A 14-year-old boy is brought to the emergency department after being found in the basement of his home by his parents during the middle of a school day. The parents came home after receiving a call from the school reporting that their son had not attended school for 4 days. The boy was furiously working on a project he claimed would solve the fuel crisis. He had started returning home from school after his parents left for work because his science teacher would no longer let him use the school laboratory after school hours. The patient had become involved in an altercation with the school janitor after being asked to leave the school because it was so late. The boy claimed that the janitor was a foreign spy trying to stop his progress.

The parents are very proud of their son’s interest in science but admit that he has been more difficult to manage lately. He can’t stop talking about his project, and others cannot get a word in edgewise. His enthusiasm is now palpable. For the past few weeks he has been reading late into the night and getting minimal sleep. Despite this he seems to have plenty of energy and amazes his parents’ friends with detailed plans of how he is going to save the world. His friends have not been able to tolerate his increased interest in his project. His train of thought is difficult to follow. He paces around the examination room, saying “[I am] anxious to get back to my project before it is too late.” Although he has no suspects in mind, he is concerned that his life may be in danger because of the importance of his work.

◆ What is the most likely diagnosis?

◆ What is the best treatment?
ANSWERS TO CASE 5: Bipolar Disorder (Child)

Summary: A 14-year-old boy is brought to the emergency department by his parents because he has been skipping school to work feverishly on a project he says will save the world. The problem appears to have escalated over the past few weeks. He does not sleep, yet he has plenty of energy. His thoughts are disordered, and he has no insight into his intrusiveness or how much he annoys people with his excessive, incessant talking. He is irritable and labile. He has paranoid and grandiose thoughts.

◆ Most likely diagnosis: Bipolar disorder, single manic episode
◆ Best treatment: The patient should be treated with a mood-stabilizing agent such as valproic acid or lithium. If more rapid sedation is desire, an antipsychotic agent can also be given in addition to the mood stabilizer. Once the episode has been adequately treated, attempts should be made to taper off use of the antipsychotic.

Analysis

Objectives
1. Understand the diagnostic criteria for bipolar disorder.
2. Understand the criteria for inpatient psychiatric treatment for this disorder.
3. Understand the initial plan for the treatment of bipolar disorder.

Considerations
The patient presents with grandiosity, inflated self-esteem, paranoia, a decreased need for sleep, an increased energy level, pressured speech, and an increased motor activity level. It seems as if the symptoms have been building for several weeks. The boy does not appear distressed and neither were his parents until his behavior became more troublesome and his school performance was affected. It is unclear whether this is the first such episode for this patient. Is there a need for hospitalization? There is no clear-cut answer here, but the answer is probably yes. The patient does not appear to be an acute danger to himself or to others although he has clearly become increasingly difficult to manage. His parents were unaware that he had been leaving school early and are unsure what others activities he may have engaged in or where he might have been. An inpatient setting would be ideal for starting treatment with medications rapidly and titrating to efficacy. Because the patient is a minor, his parents can sign him into a hospital voluntarily.

APPROACH TO BIPOLAR DISORDER (CHILD)

Definitions

Bipolar type I disorder: A syndrome with complete manic symptoms occurring during the course of the disorder.
**Bipolar type II disorder:** Hypomania; characterized by depression and episodes of mania that don’t meet the full criteria for manic syndrome. See Hypomania.

**Hypomania:** Symptoms are similar to those of mania, although they do not reach the same level of severity or cause the same degree of social impairment. Although hypomania is often associated with an elated mood and very little insight into it, patients do not usually exhibit psychotic symptoms, racing thoughts, or marked psychomotor agitation.

**Labile:** A mood and/or affect that switches rapidly from one extreme to another. For example, a patient may be laughing and euphoric one minute, followed by a display of intense anger and then extreme sadness in the following minutes of an interview.

**Clinical Approach**

The criteria for a diagnosis of bipolar disorder in children (see Table 5-1) are the same as those for adults. The incidence of mood disorders increases with increasing age until adulthood. They are rare in pre-school age children. The rate of occurrence of bipolar I disorder is extremely low in prepubertal children. Because the symptoms of mania rarely occur before adolescence, it may take years to diagnose a child with bipolar disorder who presents with childhood depressive symptoms. The prevalence of adolescent bipolar disorder in the general population is about 1%.

Mood disorders tend to cluster in families. Having one depressed parent approximately doubles the incidence of mood disorder in a child. Having two depressed parents quadruples the risk of mood disorder in a child before age 18. The finding that identical twins do not have 100% concordance rate, however, suggests an effect of psychosocial issues on the development of mood disorders.

Bipolar I disorder is rarely diagnosed before puberty because of the absence of episodes of mania. Usually, a episode of major depression precedes an episode of mania in an adolescent with bipolar I. Mania is recognized by a definite change from a preexisting state and is usually accompanied by grandiose and paranoid delusions and hallucinatory phenomena. In childhood, episodes of mania consist of extreme mood variability, cyclic aggressive behavior, high levels of distractibility, and a poor attention span. In adolescence, episodes of mania are often accompanied by psychotic features, and hospitalization is frequently necessary. Hypomania must be differentiated from attention deficit hyperactivity disorder (ADHD), which has similar features that occur on a long-term basis rather than episodically.

