# Confused and nearly naked after going on spending sprees

Matthew J. Davis, MD, Alexander de Nesnera, MD, and David G. Folks, MD



handle this case?

Answer the challenge questions throughout this article

Mr. A, age 68, goes on spending sprees and exhibits delusions and auditory hallucinations. Neurocognitive testing reveals severe dysfunction. What could be causing his symptoms?

### CASE Nearly naked

Mr. A, age 68, is found sitting in his car, wearing only a jacket, underpants, and boots. He speaks of spreading a message about Osama bin Laden and "taking a census." Police officers bring him to a hospital emergency department for evaluation.

The examining clinician determines that Mr. A is a danger to himself and others because of mental illness, leading to admission to our state psychiatric hospital.

Mr. A's wife describes recent spending sprees with large purchases. She had obtained a restraining order against her husband because of his threatening remarks and behaviors. Within days of the order issuance, he got a home equity loan and purchased a \$300,000 house.

The medical history is notable for type 2 diabetes mellitus. Although he is not taking medications, his blood sugar is well controlled. Other than an initial resting heart rate of 116 beats per minute, vital signs are stable and within normal limits. Physical examination is unremarkable. Screening laboratory studies are notable for mildly elevated hepatic function, which approaches normal range several days after admission.

Mr. A reports a remote history of alcohol abuse but says he had not been drinking recently, and does not detail his pattern of

use. Urine toxicology screen is negative for all substances of abuse.

Mental status examination reveals disheveled appearance, motor agitation, pressured speech, labile affect, loosening of associations, grandiose delusions, and auditory hallucinations. Mr. A's thought processes are grossly disorganized, such that we could not gather a meaningful history. He believes God is speaking directly to him about plans to build a carousel at Disney World. He makes strange gestures with his hands throughout the interview, as if attempting to trace the shapes of letters and numbers. He frequently speaks of seeing an array of colors. Cognitive examination reveals a score of 5 of 30 on the Montreal Cognitive Assessment (Figure 1), indicating a severe impairment in neurocognitive functioning. He demonstrates limited insight and markedly impaired judgment, and denies having a mental illness.

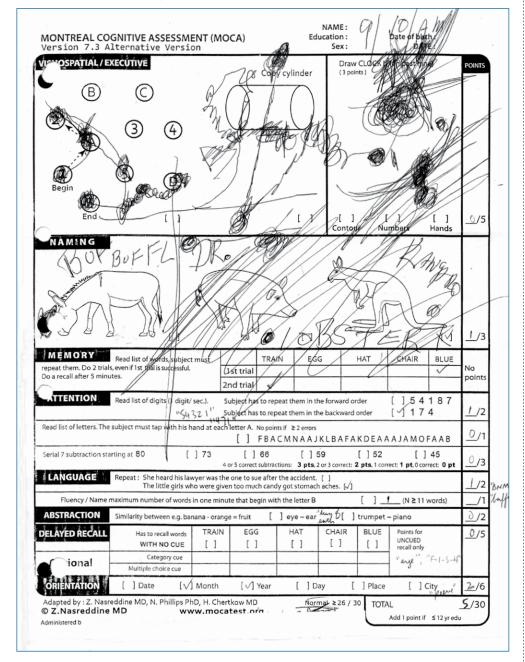
Dr. Davis is Assistant Professor of Psychiatry, Dartmouth's Geisel School of Medicine, and Staff Psychiatrist, New Hampshire Hospital, Concord, New Hampshire. Dr. de Nesnera is Associate Professor of Psychiatry, Dartmouth's Geisel School of Medicine and Associate Medical Director, New Hampshire Hospital, Concord, New Hampshire. Dr. Folks is Professor of Psychiatry, Dartmouth's Geisel School of Medicine, and Chief Medical Officer, New Hampshire Hospital, Concord, New Hampshire.

#### Disclosure

The authors report no financial relationships with any company whose products are mentioned in this article or with manufacturers of competing products.

