A Case Report of Zolpidem-Induced Somnambulism

Sir: The physiology of sleep, memory, awareness, and arousal can be influenced by different drugs. Zolpidem tartrate is a nonbenzodiazepine hypnotic agent of the imidazopyridine group with a rapid onset and short duration of action. Its side effect profile is milder than those of benzodiazepines and barbiturates used for treating insomnia. To our knowledge, there are 5 published articles related to zolpidem-induced somnambulism. Somnambulism, or sleepwalking, could be dangerous due to the possibility of accidental injury. Here, we present a case of somnambulism associated with zolpidem use.

Case report. Mr. A, a 19-year-old white man, had a history of and current diagnoses of DSM-IV schizoaffective disorder and impulse-control disorder. The patient lived with his parents and a younger brother. He worked as a volunteer at a university hospital and had received a general equivalency diploma. Mr. A had no current or past history of substance abuse and did not smoke or drink alcohol. His medical history was unremarkable. The patient had a history of 2 psychiatric hospitalizations for worsening of his symptoms. He had no personal or family history of sleepwalking.

In the past, olanzapine and paroxetine had been tried without successful results. Mr. A was stable on his medications, which included aripiprazole 15 mg once per day, venlafaxine extended release 150 mg once per day, and quetiapine 50 mg once per day. He received no other medications, including herbal supplements.

During the course of his treatment, Mr. A began complaining of insomnia, for which brief zolpidem treatment was prescribed. He was started on treatment with zolpidem 10 mg orally at bedtime on an as-needed basis for insomnia. Within a few days of the initiation of zolpidem treatment, the patient’s family noticed the patient waking up in the middle of night and walking into their room with a starry expression and some incoherent speech. The patient had no memory of this event in the morning. This sleepwalking episode was attributed to zolpidem, as no medication change was made besides initiating zolpidem and the patient had no history of such episodes in the past. Zolpidem treatment was stopped, and since then, no complaints of sleepwalking have been reported.

Somnambulism, or sleepwalking, generally occurs during stages 3 and 4 of slow-wave sleep. During an episode of somnambulism, the normal arousal mechanism is altered, which results in partial arousal without full consciousness. Electroencephalographic changes associated with the use of zolpidem include suppression of REM sleep. It has been suggested that some drugs produce a physiologic state during slow-wave sleep that can present clinically as somnambulism. A definitive diagnosis of somnambulism usually requires all-night sleep recordings, which were not performed on our patient. We suggest that when seeking an etiology of somnambulism in a patient, a careful review of the patient’s current medications should be performed.

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Interferon-α Treatment of Hepatitis C Patients With Psychiatric Illness: Evidence-Based Risk-Benefit Assessment

Sir: The clinical management of individuals with comorbid chronic hepatitis C virus (HCV) infection and psychiatric illness is a substantial public health problem. At least 50% of patients with HCV suffer from at least 1 psychiatric illness. Furthermore, the prevalence of HCV in patients with psychiatric illness (10%–20%) is 5 to 10 times that in the general U.S. population (2%). Recent advances in the treatment of HCV and the introduction of interferon-α–based therapies in combination with ribavirin have resulted in viral clearance (complete eradication of HCV; absent HCV viral load) 6 months after HCV treatment is completed) rates of 50% to 59% of patients with HCV genotype 1 (70% of the U.S. HCV-infected population) and 80% to 90% of patients with HCV genotypes 2 and 3 (20%–30% of the U.S. HCV-infected population). These viral clearance rates, however, may not be applicable to the HCV-infected population with comorbid psychiatric illness, since most large HCV treatment trials have excluded patients with any history of psychiatric or substance use disorders. The practice of excluding patients with HCV and psychiatric illness from interferon-α treatment is stigmatizing and will result in substantial morbidity and mortality for a vulnerable population no less deserving of treatment than HCV patients without psychiatric illness.

