

CASE REPORT

Bipolar Disorder in Child Psychiatric Practice: A Case Report

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ABSTRACT

Bipolar disorder in children is unrecognized for many reasons including lack of awareness, diagnostic confusion, and the different clinical picture in children. The disorder has not been well studied in prepubertal children, despite its potentially debilitating effects on growth and development. It may be comorbid with Attention Deficit Hyperactivity disorder (ADHD) and conduct disorder (CD) or it may demonstrate features of ADHD and CD. A bipolar child should be treated using a biopsychosocial approach. We present the case of a 11-year-old Zambian girl with Bipolar disorder comorbid with ADHD and Anxiety disorder (AD). Treatment issues are discussed, and some reasons for the urgency of early recognition and treatment are explained. To the best of our knowledge this is the first documented pediatric case of BD from Zambia.

CASE HISTORY

Memory, 11-year-old girl, lives with her mother, 15-year-old sister, 69-year-old grandmother and grandfather of the age of 72 in Chongwe, Chongwe district, Lusaka Province, Zambia. She is a student in the fifth year of secondary school. The girl's mother sought help in Chongwe District Hospital complaining that Memory currently became very irritable, argumentative, and teachers complain of repeated and excessive abnormal behavior in school.

The girl's mother is a known client to the outpatient department of the Chainama Hills College Hospital (CHCH). After Memory's delivery, she suffered postpartum depression and was repeatedly admitted to CHCH. Several times she was diagnosed with different

mood disorders: postpartum depression, bipolar disorder (episodes of mania and depression), major depressive disorder. Mental disorders were often diagnosed accompanied with different clinical signs, including comorbid generalized anxiety disorder with panic attacks and mental disorders associated with the abuse of alcohol and cannabinal. The mother is HIV-positive (since 2010), on highly active antiretroviral therapy (HAART). The history of Memory's father shows severe episodes of recurrent depression and abusing alcohol and heroin. He is HIV-positive, but does not take HAART. The 15-year-old Memory's sister diagnosed with bipolar I disorder and generalized anxiety disorder. The parents are divorced.

According to the parents, Memory has always been cheerful, friendly girl who got on well with her relatives. She had few friends in school and in the neighborhood. Two years ago the family moved from Lusaka city to the Chongwe village. She was unable to find close friends at school and there were no children of her age in the neighborhood.

Mother claims that in the recent 3-4 months the daughter had elated mood and unrestrainable activity. She often laughed and snickered without apparent cause. During the lessons in school she made silly grimaces, drew, and showed foolish pictures so that she was chased out of lessons. Teachers complained the mother about her inappropriate behavior, noted the accelerated speech that was sometimes difficult to understand.

The girl became talkative which was previously not typical. She often skipped from one topic to another so that in a conversation it was sometimes difficult to understand what she tells about.

Mother told that the recent few months the girl was energetic and difficult to put to bed in the evenings.

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Falling asleep for 4-6 hours, she woke up energetic and active without signs of fatigue during the day.

The girl showed essential interest in becoming a singer, actress or model and demanded grandfather to find a way to get on TV shows. Her behavior became sexually colored. She tried to flirt in the company of the farm employees, sensually kissed grandfather, which previously was not usual.

Along with the described mania symptoms, about 10 episodes of the episodic paroxysmal anxiety attacks were observed for a period over the past 8 months. Each anxiety paroxysm, most of which were sudden and were not provoked, continued for 10-30 min.

Over the last 4 years, the symptoms of generalized anxiety disorder are observed. According to the mother, her daughter is more distressed for different reasons than children of her age. She had fears regarding adverse events that may occur at home or at school. The mother says that the girl is shy and very disturbed by her ability to study and requires continuous support.

Memory's mother indicates also the symptoms of anxiety associated with fear of separation (separation anxiety). According to the girl, as far back as she can remember, she did not like to part with her mother. Memory said that when her mother is not at home, she worried that she might get into an accident or not return home, will be admitted to Chainama Hospital and remain there forever.

The mother reported the signs of attention deficit hyperactivity disorder (ADHD), symptoms associated with inattentiveness, such as difficulties in concentrating on certain tasks, distractibility, forgetfulness and absent-mindedness. The girl often loses her things and has difficulties if it is required to follow the instructions consistently. The mother reports that these symptoms aggravated since the episodes of abnormal behavior and elevated mood.

Memory has suffered two episodes of depression in the past. The first nine-month episode was at the age of 6, the second six-month period - at the age of 8.

