

## HIV Mania as a Marker for Clinical Deterioration in AIDS

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### ABSTRACT

*HIV infection continues to be a significant health problem in the Caribbean region. With the availability of antiretroviral drug treatment, it is becoming increasingly important to identify clinical markers for deterioration from infection to disease. Psychiatric symptoms are well recognized as a complication of HIV infection. Three cases are presented to suggest that the occurrence of HIV related mania may herald the transition from HIV infection to AIDS. This is relevant in assessing the course of the disorder and could indicate that the psychiatric manifestation of neurotropic infection represents a distinguishing marker for the diagnosis of AIDS perhaps before other clinical signs are evident.*

## La Manía en la Infección por el VIH como Marcador de Deterioro Clínico en el SIDA

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### RESUMEN

*La infección del VIH continúa siendo un importante problema de salud en la región del Caribe. Con la disponibilidad de tratamiento de droga de antiretroviral, está poniéndose en aumento importante para identificar los marcadores clínicos para el deterioración de la infección enfermar. Se reconocen bien los síntomas psiquiátricos como una complicación de infección por VIH. Sin embargo, se presentan tres casos para sugerir que específicamente la manifestación de manía relacionada con el VIH puede tener importancia clínica en anunciar la transición de la infección por VIH a SIDA. Esto tiene relevancia en cuanto a evaluar el curso del trastorno y podría indicar que la manifestación psiquiátrica de infección neurotrópica representa un marcador distintivo para el diagnóstico del SIDA, quizás antes de que cualquier otra señal clínica se haga evidente.*

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### INTRODUCTION

Manic symptoms occurring in HIV disease are a well recognized complication of HIV infection of the central nervous system (1). Mania, presenting as hyperactivity, euphoria and grandiose delusions can also be part of the AIDS dementia complex (2). These patients do not have any previous history of psychiatric illness or indeed any family history. They must also be distinguished from those who have an increased morbidity of HIV related illness because of a pre-existing psychiatric condition compounded by drug use who do not

access physical health services or are compliant with their medication when they do (3).

In one early review, manic symptoms were described as tending to occur in patients already exhibiting signs of immunodeficiency; conversely, the initial occurrence of manic symptoms may also result in the discovery of the infection with HIV (4). Hypomania has also been described as likely to accompany HIV-related encephalopathy (5, 6). Mania, psychosis and dementia are thought to be indicative of evidence of central nervous system involvement in HIV infection and are estimated to occur in a range of 4–12% of HIV positive individuals (7). Other co-morbid psychiatric syndromes such as anxiety and depressive disorders may occur because of the psychological distress associated with the knowledge of being infected with HIV as well as they may be a manifestation of nervous system involvement.

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These disorders are estimated to occur in over 30% of HIV positive individuals (8). Recognition of these psychiatric disorders is therefore likely to signal the evolution of the disease from asymptomatic infection.

This underscores the importance of recognizing the relationship between psychiatric symptomatology and underlying medical illness. This relationship is frequently under-recognized and leads to delay in the effective and expeditious treatment of the medical condition. This is especially significant for physically and socially debilitating illnesses such as HIV/AIDS. It is also important to acknowledge that the occurrence of these psychiatric symptoms in the context of demonstrable central nervous system pathology underlines the primary role of the brain in the genesis of these symptoms.

Three cases are reported in which the onset of manic symptoms heralded the transition from asymptomatic HIV infection to AIDS. These emphasize that psychiatric signs are an important indicator in the course of disorders that affect multiple organs and their assessment may be of great prognostic value.

### Case Reports

Case 1 was a 32-year-old man who had been HIV positive for over ten years and had remained physically well until he developed chronic insomnia accompanied by overactivity and restlessness one year previously. He worked in a job that required occasional night work and had no previous or family history of psychiatric illness. He then presented with an acute exacerbation of the overactivity, impaired judgment and aggression, as manifested by overturning chairs in his office, claiming to have been denied promotion. On examination, he exhibited pressure of speech and flight of ideas. Cognitive assessment revealed a Mini Mental State Examination score (MMSE) of 27 which is within the normal range. He was then admitted to a psychiatric hospital and his symptoms of mania settled quickly on treatment with risperidone and sodium valproate. At this stage, he remained physically well. He was discharged after four days of hospitalization, but within one week of discharge, he developed neurological symptoms of tonic paraparesis and disorientation. A repeat MMSE revealed that his cognitive function had deteriorated to 18, indicating mild to moderate cognitive impairment. He was admitted to the General Hospital where he died within one week having also developed a pseudomonas pneumonia. He had never been treated with antiretrovirals.

