

# HIV AND NEW-ONSET PSYCHOSIS WITH DELUSIONS, CATATONIA AND CENESTHOPATHY: A CASE REPORT

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## INTRODUCTION

Thanks to the advances of antiretroviral therapy, life expectancy of people with HIV is rising. Clinicians are more likely to see neuropsychiatric manifestations of the disease, ranging from cognitive impairment to depression, mania and psychosis; as well as neuro-psychiatric adverse effects of the antiretroviral drugs.

Here we present a case of a HIV infected man, treated with Dolutegravir and Lamivudine, who developed symptoms of new-onset psychosis with delusions, hallucinations, catatonia and cenesthopathy (abnormal body sensations).

## CASE REPORT

Mr. A, a 71 year old patient, diagnosed with HIV infection 30 years ago, was brought to the emergency room after a suicide attempt. The patient presented incomprehensible and disorganized complaints about how he could not move his hips and legs like before and “abnormal sensations”. The patient had a history of sensitive and motor polyneuropathy. He presented persecutory delusions, thought his partner was the Devil; he had visual and auditory hallucinations, saw “dirt” on his partner’s body and on himself and heard voices.

His partner told us that Mr. A was having trouble sleeping and had been increasing his Zolpidem 7.5mg to 4 pills a night since last week. He was compliant to his HIV treatment. The patient had no history of psychiatric disorders or substance abuse. His behavior had deteriorated 4 days prior to admission. His brother also described a silent and stuporous state, where the patient refused to eat or drink, with moments of unusual agitation, which lasted for a week, about 3 months ago. Although we did not see this, we considered it a catatonic state.

The MRI showed typical HIV encephalopathy sequelae. An analysis of the cerebrospinal fluid did not suggest the presence of opportunistic infections. The CD4 cell count was 750 cell/ml and the viral load was undetectable. The only recent change in his treatment was the introduction of Zolpidem.

The patient had no insight, but agreed to be hospitalized. Zolpidem was stopped and he was started on Olanzapine 20 mg/day and Lorazepam 5 mg/day. The antiretroviral therapy was not discontinued. After only two days, the delusions, disorganized speech, halluci-

nations and suicidal thoughts stopped; the abnormal body sensations decreased but persisted. The patient was able to return home after 1.5 weeks. He showed extrapyramidal side effects (EPS) and the Olanzapine and Lorazepam were progressively decreased until discontinuation. For the following 3 years, the patient did not present psychotic symptoms again but was hospitalized twice for depression. The depressive symptoms appeared a week after his first admission, with psychomotor slowing and no cognitive impairment.

We conducted a literature review on PubMed and Google Scholar. The keywords used were psychosis, HIV, HAART, catatonia and cenesthopathy.

## DISCUSSION

New-onset psychosis is a rare but known neuropsychiatric manifestation of HIV, it appears in 0.2 to 15% of the patients (Sewell 1996) with its highest incidence in the later stages of HIV/ AIDS and HIV associated dementia (HAD) (Owe-Larsson et al. 2009). In some cases, it is the first noticeable symptom of the HIV infection (Huffman & Fricchione 2005). The symptoms are variable but usually consist of persecutory and grandiose delusions, auditory and visual hallucinations and affective disturbances (Owe-Larsson et al. 2009). Like in our case, several authors reported delusions about the Devil (Foster et al. 2003). We found it hard to differ the somatic hallucinations from the polyneuropathy’s ones; the same happens with depression symptoms, like fatigue, appetite loss, attention problems, that are also neurovegetative factors of HIV, thus complicating the differential diagnosis (Dubé et al. 2005).

The etiopathogenesis of new-onset psychosis is unclear, but one hypothesis is a direct effect of HIV in the central nervous system (CNS). It’s the “Trojan Horse Hypothesis”: autopsies of HIV infected individuals with psychosis or HAD showed encephalitis and vacuolar myelopathy, which led to believe the virus could enter the CNS by migration of peripheral blood cells through the blood barrier (Owe-Larsson et al. 2009); other hypothesis are the high active antiretroviral therapy’s (HAART) adverse effects, opportunistic infections or stress factors due to living with HIV.

Regarding HIV associated psychosis’s treatment, atypical neuroleptics remain the first choice and full remissions are common. HIV patients tolerate lower

doses of antipsychotics (AP) and develop more EPS (Ferrando & Wapenyi 2002). Risperidone was the most suggested AP in our review, but Olanzapine showed also good efficacy and few side effects. Furthermore, HAART is known to cause psychosis (Foster et al. 2003, Owe-Larsson et al. 2009), like the case of a 12 year old girl with psychosis and increased Efavirenz serum concentration (Lowenhaupt et al. 2007).

Clinicians should know psychosis can appear at any time during HIV and with a normal CD4 cell count (Ferrando & Wapenyi 2002). It is still not clear what caused Mr. A's psychotic outburst, a direct effect of HIV in the CNS, a HAART side effect or the interaction of Zolpidem with HAART? Several benzodiazepines are not recommended with HAART because they are both metabolized by the cytochrome P450 (Ferrando & Wapenyi 2002). Sabato et al. talk about a case of Efavirenz-induced catatonia caused by a chronic CNS reaction, without recent changes in that patient's medication. We found only one, similar to ours, case of Dolutegravir induced cenesthopathy, where CYP450 genotype testing showed chronic overexposure to Dolutegravir, and the importance of a thorough interview to detect abnormal sensations and prevent permanent damage (Kanai et al. 2018).

## CONCLUSION

The co-occurrence of psychosis and HIV increases morbidity and mortality (Sewell 1996) and we believe further studies are needed for a better understanding of the link between both illnesses. Our case report adds another new-onset psychosis description to the literature, as well as, potentially, to our knowledge, the second case of cenesthopathy induced by Dolutegravir and a description of catatonia, a rarely described HIV manifestation.

It is essential that every clinician working with HIV infected individuals and psychiatrists know its possible neuropsychiatric manifestations and how to manage it.

A multidisciplinary work and combining psychotherapy with the pharmacological treatment is also mandatory to manage distress and enhance the quality of life.

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Seixas Martins Diogo: literature research and analysis, data interpretation and manuscript writing.

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