The first episode of depression underwent without treating. Mother appealed for help to the "witch doctors". They recommended "herbal medicines" that did not help. The girl's mother refused medical help. During the second episode she was examined by a clinical officer psychiatry (COP), who recommended her cognitive behavioral therapy (CBT) and antidepressant (fluoxetine, 20

mg/day). The girl did not get psychological interventions, as there were no psychologists and psychotherapists at the place of residence. Memory has got through drug therapy for about 6 weeks, but then the drug was discontinued as her mother insisted its deteriorated her daughter's condition.

MENTAL STATUS EXAMINATION

During examination the girl was friendly and communicable, behavior corresponds to her age. Memory was dressed provocatively, in a bright shirt and her skirt painted with colored ink.

While talking she was absent-minded, inattentive, it was clear that it took efforts to keep the attention on the interviewer and answer the questions. During the first few minutes of examination, the girl was organized, but later the control over behavior decreased. She became restless, could not sit on a chair, was talkative, often skipped from one topic to another and her speech was fast.

Memory described her mood as "good" and "happy." Girl's non-verbal behavior and emotional expression meet her self-assessment. By the end of the conversation, her motor excitement intensified and explanations became disorganized, but there was a positive response to leading questions, which increased the answer's productivity. The girl denies auditory or visual hallucinations and suicidal thoughts. She understands that she gets a bad situation because of unreasonable behavior and excess of energy, acknowledges that she cannot deal with it.

DIAGNOSTIC PROCEDURE

Examination of bipolar disorder involves a detailed study of the history, such as periods of manifestation of symptoms of depression and/or mania, their reduction, duration of the symptoms, their relationship with stress, alcohol, drugs consumption, response to the prescribed treatment, psychological intervention, the study of the developmental history and the family history. In this case, the sources of information were girl, her mother, grandmother, grandfather and the hospital case files of child's parents.

Child Mania Rating Scale and General Behavior Inventory are effective screening tools, but they were not necessary. The basis of diagnosis were DSM-IV and ICD-10 diagnostic criteria.

The use of diagnostic criteria for classification in most cases is sufficient for the diagnosis of BD in children. However, psychology tools in some clinical cases may be useful for the diagnosis and monitoring of BD treatment efficacy.

Version of young mania rating scale for parents (P-YMRS) can be used to assess the efficacy of treatment of BD-affected child. Various of semi-structured interviews with parents, such as reduced (MINI), may be recommended for further diagnosis by DSM-IV and ICD-10.

DIAGNOSIS

The most interesting in terms of BD diagnosis is that if Memory's age would be 19 instead of 11 years, no one would have put into question the diagnosis of BD. 6 of 7 characteristic symptoms of mania are observed, such as a clear period of elated and euphoric mood for 3-7 days, accelerated speech, increased energy with reduced need for sleep, flight of ideas and hypersexuality.

She meets the criteria of DSM-IV for type I of BD, current manic episode without psychotic symptoms. A girl shows a condition called by Geller et al. (2000) prepubertal or manifesting BD in childhood.¹

Memory also meets DSM-IV criteria for panic disorder, separation anxiety disorder, generalized anxiety disorder and ADHD. Anxiety disorders and ADHD are often comorbid with BD in children and adolescents.^{1,2}

Table 1. DSM-IV and ICD-10 diagnosis

<p>THE DSM-IV DIAGNOSIS</p> <p>AXIS I: 296.42 Bipolar I Disorder, Most Recent Episode Manic, Moderate. 314.00 Attention-Deficit / Hyperactivity Disorder, Predominantly Inattentive. 300.01 Panic Disorder Without Agoraphobia. 300.02 Generalized Anxiety Disorder. 309.21 Separation Anxiety Disorder.</p> <p>AXIS II: No diagnosis or condition. AXIS III: No diagnosis or condition. AXIS IV: A bad father/daughter relationship. The father is a known psychiatric patient (major depressive disorder comorbid with alcohol and opioid abuse). The mother has been admitted to mental hospital several times (BP and has problems with primary support group). AXIS V: Below 60 (Child's Global Assessment Scale).</p> <p>THE ICD-10 DIAGNOSIS F31.1 Bipolar disorder, current episode manic without psychotic features F41.9 Anxiety disorder, unspecified F90.0 Attention-deficit hyperactivity disorder, predominantly inattentive type</p>

The diagnosis of BD and panic disorder in children and adolescents is correlated with a high risk of suicide.³ Memory's manic episodes were preceded by two episodes of depression accompanied with suicidal thoughts.

