Delusional Infestation: A case of Ekbom syndrome in an elderly woman with a long history of HIV

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Abstract

A 70-year-old female presented with a long history of HIV and five years of disturbing delusions of infestation that impaired her functioning. The delusion resolved with haloperidol but was followed by depressive symptoms. The case presents the complexity of managing neuropsychiatric manifestations of elderly patient with HIV/AIDS and medical comorbidities

Introduction

Ekbom syndrome is a delusion of infestation characterized by a fixed false belief that a person is infected with living or non-living organisms, which persists for at least one month(1). For the diagnosis, the patient must believe that they are infected with insects despite evidence to the contrary, and there are aberrant cutaneous sensations attributable to these beliefs(2).

Patients usually decline psychiatric treatment and are treated mainly by non-psychiatric experts, particularly dermatologists, for several years before psychiatric evaluation(3). Females are more affected than males(4) and the peak age of onset ranges from 55 to 68 years. However, it can also develop among teens, and recreational substance use has been linked with the etiology of symptoms among individuals between the ages of 20 and 40(5).

The patients usually experience body itching accompanied by compulsive scratching with nails, needles, and razors and also complain of insects crawling on their skin, where patients may even carry containers to the doctors to prove their conviction(6). The use of both conventional and atypical antipsychotics is effective in treating a delusional of infestation, and depot antipsychotics also result in considerable symptom remissions in case of poor adherence(7).

This is a case of a 70-year-old female with a 17-year history of living with HIV and hypertension for 25 years. A dermatologist referred her with a five-year history of progressive disturbance in functioning due to perceptions of generalized body itching attributed to a firm belief of being infested with insects that lead to intense compulsive body scratching behavior. A low dose of haloperidol was effective in alleviating psychotic symptoms; however, she developed severe depressive symptoms a few weeks later, which also resolved after several months of treatment.

CASE REPORT

KK is a 70-year-old female with a known history of living with HIV for 17 years and on hypertensive medications for 25 years. She was referred for psychiatric consultation by a dermatologist because of a robust unsubstantiated belief that her body is infested with insects “ants”. The symptoms progressively worsened

for five years, with the main complaint of generalized body itching, which she attributes to crawling insects all over her skin. She insisted that she could see "the yellow colored ants coming out of my body through the eyes, ears, armpits, abdomen, thighs and legs" and even demonstrated by picking and crushing them in front of the doctor.

The crawling sensations usually start immediately after waking up in the morning or even wake her up from sleep, and the symptoms wane over the day. She reports that the experience is so distressing that she developed a ritual of killing the "bugs" and collecting and flashing them in the toilet; however, corroborative history from relatives affirms that she actually removes skin debris which she firmly believes to be "the crawling insects."

She avoided sharing a bed with others and washed them separately to avoid contaminating other people's clothes. She also avoids being in public gatherings, including church, for fear of being seen "scratching herself too much" and mostly wears long-sleeved clothes to hide the scratch marks. Although she claimed to "see and feel the bugs," she denies people close to her having the same experience. She has been to several hospitals, and spiritual and religious leaders for treatment without any improvement. However, she recalls being told by the doctors that she had "this experience" because her "brain perceives differently." Further interviewing revealed no evidence of mood disorders, anxiety disorders, hypochondriacal symptoms, obsessive-compulsive disorders, or primary psychotic disorders, and her past psychiatric history was uneventful.

Her past medical history is positive for hypertension of twenty-five years, for which she currently she is stabilized on carvedilol. She also has a seventeen-year history of living with HIV for which she has been on a TLD (Tenofovir, Lamivudine, Dolutegravir) regimen for three years; before using this, she was on Tenofovir, Lamivudine, and Efavirenz for at least three. There is no history of HIV-associated opportunistic infections since the diagnosis.

Physical examination revealed old and new excoriated lesions and scars of different sizes and shapes all over the body except for the neck and face.

Mental status examination findings were unremarkable except for her preoccupation with removing ants from her body and complaining of feeling "the bugs crawling over my skin" and "I see them come out."

On neurocognitive assessment, she scored 26/30 in Montreal Cognitive Assessment (MoCA), missing three points on attention and a point on language fluency. In comparison, on the International HIV Dementia Scale (IHDS) scale, she scored 8/12, missing two points for motor and two points for psychomotor speed.

Laboratory investigations included a CD4 count of 747cells/μl (37.67%) and hemoglobin level (12g/dl), while thyroid function, hepatic and renal function test, and MRI, were all within normal range.

The diagnosis of psychotic disorder due to another medical condition, Ekbom syndrome, was made.

