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Exploring mania in HIV-positive individuals: Case studies and clinical considerations

EL FELLAH SARA *, ADALI IMANEA and MANOUDI FATIHA

Research Team for Mental Health, University Psychiatric Service Ibn Nafis Hospital, Mohammed VI University Hospital, Marrakech. Morocco.

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Abstract

Mania in HIV-infected individuals, though uncommon, can occur at any stage of the infection, from asymptomatic seropositive to symptomatic AIDS and HIV indicator conditions. This article presents three case reports highlighting the clinical complexities and treatment challenges of manic episodes in HIV-positive patients. The first case involves a 50-year-old male with a history of bipolar disorder, who developed symptomatic AIDS with a manic episode. The second case details a 20-year-old female presenting with secondary mania likely induced by antiretroviral therapy and advanced HIV infection. The third case describes a 37-year-old female who manifested manic symptoms following the revelation of her HIV status, alongside significant cognitive deficits. These cases underscore the need for thorough physical examinations, high suspicion for organic causes, and tailored treatment strategies for managing mania in HIV-infected individuals. They also emphasize the potential for early cognitive impairment and the importance of developing appropriate treatment guidelines for this population.

Keywords: Mania; HIV Infection; Bipolar Disorder; Antiretroviral Therapy; Psychiatric Complications

1. Introduction

Mania in HIV-infected individuals, although rare, presents a significant clinical challenge and can manifest at any stage of the infection, from the asymptomatic seropositive phase to symptomatic AIDS and advanced HIV conditions.

Recent advancements in HIV treatment have extended the lifespan of patients, thereby increasing the likelihood of encountering neuropsychiatric complications such as mania.

The etiopathogenesis of mania in HIV-positive patients is multifactorial, involving direct viral effects on the central nervous system, opportunistic infections, and potential side effects of antiretroviral therapy.

Contemporary studies have also highlighted the correlation between manic episodes and subsequent cognitive impairments, necessitating vigilant clinical monitoring and comprehensive management strategies.

This article explores the intricate relationship between HIV infection and mania through three detailed case reports, emphasizing the importance of early recognition, accurate diagnosis, and individualized treatment approaches to improve patient outcomes.

* Corresponding author: El Fellah Sara

2. Case 1

Mr. T, a 50-year-old male from a rural middle socio-economic background, presented with a history of psychiatric symptoms. 20 years prior, he experienced an episode of depression, and 10 years ago, he had an episode of mania, both of which remitted spontaneously without intervention. There was no contributory family history of psychiatric illness. However, Mr. A reported multiple premarital unprotected encounters with multiple partners.

He was brought to the psychiatry outpatient department with symptoms persisting for 3 weeks, including restlessness, heightened activity levels, argumentativeness, overfamiliarity with strangers, excessive loud speech, expansive career plans, and disturbed sleep. Additionally, he exhibited excessive cheerfulness, spent impulsively, started consuming alcohol (previously abstinent), and became preoccupied with his appearance. These symptoms had a subacute onset and were progressively worsening. Significant weight loss was also noted since the onset of these symptoms.

Upon physical examination, signs of oral candidiasis, generalized lymphadenopathy, and coarse crepitations in both lung fields were observed. Cognitive functions appeared grossly intact during clinical testing. However, Mr. T displayed prolixity of speech, grandiose ideas, and a euphoric affect with a lack of insight. Laboratory investigations confirmed HIV infection through an ELISA test. A chest X-ray revealed diffuse bilateral infiltration suggestive of pneumonia, sputum tests were negative.

A diagnosis of AIDS with bipolar disorder, currently in a manic phase was considered. A differential diagnosis of secondary (organic) mania was also considered but deemed less likely due to his history of past episodes. The patient was treated for infections with antibiotics and antifungal agents. The manic episode was managed with lithium at a dosage of 1200 mg/day (serum lithium level of 0.92 mEq/L), haloperidol 7.5 mg/day, and lorazepam 2,5 mg/day. Over the next four months, Mr. T showed significant improvement in his manic symptoms.

However, after four months, he began reporting pervasive sadness, fatigue, loss of interest in most activities, ideas of helplessness and hopelessness, death wishes, and psychomotor retardation. He became socially withdrawn and exhibited a depressed affect, reduced reactivity, and depressive cognitions upon examination. A diagnosis of bipolar depression was made, and the lithium dosage was increased to 1600 mg/day (as the serum lithium level on 1200 mg/day was 0.6 mEq/L). With this adjustment, Mr. A improved and has been on regular follow-up for the past year without any signs of relapse during clinical evaluations.

3. Case 2

Ms. N. 20-year-old female from a middle socioeconomic background, with no family history of psychiatric illness, was referred to the psychiatric emergencies for abnormal behavior of 10 days duration. She had been under the care of a physician for nearly 2 years due to cerebral toxoplasmosis, associated with her HIV seropositive status and a CD4 lymphocyte count of 100 cells/mm^3 (normal range: 290-2600 cells/mm^3).

Approximately 5 months before her psychiatric consultation, antiretroviral therapy (ART) was initiated but discontinued by Ms. N after experiencing two episodes of seizures. During her current admission, she was restarted on ART, including zidovudine and lamivudine, along with diphenylhydantoin about 3-4 days before the onset of her psychiatric symptoms.

Ms. N's psychiatric symptoms included excessive and loud talk, pervasive and persistent irritability over trivial provocations, increased religiosity, grandiose ideas, and hallucinatory behavior. These symptoms significantly impaired her social, occupational, and biological functioning. Mental status examination revealed distractibility, increased talkativeness, religious preoccupations, predominantly irritable and euphoric affect, and lack of insight.