Case 2 is a 22-year-old man who acquired HIV infection at the age of seven years after a blood transfusion for a haematological disorder. He continued to be treated for the haematological disorder but showed no signs of complications related to HIV. He began complaining of insomnia over a two week period prior to psychiatric presentation and this evolved into symptoms of overactivity, statements of his grandiose ability and identity and extreme

irritability when his demands for money to buy extravagant presents were denied.

There was no previous personal history or family history of psychiatric illness. When referred for psychiatric treatment, he exhibited grandiosity, expansive mood, pressure of speech and flight of ideas. Cognitive function at this time revealed a MMSE of 28 (within the normal range). He responded quickly to the combination of risperidone and sodium valproate and was cared for at home by his family. However within two weeks of this psychiatric presentation, he developed a severe pneumonia which resulted in his admission to the General Hospital where HIV-related AIDS was diagnosed. He was treated with combination antibiotics and started also on antiretroviral therapy. While his manic symptoms had by this time almost completely resolved, he exhibited ongoing cognitive deterioration with his MMSE score declining to 15. He succumbed as a result of multiple chest infections three weeks later, that is, seven weeks after he had first complained of insomnia.

Case 3 is a 30-year-old man who was diagnosed with HIV infection after a one year period of weight loss and feelings of general malaise. Within one month of diagnosis, he presented with manic symptoms of grandiose ideation accompanied by auditory and visual hallucinations which served to inform him of his great healing powers. He was admitted to the psychiatric hospital. He also exhibited overactivity and irritability particularly when told to desist from trying to heal other patients. He was placed on antipsychotic medication and the manic symptoms resolved quickly. However, his MMSE was found to be 20 at the time of admission and while the manic symptoms resolved, the MMSE declined to 16 within one week. He then developed a gastrointestinal infection and after discharge was eventually admitted to a private general hospital where he was treated for the infection and started on antiretrovirals. He died six months later, after repeated hospitalizations for these infections.

### DISCUSSION

These cases highlight the intimate relationship between psychiatric symptoms and HIV-related pathology. They suggest that patients with first onset manic symptoms should always be investigated for HIV infection, particularly when insomnia is a prominent feature. This should be undertaken even when there is no evidence of known HIV risk factor exposure. Screening for manic symptoms in HIV and sexually transmitted disease clinics should also be considered to detect changes in the progression of the infective illness. This might be particularly valuable in countries where laboratory resources are limited.

Aggressive treatment of the psychiatric symptoms and early initiation of antiretroviral therapy may foster quick and effective recovery and further ensure a longer period of symptom free existence (9). Control of manic symptoms is also important as it may be associated with promiscuity and

substance abuse which may also facilitate the spread of HIV infection. The antipsychotic risperidone has been reported to be effective in the treatment of HIV-related manic psychosis (10) and this is supported by the evidence from these reported cases.

Late onset presentations associated with high viral loads are likely to have cognitive impairment when compared to earlier onset and lower viral loads (11). This is also consistent with the rapid cognitive deterioration observed after initial presentation with manic symptoms. It would appear that a rise in viral load increases the risk of direct central nervous system involvement and the risk of developing manic symptoms with subsequent cognitive decline. In all of the cases described, the use of antiretroviral therapy began after the manic symptoms had resolved and this may have contributed to the negative outcomes.

The association of mania with this transition from asymptomatic infection to advanced disease also supports the notion that there is a strong underlying organic basis to manic symptomatology. This idea was initially described as Bell's mania and recently revived as manic pseudo-delirium (12). In this context, mania sometimes presents in a manner that is indistinguishable from an organic brain syndrome although there is no underlying intracerebral damage.

In summary, early recognition and treatment of manic symptoms and concurrent institution of antiretroviral therapy may enhance the chances of a longer period of good health and decrease the rate at which mortality ensues in HIV related illness (13).

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