#### Figure 1

### Mr. A's Montreal Cognitive Assessment at admission



#### What should be the next step in managing Mr. A?

- a) obtain records from other facilities and collateral history
- b) start an antipsychotic
- c) order a brain MRI
- d) start an alcohol withdrawal protocol

#### The authors' observations

Mr. A showed elements of mania, psychosis, and delirium. We considered a broad differential diagnosis (Table, page 58). Mr. A initially could not provide reliable or accurate information. The least invasive next step was to obtain additional history

#### **Clinical Point**

Mr. A showed elements of mania, psychosis, and delirium; we therefore considered a wide differential diagnosis



### Differential diagnosis of delirious mania

Dementia

Table

Head trauma

Hypoglycemia

Hypoxemia

Infection (HIV, Lyme disease, tuberculosis, syphilis, bacterial illness)

Metabolic disturbances and endocrinopathies

Neoplasms

Poisons that impact central nervous system functioning

Psychiatric illness (including bipolar disorder, schizophrenia)

Seizures

Wernicke-Korsakoff syndrome and substancerelated cognitive impairment or withdrawal svndrome

from his wife and other medical records to refine the differential diagnosis.

#### HISTORY Bizarre behavior

Mr. A allows staff to speak with his wife and obtain records from a psychiatric hospitalization 3 years earlier. Mrs. A reports significant and rapid changes in her husband's behavior and personality over 3 months, but does not describe a recent alcohol relapse. Mr. A sleeps very little, remaining awake and active throughout the night. He frequently rearranges the furniture in their home for no clear reason. Once, he knocked on the door of a young female neighbor asking if she found him attractive.

Mr. A has a significant criminal history. Approximately 30 years ago, he was charged with attempted murder of his ex-wife and he had faced charges of attempted kidnapping and assaulting a police officer. However, he has no recent legal issues.

Mr. A has a history of episodes that are similar to this presentation. Seven years ago, he impulsively purchased a \$650,000 house after his fourth wife died. He then had a \$90,000 heart-shaped pool installed. He also drove a tractor through his stepdaughter's car for no apparent reason. Also, 3 years ago, he displayed symptoms similar to his current presentation, including insomnia, irritability, and grandiosity. He engaged in strange behaviors, such as dressing up and imitating homeless people at his church.

During the hospitalization 3 years ago, clinicians gave Mr. A a diagnosis of bipolar disorder, current episode manic, and delirium of an unclear cause. A medical workup, including brain MRI, did not uncover a basis for his delirium. Antipsychotics (risperidone and perphenazine) and mood stabilizers (lithium and valproic acid), stabilized his condition; after 7 weeks, Mr. A was discharged, but he did not pursue outpatient psychiatric care.

#### What is the most likely DSM-5 diagnosis?

- a) major neurocognitive disorder (dementia)
- b) alcohol use disorder (eg, Wernicke-Korsakoff syndrome)
- c) delirium secondary to mania
- d) psychotic disorder

#### The authors' observations

DSM-51 suggests a stepwise approach to diagnosis, with consideration of:

- signs and symptoms
- substance use
- general medical condition
- · developmental conflict or stage
- whether a mental disorder is present.

Mr. A's age and severe cognitive impairment raise the possibility of dementia. Rapid onset, history of similar episodes, and apparent inter-episode recovery make dementia unlikely. The history of alcohol abuse and mildly elevated hepatic function tests suggest a substance use disorder such as Wernicke-Korsakoff syndrome or a withdrawal syndrome. However, there is no evidence of excessive alcohol use over the past several months, toxicology studies

### **Clinical Point**

Mr. A has a history of similar episodes; 3 years ago he was diagnosed with bipolar disorder, manic phase, and delirium of an unclear cause

were negative, and vital signs were stable. General medical causes for Mr. A's presentation, such as hypoglycemia, head trauma, intracranial infection, and metabolic disturbance were considered, but physical examination and laboratory studies did not suggest any condition that would explain his condition.

Mr. A's previous psychiatric hospitalization is critical in clarifying the more likely diagnosis. A similar presentation yielded the diagnosis of bipolar disorder, manic phase. Our working diagnosis, therefore, was bipolar disorder with features of delirious mania.

