Clinical Presentations of Bipolar Disorder in Children and Adolescents

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Objective: *To describe clinical presentations of bipolar disorder in children and adolescents when they were diagnosed.*
Material and Method: *The present study was a retrospective chart review of patients who were diagnosed bipolar disorder when they were under 19 years of age. All subjects, both inpatients and outpatients, received psychiatric treatment at Ramathibodi hospital between January 1998 and May 2008.*
Results: *Forty-nine subjects aged between eight and 18-years-old (mean 15.3 years) were diagnosed as bipolar disorder. Thirty-seven percent of patients had cardinal symptoms including elevated mood and/or grandiosity. Being talkative was the most common associated symptom, found in 47% of patients. Psychotic symptoms were found in 39% of patients. Moreover, 27% of patients suffered from suicidal idea or had attempted suicide at the time of diagnostic.*
Conclusion: *Although there is very limited information about clinical presentations of bipolar disorder in children and adolescents, especially in Thai population, the author found that only 37% of these patients presented with cardinal symptoms at the time of diagnosis.*

Keywords: *Bipolar disorder, Clinical presentations, Children, Adolescents*

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Bipolar disorder is a serious mental disorder characterized by abnormal mood shift, as well as fluctuation in energy and activity levels that cause marked impairment in patient's functioning. In adult, bipolar disorder has been studied for more than 90 years. As a result, there is a lot of information about symptoms, clinical presentations, and natural course of bipolar disorder in adults. On the contrary, bipolar disorder in children and adolescents was not recognized until the 1980s, when it became known to the field of psychiatry. There are still many uncertainties in this type of bipolar disorder. The debate is mainly centered on clinical presentations, diagnostic criteria, course, and continuity with adult form of this disorder. However, it is undeniable that bipolar disorder in children and adolescents clearly exists and its severity has been a concern for the last 10 to 15 years[1,2].

Retrospective studies in adults with bipolar disorder have reported that as many as 60% experienced the onset of their symptoms before 20 years of age, and 10-20% reported the onset before 10 years of age[3-5]. Meta-analysis of epidemiological studies from several countries reported an overall prevalence of pediatric bipolar disorder was 1.8% in youths aged 7 to 21 years[6]. However, accurate incidence and prevalence of pediatric bipolar disorder remain unknown because the clinical presentations of this disorder in children and adolescents are greatly debated and still inconclusive.

There were some efforts to use cardinal symptoms, including elevated mood and grandiosity, for differentiating bipolar disorder from other psychiatric disorders such as attention deficit hyperactive disorder (ADHD)[7-9]. On the other hand, some researchers believe that this group of patients can be characterized by severe irritability or emotional outburst with or without euphoria and grandiosity[10]. Due to uncertainty on clinical presentations of this type of bipolar disorder, the present study aims to describe clinical presentations of bipolar disorder in children and adolescents when they were diagnosed.

Material and Method

The present study was a retrospective chart reviewed of patients who were diagnosed as bipolar disorder when they were under 19 years old. All subjects, both inpatients and outpatients, received psychiatric treatment at Ramathibodi hospital between January 1998 and May 2008. By using computerized medical databases, the author found the list of patients

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who were diagnosed with F31 Bipolar affective disorder (ICD-10 diagnostic code).

Subjects included in the present study had to be diagnosed by staffs of Department of Psychiatry or residents who were under staff supervision. All psychiatric diagnosis based on DSM-IV criteria. Subjects had to be less than 19 years old when they were diagnosed and had more than six months of follow-up period. Patients with medical conditions that can cause mood symptoms, such as thyroid disease, epilepsy, traumatic brain injury, mood disorders due to substance use, and pregnancy were excluded. This is because their emotional disturbance could be caused by those conditions, not bipolar disorder.

In medical chart reviewing processes, data collection procedures include patient demographic data, clinical presentation, psychiatric and medical co-morbidity, suicidal history, substance use history, family history of psychiatric disorders. Information was collected from present illness history, past history, personal history, family history, mental status examination, and result of psychological test. Descriptive statistics in term of frequency and percentage were used to describe basic characteristics and clinical features. Data analysis was performed by statistical software Stata version 10.0. The present study was approved by Ramathibodi Hospital ethics committee, Mahidol University.

Results

According to the computerized medical database of Ramathibodi Hospital, 86 patients both inpatients and outpatients who were diagnosed with F31 Bipolar affective disorder met our age inclusion criteria. After searching for the medical records, ten hard copies could not be found because Ramathibodi Hospital removes the medical records of patients who lost contact with the hospital longer than five years. Eleven records were found wrongly coded in computerized medical database searching but there were no such diagnoses in the hard copies. Sixteen records were excluded because they did not meet the criteria; the most common reason was having less than six months of follow-up period. Eventually, there were 49 subjects as the study population.

