

Adolescent Bipolar Disorder: A Clinical Vignette

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Adolescence is a vulnerable developmental phase marked by physical, psychological, and social changes that rapidly expose young people to a wide range of new stressors. When differentiating between bipolar disorder and teenage "acting out," a careful history is important. Adolescent bipolar disorder is a psychiatric illness characterized by fluctuating episodes of mood elevation and depression that is frequently neither recognized nor formally diagnosed. Adolescents with bipolar disorder often manifest a more nonepisodic, chronic course with continuous rapid-cycling patterns than do adults. Pharmacologic treatment of adolescent bipolar disorder is difficult and often requires combination therapy to address comorbidities like attention-deficit/hyperactivity disorder and anxiety disorder. Adjuncts to pharmacologic treatment of bipolar disorder can be beneficial. Psychosocial treatments include family education, enhanced parenting techniques, stress management, and the development of effective coping strategies.

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Pediatric bipolar disorder is a psychiatric illness characterized by fluctuating episodes of mood elevation and depression that is frequently neither recognized nor formally diagnosed. Bipolar disorder is the sixth leading cause of disability-adjusted life-years worldwide in persons aged 15 to 44 years.¹ The overall lifetime prevalence is between 0.4% and 3.3%.² Offspring of a parent with bipolar disorder are 4 times more likely to develop a major affective disorder than are children of parents without a psychiatric diagnosis³; females are more often affected than males.²

Adolescent development involves the consolidation and evolution of a sense of self or identity. It encompasses autonomy from family, societal integration, confidence formation, and purposefulness in education, career, and adult life.⁴ Social interactions, relationships, school, and work experience are the main factors influencing self-identity.⁵ Adolescents with bipolar disorder often manifest

a more nonepisodic, chronic course with continuous rapid-cycling patterns than do adults.⁶ The emotional lability associated with bipolar disorder can be very disruptive to the development of adolescent self-identity.⁷

Three categories of pediatric bipolar disorder have been described. Bipolar I disorder is characterized by a history of 1 or more episodes of mania, often accompanied by 1 or more episodes of depression. Pediatric bipolar I disorder presents with predominant psychotic and elated symptoms rather than irritable mood. Bipolar I disorder is associated with frequent cycling, which often continues into adulthood.⁸

Pediatric patients with bipolar II disorder are less severely impaired and more often initially present with depression. Diagnosis of bipolar II disorder requires 1 or more major depressive episodes and a minimum of 1 hypomanic episode that lasts at least 4 days. Bipolar II disorder is often misdiagnosed as major depressive disorder in the pediatric age group. This misdiagnosis results in inadequate treatment and possible rapid decline in function.⁹ Bipolar II is the most common subtype of bipolar disorder, has the highest rate of recurrence, and is frequently associated with anxiety disorders.

Bipolar disorder not otherwise specified (NOS) more often involves irritable than elated mood and requires symptoms to be present for a minimum of 4 hours within a 24-hour time period. Pediatric bipolar disorder NOS is more chronic than episodic, has onset in prepuberty, and typically requires a protracted recovery after an event. Common comorbidities such as attention-deficit/hyperactivity disorder (ADHD) and oppositional defiant disorder make identification difficult.¹⁰

By eighth grade, 52% of adolescents have consumed alcohol, 41% have smoked cigarettes, and 20% have used marijuana.¹¹ As a result, differentiating bipolar disorder from typical teenage behavior can be challenging. Bipolar disorder develops before 18 years of age in approximately 75% of patients.¹² Earlier onset is associated with greater chronicity and comorbidity, high-risk sexual activity,⁸ and a 32% risk of suicide attempts.¹³ Common comorbidities include generalized anxiety disorder (21%), ADHD (11%), conduct disorder (11%), bulimia (3%), obsessive-compulsive disorder (OCD) (3%),¹⁴ and substance abuse disorder.¹⁵ Adolescents with concomitant bipolar disorder and substance abuse experience an increase in pregnancy and/or abortion rates, legal troubles, and suicide attempts.¹⁶ ADHD is the most difficult comorbidity

to diagnose secondary to overlapping of criteria of hyperactivity and distractibility in both bipolar mania and ADHD.⁶ Bipolar disorder is often misdiagnosed in individuals who have cluster B personality disorder, especially borderline personality disorder.²