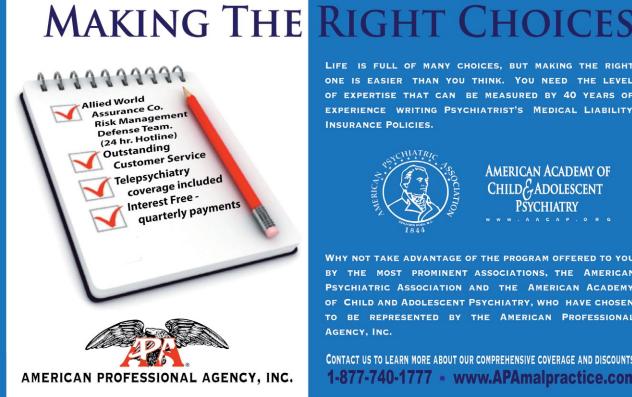
#### **Delirious** mania

Delirious mania was first described by Luther Bell in 1849 and is characterized by an acute and simultaneous onset of maniasevere insomnia, poor judgment, grandiosity, excitement, emotional lability, bizarre hallucinations, and delusions-and delirium-altered consciousness, disorientation, and confusion.<sup>2,3</sup> Although there are no diagnostic criteria, some authors suggest that delirious mania is characterized by inappropriate toileting, denudation, profound lack of sleep, and episodic memory impairment that can last hours or days.4 Catatonia frequently is seen with delirious mania.5 Initial case descriptions described a high mortality rate, approaching 75% of patients.6 There is little published literature and no classification of delirious mania in DSM-5.1 Estimates are that delirium is concomitant in 20% to 33% of patients with mania.<sup>7,8</sup>

Several theories try to clarify the underlying etiology of delirious mania. Jacobowski et al9 summarized the etiology and proposed that it is:

#### **Clinical Point**

The rapid onset of Mr. A's symptoms, history of similar episodes, and apparent inter-episode recovery make dementia unlikely



LIFE IS FULL OF MANY CHOICES, BUT MAKING THE RIGHT ONE IS EASIER THAN YOU THINK. YOU NEED THE LEVEL OF EXPERTISE THAT CAN BE MEASURED BY 40 YEARS OF EXPERIENCE WRITING PSYCHIATRIST'S MEDICAL LIABILITY INSURANCE POLICIES.



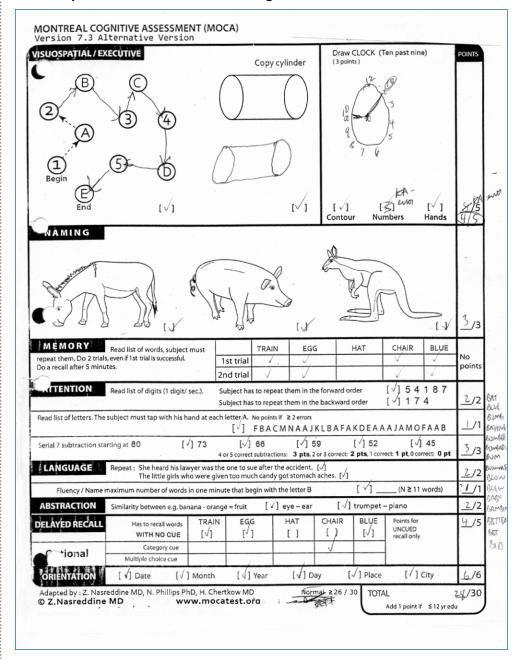
AMERICAN ACADEMY OF CHILD ADOLESCENT

WHY NOT TAKE ADVANTAGE OF THE PROGRAM OFFERED TO YOU BY THE MOST PROMINENT ASSOCIATIONS, THE AMERICAN PSYCHIATRIC ASSOCIATION AND THE AMERICAN ACADEMY OF CHILD AND ADOLESCENT PSYCHIATRY, WHO HAVE CHOSEN TO BE REPRESENTED BY THE AMERICAN PROFESSIONAL AGENCY, INC.

