

PSYCHIATRIC CONSULT

'No energy, no hope,' and no clear diagnosis

Psychotic symptoms worry chronic methamphetamine user

Starting as a regional problem in the southwestern states, methamphetamine abuse has spread to the rest of the country.¹ Commonly known as "ice," "speed," "crank," or "crystal"—to name a few—this synthetically derived stimulant can be used intranasally, swallowed, injected, smoked, or mixed with other drugs.

This case illustrates the type of diagnostic dilemma primary care physicians can see in chronic methamphetamine users. We offer this dialogue to help generalist psychiatrists asked for consultation to unravel the manic, depressive, and substance abuse symptoms that characterize long-term methamphetamine addiction.

Dr. Barnovitz' patient: Addicted to 'meth'

Mr. N, age 26, presented at the county outpatient clinic with a history of daily intranasal methamphetamine use. He told me, "I feel like I'm losing my mind and see no reason to go on." He reported feeling depressed for 7 years and said his primary problem is, "no energy and no hope that things will improve."

Mr. N complained of decreased concentration, and appetite as well as chronic insomnia. He takes no medications and denies drug allergies. He has no history of tobacco, alcohol, or other illicit drug use. He lives with his ex-girlfriend and has been unemployed for 1 month.

For the past 2 weeks he has been unable to speak slowly, and his thoughts have been "racing



This case was submitted by Mary Ann Barnovitz, MD, psychiatry and internal medicine resident in northern California



The consultant is Jaesu Han, MD, assistant clinical professor, departments of psychiatry and family medicine, University of California, Davis. He practices psychiatry and primary care at the Sacramento County psychiatric emergency unit and the Sacramento County primary care clinic

too fast to focus." When I contacted his family (with his permission), they said he is paranoid and persistently claims the FBI is "monitoring his every move."

Medical history. Mr. N has never been treated for psychiatric conditions. He denies auditory, visual, or tactile hallucinations and has no other medical problems. He has used methamphetamines for 5 years, with no period of sobriety. He said, "I don't think I have a problem with drugs and see no reason to stop using." Because of escalating relationship

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Table 1

Symptoms of amphetamine intoxication

Behavioral

Euphoria or affective blunting
 Changes in sociability
 Hypervigilance or interpersonal sensitivity
 Anxiety, tension, or anger
 Stereotyped behaviors
 Impaired judgment
 Impaired social or occupational functioning

Physiologic

Tachycardia or bradycardia
 Pupillary dilation
 Elevated or lowered blood pressure
 Perspiration or chills
 Nausea or vomiting
 Evidence of weight loss
 Psychomotor agitation or retardation
 Muscular weakness, respiratory depression,
 chest pain, or cardiac arrhythmias
 Confusion, seizures, dyskinesias, dystonias, or coma

Source: *Diagnostic and statistical manual of mental disorders, 4th ed., text rev.*

Table 2

Symptoms of amphetamine withdrawal

Dysphoric mood
 Fatigue
 Vivid, unpleasant dreams
 Insomnia or hypersomnia
 Increased appetite
 Psychomotor retardation or agitation

Source: *Diagnostic and statistical manual of mental disorders, 4th ed., text rev.*

problems with his ex-girlfriend, he reported more-frequent methamphetamine use during the weeks before this assessment.

Physical exam. Mr. N was anxious and hypervigilant, with marked psychomotor agitation. He was otherwise well-related and described his mood as “really down,” with a corresponding labile affect. Vital signs were stable with a pulse of 114 bpm.

Neurologic, cardiovascular, pulmonary, and abdominal exam results were normal.

Initial treatment. Despite his depression, I did not think Mr. N warranted psychiatric admission. I started him on paroxetine, 20 mg/d, and referred him for drug rehabilitation.

One week later, Mr. N’s family called me with concerns about his worsening insomnia, depression, paranoid thoughts, and suicidal ideation. I would like help determining if this patient should be admitted for psychiatric evaluation and if symptoms are likely caused by methamphetamine abuse or suggest other psychiatric disorders.

Dr. Han’s consultation

Because of Mr. N’s worsening symptoms and suicidal ideation, I strongly recommend evaluation for inpatient psychiatric hospitalization to allow for methamphetamine detoxification in a safe environment. Ideally, psychotropics would be held and the patient’s mood and psychotic symptoms would improve in a few days, confirming the diagnosis of methamphetamine intoxication.

Acute methamphetamine intoxication (*Table 1*) is associated with euphoria, talkativeness, and psychomotor agitation that can resemble the manic or mixed phase of bipolar disorder. Methamphetamine withdrawal (*Table 2*) is associated with dysphoric mood, disturbed sleep, and psychomotor changes that can resemble

depression.

Close examination shows Mr. N fulfills criteria for:

- a major depressive episode (feeling depressed for 7 years, decreased energy, decreased concentration, insomnia)
- a manic episode (irritability, pressured speech, racing thoughts, psychomotor agitation,

possibly decreased need for sleep).

His contention that the FBI is “monitoring his every move” also introduces a psychotic element.

Mr. N’s presenting diagnosis is amphetamine dependence with a provisional diagnosis of methamphetamine intoxication. Because of ongoing “meth” use, remaining diagnoses to rule out include bipolar disorder, mixed episode with psychotic features, and severe major depression with psychotic features. The drug-induced changes could also be aggravating a primary mood disorder. Obtaining a urine toxicology screen would help document recent intoxication.

Addressing addiction. Diagnostic uncertainty because of continued methamphetamine use makes pharmacologic treatment of mood symptoms problematic. Mr. N’s denial of a drug problem complicates the physician’s job; nevertheless explaining to him how methamphetamine use can contribute to his symptoms is essential. Motivational interviewing (*Box*)^{2,4} may help you override resistance and motivate behavior change in a patient who is not yet contemplating the need to change.

