

Quality of sleep in people living with HIV (PLWHIV) in the era of Highly Active Antiretroviral Treatment (HAART)



ΔΗΜΟΚΡΙΤΕΙΟ ΠΑΝΕΠΙΣΤΗΜΙΟ ΘΡΑΚΗΣ
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Introduction

Although HIV infection has become a chronic disease, people living with HIV (PLHIV) often develop disorders that affect their quality of life. Sleep disturbances could occur in all stages of infection and lead to fatigue, increased risk for comorbidities and reduced adherence to treatment.



Aim of the study

The aim of the present study is to evaluate the incidence rate and factors associated with sleep disturbances in a cohort of PLHIV monitoring in a HIV unit in a rural area of Greece (Thrace).

Methods

Patients completed questionnaires for the possible presence of restless legs syndrome, the Epworth Scale, the Athens Insomnia Scale, the Fatigue Severity Scale (FSS Questionnaire), the Hospital Anxiety and Depression Scale - HADS, the Sleep Quality Scale MOS, the STOP BANG questionnaire for obstructive sleep apnea, the Pittsburgh Sleep Quality Index and the International Physical Activity Questionnaire. Demographic and anthropometric characteristics, antiretroviral regimen, stage of HIV infection, coinfections and comorbidities were recorded. Statistical analysis was performed using the Statistical Package for Social Sciences (SPSS) version 19.0.

Results



154 PLWHIV

MSM 59.7%

Mean age: 45.58 years

Males: 80,5%

Unmarried: 71.4%

University graduates: 59.7%

CDC stage A of HIV infection: 76.6%

Median value of Body Mass Index (BMI) 24.77 kg/m²

Detectable HIV viral load: 17.5%

Median value of current CD4 cell count 651 cells/mm³

Median duration of HAART 6 years

Integrase inhibitors: 63.6%.

Comorbidities: 44.8%,

Smokers: 64.3%

Consumption of alcohol: 46.1%

Addictive substances: 15.6%

Obstructive Sleep Apnoea

35.7%

Fatigue

27.9%

Anxiety

54.54%

Insomnia

55.2%

Depression

46.1%

Restless Leg Syndrome

26.6%

Daytime sleepiness

31.16%

- Detectable viral load (adjusted odd ratio (aOR) 15.49 and 95% confidence interval (CI) 4.70-50.98, $p < 0.001$) and CDC stage C (aOR 0.17 and 95% CI 0.03-0.91, $p 0.038$) of HIV infection as independent risk factors.
- No significant association with antiretroviral treatment. **INSTI-based ART was not associated with sleep disorders.**
- PLWHIV with RLS had 9 times higher risk for symptoms of depression and reduced physical activity ($p < 0.001$, OR 9.22).
- More than 60% of PLWHIV with advanced HIV infection were short sleepers (< 6 h/day).
- Levels of hemoglobin, hematocrit, iron and ferritin were significantly lower among patients with insomnia ($p < 0.001$)

90%
diagnosed

90%
on treatment

90%
virally suppressed

90%
good health-related quality-of-life

Conclusion

The high prevalence of sleep disturbances among PLWHIV reported in the present study demonstrates the significance of adding sleep assessment into routine care and researching efficient interventions in order to improve their quality of life and the clinical progress of HIV infection. Apart from sociodemographic, anthropometric and HIV-related (severity, treatment) factors it is vital to underline the impact of psychological factors. PLWHIV often experience the fear of stigma and social isolation increasing the symptoms of depression and anxiety and subsequently the incidence of sleep abnormalities.