Among all 49 subjects, the age when they were diagnosed with bipolar disorder ranged from eight to 18-years-old (mean 15.3 years, SD 2.3 years). All subjects were Thai ethnicity and nationality. Most of subjects were Buddhist (93.9%) and studying in high school (63%). There were 25 male subjects (51%) and 24 female subjects (49%). Most of subjects (71%) lived with both biological parents when they were diagnosed. Thirty-two of 49 subjects (65.3%) received inpatient treatment. The mean (SD) of follow-up duration were 4.2 (3.1) years.

Only 18 of 49 subjects (36.7%) had cardinal symptoms when they were diagnosed including elevated mood (24.5%) and grandiosity or inflated self-esteem (20.4%). Focusing on associated symptoms, talkative or having pressure to keep talking was the most common symptom found in 23 subjects (46.9%). Decreased need for sleep was the second most common symptom, found in 19 subjects (38.8%). Increasing in goal-directed activity, excessive involvement in pleasurable activities, and irritable mood were equally found in 17 subjects (34.7%).

Considering psychotic symptoms, 19 of 49 subjects (38.8%) suffered from all psychotic symptoms. Hallucinations were found in 12 subjects (24.5%), mostly auditory hallucination. Delusions, mainly persecutory and grandiose, were found in 16 subjects (32.7%). Moreover, the author found that

Table 1. Symptoms or associated features of child and adolescent patients with bipolar disorder

Clinical presentations	Total n = 49 n (%)
Cardinal symptoms	18 (36.7)
Elevated mood	12 (24.5)
Grandiosity/inflated self-esteem	10 (20.4)
Associated symptoms	
Decreased need for sleep	19 (38.8)
More talkative than usual/pressure to keep talking	23 (46.9)
Flight of ideas	10 (20.4)
Distractibility	4 (8.2)
Increase goal-directed activity	17 (34.7)
Excessive involvement in pleasurable activities	17 (34.7)
Irritable mood	17 (34.7)
Aggressive behaviors	15 (30.6)
Explosiveness/affective storms	4 (8.2)
Psychotic symptoms	19 (38.8)
Hallucination	12 (24.5)
Delusion	16 (32.7)
Suicidal history	13 (26.5)
Suicidal idea	11 (22.4)
Suicidal attempt	2 (4.1)
Substance use history	4 (8.2)

Subjects may have more than one symptom in the same time

Table 2. Psychiatric co-morbidities of child and adolescent patients with bipolar disorder

Psychiatric co-morbidities	Total n = 49 n (%)
No	41 (83.7)
Yes	8 (16.3)
Intellectual disability	3 (6.1)
Attention deficit hyperactivity disorder (ADHD)	2 (4.1)
Pervasive developmental disorder not otherwise specified (PDD-NOS)	1 (2.0)
Adjustment disorder	1 (2.0)
Panic disorder	1 (2.0)

13 subjects (26.5%) had suicidal history at the time of diagnosis. It means that about one in four subjects had suicidal history during manic episode. Among this group, 11 subjects had only suicidal idea but another two subjects had suicidal attempts by using severe methods, which was driving a car straight through a wall and using a knife stab himself. In contrast, only four (8.2%) subjects had substance use history.

Sixteen percent of child and adolescent patients with bipolar disorder in the present study had psychiatric co-morbidities. Intellectual disability found in three subjects (6.1%) and attention deficit hyperactive disorder (ADHD) found in two subjects (4.1%). Other co-morbidities were pervasive developmental disorder not otherwise specified (PDD-NOS), adjustment disorder, and panic disorder that were equally found.

Discussion

The present study aims to describe clinical presentations of bipolar disorder in children and adolescents at the time of diagnosis. The results show that only 37% of these patients presented with cardinal symptoms. Being talkative was the most common associated symptom. Psychotic symptoms and suicidal history were very important manifestations in this group of patients.

Kowatch et al[11] conducted a literature review and meta-analysis of seven reports describing the phenomenology of pediatric bipolar disorder. The rate of euphoria or elation ranged from 14% to 89%. Grandiosity was presented in an average of 78% of subjects. In general, cardinal symptoms in this review were more frequently found than in the present study. However, there was a huge range of symptom rate across the different studies. This is not surprising because the concept and appropriate criteria for diagnosis is still inconclusive.

Psychotic symptoms frequently present in youths with bipolar disorder. In Kowatch's meta-analysis[11], hallucinations and/or delusions presented in an average of 42% of these youths. However, there was substantial heterogeneity in the rates of psychosis across the different studies. It is quite similar with the present study that found approximately 40% of subjects had psychotic features at the time of diagnosis.

