

AIDS and Suicide

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An association between suicide and the acquired immune deficiency syndrome (AIDS) has been noted in several epidemiologic studies. Numerous case reports also support the trend of an increased suicide risk in persons infected with human immunodeficiency virus (HIV) and persons with AIDS. A variety of medical, neurologic, and psychiatric factors may contribute to the death of an HIV patient. I present the case of a 27-year-old man who committed suicide approximately 2

Suicide in patients with the acquired immune deficiency syndrome (AIDS) has been mentioned frequently in the literature over the past several years. A MEDLINE search limited to 1990 through 1994 produced over 40 citations. However, many of these have been in rather obscure journals that would not be routinely read by or available to primary care physicians. It may be that many health care professionals are not aware of the association between AIDS and suicide. Personal experience with a patient who had AIDS and committed suicide prompted the author's investigation of the relationship between these issues. As more primary care physicians are taking care of patients infected with HIV and those with AIDS, it is becoming obvious that mental health issues need to be addressed on a regular basis with these patients. The majority of patients with HIV are living longer because of improved medical therapies, and subsequently are being followed for 5 to 10 years or longer. As an indirect consequence of longevity, there is also a prolonged period during which these patients and their physicians must confront the issue of dying.

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years after he received a diagnosis of AIDS. He had no previous psychiatric history. It is imperative that physicians caring for such patients be aware of the various neurologic and psychiatric manifestations of HIV infection. If appropriate, an assessment of suicide risk should be included in the regular office visit.

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Case Report

A 27-year-old homosexual man, who had learned approximately 18 months earlier that he was HIV-positive, presented with an undefined community-acquired pneumonia treated for 2 weeks with amoxicillin by another physician. The patient was well when first encountered, and his baseline medical and laboratory evaluations were significant only for a CD4 count of 54. He had no previous history of anxiety, depression, or other psychiatric problems. This information was confirmed by a family member. His initial medical regimen included zidovudine, trimethoprim-sulfamethoxazole, mycobutin, and a multiple vitamin. Over the next 18 months, the patient had several occurrences of oral candidiasis, which responded to fluconazole. Otherwise, he remained well and continued to work as a beautician. He had the benefit of a good support system, which included a male companion, two sisters, and his mother. None of these persons were cared for by the patient's physician. Over the next 15 months, the patient was seen by his physician approximately every 6 to 8 weeks for regular follow-up visits and periodic monitoring by laboratory tests. With the exception of a 12-pound weight loss and mild thrombocytopenia, he remained medically stable and continued to work.

Approximately 4 weeks before his death, he was brought by ambulance to the emergency department complaining of acute onset of speech difficulty and right-

sided weakness. His physical examination was completely normal, as were all laboratory studies. Cerebrospinal fluid evaluation was not performed. Results of an electroencephalogram, cranial computed tomography scan, and magnetic resonance imaging of the brain with gadolinium enhancement were within normal limits. Findings by a Holter monitor and echocardiogram also were within normal limits. He was discharged after 48 hours without having received a specific diagnosis. The patient believed he had sustained a seizure.

At his follow-up office visit a few days later, the patient complained of increasing anxiety and short-term memory loss but had no other neurological symptoms. He also admitted to feeling depressed over a self-perceived worsening of his condition. His physical examination was unremarkable. He was given alprazolam for his anxiety, and all regular medications were maintained. A formal assessment for clinical depression was not performed at this visit.

Later questioned, the patient's sister recalled noticing a significant personality change after the hospitalization. According to her, he had become more depressed and fearful of being alone. He feared having another "seizure" yet also expressed a strong desire not to be taken back to the hospital, having "hated" his earlier experience. He had also stopped taking all medications following his discharge from the hospital.

The following week, the patient went to North Carolina for a vacation with several family members. According to his sister, he was initially "very upbeat" about this trip. This attitude carried over into the first 5 days he was away. Two days before he was to return home, she again noted a change in his behavior in that he became more "withdrawn" and "very paranoid." He "appeared weak" and seemed to have trouble walking. He also began accusing a niece of telling her friends as well as several strangers that he had AIDS. On the return trip home, he became anxious in the car. When they were approached by an ambulance, he stated that "the ambulance is coming to take me to the hospital."

The evening on which he returned from vacation, he was found in the bathroom at his sister's house threatening to stab himself with a pair of scissors. The scissors were surrendered, but he refused to go to the hospital or allow the family to contact his physician. He was given alprazolam and remained calm until the following morning. He was driven to his apartment by a brother-in-law. He spoke to his sister and another friend four or five times during that day and agreed to seek medical help the next day. Later that evening, he locked himself in his bedroom and inflicted multiple stab wounds to his anterior chest, which resulted in his death. A postmortem examination by a forensic pathologist ruled the death a suicide. A more

detailed histologic examination including that of the brain was not performed.

Discussion

It has been known for many years that physical illness, especially terminal illness, is associated with an increased risk of suicide. The association between a diagnosis of AIDS and the risk of suicide was found to be increased 36-fold by Marzuk and colleagues¹ in a paper published in 1988. Subsequent work by Kizer² and Rundell³ and their respective co-workers reached similar conclusions. A later study by Rabkin et al⁴ seemed to refute the above information, reaching completely opposite conclusions. The conclusion of this 1993 study of 53 homosexual men in New York City was that there was no increased risk of suicidal ideation or attempt in their patient population: "the dominant theme in this group of men is survival, not suicide." McKegney and O'Dowd⁵ also found a "lower frequency of suicidality and psychological distress" in patients with AIDS. Other data by Cote et al⁶ and Pugh et al⁷ reached different conclusions; the study by Cote and colleagues in particular states a 7.4-fold higher risk for suicide among men with AIDS compared with that of the general population. A 1993 paper by Copeland⁸ reports 25 cases of suicide in persons with AIDS in Dade County, Florida. He found a 9-fold increased risk among this group as compared with the annual suicide rate in that county. Based on retrospective review of death certificates, suicide and AIDS as separate entities have both been underreported. Thus, many of these statistics may actually be higher.⁶