CONTACT US TO LEARN MORE ABOUT OUR COMPREHENSIVE COVERAGE AND DISCOUNTS. 1-877-740-1777 • www.APAmalpractice.com

#### Figure 2

### Mr. A's post-treatment Montreal Cognitive Assessment



### **Clinical Point**

**Delirious mania** is characterized by inappropriate toileting, denudation, profound lack of sleep, and episodic memory impairment

- 1 of 3 types of mania, including: acute and delusional manias, as initially proposed by Kraeplin
- a severe form of catatonia
- · a condition akin to, but distinct from, delirium with similar underlying medical causes
- a primary psychiatric disorder underlying the cause of delirium.

## **EVALUATION** Brain changes

For several days, Mr. A continues to engage in strange behavior. He tries to take patients' belongings, is denudative, crawls on floors, licks walls, is unable to feed himself, and exhibits odd motor movements with purposeless motor activity.

We consult our internal medicine team to identify treatable, medical causes. Results of serum B<sub>12</sub>, thyroid-stimulating hormone, and rapid plasma reagin studies are within normal limits. Urinalysis is negative. A brain MRI reveals numerous whitematter T<sub>2</sub>-weighted and FLAIR hyperintensities, indicating small-vessel ischemic changes that are consistent with the findings of an MRI 3 years ago. A sleep-deprived EEG with temporal leads obtained on Day 4 of hospitalization demonstrates a diffusely slow and marginally to poorly organized background, believed to indicate global cerebral dysfunction that is most consistent with nonfocal global encephalopathy. There is no seizure activity. We do not perform a lumbar puncture because of Mr. A's absence of focal neurologic deficits, lack of fever, and normal white blood cell count.

#### What is the most appropriate treatment?

- a) electroconvulsive therapy (ECT)
- b) high-dose benzodiazepine
- c) mood stabilizer
- d) antipsychotic

#### The authors' observations

We strongly suspect that Mr. A has delirious mania. Symptoms and signs of mania include labile mood, excessive spending, grandiosity, insomnia, and psychosis together with delirium (marked disorientation, confusion). We ascribed Mr. A's odd motor behaviors to catatonia, a hallmark of delirious mania. The literature has little description of EEG findings in suspected cases of delirious mania; however, abnormal EEG tracings have been reported.<sup>10</sup> We also speculated that Mr. A's EEG reflected effects produced by his prescribed antipsychotic regimen.

#### **Treatment**

There is no clear consensus on treating delirious mania. Because catatonia is a key feature of delirious mania—whether etiologically or as a prominent sign of the condition—ECT and benzodiazepines are proposed as primary treatments. In a study of 16 patients with delirious mania, Karmacharya et al4 found ECT to be effective, with patients showing improvement after 1 to 4 treatments. Lee et al<sup>10</sup> reported similar findings. Although a high-dose benzodiazepine is not as effective as ECT, a 1-time oral dose of 3 to 4 mg of lorazepam has been used to treat delirious mania.

The efficacy of antipsychotic and moodstabilizing pharmacotherapy is not clear. Bond<sup>3</sup> described 3 cases in which patients were treated effectively with a typical antipsychotic (haloperidol or chlorpromazine) and lithium. Jung and Lee11 demonstrated the efficacy of atypical antipsychotics, with a marked improvement in symptoms within 1 week. However, other studies do not support these findings. Karmacharya et al4 found that typical antipsychotics 1) make the clinical picture worse by increasing extrapyramidal symptoms and 2) produce inconsistent effects. Mood stabilizers sometimes proved beneficial.

Karmacharya et al4 further argued that the delay in improvement seen with any antipsychotics and mood stabilizers suggest they should not be considered a first-line treatment. These discordant findings are the result of a small number of studies and a lack of understanding of the exact nature of delirious mania.

### **TREATMENT** Quick response

Mr. A's symptoms rapidly resolve with a combination of quetiapine, 800 mg/d, haloperidol, 10 mg/d, and lithium, 1,200 mg/d. His mood returns to euthymia and his psychotic symptoms abate. He is able to attend to all activities of daily living. Mental status clears and he is fully oriented and able to hold a logical conversation. He scores 28 out of 30 on a subsequent Montreal Cognitive Assessment, administered 11 days after the initial assessment (Figure 2), indicating normal

#### **Clinical Point**

Because catatonia is a key feature of delirious mania, ECT and benzodiazepines are proposed as primary treatments

#### **Related Resources**

- · Nunes AL, Cheniaux E. Delirium and mania with catatonic features in a Brazilian patient: response to ECT. J Neuropsychiatry Clin Neurosci. 2014;26(1):E1-E3.
- · Danivas V, Behere RV, Varambally S, et al. Electroconvulsive therapy in the treatment of delirious mania: a report of 2 patients. J ECT. 2010;26(4):278-279.