Keep in mind that methamphetamine use can be linked to other risky behavior such as having multiple sexual partners. Thus, consider screening for sexually transmitted diseases, including HIV.⁵ Likewise, despite patients’ claim of only intranasal methamphetamine use, consider assessing for hepatitis C if the physical exam reveals evidence of intravenous drug use.

Mr. N’s symptoms escalated from depressed to suicidal before these interventions could be tried, however. Short-term goals for him now include safety and detoxification. Long-term

Box

How to use motivational interviewing

Motivational interviewing aims to change behavior by helping patients explore and resolve ambivalence. Rather than a set of techniques that are “used on” people, it is an interpersonal style not restricted to formal counseling settings.²

When consulting, recommend the following principles during typical office appointments (5 to 15 minutes) to encourage patients to change destructive behaviors over the long-term:

- Seek to understand the person's frame of reference, particularly through reflective listening
- Express acceptance and affirmation
- Elicit self-motivational statements and expressions of problem recognition from the patient, and selectively reinforce his or her concerns and desires
- Monitor the patient's degree of readiness to change, and avoid generating resistance by jumping ahead of the patient
- Affirm the patient's freedom of choice and self-direction.

Self-training manuals and videotapes of motivational interviewing are available, although 1- or 2-day workshops may be more effective.³ Using the techniques alone or to prepare for more intensive treatment has shown favorable outcomes.⁴ Visit <http://www.motivationalinterview.org> for more information .

goals include diagnosis and treatment of a possible underlying mood disorder and continued abstinence from methamphetamine use.

Deciphering mood disorders. Consider the diagnosis of methamphetamine-induced mood disorder only if symptoms persist or are more severe than would be expected from the pattern of use. Anhedonia and depressed mood usually present in these patients well beyond the typical withdrawal period, but these symptoms persist <1 month.

Mr. N’s paranoid symptoms are likely related to methamphetamine intoxication and should resolve within 1 week of detoxification. In some chronic “meth” users, delusions and hallucina-

tions persist for months or even years and are very difficult to distinguish from chronic schizophrenia. These patients require long-term antipsychotic treatment.

Mr. N does not have a substantial period of abstinence from methamphetamine use for us to evaluate symptom resolution. However, we do have a 7-year history of what he calls “depression” and only 5 years of methamphetamine use. This hints that a primary mood disorder existed before substance use, but even here we must be cautious. His description of depression resembles a mixed episode of bipolar disorder, with both manic and depressive elements.

Further exploring early symptoms and family history with Mr. N and his family might suggest major depression or bipolar disorder preceding methamphetamine use.

Comorbid bipolar disorder. If his pre-drug use history suggests bipolar disorder or he continues to show mixed mood symptoms despite sustained abstinence, adding a bipolar diagnosis would be reasonable. For his depressive symptoms, avoid using an antidepressant alone because of the risk of “switching” to mania. All antidepressants can cause switching—paroxetine in Mr. N’s case—but tricyclic antidepressants are most often implicated.

Try a mood stabilizer such as valproate, 20 to 30 mg/kg/d, or olanzapine, 7.5 to 10 mg qhs. After a therapeutic dose is attained, reconsider adding an antidepressant if depressive symptoms still predominate.

Comorbid depression. If, on the other hand, Mr. N’s pre-drug history suggests major depression and he shows essentially depressive symptoms after abstinence, adding a diagnosis of major depression would be reasonable. In that case, retry an antidepressant such as an SSRI.

The sobriety challenge. After Mr. N is discharged

from the hospital, continued abstinence from methamphetamines will be a priority, whether his mood disorder was drug-induced or primary.

No specific, well-established treatments exist for methamphetamine dependence. Formal treatment programs use cognitive behavioral therapy, contingency management, and a community reinforcement approach. These techniques have been shown

to achieve abstinence and prevent relapse in patients with alcohol, cocaine, and opiate dependence but are not more effective than 12-step community support groups.^{6,7}

Success with 12-step programs requires at least weekly participation. Daily attendance during early recovery may be particularly helpful for Mr. N, who may have excessive unstructured time during his unemployment. The

treatment setting depends on where services are available and the patient’s ability to pay.

Many methamphetamine users relapse within 1 year; thus view drug treatment in the context of a chronic illness rather than a “cure.” A comprehensive approach with continuing treatment and periodic monitoring appointments is essential.

Many meth users relapse within 1 year; view treatment in terms of a chronic illness, not a ‘cure’

References

1. The DASIS Report: Primary Methamphetamine / Amphetamine Treatment Admissions, 1992-2002. Office of Applied Studies, Substance Abuse and Mental Health Services Administration, September 14, 2004.
2. Rollnick S, Miller WR. What is motivational interviewing? *Behavioural and Cognitive Psychotherapy* 1995;23:325-34.
3. Miller WR, Yahne CE, Moyers TB, et al. A randomized trial of methods to help clinicians learn motivational interviewing. *J Consult Clin Psychol* 2004;72(6):1050-62. 4. Dunn C, Deroo, L, Rivara FP. The use of brief interventions adapted from motivational interviewing across behavioral domains: a systematic review. *Addiction* 2001;96:1725-42.
5. Molitor F, Truax SR, Ruiz JD, Sun RK. Association of methamphetamine use during sex with risky sexual behaviors and HIV infection among non-injection drug users. *West J Med* 1998;168(2):93-7.
6. Morgenstern J, Longabaugh R. Cognitive behavioral treatment for alcohol dependence: a review of evidence for its hypothesized mechanisms of action. *Addiction* 2000;95:1475-90.
7. Carroll KM. Relapse prevention as a psychosocial treatment: a review of controlled clinical trials. *Exp Clin Psychopharmacol* 1996;4:46-54.