Recently, gastroenterologists have started evaluating patients with HCV and comorbid psychiatric illness and...
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making a risk-benefit assessment for interferon-α treatment. Fearing the precipitation or worsening of preexisting psychiatric illness with interferon-α treatment, gastroenterologists call upon consult psychiatrist to assist in making a risk assessment regarding the probability of interferon-α–induced neuropsychiatric adverse effects. Several risk factors are thought to increase the probability of interferon-α–emergent neuropsychiatric adverse effects: a history of any psychiatric illness, a history of substance abuse, a family history of psychiatric illness, and a history of suicidal ideation. The ability to predict the variable interferon-α–induced neuropsychiatric adverse effects, however, remains modest at best due to the lack of systematic large-scale data and the exclusion of patients with psychiatric illness from HCV clinical trials. 7 In contrast to the variable influence of these psychiatric risk factors, the decreased likelihood of viral clearance in response to interferon-α is associated with several well-established predictive and additive factors including male gender, African American race, increased body mass index, advanced age (> 40 years), higher HCV viral load, coinfection with human immunodeficiency virus, and HCV genotype 1. 8

I propose a comprehensive clinical risk-benefit model (Figure 1) integrating factors pertaining to the likelihood of viral clearance in response to interferon-α and the probable risk of interferon-α–induced neuropsychiatric adverse effects. A 35-year-old slender white woman with no history of psychiatric illness who is infected with a low HCV viral load of either genotype 2 or 3 would be a candidate for interferon-α treatment (represented by case 1 in Figure 1). In the case of a 50-year-old obese African American man with a history of psychosis and a substance use disorder who is infected with a high viral load of HCV genotype 1 (represented by case 2 in Figure 1), interferon-α should be delayed in the absence of advancing cirrhosis. While these 2 cases present clinical scenarios at the opposite ends of the risk-benefit spectrum, the risk-benefit profile in the majority of patients with HCV and psychiatric comorbidity is in an intermediate zone. Prophylactic treatment with psychotropics might be offered if the woman in case 1 had a history of major depressive disorder and was infected with a low viral load of HCV genotype 1. Biopsy-demonstrated cirrhosis might be a compelling reason to attempt interferon-α treatment in case 2. Ongoing psychiatric follow-up is certainly indicated when a patient has 1 or more of the psychiatric risk factors listed above. In cases in which a low estimated likelihood of viral clearance of HCV is combined with an intermediate to low probability of psychiatric adverse effects, an evaluation incorporating the patient’s interferon-α treatment preference and available psychosocial support can influence the treatment decision.

Use of an evidence-based approach in selecting patients for interferon-α treatment is paramount when endeavoring to treat patients with HCV and comorbid psychiatric illness in order to minimize the morbidity and mortality associated with interferon-α (i.e., suicide). This model is intended to assist clinicians in making an individualized and balanced risk-benefit analysis incorporating HCV–disease specific factors as well the potential for psychiatric complications prior to offering interferon-α treatment.

Dr. Rifai is a recipient of the American Psychiatric Institute for Research and Education scholarship for research on severe mental illness and hepatitis C. Dr. Rifai also received the Southern Psychiatric Association Research Award.

The opinions expressed in this letter are those of the author and do not necessarily reflect the opinions or policies of the National Institutes of Health, the Department of Health and Human Services, or the federal government.

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Figure 1. Risk-Benefit Model for Interferon-α Treatment of Hepatitis C Patients Integrating the Risks of Neuropsychiatric Adverse Events and the Likelihood of Viral Clearance

High Viral Load
Low Viral Load
Genotype 1
Genotype 2 or 3
Delay interferon-α treatment
Case 2
Proceed on the basis of patient preference
Obtain liver biopsy results
Ongoing psychiatric follow-up indicated
Determine treatment on a case by case basis
Interferon-α treatment indicated
Monitor for psychiatric symptoms
Low
High
Likelihood of Viral Clearance in Response to Interferon-α Treatment in Patients With Hepatitis C (%)

High
Low
Viral
Load
Genotype 1
Genotype 2 or 3

Case 1
Case 2