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Bipolar Type 1 Disorder Comorbid with Idiopathic Epilepsy in Children: A Case Report

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ABSTRACT

Introduction: Bipolar disorder in children and adolescents is a clinical disorder that causes public mental health problems that need attention. In the last decade, bipolar disorder in children and adolescents has become a field of great interest, both in the clinical field and in research, especially in terms of the diagnosis which is still controversial. This case report aims to describe type 1 bipolar disorder in children accompanied by idiopathic seizures. **Case presentations:** A boy, Mr. M, 10 years old, came to the polyclinic with the chief complaint of walking around during lessons. From the autoanamnesis, the patient said that he was happy, and had good achievements in school. The patient experienced a change in behavior for 1 year, which had worsened for 4 months ago. The patient walks around the school while the other students are studying, the patient can't sit still and feels bored. Patients sometimes sing while banging the table. After about a week of changing behavior, the patient began to experience frequent seizures. The patient has seizures while sleeping, has seizures if during the day the patient is angry with other people or has too much activity. The patient received pharmacological therapy in the form of aripiprazole, valproic acid, and lorazepam. Non-pharmacological interventions are given in the form of family psychoeducation about the disease suffered by the patient. **Conclusion:** The clinical and phenomenological characteristics of bipolar disorder in children and Teenagers are unique. In connection with the presence of a unique clinical picture, it is necessary to introduce cases and treatment as early as possible.

1. Introduction

According to the DSM IV-TR diagnostic criteria, the prevalence of the bipolar disorder in children is very rare. Studies epidemiologists reported the prevalence of lifetime bipolar I and II in the late teens is about 1 percent. Various studies in large populations show a prevalence rate of 0.1%-2%. The onset of bipolar disorder in children and adolescents is often accompanied by a more severe course of illness, compared with bipolar disorder with onset in adulthood^{1,2}

Patients who experience only major depressive episodes are said to have a major depressive disorder or unipolar depression. Patients with both manic and

depressive episodes or patients with manic episodes alone are said to have bipolar disorder. The term unipolar mania is sometimes used for patients who are bipolar, but who do not have a depressive episode. A manic episode is a period characterized by a persistent and abnormally high, expansive, irritable mood that lasts for at least 1 week, or less if hospitalization is required.^{3,4}

Based on the DSM-IV-TR, bipolar I disorder is defined as a mood disorder that clinically has one or more episodes of mania, and may also be accompanied by depressive episodes. A mixed episode is characterized by episodes of mania and major

depression that occur almost daily, for a period of at least 1 week. The variant of bipolar disorder characterized by episodes of major depression and hypomania is known as bipolar II disorder. The diagnostic criteria for bipolar disorder in children are the same as those used in adults. 1.4 The etiology of bipolar disorder consists of genetics and neurobiology. Family studies have consistently shown that children of parents with bipolar disorder have a 25% chance of developing a mood disorder. Meanwhile, children of both parents with bipolar disorder have a 50% to 75% risk of experiencing mood disorders. Bipolar disorder neurobiological disorders in children and adolescents occur during fetal growth. Several studies in children with bipolar disorder have demonstrated dysfunction of neural circuits in the amygdala, striatal, thalamic, and prefrontal structures of the brain.¹⁻³

The diagnostic criteria for bipolar disorder in children and adolescents on the DSM-IV-TR are the same as those used in adults. The clinical features of bipolar disorder in children and adolescents is quite complicated, caused because it is often accompanied by other disorder. Bipolar disorder in children and adolescents can co-exist with ADHD. Bipolar disorder in children and adolescents is characterized by severe and persistent irritability, including outbursts of aggressiveness and violent behavior. Between aggressiveness and violent behavior, children with this disorder will continue to feel angry or dysphoric. Children with bipolar disorder may exhibit grandiose ideas or euphoric moods. For the most part, children with this disorder experience fluctuating emotions with negative moods.

Pharmacological therapy commonly used in pediatric bipolar manic episodes includes lithium, epilepsy drugs (divalproate and carbamazepine), and antipsychotic drugs (risperidone, olanzapine, quetiapine, ziprasidone, aripiprazole); to which other medications can be added as indicated. FDA recommends lithium for children above 12 years, and balustrades in children older than 10 years may be given risperidone or aripiprazole. Studies

comparing the effectiveness of lithium, divalproate, and carbamazepine as monotherapy showed the following responses 53%, 38%, and 38%, respectively. Other studies have also recommended aripiprazole as a treatment for childhood bipolar disorder.⁵

Practical guide interventions specifically important in the management of bipolar disorder the child is established to report cards, supervision of mood and behavior of children, give information to families about bipolar disorder, Enhance compliance with treatment, introduce patterns of sleep and activity that are regular, m Enhancing adaptability to psychosocial effects of bipolar disorder, early detection of the onset of new episodes, minimizing disturbances in academic, social and interpersonal functioning due to bipolar disorder.^{6,7}

2. Case Presentation

In this case, the patient boys - men, Mr. M, 10 years old, received treatment on October 25, 2020, with the chief complaint of walking around during lessons. From the autoanamnesis, the patient said he was happy. The patient said he did well, got second place in school, and got a hundred marks in science, math, and English.

