

Psychiatric Issues in the Management of Patients With HIV Infection

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Case Presentation

A 41-year-old woman was referred to The Johns Hopkins Hospital AIDS Psychiatry Service by the Johns Hopkins HIV Clinic (the Moore Clinic), where she was receiving her primary medical care, and by an affiliated program where she was being treated for polysubstance abuse. The patient was referred for evaluation of possible depression, and she was in danger of being discharged from her substance abuse treatment program because of loud outbursts of temper, shouting at her drug counselor, and continuing illicit drug use.

Throughout her childhood, the patient had had violent outbursts and she had a history of stealing. She performed poorly in school and was expelled from 2 schools for truancy and violence. She reported that she had been "hyper" in school. She was told by physicians that she was "hyperactive" but they did not treat her with any medication. She quit school in the ninth grade when she became pregnant. She briefly held many service jobs but never had steady employment.

As a teenager, she began abusing both alcohol and heroin, and soon added cocaine. Her drug of choice became heroin; she was a daily intravenous heroin user through most of her adult life. She was admitted to more than 8 detoxification programs but never remained abstinent for longer than 6 months. She was arrested countless times and served 3 prison terms. At the time of her first evaluation by the AIDS Psychiatry Service, she was unmarried

and living in the home of an aunt with 2 of her 4 children.

Approximately 1 million persons are now infected with human immunodeficiency virus (HIV) in the United States. Evidence exists that psychiatric disorders are common in patients with HIV and that these patients may not receive optimal care because their psychiatric disorders are a barrier to medical care, communication with clinicians, and adherence to medical recommendations. We describe herein a complex case seen at The Johns Hopkins Hospital with several psychiatric conditions that are common in our HIV clinic population. We describe the collaborative treatment of the patient by a multidisciplinary team including both medical and mental health practitioners. We briefly describe a coherent diagnostic and treatment approach to patients in HIV clinics and the supporting rationale from the literature. We discuss the need for comprehensive evaluation, a multidisciplinary treatment team, and therapeutic optimism.

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The patient had human immunodeficiency virus (HIV) infection, with a CD4⁺ cell count of 0.7/μL. She also had chronic obstructive pulmonary disease. She had a history of thrombophlebitis, subacute bacterial endocarditis, multiple episodes of pelvic inflammatory disorder, and closed-head injury with loss of consciousness. She had no known medication allergies. Her only current medication was methadone, prescribed by her drug treatment program. Mental health professionals at prison and at community mental health services had evaluated her and treated her briefly with psychological counseling and medication trials; the patient was uncertain about what medications she had tried, but reported that none of the treatments had helped her.

On initial presentation to the AIDS Psychiatry Service, the patient complained only of extreme irritability. On examination, however, she was found to have a sleep disturbance, with early wak-

ening every morning, daily mood variation, with mornings always being worse than evenings, and loss of pleasure in almost all the activities that she had formerly enjoyed. She was quite irritable during the interview, storming out of the room twice, only to return moments later. Sometimes she refused to speak; at other times she answered questions with an uncooperative, monotonal "yes" or "no." Her primary care physician later described this as typical for her, and said that she sometimes asked him for narcotics or benzodiazepines, but in an almost careless or insincere way.

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The psychiatry team made diagnoses of major depression, possible attention-deficit/hyperactivity disorder (ADHD), and personality disorder with mixed antisocial and borderline traits (Cluster B in *Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition [DSM-IV]*¹). The team recommended desipramine hydrochloride, and the patient received a prescription for 25-mg tablets with direction to increase her dosage every 5 days as tolerated until she was taking 100 mg each day. She agreed to treatment only because of the threat of losing her place in the methadone treatment program and possibly her parole. She improved quickly on desipramine when her blood level reached the therapeutic range of 150 to 175 ng/dL. She became less irritable, she slept better, and her energy increased. She also reported better concentration and mood. She did well for about 1 year, but then relapsed to drugs and was lost to follow-up.