**Differential Diagnosis**

The psychomotor agitation or increase in activity level often associated with bipolar disorder must be carefully differentiated from the symptoms of ADHD. If the episode occurring is a depressive one, other mood disorders must be ruled out, including major depression or an adjustment disorder with a
depressed mood. Mood disorders related to substance intoxication, the side
effects of a medication, or a general medical condition must also be excluded.

Working With Children and Their Families
The treatment of bipolar disorder in childhood can be very difficult. There are
numerous comorbid psychiatric diseases, particularly ADHD. If treatment of the
bipolar disorder is adequate but any comorbid psychiatric disorders are not
addressed, the child will continue to have academic and functional impairment.
The lack of recognition of the high degree of comorbidity could lead to false
assumptions about treatment success and repeated, unnecessary medication trials.

Treatment
The treatment of bipolar disorder in children involves both psychotherapy
and psychopharmacotherapy. The school and the family should be included
in the treatment, as the ramifications of bipolar disorder in an individual can
have far-reaching effects. A critical aspect is psychoeducation for those
involved with the child to understand the behaviors, the prognosis, and the treat-
ment issues involved when a patient receives this diagnosis. There are several
local support groups that may be also helpful. Cognitive therapy is often an
important component of treatment and focuses on reducing negative thoughts
and building self-esteem. Family therapy may be indicated in situations
where family dynamics might be a factor contributing to the symptoms.

Medications play a significant role in the treatment of bipolar disorder. Often mood-stabilizing agents such as lithium carbonate, carbamazepine,
and valproic acid can be helpful in preventing and treating manic phases. They
are not as helpful, however, in depressed stages, and an antidepressant should

<table>
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<tr>
<td>DIAGNOSTIC CRITERIA FOR BIPOLAR DISORDER IN CHILDREN*</td>
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| A distinct period of abnormally and persistently elevated, expansive, or irritable
mood lasting at least 1 week (or any duration if hospitalization is required.) Three or
more of the following symptoms during this period: inflated self-esteem or grandiosi-
ty; decreased need for sleep; greater talkativeness than usual or pressure to keep talk-
ing; flight of ideas or subjective experience that thoughts are racing; distractibility;
increase in goal-directed activity or psychomotor agitation; excessive involvement in
pleasurable activities with a high potential for painful consequences |

A. Criteria for a mixed episode are not met
B. Disturbance is severe enough to cause impairment in normal functioning
C. Symptoms are not due to the effect of a substance or a medical condition

*The current Diagnostic and Statistical Manual of Mental Disorders diagnosis for bipolar disor-
der does not have any modifications for the disorder in children.
be considered if depressive symptoms predominate. Many antidepressants are believed to be able to trigger or “unmask” mania, and so they should be used carefully and patients should be observed closely for emergent manic symptoms. Many mood stabilizers have shown evidence of teratogenic effects. For this reason, pregnancy tests should be performed on all females of childbearing age before prescribing these drugs. Neuroleptics such as haloperidol and risperidone have also been used to control episodes of mania and may be particularly helpful in the acute stages of treatment. They should be used judiciously, however, and their dosage reduced and their use discontinued as soon as possible. Tardive dyskinesia is a side effect of some neuroleptics and can be avoided by shortening the time a patient is exposed to these medications.

Comprehension Questions

[5.1] Which of the following medications is used to treat episodes of mania?
A. Accutane  
B. Beclomethasone  
C. Clindamycin  
D. Valproic acid  
E. Erythromycin

[5.2] Which of the following statements is true regarding bipolar disorder in childhood?
A. Children with bipolar disorder do not present in the same manner as adults.  
B. According to the Diagnostic and Statistical Manual of Mental Disorders (DSM-IV), there is no difference between the diagnostic criteria for bipolar disorder in children and in adults.  
C. Treatment strategies vary significantly for children and adults with this disorder.  
D. There is no difference in the rate at which children and adults metabolize medications used to treat bipolar disorder.  
E. In children all the diagnostic criteria for bipolar disorder do not have to be met, whereas in adults all these criteria must be met.

[5.3] Which of the following statements is most accurate regarding mood disturbances in childhood and adolescence?
A. Mood-stabilizing agents are relatively safe during pregnancy.  
B. Neuroleptic agents can be used to control acute manic symptoms without fear of long-term side effects.  
C. The incidence of mood disorders increases with increasing age during childhood and adolescence.  
D. Lithium is useful for both the manic and the depressive symptoms of bipolar disorder.  
E. Hypomania is generally more dangerous than mania.
Answers

[5.1] D. Mood stabilizers are used to treat bipolar disorder. Valproic acid (Depakote) is the only mood stabilizer listed among these medications.

[5.2] B. Currently there are no exceptions in the DSM-IV criteria for differentiating bipolar disorder in children and in adults. The same symptoms are present, and the same treatment strategies are employed.

[5.3] C. The incidence of mood disorder increases with increasing age during childhood and adolescence. Mood-stabilizing agents such as lithium and valproic acid have significant teratogenic effects. Neuroleptic agents can cause permanent tardive dyskinesia. A mood stabilizer such as lithium is not useful in treating the depressive symptoms.

CLINICAL PEARLS

❖ Currently, there is no difference in the diagnostic criteria for bipolar disorder in children and in adults.
❖ Antipsychotics are used adjunctively in the treatment of bipolar disorder, particularly for acute symptoms.
❖ There is a high degree of psychiatric comorbidity in bipolar disorder in childhood.
❖ Mood-stabilizing agents have a significant risk for teratogenicity.

REFERENCES