A 34-year-old Man With a History of Bipolar Illness, Substance Abuse, and Metabolic Symptoms

Editor’s Note: This monthly presentation describes a case of a psychiatric disorder, discusses past treatment attempts, offers options for continuing treatment, and explains the reasons the solution was selected. Submissions of interesting psychiatric case reports are now being accepted for this department. Please e-mail soconnor@slackinc.com for further information.

This case was provided by Nivedita Srivatsav, MBBS, volunteer, Veterans Administration Palo Alto Health Care System, Palo Alto, CA, and Nirmaljit Kaur MD, program director, addiction treatment services, Veterans Administration Palo Alto Health Care System.

PATIENT HISTORY

Mr. Z is a 34-year-old, single, unemployed, homeless man who was referred to an outpatient clinic for treatment of mood and psychotic symptoms. His past psychiatric diagnoses include bipolar disorder, currently depressed with psychotic features, and substance-induced mood disorder. He also was diagnosed with amphetamine dependence in early full remission and alcohol dependence in full sustained remission, but he had recently had a relapse of alcohol use.

His medical diagnoses include hypercholesterolemia and gastroesophageal reflux disease (GERD). He has gained 40 pounds within the previous year, 30 of it within the previous 2 months.

Mr. Z was raised by his mother and has one biological sister and brother. There is no family history of any psychiatric illness, including substance abuse, in his family. Mr. Z’s father had adult-onset diabetes.

Mr. Z has never been married and has no children.

Mr. Z had two manic episodes 4 years ago and was diagnosed with bipolar affective disorder. During this time, he was actively drinking but not using any illicit drugs. His episodes of mania were severe and accompanied by paranoia and mood congruent delusions. Since those episodes, he has not had any episodes of mania or hypomania, but he has had multiple episodes of depression.

He had a history of alcohol use beginning at age 19, meeting the criteria for dependence at age 21 with tolerance, withdrawal, and more than intended use. He has had several periods of sobriety, the longest for 9 months. He has experienced manic and psychotic symptoms during his periods of sobriety. His main substance of abuse is amphetamine. He met criteria for dependence at age 29 with tolerance, withdrawal, and legal problems. Regular amphetamine use led to chronic auditory hallucinations and worsening of paranoia. He has had multiple periods of sobriety, the longest for 1 year, during which he had two manic episodes and was diagnosed with bipolar illness.

Mr. Z has had eight psychiatric admissions in the previous 2 years due to worsening paranoia and in relation to the amphetamine use. He has had four suicide attempts, all because of worsening paranoia; three were attempts at self immolation, and once he tried to hang himself.
Mr. Z. has had one trial of fluoxetine and developed hypomanic symptoms while taking 20 mg once per day, so it was discontinued. He was started on 5 mg of olanzapine 1 year before his current evaluation; this was titrated to 20 mg 2 months before presentation.

**PATIENT STATUS**

At the time of his initial assessment at the clinic, Mr. Z. was taking 450 mg of lithium twice per day and 20 mg of olanzapine at bedtime every night. He continued to complain of mood symptoms, including irritability. His weight gain was also a problem.

A review of his medical records showed that his last normal documented cholesterol and triglyceride levels were March 2003, before he began taking olanzapine. His triglyceride levels showed a steady increase since then, the greatest during the previous 2 months, when he began taking 20 mg. He does not have a history of hyperglycemia, and his hemoglobin A1C was normal.

**TREATMENT OPTIONS**

These options could be considered as appropriate management strategies for the clinician:

1. Provide the patient with psychoeducation regarding the effects of illicit drugs and alcohol on mental and physical health.

2. Titrate lithium dose to 1,200 mg per day.

3. Educate the patient regarding weight gain potential and other possible metabolic effects from his medications and encourage healthy diet and exercise.

4. Switch to a different antipsychotic medication.

**TREATMENT CHOICE**

In this case, all the above treatment options were implemented. To control Mr. Z’s mood symptoms, lithium was increased to 1,200 mg at bedtime. Olanzapine was discontinued, and he was switched to 2 mg of risperidone at bedtime. He tolerated this medication change well; his mood stabilized, and he was getting adequate sleep.

Mr. Z also began weight monitoring, included monthly measurements of body mass index, regular monitoring of his caloric intake, and counseling regarding the increased weight gain ability of antipsychotic medications. He was educated about the metabolic side effect profile of antipsychotics, including the risk of weight gain, obesity, diabetes, and diabetic ketoacidosis. He also was educated on the synergistic side effects of weight gain with the medications and was encouraged to maintain a regular exercise program.

Mr. Z also was informed that psychoactive, mood-altering drugs and alcohol can alter mood, behavior, thinking, perception, and memory. There is a strong relationship between drug use and psychiatric problems, and in his particular case, amphetamine use may mimic symptoms of mania and may cause agitation. Stimulant use may lead to increased incidences of violence, impulsivity and other risk-taking behaviors. Chronic use can lead to psychosis, and stimulant withdrawal can lead to depression. In addition, he was educated about the mood-altering properties of alcohol, as well as the health consequences, such as liver and brain damage.

Mr. Z continues to do well. He has been sober and has maintained employment for the past 4 months. He has lost 5 pounds and is actively exercising. This weight loss has improved his compliance with medications and other treatment recommendations, as well as his quality of life. His lipid profile has shown steady improvement after discontinuation of olanzapine (Table).

This case illustrates the importance of regular monitoring of weight, body mass index, lipid, and glucose profiles in patients receiving psychiatric medications. It also highlights the weight gain effects of atypical antipsychotics such as olanzapine. Educating the patient regarding the metabolic side effect profile of these medications is crucial to their stabilization and recovery, both psychiatrically and medically.

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