In addition, hereditary burden of BD cases shall be noted in girl's family history. The sister is diagnosed with type I BD and generalized anxiety disorder. Comorbidity with anxiety disorders are typical for BD in adults.⁴

The clinical case described demonstrates several common features of bipolar spectrum disorders in children:

1. BD symptoms were manifested at an early age. The first depressive episode was described at the age of 6.
2. Along with manic and depressive symptoms, we observed multiple symptoms of anxiety, including panic attacks, signs of separation disorder and generalized anxiety disorder.
3. The episodes were preceded by symptoms of ADHD - inattention, impulsivity and hyperactivity. Strengthening inattention and distraction of attention clearly coincided with periods of declined sense of purpose and increased activity. Such symptoms associated with attention deficit shall be considered simultaneously as signs of ADHD and BD.
4. The history mentioned two depressive episodes. At present, she shows both manic symptoms, which include a euphoric and elated mood, decreased need for sleep, talkativeness, flight of ideas, psychomotor hyperactivity and hypersexuality and depressive - irritable mood, lack of concentration and memory.
5. There are many indications of mood disorders in the family history. Father suffered severe recurrent depression episode, mother and sister suffer type I of BD.

TREATMENT STRATEGIES

The optimal therapeutic strategy in the above clinical case should include a combination of psychotherapy and psychopharmacotherapy and special forms of social intervention in family and school.

Psychotherapy and social management.

Psychoeducation psychotherapy is indicated for Memory and members of her primary support group (mother, grandmother, grandfather and older sister). Three forms of such therapy have been adapted and tested specifically for children of her age: Individual – Family Psychoeducational Psychotherapy (IF-PEP), multifamily psychoeducation groups (MFPG) and the RAINBOW

program.^{5,6,7} All three methods have common elements: providing information in an accessible form to child and parents about the course, treatment and prognosis regarding BD, depression and mania. Formation of emotional regulation habits, communication and conflict-free problem resolution in the family is also an important component of treatment.⁸

The practice of family therapy to adolescents with BD meets the principles of evidence-based medicine.^{7,9} Therapy can improve compliance, increase patient adherence to doctor's prescriptions (frequent problem of patients with a BD), reduce the number of conflicts in the family, increase the family and patient ability to cope with emerging challenges and reduce risk of subsequent depression and admission.

Monitoring of the operation at school and psychosocial work with teachers should be considered as part of psychosocial interventions. The girl was characterised as a student with good attitude, behavior and social interactions. However, the level of child adaptive behavior reduced significantly after the manic symptoms manifested and strengthening of negligence associated with ADHD.

Psychological and social intervention provided a positive family dynamic, reduced tension in family and at school to ensure the necessary level of compliance and family support for the treatment.

Psychopharmacological treatment.

The primary objective in the treatment of patients with mania is a mood stabilization using traditional mood stabilizer and atypical antipsychotics.¹⁰ Most child psychiatrists believe that the therapeutic efficacy of atypical antipsychotics in adolescents is higher comparing to the mood stabilizers, therapeutic effect is achieved faster after their indication and their clinical effect is longer. However, there remain many issues related to the safety of prolonged use of atypical antipsychotics in children and adolescents.¹¹

Most adolescents with BD accompanied by mania get combined psychopharmacotherapy to mood stabilizers. This therapy is used despite the fact that data on the efficacy and safety of combination therapy are limited.¹² The results of the double blind placebo controlled studies have demonstrated high efficiency of combined use of quetiapine with valproic acid in adolescents with BD accompanied by mania compared with monotherapy using extended release divalproex sodium. In this study

quetiapine dose slowly (during the week) titrated to 450 mg/day and patients successfully come through it.¹³

Therefore, treatment choice for adolescents with acute mania involves the use of mood stabilizers including atypical antipsychotics.^{14,15} Atypical antipsychotics will be useful in patients with acute symptoms that affect their psychosocial functioning, especially in patients with agitation, psychotic symptoms, dangerous behavior to themselves or others. In addition, some of their side effects such as sedative effect may be useful in the early stages of treatment in order to quickly establish control over the behavior of adolescents.

After conducting the necessary laboratory tests, valproic acid of extended release divalproex sodium was prescribed to reduce the risk of side effects.

Dose of divalproex sodium was gradually increased to 1000 mg per day, the valproate level in blood serum was not possible to investigate. Memory was well tolerated to outpatient treatment and therapy sessions. Positive dynamic in reduction of manic symptoms was observed for 2 months.

