The 84-year-old state boxing champ: Bipolar disorder, or something else?

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How would you handle this case?

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Mr. X, age 84, presents with mania-like symptoms, grandiose delusions, and psychotic symptoms that began 2 weeks ago. What could be the cause of his symptoms?

CASE Agitated, uncooperative, and irritable

Mr. X, age 84, presents to the emergency department with agitation, mania-like symptoms, and mood-congruent psychotic symptoms that started 2 weeks ago. Mr. X, who is accompanied by his wife, has no psychiatric history.

On examination, Mr. X is easily agitated and uncooperative. His speech is fast, but not pressured, with increased volume and tone. He states, "My mood is fantastic" with mood-congruent affect. His thought process reveals circumstantiality and loose association. Mr. X's thought content includes flight of ideas and delusions of grandeur; he claims to be a state boxing champion and a psychologist. He also claims that he will run for Congress in the near future. He reports that he's started knocking on his neighbors' doors, pitched the idea to buy their house, and convinced them to vote for him as their congressman. He denies any suicidal or homicidal ideations. There is no evidence of perceptual disturbance. Mr. X undergoes a Mini-Mental State Examination (MMSE) and scores 26/30, which suggests no cognitive impairment. However, his insight and judgment are poor.

Mr. X's physical examination is unremarkable. His laboratory workup includes a complete blood count, comprehensive metabolic panel, urinalysis, thyroid function test, vitamin B12 and folate levels, urine drug screen, and blood alcohol level. All results are within normal limits. He has no history of alcohol or recreational drug use as evident by the laboratory results and collateral information from his wife. Further, a non-contrast CT scan of his head shows no abnormality.

Approximately 1 month ago, Mr. X was diagnosed with restless leg syndrome (RLS). Mr. X's medication regimen consists of gabapentin, 300 mg 3 times daily, prescribed years ago by his neurologist for neuropathic pain; and ropinirole, 3 mg/d, for RLS. His neurologist had prescribed him ropinirole, which was started at 1 mg/d and titrated to 3 mg/d within a 1-week span. Two weeks after Mr. X started this medication regimen, his wife reports that she noticed changes in his behavior, including severe agitation, irritability, delusions of grandeur, decreased need for sleep, and racing of thoughts.

Which diagnosis best describes Mr. X's condition?

a) late-onset bipolar I disorder, current episode manic, with psychotic features

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Disclosures
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Table

DSM-5 criteria for substance/medication-induced bipolar and related disorder

A. A prominent and persistent disturbance in mood that predominates in the clinical picture and is characterized by elevated, expansive, or irritable mood, with or without depressed mood, or markedly diminished interest or pleasure in all, or almost all, activities.
B. There is evidence from the history, physical examination, or laboratory findings of both (1) and (2): 1. The symptoms in Criterion A developed during or soon after substance intoxication or withdrawal or after exposure to a medication. 2. The involved substance/medication is capable of producing the symptoms in Criterion A.
C. The disturbance is not better explained by a bipolar or related disorder that is not substance/medication-induced. Such evidence of an independent bipolar or related disorder could include the following: The symptoms precede the onset of the substance/medication use; the symptoms persist for a substantial period of time (eg, about 1 month) after the cessation of acute withdrawal or severe intoxication; or there is other evidence suggesting the existence of an independent non-substance/medication-induced bipolar and related disorder (eg, a history of recurrent non-substance/medication-related episodes).
D. The disturbance does not occur exclusively during the course of a delirium.
E. The disturbance causes clinically significant distress or impairment in social, occupational, or other important areas or functioning.

Source: Reference 1

Clinical Point

When treating geriatric patients, consider prescribing the lowest effective dose of psychotropics

b) medication-induced bipolar disorder with psychotic features
c) stroke
d) space-occupying lesions of the brain

The authors' observations

Mr. X was diagnosed with medication (ropinirole)-induced bipolar and related disorder with mood-congruent psychotic features.

