused by RNA from the togavirus class. The rubella virus is spread through the air when a person coughs, sneezes, or talks. About 25-50% of rubella infections are asymptomatic. If rubella attacks a pregnant woman in the first 3 months of pregnancy, then she can transmit the virus to her fetus. This condition is known as congenital rubella infection and can cause congenital rubella syndrome. One of the effects is damage to the brain which results in moderate-severe intellectual disabilities and microcephaly. MRI studies of patients with congenital rubella syndrome with symptoms resembling schizophrenia showed a significant decrease in cortical gray matter volume and

ventricular enlargement.<sup>3-5</sup>

Symptoms and clinical signs of rubella in adults include weakness, muscle aches, and headaches. In children, the initial symptoms are often minimal. Symptoms in children often report the appearance of enlarged glands behind the ear which usually continues with the appearance of a rash after 6-7 days. The typical patches are red streaks that appear starting from the upper chest, abdomen, then the legs which will disappear within 3 days.<sup>6</sup>

Encephalitis is a rare complication of rubella virus infection. Complications of encephalitis due to rubella can be found in 1 in 3000 to 24,000 cases. In other sources, it is said that the incidence of encephalitis complications is 0.2 per 1000 cases. The severity varied widely with an overall mortality rate of 20% and residual symptoms occurring in 8.5% of cases. Encephalitis in rubella is usually not fatal and resolves without sequelae or with mild sequelae. However, a number of cognitive deficits can appear and persist after the acute phase and cause disability.<sup>7</sup>

Encephalitis and other brain disorders often manifest in psychiatric symptomatology, this is known as organic mental disorders. Due to the complexity of the nervous system, this disorder can provide various psychiatric manifestations, one of which is organic hallucinosis.<sup>8</sup>

The symptoms of psychosis in organic disorders are often difficult because patients often become uncooperative due to impaired reality judgment. Therefore, the symptoms of psychosis need to be treated quickly so that they do not get worse and do not interfere with the treatment of the underlying disease.<sup>9</sup>

Pharmacological therapy that is given includes the administration of antipsychotic drugs. The antipsychotics that are preferred are atypical because of the minimal side effects of extrapyramidal syndrome. If the patient has difficulty taking an oral medication, an intramuscular injection of Haloperidol can be given. If the patient has difficulty adhering to medication, a long-acting injection can be given.<sup>10-11</sup>

Psychotherapy should also be given to help

patients identify prodromal symptoms of psychosis such as aloof behavior, suspicious ideas, and sleep disturbances. Patients are also given an explanation of coping strategies for psychotic symptoms so that they are not isolated from the social environment, as well as the impact of symptoms on work. The appropriate types of psychotherapy are supportive psychotherapy and psychoeducation. Understanding of pharmacotherapy treatment must be confirmed by both the patient and his family.<sup>12-14</sup>

Apart from psychiatric treatment, neurological treatment should also be considered in cases of organic mental disorders due to viral encephalitis. Antiviral administration showed a better cognitive outcome than in cases that did not receive this therapy.<sup>15-16</sup>

#### 4. Conclusion

The diagnosis of organic mental disorders can easily be overlooked in daily clinical practice so patients do not receive proper management. With the ability to recognize clinical presentations quickly and precisely and provide collaborative management from the fields of neurology and psychiatry, it is hoped that it can improve the prognosis and outcome of patients with organic mental disorders, so that the appearance of sequelae or sequelae can be minimized.

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