The patient was kept on Haloperidol 1.5mg orally twice daily for one month, resolving her delusional symptoms within the first two weeks. Upon follow-up two months later, she presented with a two weeks history of severely depressed mood persisting nearly every day accompanied by loss of interest, difficulty initiating and maintaining sleep, loss of appetite, and hopelessness. She also experienced suicidal thoughts during the period and had one unsuccessful attempt by ingesting metronidazole tablets in excess.

By her own account, she attributed the suicidal attempt to feelings of worthlessness and hopelessness, saying that she is a "burden to her family," "feeling not as strong as her usual self," and that she "can no longer comprehend her current situation." She was preoccupied with self-deprecating thoughts and guilt for what happened many years back, including the regret of how she convinced her dying husband to write the will in her name to "remain with all the assets" they accrued while married. These symptoms were accompanied by irrational worries when left alone, making her follow the housemaid everywhere and could not sleep alone.

Diagnosis of MDD with anxious distress was made, and the patient was kept on Fluoxetine 20mg tablets in the morning and continued with tablets of haloperidol 1.5mg once at night. Psychoeducation and supportive psychotherapy were done, and Cognitive behavioral therapy (CBT) was initiated. Two weeks later, although

she was still "sad," there was some improvement and no suicidal ideation; she continued with medications and CBT. Since then, the patient has been steadily improving and able to return to the previous functioning. It is now nine months since the first visit, and there has been no incidence of a significant episode of depression or psychosis.

Discussion

The onset of delusion of infestation several years after the diagnosis may pose a challenge in causal linkage within the natural cause of HIV/AIDS because of the multifactorial nature of Ekbom syndrome. Nevertheless, the diagnosis of a psychotic disorder (Ekbom syndrome) due to another medical condition is met as per DSM-V criteria. Ekbom Syndrome may develop following dementia or other organic diseases(8), and the presence of HIV significantly increase the risk(9).

The ritualistic skin picking and subsequent lesions may suggest skin excoriation disorder. However, the presence of an unshakable conviction of being infected by living things supports the diagnosis of delusion of infestations, specifically Ekbom syndrome(9)and no other variant known as Morgellons disease of which an individual believes to be infested with inanimate objects like hairs, strands or fibers(10)

Although there was no overt CNS opportunistic infection, the objective assessment suggested CNS involvement manifesting as HIV-associated neurocognitive disorders. While cognitive assessment with MoCA showed no significant decline, the assessment with IHDS showed significant deficit, particularly in motor and psychomotor functioning, attributable to slow information processing speed as one of the most common cognitive impairments in HIV Associated Neurocognitive Disorder(HAND)(11). This suggests the specificity and strength of IHDS in screening for subcortical cognitive deficits, which are typical in HIV(12). Cognitive impairment (CI) in patients living with HIV is commonly reported. As the population ages, the problem becomes more significant; even with sufficient antiviral medication, milder forms of CI still exist(13). Low CD4 counts (200 cells/mm3), prolonged HIV infection, and advanced age are risk factors for HIV Associated Dementia (HAD)(14). Generally, using ARTs improves the overall clinical outcome; however, the association with neuropsychiatric manifestation has also been observed. Antiretroviral medications such as Efavirenz used for our patient are linked to neurocognitive impairment (15) and also psychotic symptoms, including Ekbom syndrome(16).

Perhaps the most intriguing observation is the onset of depressive symptoms soon after the resolution of psychotic symptoms as a condition that may be referred to as post psychotic depression(17). Albeit having a five-year history of psychosis, a first-episode psychosis(FEP) has a notably higher incidence rate (50%) of post-psychotic depression compared to non-first-episode psychotic patients(18). Also, treatment for FEP within the first year is linked to increased risk, with approximately half of the patients experiencing depression at the beginning of their treatment, and more than a third continues to have it at the one-year follow-up(19).

Until recently, pimozide, a first-generation antipsychotic, was considered the treatment of choice for delusional infestation. Because of newer-generation antipsychotics with better safety profiles and equal efficacy, pimozide has lost relevance(4). The patient used haloperidol, which is readily available and has a relatively safer cardio-metabolic profile than the newer generation antipsychotics(20).

The prognosis of this patient is somewhat guarded by her cardiovascular and HIV/AIDS intermediate outcome. Her advanced age significantly risks cardiovascular complications in addition to her HIV status. Prevention of the progression of HIV/AIDS and cerebrovascular event is crucial for favorable medical and psychiatric outcomes. Her strong family support is essential for close to follow-up and treatment adherence.

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