Three years later, at age 44 years, the patient was admitted to The Johns Hopkins Hospital for treatment of her third episode of subacute bacterial endocarditis. A Hickman catheter was placed because of poor venous access, and intravenous antibiotics were begun. Her first 3 hospital days were uneventful. Then she developed a fever after leaving the floor for a smoke break. A toxicology screen performed along with the fever workup showed evidence of opiate and cocaine use while results of an earlier screen had been negative. When the infectious disease team discussed this with the patient, she insisted on signing out of the hospital against medical advice. Furthermore, she refused to permit removal of the Hickman catheter, insisting that the catheter belonged to her and she would use it to give herself her intravenous antibiotics at home.

Because the patient was cognitively intact and could not be shown to have either psychosis or a plan to harm herself or others, the infectious disease team felt obligated to discharge her; they feared, however, that she was at grave risk for severe sequelae from her endocarditis. Before allowing her to sign out of the hospital, they requested a psy-

chiatric opinion. When the patient was told that she could not leave until she saw a psychiatrist, she called the AIDS Psychiatry Service office from her hospital bed and demanded to be seen immediately by the psychiatrist (G.J.T.), so she could go home.

The resident on the consultation service evaluated the patient. He determined that she was indeed a risk to herself, because her opiate cravings and impulsive nature made it impossible for her to resist using opiates, even while in the hospital with a life-threatening illness.

Based on the resident's evaluation, the attending psychiatrist (G.J.T.) proposed a plan to the infectious disease and psychiatric consult teams and invited them to see the patient as a group. In the group meeting, the patient was told that her endocarditis was life-threatening and she had a mental illness that impaired her ability to make decisions. She was further told that after she recovered, she could make decisions about her health care, and the next time she was sick she could elect to be treated at another hospital, but for the acute phase of her current illness, at least for the next 5 weeks, she would have to complete her antibiotic treatment at Hopkins. If necessary, the team would certify her for involuntary psychiatric and medical treatment to ensure that she received proper care. Then she was offered a choice: she could finish treatment in a locked psychiatric ward, or she could stay on the medical ward if she agreed to a methadone taper, restart of desipramine therapy, and restriction to the ward until she no longer craved opiates (she had long since been discharged from her methadone treatment program).

She chose to remain on the medical ward. Her desipramine was restarted and she was tapered from opiates using methadone. She did extremely well and her endocarditis resolved. She chose to resume treatment at both the AIDS Psychiatry Service and the Moore Clinic.

After discharge, she remained in treatment. She received weekly supportive

psychotherapy aimed (by H.E.H.) at helping her learn to manage her intense feelings without acting on them. Her desipramine level was titrated to a serum level of 150 to 175 ng/dL and adjusted regularly. Her urine was routinely screened for drugs. She rejoined her substance abuse treatment program.

She has been sober since that time. She is doing well on desipramine, with lithium added occasionally to control flares of her depressive illness. She has a CD4⁺ cell count of 0.7/ μ L and no detectable viral load. She has worked part time, as a nursing assistant and providing peer counseling for drug-addicted patients with AIDS. When she received her first-ever income tax refund a year ago, she brought the check to the clinic to show to her therapist. She remains somewhat irritable and demanding, particularly when her depression recurs, but she works to control her temper because she now realizes that it impedes her effectiveness in dealing with patients.

Diagnostic and Treatment Considerations

At the initial evaluation of this patient, we believed that she had major depression, possible ADHD, mixed Cluster B personality disorder, addictions to heroin and cocaine, and severe life stressors. Our treatment plan for this patient sought to combine psychopharmacologic and psychotherapeutic interventions for the maximal alleviation of symptoms and progress toward rehabilitation. Desipramine was chosen for 3 reasons. First, it is an effective antidepressant for which serum levels can be monitored for compliance and used to make meaningful decisions regarding effectiveness. Second, we took the therapeutic position with the patient that desipramine might afford her a marked improvement in sleep and appetite in comparison with other antidepressants, but because of the potential for serious cardiac morbidity in combination with cocaine, she would need to agree to remain abstinent from cocaine and be monitored for relapse. Third, at the time of the ini-

tiation of treatment, desipramine was used widely to treat ADHD in both children and adults based on anecdotal evidence. Several trials since we initiated treatment with this patient have demonstrated this utility.²