A psychiatric diagnosis of secondary mania (organic or drug-induced) with mood-congruent psychotic symptoms was made. Primary mood disorder was considered unlikely due to the absence of past or family psychiatric history and the literature evidence linking mania with HIV infection and ART. Reports have documented mania associated with both advanced HIV infection and zidovudine therapy. In Ms. N's case, it was posited that both her advanced HIV iand the initiation of zidovudine contributed to her manic symptoms.

Ms. N's symptoms partially improved with the administration of risperidone 4 mg/day along with antiparkinsonian agents over a period of two weeks. Despite the psychiatric complications, the ART was continued after evaluating the

risk-benefit profile. On follow-up, Ms. N showed improvement in her psychiatric symptoms, and no cognitive deficits were observed during or after her recovery from the manic episode.

4. Case 3

Ms. C, a 37-year-old female from an urban background, presented with a complex medical and psychiatric history. She had no past or family history of psychiatric illness. She came to the hospital with a 6-month history of fever, dry cough, loose stools, nonspecific abdominal pain, significant weight loss, and three months of amenorrhea. Initially, she sought help from a traditional healer, during which she experienced a possession attack. This event prompted her visit to our university hospital.

Upon her admission, physical examination revealed generalized lymphadenopathy, hepatosplenomegaly and coarse crepitations in both lung fields. Laboratory investigations confirmed her HIV-positive status. Further examinations showed the presence of Cryptosporidium oocysts in stool, diffuse infiltration on chest X-ray, and positive sputum results for acid-fast bacilli. A diagnosis of AIDS with multiple opportunistic infections was made, and appropriate treatments were initiated.

During her hospital stay, Ms. C was informed of her HIV status. This revelation initially led to her becoming withdrawn, experiencing crying spells, and expressing feelings of guilt. Her sleep was disturbed. About four days later, Ms. C began exhibiting excessive talking, irritability, and a switch in her language from Kannada to English. She reported that the traditional healer was performing black magic on her and believed that God was protecting her and she would be cured soon.

Mental status examination revealed pressure of speech with prolixity, irritability, well-systematized delusions of persecution with grandiose elements, and absent insight. A psychiatric diagnosis of secondary manic episode was made, given the late age of onset, lack of past or family psychiatric history, and the clear temporal correlation with the revelation of her HIV status.

Ms. C was managed with haloperidol (5-8 mg/day) and lorazepam 5mg\day.

Over the next three months, her manic symptoms gradually improved. However, during follow-up, she exhibited impaired concentration, slowed mental activities, and deficits in calculation and new learning, despite the absence of prominent mood symptoms or active neurological infections. These cognitive deficits were consistent with those widely reported in HIV-seropositive individuals.

5. Discussion

Mania in the context of HIV infection, while uncommon, poses significant challenges. The cases presented illustrate various aspects of this complex relationship and underscore the need for meticulous clinical evaluation and individualized strategies.

Case 1 reflects the intersection of a pre-existing bipolar disorder and HIV infection. The patient's history of sporadic affective episodes over many years was complicated by the onset of symptomatic AIDS. The rapid cycling of mood episodes within a short span post-HIV diagnosis suggests a possible exacerbation by the infection itself. This highlights the necessity for clinicians to maintain a high index of suspicion for underlying organic conditions in psychiatric presentations. The successful management with mood stabilizers and antipsychotics, coupled with treatment for opportunistic infections, underscores the importance of a comprehensive, integrated approach.

Case 2 involves a young woman with no prior psychiatric history, whose manic symptoms emerged shortly after restarting antiretroviral therapy (ART) with zidovudine and lamivudine, in the context of advanced HIV infection. The onset of mania in the absence of a family or personal psychiatric history points towards a secondary (organic) mania, likely induced by the ART or the advanced stage of HIV. This case underscores the need for careful monitoring of psychiatric symptoms in patients undergoing ART, and the importance of weighing the benefits and risks of continuing ART in the presence of such complications. The partial improvement with risperidone highlights the role of antipsychotic treatment in managing secondary mania.

Case 3 demonstrates the psychiatric sequelae following the disclosure of HIV status. The patient, previously without psychiatric history, developed manic symptoms characterized by grandiosity and persecutory delusions, following an

initial depressive reaction to the diagnosis of AIDS. This case exemplifies the psychological impact of HIV diagnosis and the potential for secondary mania. The presence of cognitive deficits post-manic episode aligns with current knowledge about HIV-associated neurocognitive disorders, which can manifest even in the absence of active mood symptoms or overt neurological infections. The successful management with antipsychotics and careful follow-up for cognitive impairment is indicative of the need for long-term neuropsychiatric care in HIV-infected individuals.

The occurrence of mania in HIV-infected patients has significant prognostic implications. It not only complicates the clinical management but also impacts the patient's quality of life and adherence to treatment. The potential for increased cycle frequency in bipolar disorder, as seen in Case 1, the possibility of ART-induced mania in Case 2, and the psychological impact of HIV status revelation in Case 3, all highlight the multifaceted nature of this issue. Moreover, the risk of subsequent cognitive deficits necessitates vigilant monitoring and early intervention.

6. Conclusion

In conclusion, the relationship between HIV infection and mania is intricate, involving direct viral effects, treatment side effects, and psychological responses to the illness. These cases underscore the critical need for a multidisciplinary approach, incorporating psychiatric, medical, and neurocognitive assessments, to effectively manage mania in HIV-infected individuals. Developing comprehensive treatment guidelines and increasing awareness among healthcare providers are essential steps towards improving patient outcomes in this vulnerable population.

Compliance with ethical standards

Disclosure of conflict of interest

No conflict of interest to be disclosed.

Statement of informed consent

Informed consent was obtained from all individual participants included in the study.

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