To determine this diagnosis, we initially considered Mr. X's age and medical conditions, including stroke and space-occupying lesions of the brain. However, the laboratory and neuroimaging studies, which included a CT scan of the head and MRI of the brain, were negative. Next, because Mr. X had sudden onset manic symptoms after ropinirole was initiated, we considered the possibility of a substance/medication-induced bipolar and related disorder. Further, ropinirole is capable of producing the symptoms in criterion A of DSM-5 criteria for substance/medication-induced bipolar and related disorder. Mr. X met all DSM-5 criteria for substance/medication-induced bipolar and related disorder (***Table***[1]).

What is the next step in management?

a) discontinue ropinirole
b) start an antipsychotic
c) start a mood stabilizer
d) decrease ropinirole dose and add an antipsychotic

TREATMENT Medication adjustments and improvement

The admitting clinician discontinues ropinirole and initiates divalproex sodium, 500 mg twice a day. By Day 4, Mr. X shows significant improvement, including no irritable mood and regression of delusions of grandeur, and his sleep cycle returns to normal. At this time, the divalproex sodium is also discontinued.

The authors' observations

Dopamine agonist agents are a standard treatment in the management of

Related Resources

- Adabie A, Jackson JC, Torrence CL. Older-age bipolar disorder: A case series. Current Psychiatry. 2019;18(2):24-29.
- Chen P, Dols A, Rej S, et al. Update on the epidemiology, diagnosis, and treatment of mania in older-age bipolar disorder. Curr Psychiatry Rep. 2017;19(8):46.

Drug Brand Names

Divalproex sodium • Depakote
Gabapentin • Neurontin
Ropinirole • Requip

Clinical Point

Published reports have linked dopamine agonists to mania with psychotic symptoms

Parkinson's disease and RLS.[2-5] Ropinirole, a dopamine receptor agonist, has a high affinity for dopamine D2 and D3 receptor subtypes.[4] Published reports have linked dopamine agonists to mania with psychotic features.[6,7] In a study by Stoner et al,[8] of 95 patients treated with ropinirole, 13 patients developed psychotic features that necessitated the use of antipsychotic medications or a lower dose of ropinirole.

The recommended starting dose for ropinirole is 0.25 mg/d. The dose can be increased to 0.5 mg in the next 2 days, and to 1 mg/d at the end of the first week.[9] The mean effective daily dose is 2 mg/d, and maximum recommended dose is 4 mg/d.[9] For Mr. X, ropinirole was quickly titrated to 3 mg/d over 1 week, which resulted in mania and psychosis. We suggest that when treating geriatric patients, clinicians should consider prescribing the lowest effective dose of psychotropic medications, such as ropinirole, to prevent adverse effects. Higher doses of dopamine agonists, especially in geriatric patients, increase the risk of common adverse effects, such as nausea (25% to 50%), headache (7% to 22%), fatigue (1% to 19%), dizziness (6% to 18%), and vomiting (5% to 11%).[10] When prescribing dopamine agonists, clinicians should educate patients and their caregivers about the rare but potential risk of medication-induced mania and psychosis.

Mr. X's case emphasizes the importance of a comprehensive psychiatric evaluation and medical workup to rule out a wide differential diagnosis when approaching new-onset mania and psychosis in geriatric patients.[11] Our case contributes to the evidence that dopamine agonist medications are associated with mania and psychotic symptoms.

OUTCOME A return to baseline

On Day 12, Mr. X is discharged home in a stable condition. Two weeks later, at an outpatient follow-up visit, Mr. X is asymptomatic and has returned to his baseline functioning.

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Bottom Line

When approaching new-onset mania and psychosis in geriatric patients, a comprehensive psychiatric evaluation and medical workup are necessary to rule out a wide differential diagnosis. Ropinirole use can lead to mania and psychotic symptoms, especially in geriatric patients. As should be done with all other dopaminergic agents, increase the dose of ropinirole with caution, and be vigilant for the emergence of signs of mania and/or psychosis.

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Clinical Point

When prescribing dopamine agonists, educate patients about the potential risk of medication-induced mania