Over the next 2 months of divalproex sodium treatment the girl's mental condition has improved but as it often happens in children with BD, she suffered inversion phase, developed depressive symptoms.¹⁶ After the necessary laboratory tests, and measurements of body mass index (BMI) and waist circumference quetiapine 150 mg/day was added to therapy. During the combined therapy after 2 weeks, Memory's condition improved. Gradually quetiapine dose increased to 450 mg/day.

Two other psychopharmacotherapy tasks included treating the comorbidity of ADHD with anxiety disorder. The traditional strategy for treatment of children with BD and ADHD involves mood stabilizing with a mood stabilizer or atypical antipsychotic before the start of antidepressant therapy.¹⁷ Controlled studies of the last decade and clinical practice suggest that psychostimulants can be assigned to such adolescents before stabilization of mood disorder.

Extended release psychostimulants may be more effective in ADHD, combined with depressive episode of BD. It is believed that these drugs along with symptoms of ADHD lead to reduction of depression signs in children and adolescents with BD. The recommended dose of such psychostimulants for children with BD and ADHD is 36-54 mg/day of extended release methylphenidate or 10-20 mg/day of extended release amphetamine.

Comorbid anxiety disorder can be treated with psychotherapy, medication or using both methods simultaneously. Among the psychotherapeutic treatment options CBT was found to be effective for treating social phobia, separation anxiety disorder, generalized anxiety disorder, obsessive-compulsive and post-traumatic disorder.¹⁸

SSRIs found to be effective for the treatment of anxiety disorders in adolescence, but require caution when used for patients with BD because they can provoke an inversion phase, the emergence of mixed or rapid cycle changing episode phases.¹⁹ Therefore, in patients with BD type I initially it is necessary to stabilize the mood disorder by traditional mood stabilizers or atypical antipsychotics prior to prescribing of SSRIs in order to correct comorbid anxiety and phobic symptoms.

The symptoms of anxiety were successfully controlled by CBT and quetiapine for maintenance therapy. To control ADHD, the extended release psychostimulant methylphenidate was assigned in a dose of 36 mg/day (starting dose - 18 mg/day).

Memory tolerated methylphenidate therapy (36 mg/day) in combination with supportive quetiapine therapy (100 mg 2 times a day). During the quetiapine treatment in combination with divalproex sodium the girl's weight increased by 3 kg for several months. She was recommended diet and complex of light physical activity. The girl also complained of frequent nausea, she became more irritable. Due to these side effects and the fact that the mood has been stable for several months, it was decided to reduce the dose of divalproex sodium until its complete stopped. Amid these changes to therapy depressive symptoms recovered, according to the criteria of moderate depressive episode by ICD-10. The quetiapine dose was increased to 300 mg/day; methylphenidate was continued in a dose of 36 mg/day. The girl tolerated prescribed therapy well and in two months has reached normothymic condition.

Drug therapy of BD commonly divided into acute treatment and maintenance therapy aimed at relapse prevention.

In acute psychomotor agitation and psychotic symptoms, it is recommended to use atypical antipsychotics. Convincing data on advantage of traditional mood stabilizers over atypical antipsychotics in milder cases are not available.

The choice of treatment is determined by the severity of the condition and its acuteness, psychotic symptoms and clinical structure of the current episode, the occurrence of depression, mania and mixed symptoms. Traditional mood stabilizers can be used as a therapy (lithium, valproic acid, carbamazepine, lamotrigine), atypical antipsychotics (olanzapine, quetiapine, risperidone) and combination of traditional mood stabilizers and atypical antipsychotics. Psychiatrist together with the patients and their family must decide whether outpatient treatment is possible or admission is required.

For prolonged supporting therapy in adolescents, it is reasonably to use valproic acid and quetiapine. Quetiapine therapy and combined therapy with quetiapine and valproic acid have probably greater efficiency. Safety data on prolonged prophylactic therapy is limited.

An important aspect of the treatment is the therapy of comorbid conditions, such as anxiety disorder and ADHD. This treatment is recommended after stabilizing mood at the first stage of treatment, in cases where the possibilities of psychosocial assistance have been exhausted. This approach involves treatment of comorbid disorders as a part of anti-relapse treatment.

CONCLUSIONS

BD in children and adolescents is a serious mental disorder that manifests itself mainly by mood disorders that require early diagnosis and therapeutic intervention. BD is a chronic disease, the most effective therapeutic strategy for which is the earliest use of psychosocial interventions aimed at patients, their relatives and teachers.

Biological therapy is based on the principles of evidence-based medicine being an integral part of the therapeutic strategy for BD in childhood.

Improving early diagnosis and early care for children and adolescents with BD (psychosocial education, family therapy, stress management) improves the prognosis for such patients.

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