Monitoring for cocaine use and desipramine blood levels brought the patient into frequent contact with our group, during which we were able to provide psychotherapy for the patient's life stressors, cognitive-behavioral therapy for the patient's personality disorder, and group psychotherapy for substance addiction. Because all team members, including her medical providers, were aware of the diagnoses and treatment plan, a consistent approach was maintained, and unhelpful, possibly contraindicated, treatment options, such as benzodiazepine hydrochloride or stimulant prescription, regressive psychotherapies, and opioid analgesics for pain, were avoided.

Our purpose in the discussion below is to describe common psychiatric disorders that complicate the treatment of HIV, and to describe our experience in treating patients afflicted with them in a collaborative environment.

DISCUSSION

Identification of the transmission routes for HIV and of behaviors that promote transmission has led to a shift in the epidemiology of new infections. In the face of widespread public awareness of the risk factors, many people have changed their behavior to prevent infection.^{3,4} People who become infected now may have a psychiatric disorder that prevents appropriate risk assessment and behavioral change, making them vulnerable to infection. Disorders such as depression, demoralization, substance abuse, impulsive personality, and cognitive impairment all contribute to this vulnerability.⁵

This shift in the epidemic toward more vulnerable patients has been reflected in the population treated at The Johns Hopkins Hospital. Just more than half of the patients who seek medical care at the Moore Clinic have a major psychiatric disorder other than sub-

stance abuse or personality disorder: 75% have a substance abuse disorder and almost 20% have significant cognitive impairment.^{6,7} This psychopathology affects all elements of patient care in HIV clinics. Untreated psychiatric disorders reduce patients' compliance with medication regimens, trigger behaviors that spread HIV, and "burn out" health care workers.

Four Categories of Psychiatric Disorders

In general, psychiatric disorders may be viewed as falling into 4 categories: brain diseases, personality disorders, disorders of motivated behavior (addictions), and problems that emerge from life circumstances.⁸ The majority of patients seen by the Hopkins AIDS Psychiatry Service have disorders in more than 1 of these categories. The patient described herein has disorders in all 4 categories.

Psychiatric Diseases. This first category is the most familiar to medical professionals. A psychiatric disease is identified by its manifestation in a syndromal form and is presumed to be caused by a structural or functional brain lesion. The psychiatric disease that we see most often in the HIV Clinic is major depression. Although they commonly complain of sleep disturbance or a subjective sense of misery, on careful examination, almost all patients with major depression experience anhedonia, a loss of ability to derive pleasure or satisfaction from the activities that usually provide it. Most patients also have an affective change to a prevailing sad mood, although some feel "flat" or "empty of feelings." Many patients report a diminished sense of well-being, a sense of being ill, and a sense of guilt or self-loathing. Some patients suffer from delusions or hallucinations, usually with a guilty or depressive content reflecting their mood. Almost all patients, including the patient presented herein, have a sleep disturbance, often with early morning awakening. Many patients, again including the discussed patient herein, have a diurnal variation in mood, with

mornings usually worse than evenings. Many patients lose their appetite, often with significant changes in weight. Cognitive impairment, occasionally referred to as *pseudo-dementia* of depression, for it will improve when depression remits, may mimic AIDS dementia. Typically, all symptoms of depression are episodic, lasting a few weeks to months and then resolving spontaneously, only to recur again a few months later; however, depression can also be continuous and chronic.

