mission was 59.7. The patient had a negative urine drug screen; all other laboratory studies were normal. There were no other changes in his medication regimen, and he did not smoke cigarettes while on varenicline or after his admission to the hospital.

Varenicline was discontinued upon admission. The patient continued receiving valproic acid, up to a dose of 2 g per day. He was also started on olanzapine, up to 10 mg daily at bedtime. Within one week of admission, the patient was euthymic, without psychotic or manic symptoms.

Varenicline was approved by the Food and Drug Administration (FDA) in 2006 for smoking cessation. Varenicline binds with high affinity and selectivity at alpha4beta2 neuronal nicotinic acetylcholine receptors. Its efficacy is the result of its activity at a subtype of the nicotinic acetylcholine receptor, where its binding produces agonist activity while simultaneously preventing nicotine binding to the alpha4beta2 receptors. During abstinence, varenicline stimulates low-level dopamine release by binding to alpha4beta2 receptors located on dopamine neurons (1).

Agitation, aggression, and mood swings were reported as infrequent psychiatric adverse reactions in the preclinical studies for FDA approval of verenicline. In addition, euphoric mood, agitation, and psychosis were reported as rare psychiatric adverse reactions.

Several studies have shown that centrally active cholinergic agonists possess antimanic properties. Imbalance in cholinergic and adrenergic tone has been postulated in the pathophysiology of bipolar disorder, with relative cholinergic hypoactivity being implicated in the pathophysiology of mania (2). The release of catecholamines, such as dopamine, was likely related to the induction of mania in our patient.

Due to the high rate of smoking in bipolar disorder patients, smoking cessation agents may be used in a great number of patients with the disorder. However, our findings suggest a possible link between the onset of manic symptoms and treatment with varenicline in a patient with bipolar disorder. In this case, there was a temporal relationship between the beginning of therapy and the onset of symptoms. There were no other medication changes in our patient's regimen. A MEDLINE literature search revealed no case reports or studies regarding manic symptoms with varenicline. Our case highlights the need to use caution when prescribing the drug to patients with bipolar disorder.

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Alcohol Use and Anxiety

TO THE EDITOR: The Treatment in Psychiatry case study by Kathleen T. Brady, M.D., Ph.D., et al. (1), published in the February 2007 issue of the *Journal*, is a beautifully written clinical summary that utilized the presentation of a patient with commonly observed comorbid symptoms to review the most recent literature on the treatment of alcohol use disorders, anxiety spectrum disorders, and the overlap between the two. However, I cannot help but to notice that the authors chose not to address the controversial issue concerning the use of benzodiazepines with a patient such as "Ms. M." Although those of us who work in the field of addiction psychiatry are generally in agreement that benzodiazepines are contraindicated in managing symptoms other than alcohol withdrawal in individuals with alcohol use disorders who are actively drinking, many of my psychiatric colleagues would have prescribed either a benzodiazepine or a nonbenzodiazepine GABA-BZ receptor agonist hypnotic, such as zolpidem or eszopiclone, to treat the patient's insomnia. I feel that it is important to stress the risks of prescribing such treatment. These risks include 1) complicating the substance use picture with a cross-tolerant agent, thereby delaying diagnosis and treatment of potential alcohol dependence; 2) drug-drug interactions between sedatives and alcohol that can further impair motor function, resulting in a variety of untoward incidents, e.g., motor vehicle crashes, accidents in the home; 3) increasing rather than decreasing patients' craving for alcohol, making it less likely that he or she will be able to establish abstinence; and 4) worsening of depressive symptoms with possible suicide via a combination of sedatives and alcohol.

Reference

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Dr. Ziegler is a part-time employee of Diamond Healthcare Corporation of Richmond, Va., a proprietary health care organization.

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Dr. Brady Replies

TO THE EDITOR: We would like to thank Dr. Zeigler for her insightful response to our case presentation. Dr. Zeigler appropriately points out some of the risks involved in prescribing benzodiazepines to individuals with substance use disorders. Unfortunately, insomnia is a common problem in individuals who are in early recovery from substance use disorders, and there is little empirical evidence to guide treatment of this problem. There are promising cognitive behavior strategies that have demonstrated efficacy in sleep disorders, but these strategies have not yet been tested in individuals who are in early recovery from substance use disorders. Additionally,

there is a new class of pharmacotherapeutic agents for sleep disorders that target the melatonin system. These agents have little or no abuse potential, but, to our knowledge, they have not been tested systematically in individuals who are in recovery from substance use disorders. Both cognitive behavior strategies and new pharmacotherapeutic agents hold promise in treating the difficult problem of sleep disorders in individuals in recovery.

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