Bipolar adolescents have difficulty with emotional regulation. Lower grades, behavior problems, fewer or no friends, frequent teasing, poor social skills, and frequent hostility and tension in the parent-child relationship are common.¹⁷ Patients with predominantly manic episodes have fewer social networks compared with those with predominantly depressive episodes.¹⁸ External stressors like arguments with friends, comorbid illness, or family conflicts can exacerbate a bipolar episode, interfering with social performance and causing gradual self-isolation and eventual social rejection.¹⁹

CLINICAL PRESENTATION

At the time of our previous case report,²⁰ Ms A was an 11-year-old girl with bipolar disorder, ADHD, and OCD. Treatment included intensive family support and a pharmacologic regimen of long-acting methylphenidate, aripiprazole, and valproic acid. The stated therapeutic goal at that time was for “possible future discontinuation of aripiprazole if ongoing use of valproic acid can be safely and effectively regulated.”^{20(p232)}

Ms A is now 16 years old and a junior in high school. She had her first menstrual cycle on her 15th birthday and appears developmentally immature for her age. She has struggled both emotionally and academically for several years. Consideration of possibly delaying her promotion to high school was discouraged by her junior high school teachers, who expressed confidence in her ability to function at a high school level. During ninth grade, however, Ms A had difficulty with the college preparatory curriculum that she was enrolled in and subsequently transferred to a vocational track that matched her interests in child development. During this period, Ms A was caught stealing money from classmates' purses in the locker room. She stated that she needed the money in order to buy snacks and drinks from the school vending machines for her classmates. Peer relationships were limited, with development of few meaningful friendships that lasted longer than several months.

Ms A's emotions and moods during her early teen years were marked by ongoing lability between hypomanic, impulsive energy needing constant redirection in order to be productive and irritable apathy. An evolving seasonal component to her moods was also noted, characterized by a decreased interest in personal hygiene and self-care activities during the winter months. OCD behaviors such as hoarding small objects and collecting numerous pencils have decreased over time but periodically reemerge.

Ms A has a significant aptitude for playing the flute. Despite her general acknowledgment of being “clumsy,” she has been a determined and dedicated member of her school's marching band for the past 3 years. This same focus and determination, coupled with her interest in children, found a positive outlet in her summer job as a camp counselor. The opportunity to be a role model to younger children was a significant maturational milestone, developing in Ms A an evolving sense of personal responsibility and interpersonal empathy, which was previously lacking.

Pharmacologic treatment during the past several years has included use of valproic acid, dextroamphetamine, aripiprazole, and modafinil. Ms A's current prescription medications include methylphenidate one-half of 1 30-mg patch qam, quetiapine extended release 300 mg qhs, quetiapine 100 mg qhs, and lamotrigine 200 mg qhs. Nonprescription supplements include fish oil, B-complex, and vitamins A, D, and E. Adjunctive therapies include 30–45 minutes of aerobic exercise 4 times each week, 3–4 hours of sunshine every week, and additional box light therapy 30 minutes in the morning from Fall to early Spring.

DISCUSSION

Adolescence is a vulnerable developmental phase marked by physical, psychological, and social changes that rapidly expose young people to a wide range of new stressors.²¹ Mood instability causes confusion, contradiction, and self-doubt due to disrupted and discontinuous emotions, making it difficult to establish a stable sense of self.⁵ Patients with bipolar disorder experience emotional instability approximately 50% of the time, even with adequate treatment.²² Approximately 30%–60% of those patients fail to fully develop functional abilities in social and occupational domains.²³ While adolescent patients with bipolar disorder often function adequately in school, they suffer more social impairment and lag behind their peers in social skills performance.²⁴ Prompt diagnosis and intervention are critical.