Unfortunately, the tendency to attribute all the depressive symptoms to HIV itself complicates the diagnosis of depression in HIV-infected patients. Patients explain their mood changes and other difficulties as a product of their illness, and their caregivers accept their assessment and miss the underlying diagnosis of depression. Human immunodeficiency virus infection and some of its treatments can result in neurovegetative symptoms that may mimic depression. In a patient like we have discussed herein, the diagnosis can be challenging. At minimum, the differential diagnosis of a complaint of depression in HIV-infected patients should include major depression, demoralization, dementia, and delirium.

One fifth of patients presenting to our AIDS Psychiatry Service are experiencing a major depressive episode at the time of their first HIV medical evaluation, and we estimate that about 60% of HIV-infected patients have a depressive episode sometime during their illness.^{6,7} These rates are similar to several reports from other centers.^{9,10} Depression increases patients' hopelessness, demoralization, and impulsiveness. Depressed patients have poor adherence to treatment,^{11,12} are more likely to have substance abuse disorders,¹³ are less likely to be able to meet the demands of managing their chronic illness, and have more rapid disease progression and death.^{14,15} Because depression increases the risk of behaviors¹⁶ that lead to acquiring HIV infection, depression itself has become a factor in the HIV epidemic.

At the Moore Clinic, an equal number of patients present with demoral-

ization and with major depression, demonstrating that this reaction to life circumstances is high on the differential diagnosis for depressive symptom complaints.^{6,7} The psychiatric term *adjustment disorder* is used to describe demoralization, an exaggerated grief state in which the patient has a pervasive sense of sadness, low mood, or hopelessness that interferes with usual activities. Demoralization can be difficult to distinguish from major depression, but the distinction is important because demoralization is not a brain disease. Patients with major depression respond impressively to antidepressant medications; those with demoralization may not respond to medications but respond well to psychotherapy alone.

Demoralization is precipitated—and can be explained—by recent events or ongoing life circumstances; this is not necessarily true of depression. The usual symptoms of demoralization are those of other grief states over loss or illness.¹⁷ Patients describe a welling up of their grief, rather than a persistent anhedonia. They can be distracted by and enjoy pleasant activities until they are reminded of their loss; depressed patients cannot. Many demoralized patients feel best in the morning, with their mood worsening through the day; depression generally causes the opposite pattern. If demoralized patients have insomnia, it is often difficulty falling asleep; depressed patients have trouble staying asleep. Both disorders usually improve with time. Unfortunately, demoralization can coexist with major depression and can complicate the diagnosis.

Demoralized patients with HIV may feel sad because of the overwhelming loss, stigma, and helplessness associated with a chronic, progressive, and potentially fatal illness. Like other demoralized patients suffering from grief, demoralized patients with HIV respond well to support, encouragement, education, and time.

AIDS dementia is a subcortical dementia producing a flat apathetic state that can be hard to distinguish from ma-

ior depression and can coexist with it, again complicating the diagnosis. Recognition and early treatment with HAART are imperative because treatment may slow down and even reverse symptoms of the dementia.¹⁸

Delirium, an impairment of consciousness produced by global derangement of brain function, can masquerade as depression by altering patients' emotions. Although the workup of delirium in HIV-infected patients is complex, this state may be best characterized and distinguished from depression by a consistent phenomenology. Delirium has an acute or subacute onset and a waxing and waning course. Core features of the syndrome are inattention and either an alteration in level of consciousness or disorganized thinking. Delirious patients appear intermittently hypervigilant and/or stuporous, and their disorder episodically worsens and improves over hours or a day. Treatment involves identification and removal of the offending problem, such as treatment of acute infection or hypoxia, or discontinuation of causative medication. Patients with delirium may require low doses of potent antipsychotic agents for management of agitation.

In the Moore Clinic, early recognition and effective treatment of major depression with both pharmacotherapy and psychotherapy helps 85% of patients and restores half of them to baseline.¹⁹ An aggressive search for depression and persistent treatment is paramount in helping patients regain a sense of hopefulness about the treatment of their HIV infection. Despite accumulating evidence that depression is a recognizable and treatable disease, it remains the most underrecognized and undertreated psychiatric disorder in patients with chronic medical illness.

