



A case of ADHD mistaken as Bipolar Disorder

Sifat Noman MD, Hala Katato DO, Mauran Sivananthan DO

Department of Psychiatry, Henry Ford Health System, Detroit, Michigan



Background

- Attention deficit hyperactivity disorder (ADHD) is a clinical diagnosis of inattention, hyperactivity and/or impulsivity beginning in childhood
- Up to 70% of patients will continue to meet criteria for ADHD into adulthood¹
- Symptoms of ADHD are continuously present leading to impairment in multiple settings
- Bipolar disorder is also a clinical diagnosis, however symptoms are episodic rather than continuous
- The defining feature of bipolar disorder is a manic or hypomanic episode
- Symptoms of ADHD are often misconstrued for mania or hypomania which have significant negative ramifications for patients
- Misdiagnosis of ADHD as bipolar disorder can expose patients to debilitating and potentially lifelong medication side effects
- Appropriate diagnosis and treatment of ADHD will lead to significant improvement in social, academic and occupational functioning²

Case

- The patient is a 28-year-old Caucasian female with past medical history of hypothyroidism, migraines and vitamin D deficiency as well as past psychiatric history of bipolar 1 disorder
- She initially presented to clinic with symptoms concerning for major depressive disorder and generalized anxiety
- She was trialed on multiple anti-depressants due to lack of improvement in anxiety and depressive symptoms as well as intolerable medication side effects such as worsening anxiety and increase in frequency of migraines
- The lack of response to anti-depressants prompted reevaluation of her psychiatric diagnoses, eventually leading to the diagnosis of bipolar 1 disorder
- She was trialed on multiple medications for bipolar disorder including mood stabilizers and antipsychotics
- Her symptoms persisted and she continued to experience intolerable medication side effects in the form of severe migraines prompting multiple emergency visits and extensive medical workup
- Failure to respond to medications for bipolar disorder prompted a reevaluation of the patient's symptoms
- She was eventually assessed-and met criteria for ADHD
- Her symptoms of ADHD were present from childhood, persisted in multiple settings and were confirmed by a close informant
- She was started on a stimulant medication for ADHD with significant improvement in overall functioning
- The improvement in her ADHD symptoms were accompanied by resolution of her presenting anxiety and depressive symptoms

Workup

Table 1: Medical Workup

| | |
|--------------------------------------|--|
| CBC | Within normal limits |
| BMP | Na 132 mmol/L replaced, K 3.4mmol/L replaced |
| Urine pregnancy | Negative |
| Mg | Within normal limits |
| PT/INR/PTT | Within normal limits |
| CT head without IV contrast | No abnormalities |
| CT angiography head with IV contrast | No abnormalities |
| CT venogram head with IV contrast | No abnormalities |
| TSH | Within normal limits |
| T4 | Within normal limits |

Medical workup listed in Table 1, with the exception of TSH and T4, was obtained in the emergency room one month prior to diagnosis of ADHD. Patient presented to the Emergency room for a migraine, which started soon after initiation of Lithium, and did not respond to her home migraine medication.

Discussion

- Symptoms of ADHD are indexed into three categories: inattention, hyperactivity and impulsivity³
- Mania and hypomania are characterized by up to seven symptoms, all of which can mimic symptoms from one or more of the three symptom categories of ADHD³
- Inattention in ADHD can be misinterpreted for the following manic/hypomanic symptoms: flight of ideas, racing thoughts, distractibility
- Hyperactivity in ADHD can be misinterpreted for the following manic/hypomanic symptoms: more talkative than usual, psychomotor agitation, increase in goal directed activity, decreased need for sleep
- Impulsivity in ADHD can be misinterpreted for the following manic/hypomanic symptoms: inflated self esteem, irritable mood, excessive involvement in activities that have a high potential for painful consequences
- The distinguishing difference between symptoms of ADHD and mania/hypomania in bipolar disorder, is the continuous presence of ADHD symptoms as opposed to the episodic presentation of manic/hypomanic symptoms
- Table 2 illustrates this patient's symptoms of ADHD that were mistaken for symptoms of mania
- Once the patient was correctly diagnosed with ADHD, she was started on a stimulant medication with resolution of all of her presenting complaints

Table 2

| ADHD Symptom Categories | Patient's Symptoms Mistaken for Mania |
|-------------------------|--|
| Inattention | <ul style="list-style-type: none"> • "I want to do everything at once" • "Easily getting off topic at work" • "Can't shut my mind off" |
| Hyperactivity | <ul style="list-style-type: none"> • "I over speak in short burst" • "I will stay up late working on projects with high productivity" • "I feel restless...like I need to pace" |
| Impulsivity | <ul style="list-style-type: none"> • "Spent \$2000 on a new laptop instead of fixing old laptop because I wanted it" • "I will start a long to-do list and new projects" abruptly • "highly irritable and snapping at family and friends" |

Conclusion

- ADHD is a neurodevelopmental disorder with chronic symptoms present from youth whereas mania/hypomania is episodic and presents in young adulthood
- To obtain diagnostic clarity, history from close relatives can help distinguish between chronic and episodic symptoms
- Up to 20% of patients with ADHD have a comorbid diagnosis for bipolar disorder⁴
- When patients present with symptoms concerning for bipolar disorder, they should also be evaluated for ADHD
- Patients who have been diagnosed with bipolar disorder and undergone multiple failed treatments should also be evaluated for ADHD
- Failure to appropriately assess for and treat ADHD, will perpetuate poor outcomes in social, academic and occupational settings²

References

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