When differentiating between bipolar disorder and teenage “acting out,” a careful history is helpful. Obtaining information from the patient as well as from parents, siblings, and teachers is optimal. Identifying bipolar disorder in a biologic parent or first-degree relative is important, since children of bipolar parents have more behavioral problems in general compared to children of nonbipolar parents.³ Survey tools such as the Mood Disorder Questionnaire-Adolescent Version,²⁵ the WASH-U-KSADS General Behavior Inventory,²⁶ and the Young Mania Rating Scale²⁷ are useful assessment tools. Exploring the possibility of alternative and/or comorbid issues like adolescent personality disorder, risky behavior due to inadequate parenting, drug-induced

behavioral disorders, sexual and/or physical abuse, head injury, or even late-onset ADHD is essential.

Current research trials are investigating the impact of genetic and neuroanatomic factors on bipolar disorder. Decreased amygdala activity may hinder the ability to interpret and integrate emotional reactions. A smaller dorsolateral prefrontal cortex may inhibit sustained attention and working memory.² Studies also describe an abnormality in the hippocampus of youths with bipolar disorder compared with a diagnosis in adults.¹⁵

Pharmacologic treatment of adolescent bipolar disorder is difficult and often requires combination therapy to address comorbidities like ADHD or anxiety disorder. As is the case with Ms A, multiple trials of various therapeutic combinations may be needed before a working solution is found. Individual alterations in physical growth and hormonal development may require therapy to be adjusted over time. Risk of obesity and development of diabetes mellitus limit options with use of atypical antipsychotics.²⁸ Compliance issues must also be addressed. Adolescents may be uncomfortable with the possible stigma associated with psychiatric medication and/or find it difficult to remember to take medications consistently. Ms A used the alarm function on her wristwatch to help her remember to take her medication.

Adjuncts to pharmacologic treatment of bipolar disorder are beneficial. Recent studies on interpersonal and social rhythm therapy demonstrate rapid improvement in occupational functioning, especially among women.²² This therapy establishes a daily schedule to regulate endogenous circadian rhythm. It also promotes understanding of bipolar disorder, develops strategies to resolve external stressors, and promotes a differentiated understanding of the illness versus sense of self.⁵ Psychosocial treatment interventions including family understanding of bipolar disorder, enhanced parenting techniques, stress management, frustration tolerance, and effective coping strategies, which also improve communication skills and family interactions with bipolar youth.¹⁷ Family members should take threats by bipolar adolescents seriously because of the higher than normal suicide rate, repeated incidences of running away from home, and more common physical outbursts among this population than among the general adolescent population as a whole.²⁹ A strong family network contributes to continuity of emotions, adolescent self-identity development,¹⁷ and decreased relapses/severity of events.³⁰

Developmental issues common to all adolescents include autonomy and independence. Many bipolar adolescents are immature for their age, while still immersed into mainstream society.⁴ Decisions must be made regarding college, career, intimate relationships, and establishment of their own family. For females taking lithium or valproic acid, reliable birth control or medication changes are encouraged to

prevent birth defects from an unplanned pregnancy. Many birth control options, however, exacerbate mood lability.³¹ Parents need to be aware that bipolar adolescents caught smoking or having intercourse are not necessarily experiencing a manic event, nor are crying adolescents always depressed.³²

Ms A has a well-documented diagnosis of bipolar disorder with concomitant ADHD and OCD. Her mood lability has been stabilized by medication, a consistent daily routine, and a strong 2-parent family network. As clinicians, obtaining a thorough and complete history including family, developmental, and situational factors is essential. Early identification and treatment of bipolar disorder and associated comorbidities with both medication and individual and family counseling are critical to an individual's social development and future success. Listening to the patient and encouraging new activities and opportunities in a nonthreatening way promotes recovery and contributes to life fulfillment.³³ Helping develop positive self-identity and effective social skills in an adolescent with bipolar disorder through promoting a supportive family, encouraging counseling and psychotherapy, enhancing compliance with medication, and providing a meaningful relationship with a family physician, pediatrician, and/or psychiatrist offers the best hope for success.

Drug names: aripiprazole (Abilify), dextroamphetamine (Adderall, Dexedrine, and others), lamotrigine (Lamictal and others), lithium (Lithobid and others), methylphenidate (Daytrana, Focalin, and others), modafinil (Provigil), quetiapine (Seroquel), valproic acid (Depakote, Stavzor, and others).

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