Antidepressant medications, while effective in alleviating depression, carry the potential for adverse effects and drug-drug interactions with many medications, including interclass interactions between antidepressants and interactions with antiretroviral drugs. A variety of interactions between antidepressants and HAART have been pro-

posed but most are the result of study of metabolism of individual agents and speculation about competition for or induction of hepatic cytochrome P450 enzymes²⁰ although one study has supported the proposed increase in ritonavir levels in patients receiving fluoxetine.²¹ The therapeutic window for selective serotonin reuptake inhibitor drugs is large, and they can be monitored clinically while with tricyclic antidepressants monitoring blood levels is critical and should be performed whenever the drug regimen is changed.²² Drugs used to treat HIV also may interact with psychiatric medications.²³ Antidepressants should therefore be chosen with consideration for adverse effects and these potential interactions. We have published a fairly comprehensive list of antidepressants with common adverse effects and potential interactions with antiretroviral medications elsewhere⁵; this abridged list is presented herein for convenience (TABLE).

Disorders of Personality and Temperament. Disorders of temperament and personality often baffle and frustrate the most well-meaning and patient of clinicians. Although hard-to-treat diseases can frustrate and anger physicians, the focus of their anger is the disease. With personality disorders, clinicians' frustration and anger are related to the seemingly irrational and deliberately self-destructive behavior of patients.²⁴ Moreover, patients with personality disorders have been shown to have poorer outcomes,²⁵ or at least delays in reaching the desired outcome of treatment,²⁶ which is likely a function of both patient and provider in the treatment interaction.

Descriptions and measurements of temperament are directed at describing people's nature—their natural response to a given problem or situation. An overly simplistic but useful approach to modeling personality has become essential to our ability to help patients in the HIV Clinic. Patients can be characterized most simply in 2 dimensions: stability-instability and introversion-extroversion. Stability-

instability describes how strongly a person responds emotionally to a stimulus, and the breadth of the person's range of emotions. People with unstable emotions get upset over a modest distress, and very distressing events lead them to an intensity of emotion that a person with stable emotions would never reach. Patients with high levels of instability have changeable natures and are difficult to predict. Similar stimuli might produce very different emotional responses. The patient presented herein has an extremely unstable temperament.

The second dimension is introversion-extroversion. Extroverts tend to seek rewards rather than avoid consequences, focus on the present rather than the future, and find feelings more salient than thoughts or function. Extroverts are more likely to act than not to act. In the general population, the distribution of these traits roughly follows a normal curve. The patient presented herein has an extroverted temperament.

Patients at the extremes of the curve are not diseased. Rather, they have a large endowment of a trait that is an asset in certain situations and a liability in others. Extreme extroverts are vulnerable when it is important for them to avoid consequences and focus on the future, like adhering daily to a complex HAART regimen to keep viral load at an undetectable level and prevent development of morbidity. As seen in the case presentation, the patient's unstably extroverted temperament made her vulnerable when being treated for endocarditis. She tried to leave the hospital against medical advice because she was more motivated by the rewards of using drugs through an easy route than by the potential consequences of missing doses of antibiotics and possibly injecting bacteria into a Hickman catheter with a terminus in her right atrium.

Most people fall in the middle of the curve. They can use both extroverted and introverted styles. Many students study for examinations to avoid failing; given a choice between an evening on the town and studying for a test, they

Table. Dose Ranges and Interactions With Human Immunodeficiency Virus (HIV) Medications of Commonly Used Antidepressants*