It has been difficult to identify specific risk factors for suicide in patients with AIDS. One complicating issue includes a history of psychiatric illness, especially depression, which may be higher in homosexual men. Other variables include patient age, sex, race, and ethnic background. Deaths ruled as accidental by an overdose of an intravenous drug, such as heroin or a prescribed pain medication, may also represent unreported suicides. A descriptive essay by Dr Richard Selzer in his book *Down from Troy*⁹ details his involvement with an AIDS patient wishing to die by a lethal ingestion of barbiturates. When recently asked about AIDS patients committing suicide, Dr John Stansell, director of the San Francisco General Hospital AIDS Program, stated, "It happens every day . . . we shouldn't be afraid of talking about it or ashamed of offering it."¹⁰ Dr Thomas Coates, a psychologist at the University of California, San Francisco, noted that "at some time in the course of their illness, 100% of my HIV-infected patients have thoughts about suicide. It is on their minds and is often a great relief for them to be

able to talk about it . . . death remains difficult but also heightens the intensity of relationships." It is likely that many other physicians have had similar experiences with their terminally ill patients, whether from AIDS, metastatic cancer, or chronic lung disease.

There may be at least two periods when HIV-positive patients are at high risk for suicide. The first is soon after testing positive; this news can have a devastating effect. One study of US Air Force members found that four of seven attempted suicides were within the first week of notification.^{11,12} This makes a very strong case for the importance of pre- and posttest counseling rather than simply routine testing, which is becoming more common in a variety of clinical settings.

A second period for increased suicide risk is late in the illness, usually when the patient actually has AIDS. In this circumstance, the risk may be due to a combination of factors, including the direct effect of the virus on the central nervous system (CNS). HIV may result in at least six neuropsychiatric syndromes, including anxiety, depression, mania, delirium, paranoia, and acute psychosis.^{12,13} These symptoms may occur alone or as part of the AIDS dementia complex (ADC), which is characterized by a triad of cognitive, motor, and behavioral dysfunctions and is probably the most common CNS complication of HIV infection.¹⁴ Decreased memory and concentration are often early clinical manifestations of ADC, but frank organic psychosis or other forms of psychiatric dysfunction may occur as early or late symptoms. Because the distinction may be difficult for most clinicians, most experts feel that ADC should be a diagnosis of exclusion after ruling out other organic conditions, especially opportunistic infections, progressive multifocal leukoencephalopathy, or lymphoma. With the improvement in antiretroviral therapies, it is hoped that ADC may become less common or at least less severe.¹⁴

Looking at severe psychiatric illness alone in HIV patients, reports by Buhrich¹⁵ and Rundell¹⁶ and their respective colleagues from the mid-1980s documented paranoia and psychosis in patients with AIDS. Halstead et al¹⁷ reported five cases of extreme psychosis in HIV-positive men, none whom had any previous psychiatric history. One of these five committed suicide by jumping from a window 7 days after the onset of psychotic symptoms. Other very similar isolated case reports can be found in the medical literature.^{18,19}

It is also worth noting that medications frequently used to treat patients infected with HIV, such as zidovudine, amphotericin, sulfonamides, isoniazid, and ciprofloxacin, may cause psychosis and hallucinations.¹² However, since the patient described above had stopped all medications several weeks before his death, it is unlikely that his symptoms were drug-related.

Less well-defined psychosocial factors, such as the loss of family support, employment, financial resources, and physical functioning, and the fear of pain and suffering, may all contribute to a patient's decision to end his or her life. These issues would be more significant in a patient with an underlying or secondary depression.

The patient's memory loss and weakness are suggestive of the AIDS dementia complex, which, in a minority of cases, can include agitated organic psychosis as an early clinical feature.^{12,14} In retrospect, acute organic psychosis may have been the reason for this patient's suicide. Unfortunately, a neuropathologic examination was never conducted to determine the degree to which the virus affected the CNS. A secondary infection or other organic CNS process is another possibility, although this patient did not manifest any overt signs of this occurring. The MRI done 5 weeks prior to the patient's death was reviewed postmortem by a different radiologist, again with no focal or generalized findings, such as cerebral atrophy or white-matter disease.

Conclusions

Despite the varying opinions in the medical literature, the high incidence of suicide in patients infected with HIV must be taken quite seriously. Physicians caring for these men and women need to be aware of their thoughts about the terminal nature of their illness and death in general. Moreover, the disease presents numerous ethical problems for both physician and patient. As a starting point, physicians should attempt to assess the emotional status of all persons who undergo HIV testing. Ongoing psychological assessment of the patient's risk for depression and suicide should become part of the routine visit for patients who are HIV-positive or who have AIDS. A mental-status examination may be helpful to screen for early signs of ADC and to determine the need for further testing, more intensive follow-up, and possible medical intervention. When an HIV-related neuropsychiatric disorder is suspected, primary care physicians should consider early referral to a mental health colleague. Medical intervention with drug therapy, psychotherapy, or counseling is of definite benefit to patients with AIDS, for whom advances in antiviral therapy and prophylactic antimicrobials have afforded increased longevity. Despite small victories in the treatment of HIV-related disease, however, it remains for now a terminal illness. As with all other terminal conditions, suicide will continue to be considered an option by patients infected with HIV. It is our role as primary care physicians to attempt to prevent this course of action among this patient population.

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