From the anamnesis, it was found that the patient had a change in behavior since 1 year, which had worsened since 4 months ago. The patient walks around the school while the other students are studying, the patient can't sit still and feels bored. Patients sometimes sing while banging the table. The patient also becomes more irritable. The patient will be angry with the person who reprimanded him for doing something. The patient once spat and said he wanted to kill the person who reprimanded him. The patient often wakes up from 10 pm to 2 pm, when he wakes up the patient just plays alone. After about a week of changing behavior, the patient began to experience frequent seizures. The patient has seizures while sleeping, has seizures if during the day the patient is angry with other people or has too much activity. Seizures experienced by the patient in the form of fists and eyes look forward. Seizure duration is about 1

minute, in one week the patient will experience seizures approximately 2-3 times. The EEG examination was within normal limits. The patient was diagnosed by a neurologist as having idiopathic epilepsy.

When the patient's mother was pregnant with the patient, the patient's biological father left the patient's mother who was pregnant. The patient's biological mother hated her womb. The patient's biological mother once said she wanted to abort her pregnancy by drinking herbal medicine. The patient's biological mother said that she would throw away her child when it was born.

The patient received pharmacotherapy of risperidone 0.5 mg /12 hours, lorazepam 0.5 mg/24 hours, and valproic acid 250 mg /12 hours. While the psychosocial intervention carried out is by creating good report cards, with the aim of increasing medication adherence, and providing psychoeducation to families about bipolar disorder. Psycho-education to the family may be the importance of regularity of treatment, early detection of the onset of a new episode, control of mood and behavior, introducing patterns of sleep and activity regularly, increasing the adaptability of the psychosocial effect of bipolar disorder, and minimize disruption function of academic, social and interpersonal due to interference bipolar. After being treated for 7 days, the patient had no more seizures, improved behavior, and decreased irritability. In control on November 24, 2020, the patient's behavior was getting better, treatment was added with aripiprazole 3 mg / 24 hours. In December control, the patient was able to attend school again.

The clinical picture of bipolar disorder in children and adolescents usually manifests as mood swings that change very quickly, making the diagnosis difficult to establish. Many children with this disorder do not meet the diagnostic criteria specified in the DSM-IV, i.e., the duration of symptoms does not meet the criteria for bipolar 1 or 2 disorder. The most common symptoms in children and adolescents with bipolar disorder are very unstable mood and explosiveness, irritability, uncontrollable behavior,

and aggression.^{1,2} Symptoms that can be found in this patient are euphoric mood, labile and irritability, the existence of grandiose ideas, talking a lot, increase psychomotor and reduce the need for sleep. This patient also found uncontrolled behavior and aggressiveness. Recent research shows that there is no significant difference between bipolar disorder and ADHD, in terms of irritability, excessive speech, highly distracted attention, and excessive energy.²⁻⁵ The presence of symptoms of inflated self-esteem and goal-directed activity distinguishes this disorder from ADHD. This patient also has idiopathic epilepsy, in which epileptic seizures can be triggered by changes in the patient's mood and excessive activity. In this case, epileptic seizures are triggered by symptoms of bipolar disorder.^{6,7}

Pharmacologic therapy given to this patient included risperidone 0.5 mg /12 hours, which was quite responsive and has been recommended by the FDA. After one month of therapy, risperidone was replaced with aripiprazole 3 mg/24 hr, which has also been recommended by the FDA. It is expected that aripiprazole has a superior effect. This patient was also given valproic acid 250 mg 1-0-1, where apart from being a mood stabilizer, valproic acid can work as an anti-epileptic. While the administration of lorazepam 0.5 mg / 24 hours, if needed to be given to treat sleep disorders.^{1,5}

3. Conclusion

The clinical and phenomenological characteristics of bipolar disorder in children and Teenagers are unique. In connection with the presence of a unique clinical picture, it is necessary to introduce cases and treatment as early as possible. This introduction aims to improve moderate symptoms taking place and reduce or prevent morbidity more severe psychosocial.

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