Antidepressant	Usual Dosage Range	Interaction With HIV Medications
Nortriptyline hydrochloride	50-150 mg at bedtime (therapeutic serum level 50-150 ng/dL)	Fluconazole, lopinavir-ritonavir, and ritonavir increase nortriptyline levels
Desipramine hydrochloride	50-2000 mg at bedtime (therapeutic serum level >125 ng/dL)	Lopinavir-ritonavir and ritonavir increase desipramine levels
Fluoxetine hydrochloride	10-30 mg in the morning	Fluoxetine increases amprenavir, delarvidine, efavirenz, indinavir, lopinavir-ritonavir, ritonavir, nelfinavir, and saquinavir level; nevirapine decreases fluoxetine levels
Sertraline hydrochloride	50-150 mg in the morning	Lopinavir-ritonavir and ritonavir increase sertraline levels
Paroxetine	10-40 mg at bedtime	Lopinavir-ritonavir and ritonavir increase paroxetine levels
Citalopram hydrobromide	20-60 mg in the morning	Lopinavir-ritonavir and ritonavir increase citalopram levels
Nefazodone hydrochloride	300-600 mg/d in divided doses	Nefazodone increases efavirenz and indinavir levels
Venlafaxine XR hydrochloride	75-300 mg in the morning	Lopinavir-ritonavir and ritonavir increase venlafaxine levels
Mirtazepine	7.5-4.5 mg at bedtime	No known interactions
Bupropion SR hydrochloride	100-400 mg/d in divided doses	No known interactions

*XR indicates extended release; SR, sustained release.

drive themselves to study by imagining failure. In contrast, those who go out dancing require an extroverted style; it becomes more fun when one just enjoys it rather than being preoccupied by "trying not to look stupid." Extremely extroverted or introverted people get "stuck" in one style. They discover difficulty when faced with situations that are not suited to their style. Most health care workers tend to be on the introverted side (ie, consequence-avoidant), so they are puzzled by extroverts' insensitivity to consequences. Providers sometimes find the communication gap impossible to bridge because they stress the long-term negatives while patients focus only on their immediate goals.

Three approaches are particularly useful in managing unstable extroverted patients:

1. Reframe all consequence avoidance, so it becomes a reward. For example, "If you don't stop shooting drugs, you'll get sicker," can be reframed as, "If you get off drugs, you'll feel better." The patient in this discussion was offered 2 options: to perform the desired behavior and be rewarded

with more comfortable surroundings, or to not perform the desired behavior and have less comfortable surroundings. The emphasis is on getting the patient to choose the desired behavior as directly linked to the reward.

2. Appeal to the patient's cognitive side, whenever possible. Even though emotions are more salient to extroverts, many have cognitive skills with which they can be diverted if their attention can be gained. Through long-term treatment, this patient's intellectual recognition that she is ineffective when she loses her temper has made her more aware of her temper and her triggers for losing it. She can learn to use this cognitive skill to "walk away" from potential disaster.

3. The treatment plan should be written down clearly and should set firm limits. This most important approach gives all the clinicians a unified set of goals and expectations, and it eventually persuades patients to consider the clinicians' goals. The combined medical and psychiatric teams presented this patient with a treatment plan that pushed her to make better choices for herself by limiting her options to ac-

ceptable (but uncomfortable) and better (and more comfortable).

The goal of treating personality problems is to change a patient's style through a series of gradual behavior changes sustained over several years. Patients make slow, incremental changes rather than an abrupt conversion. To adapt successfully to life with HIV, extremely extroverted patients must change how they respond to problems. Their goals must become directed at health and function. The patient discussed herein may remain vulnerable and her short temper may cause some setbacks, but through a series of interactions like the one we have discussed, she can gradually change her life in a fundamental way.

Addictions: Disorders of Motivated Behavior. Many HIV-infected people have substance use disorders (addictions) that both play a role in disseminating HIV infection and complicate its treatment.²⁷ In patients whose HIV risk factor is injection drug use, the etiologic role of addiction is obvious. Substance abuse plays a broader role in HIV transmission by increasing the risk to the heterosexual partners of injection drug users. In Maryland in 1996, 75% of patients newly diagnosed with HIV were injection drug users or their heterosexual partners.²⁸ Substance abuse is related to other risk behaviors, possibly through disinhibition and poor judgment. Independent of injection use, intoxication with drugs or alcohol has been linked to high-risk sexual activity and high rates of sexually transmitted diseases.²⁹