#### **Drug Brand Names**

Chlorpromazine • Thorazine Haloperidol • Haldol Lithium • Eskalith Lorazepam · Ativan

Perphenazine • Trilafon Quetiapine • Seroquel Risperidone • Risperdal Valproic acid • Depakene

#### **Clinical Point**

We chose an antipsychotic and a mood stabilizer because hospital records indicated they effectively treated a similar episode

neurocognitive function. He returns to his baseline level of functioning and is discharged in psychiatrically stable condition. Mr. A has no recollection of the bizarre behaviors he displayed earlier in his hospitalization.

#### The authors' observations

We started Mr. A on antipsychotics because of his initial level of agitation. In reviewing pharmacotherapy options for Mr. A's mania and delirium, we contemplated several options. Quetiapine and lithium were chosen after a review of outside hospital records demonstrated a combination of a mood stabilizer and an antipsychotic was effective in treating a previous similar episode, which led to remission of Mr. A's symptoms. We chose quetiapine because of it highly sedating properties, suspecting that it would help treat his insomnia. We thought that the risk that lithium would make delirium worse was mitigated by Mr. A's previous therapeu-

tic response to it. Haloperidol was added for treating delirium, given its more potent D2 antagonism. Mr. A responded quickly to these interventions.

We did not consider ECT at the beginning of Mr. A's admission, and we avoided sedative-hypnotic agents because we were concerned that a benzodiazepine might make his delirium worse. In light of available data suggesting that ECT and benzodiazepines are preferred treatments for delirious mania, it is noteworthy that Mr. A responded so robustly and rapidly to an antipsychotic and a mood stabilizer.

#### References

- 1. Diagnostic and statistical manual of mental disorders, fifth edition. Washington, DC: American Psychiatric Association;
- 2. Bipeta R, Khan MA. Delirious mania: can we get away with this concept? A case report and review of the literature [published online November 12, 2012]. Case Rep Psychiatry. 2012;2012:720354. doi: 10.1155/2012/720354.
- 3. Bond TC. Recognition of acute delirious mania. Arch Gen Psychiatry. 1980;37(5):553-554.
- 4. Karmacharya R, England ML, Ongür D. Delirious mania: clinical features and treatment response. J Affect Disord. 2008:109(3):312-316.
- 5. Fink M, Taylor MA. The many varieties of catatonia. Eur Arch Psychiatry Clin Neurosci. 2001;251(suppl 1): I8-I13.
- 6. Fink M. Delirious mania. Bipolar Disord. 1999;1(1):54-60.
- 7. Taylor MA, Abrams R. The phenomenology of mania. A new look at some old patients. Arch Gen Psych. 1973;29(4):
- 8. Ritchie J, Steiner W, Abrahamowicz M. Incidence of and risk factors for delirium among psychiatric inpatients. Psychiatr Serv. 1996;47(7):727-730.
- 9. Jacobowski NL, Heckers S, Bobo WV. Delirious mania: detection, diagnosis, and clinical management in the acute setting. J Psychiatr Pract. 2013;19(1):15-28.
- 10. Lee BS, Huang SS, Hsu WY, et al. Clinical features of delirious mania: a series of five cases and a brief literature review. BMC Psychiatry. 2012;12:65.
- 11. Jung WY, Lee BD. Quetiapine treatment for delirious mania in a military soldier. Prim Care Companion J Clin Psychiatry. 2010;12(2). doi: 10.4088/PCC.09100830yel.

# **Bottom Line**

Consider delirious mania in any patient who has a history of bipolar disorder presenting with co-occuring symptoms of mania and delirium. Collateral information is vital to establishing a diagnosis. With suspected delirium, rule out concomitant reversible medical problems. Electroconvulsive therapy, high-dose benzodiazepines, antipsychotics, and mood stabilizers have shown efficacy.