In addition, the present study reveals that 26.5% of subjects had suicidal ideas and/or attempts, which seem to involve severe methods. Coryell et al[12] reported that the early-onset group of bipolar disorder more likely to have made suicide attempts, both during and prior mood episodes. They found approximately 30% of subjects in early-onset group had suicidal attempts during their episodes. Therefore, suicidality trends to be one of the important manifestations of pediatric bipolar disorder.

The present study intends to provide some information about an uncertain issue of pediatric bipolar disorder especially in Thai population including both inpatients and outpatients. However, there are several limitations. First, according to retrospective method, data collection in the present study was not systematically designed as prospective study. As a result, there was some missing data. Moreover, data gathered in the present study was subjective; using structural or semi-structural interview will improve quality of data collection. This will be an important issue for further investigation. Secondly, Ramathibodi Hospital is a tertiary care setting; hence, the results from the present study may have the problem of generalization. Nevertheless, the present study provides some preliminary information about clinical presentations of pediatric bipolar disorder at the time of diagnosis in Thailand.

Conclusion

Although there is very limited information about clinical presentations of bipolar disorder in children and adolescents especially in Thai population, the author found that only 37% of these patients present with cardinal symptoms at the time of diagnosis. Being talkative was the most common associated symptom. Psychotic symptoms and suicidal history trend to be very important manifestations in this group of patients.

What is already known on this topic?

Bipolar disorder in children and adolescents clearly exists and its severity has been a concern. However, there is a lot of controversy about this type of bipolar disorder especially in clinical presentations. Some clinicians strictly use cardinal symptoms for diagnosing, while others believe that this group of patients can be characterized by severe irritability or emotional outburst with or without euphoria and grandiosity.

What this study adds?

The present study provides some information about clinical presentations of pediatric bipolar disorder at the time of diagnosis in Thai population. The result show that only 37% of these patients presented with cardinal symptoms, suggesting that clinicians trend to loosely use cardinal symptoms for diagnosing pediatric bipolar disorder. Being talkative was the most common associated symptom. Psychotic symptoms and suicidal history were very important manifestations in this group of patients.

Potential conflicts of interest

None.

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ลักษณะทางคลินิกของโรคอารมณ์สองขั้วในผู้ป่วยเด็กและวัยรุ่น

นิดา ลิ้มสุวรรณ

วัตถุประสงค์: *เพื่อศึกษาลักษณะทางคลินิกของโรคอารมณ์สองขั้วในผู้ป่วยเด็กและวัยรุ่น ขณะที่ได้รับการวินิจฉัย*

วัสดุและวิธีการ: *เป็นการศึกษาด้วยการทบทวนเวชระเบียนของผู้ป่วยที่ได้รับการวินิจฉัยว่าป่วยเป็นโรคอารมณ์สองขั้ว ขณะที่มีอายุน้อยกว่า 19 ปี โดยกลุ่มประชากรศึกษาเป็นผู้ป่วยที่มารับการรักษาที่โรงพยาบาลรามาธิบดีในช่วงตั้งแต่เดือนมกราคม พ.ศ. 2541 จนถึงเดือนพฤษภาคม พ.ศ. 2551 ทั้งผู้ป่วยนอกและผู้ป่วยใน*

ผลการศึกษา: *กลุ่มประชากรศึกษา 49 ราย มีอายุเมื่อได้รับการวินิจฉัยตั้งแต่ 8-18 ปี (อายุเฉลี่ย 15.3 ปี) ร้อยละ 37 ของผู้ป่วยมีอาการหลัก ซึ่งหมายรวมถึงการมีอารมณ์คึกคักมากเกินปกติ และ/หรือ มีความคิดว่าตนยิ่งใหญ่ อาการรองที่พบมากที่สุดคืออาการพูดคุยมากกว่าปกติ ซึ่งพบในผู้ป่วยร้อยละ 47 และผู้ป่วยร้อยละ 39 มีอาการวิกลจริต นอกจากนั้นพบว่าขณะที่ได้รับการวินิจฉัยผู้ป่วยร้อยละ 27 มีความคิดอยากตายหรือเคยพยายามฆ่าตัวตาย*

สรุป: *แม้ว่าข้อมูลเกี่ยวกับลักษณะทางคลินิกของโรคอารมณ์สองขั้วในผู้ป่วยเด็กและวัยรุ่นมีอยู่น้อยมาก โดยเฉพาะอย่างยิ่งในประชากรไทย แต่การศึกษาครั้งนี้พบว่ามีผู้ป่วยเพียงร้อยละ 37 เท่านั้นที่มีอาการหลักขณะที่ได้รับการวินิจฉัย*