A simplified model of addiction requires an understanding of the patient's abnormal biological drive and the volitional component that gives rise to the term *behavioral disorder*. McHugh and Slavney⁸ have suggested the term *motivated behavior* to encompass these disorders' biological and volitional aspects. Twelve-step programs cannot ease the symptoms of schizophrenia, but they help plenty of alcoholics stop drinking. This difference distinguishes alcoholism from disease; alcoholism has a clearly volitional compo-

nent. At the same time, alcoholics have an abnormal and difficult-to-control biological drive or craving that is clearly different from other simple drives like the desire to take a walk.

To try to understand this behavior, we may look to animal models of self-administration. In these experiments, an animal pulls a lever a specified number of times to obtain a drug reward. There is a tight correlation between a drug's addictiveness and how hard an animal will work to get a dose of it. For example, an animal may pull the lever thousands of times to get a single dose of cocaine and may endure electric shocks rather than give up the attempt. This experimental finding correlates well with the misery and risk tolerated by addicted humans.

To take the analogy further, one element of these experiments is the drug used, but another is the fact that the animal is in a cage. Normal behavior is regulated by many kinds of positive and negative reinforcers while the caged animal has its repertoire of behaviors narrowed to those available in the cage. One might suggest that some patients are in a cage of sorts. If they have major depression, they are not being rewarded by the normal reinforcers of everyday life such as food, sex, sleep, and work; however, intoxication continues to provide some good feelings or at least transitory relief from misery. If patients are extraverted, rewards are far more salient than consequences, and studies suggest that cocaine is one of the most powerful rewards known.³⁰ If people must live with a demoralizing disorder like HIV, they may have little to hope for in the future and may see drugs as providing their only remaining pleasures. Furthermore, some environments give patients easy access to intoxicants, leading to a habit that is difficult to break.

To stop substance abuse, patients must be removed from the apparatus that constantly reinforces their behavior. Addicts' experience of feeling trapped in the cage is a good analogy. During the first years of sobriety, when patients have only one foot out of the

cage, legal problems, relationships with drug dealers, friends, family, romantic partners, and financial stressors provide strong impetus to return to drug use. The combination of habit, craving, and circumstances make rehabilitation a real challenge. However, there is good evidence that functional life has more rewards than even the most addictive substances. The vast majority of US soldiers who used drugs daily while serving in Vietnam stopped drug use when they returned to the United States.^{31,32} In a sense, without the cage, drugs have far less ability to drive behavior. The freedom afforded outside the cycle of addiction is self-perpetuating, and patients often find that life takes over once they are able to stop their addiction for several months.

The treatment of substance abuse requires a team of determined clinicians with a common plan. Because these disorders are chronic and relapsing, they require a long-term plan rather than a short-term treatment plan. The AIDS Psychiatry Service team coordinated a treatment plan for the patient discussed herein. The plan was designed to detoxify her, maintain sobriety afterward, monitor for relapse, and educate her about triggers for drug use. There was also an attempt to disassemble her cage by treating her major depression, her extroverted temperament, her life circumstances, and her HIV.

Extreme Reactions to Life Circumstances. Patients with HIV infection sustain numerous personal losses, many of them catastrophic. Despite public education, the stigma attached to HIV and AIDS remains enormous. Misconceptions about transmission sometimes lead HIV-infected persons to be treated as outcasts, rejected even by family and friends. Some patients keep their serostatus secret, even from their most intimate partners. Many HIV-infected persons suffer frequent losses as loved ones die from AIDS. Bereavement and reaction to loss cause sadness, hopelessness, and demoralization.³³

Patients can suffer severe reactions when they first learn that they are infected with HIV and again throughout

their course when they learn that their disease has progressed or their CD⁺ cell counts have fallen. Patients are temporarily at greater-than-normal risk for suicidal thoughts and actual suicide just after they get bad news.³⁴ Many people also feel self-pity, victimization, guilt, and imminent mortality; some just feel overwhelmed. As with any devastating news, initial shock and denial can turn to sadness, anger, and a sense of hopelessness. As their illness advances, most patients struggle with pain and inability to care for themselves. Many grieve over loss of employment and other features of independence, as well as impoverishment and social disenfranchisement. Compassionate caregivers can greatly improve demoralized patients' sense of hope and quality of life through counseling, support groups, family groups, family education programs, drop-in centers, and advocacy programs.

Severe demoralization syndromes, described in the "Psychiatric Diseases" section as a contrast to major depression, require psychotherapy by a trained provider to directly address the circumstances or stressors causing the problem. In some circumstances, the underlying psychological issues stem from unresolved conflicts that surface in the setting of HIV diagnosis and treatment, and these conflicts need to be addressed by a person with training in psychodynamic psychotherapy. In other cases, the difficulty arises from the overwhelming feelings provoked by the circumstances of living with HIV, and a cognitive-behavioral approach works well, in which a patient is directed to practice certain behaviors and/or thoughts designed to increase function in the face of adversity. As the patient practices these acts, he or she develops a sense of mastery over the circumstance and an increase in self-esteem. These treatments can evoke intense feelings in patients, and staff with experience in psychotherapy and adequate supervision are necessary for successful outcome.

CONCLUSION

This case presentation illustrates the complex and intense needs of people liv-

ing with HIV. With the increasing emphasis on cost-saving and fiscal management, it is conceivable that this type of patient could be denied care because of high cost and intensive use of medical resources. Despite the expense, she is also the kind of patient who can respond to treatment and benefit from longer-term efforts at rehabilitation.

Psychiatric disorders increase risk behaviors for HIV infection. Data also suggest that HIV causes psychiatric disorders, not just by direct subcortical injury but also through the psychological and sociological repercussions of infection.³⁵ Many HIV-infected patients have psychiatric disorders, including affective disorders (eg, major depression), dementia, addiction, personality disorders, and demoralization. These disorders not only directly impair patients' quality of life, but they interfere with compliance with medical treatment and with modifying risk behaviors. Protease inhibitors and other antiretroviral therapies will have no benefit for patients who are too disturbed by mental illness to take them correctly.

Caregivers' empathic understanding can become a kind of clinical nihilism in which all psychological distress is interpreted as deserving of comfort measures such as support, sedatives, and narcotics, while treatable mood disorders are missed. It can be difficult to diagnose these disorders in HIV-infected patients, and in particular to distinguish major depression from the demoralization caused by the burdens of living with HIV; however, this distinction is crucial so that each disorder can be treated correctly.

Treatment improves mood disorders in HIV-infected patients, even those with advanced AIDS, dementia, or comorbid conditions such as addiction or personality disorder.³⁶ Substance abuse responds to treatment. Personality disorders, though chronic, can be managed so that life can proceed less chaotically and treatment more fruitfully. Life's most trying events can be overcome with support, counseling, and care.

Furthermore, clinicians may raise their thresholds for tolerating bad be-

havior in the clinic as a result of a belief that kindness and acceptance are treatments for an underlying rejection that these patients feel as a result of their stigmatizing illness. This interpretation is the beginning of the slippery road to prescribing sedatives and other comfort measures in response to patient demands, and eventually shaping behavior to get rewards for more acting out. Systematic evaluation of temperamental vulnerabilities and treatment plans that set consistent, firm limits will serve to the greater benefit of the patient, and the expectation of progress and responsibility may be the highest form of acceptance these patients will achieve.

Patients infected with HIV benefit from therapeutic optimism and aggressive treatment of the whole person. Their management requires consultation and liaison relationships between specialties and must include those directed at mental health. With comprehensive care, the toughest patients can surprise even the most jaded clinicians, as we were surprised by this remarkable woman.

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To live is to think.
—Marcus Tullius Cicero (106-43 BCE)