



IS THERE A ROLE OF NOVEL ART REGIMENS IN THE DECLINING PREVALENCE OF HAND?

Abstract Body

HIV-associated neurocognitive disorder (HAND) is still prevalent among people living with HIV (PLWH). The aim of the study was to evaluate prevalence and predictors of HAND, including treatment related factors, in a large cohort of PLWH over the last decade.

Monocentric, retrospective, cross-sectional analysis of neurocognitive profile in antiretroviral therapy (ART)-treated PLWH, prospectively enrolled between 2009-2020. All patients (pts) underwent neuropsychological assessment (NPA) by a standardized battery of 13 tests on 5 different domains and were classified as having HAND according to Frascati's criteria. Pts were defined complaining or not-complaining if a deficit of memory, attention or concentration was or not reported. Chi-square test for trend was employed to compare prevalence overtime. A multivariable logistic regression model was fitted to investigate predictors of HAND.

A total of 2,383 NP consecutive tests over 1,365 PLWH was collected during 4 time periods (2009-2011, 2012-2014, 2015-2017, 2018-2020). Main characteristics at NPA were: male 82%, MSM 45%, HCVAb+ 22%, median (IQR) of 10 (4-20) years of infection and 13 (8-14) of education; HIV-RNA <40 cp/mL in 85%, median CD4+ of 600 (419-790) cell/mm³, nadir CD4+ <200 cell/mm³ in 35%; 42% of pts were receiving NRTI+NNRTI, 19% NRTI+bPI, 18% NRTI+INSTI, 8% a dual regimen (4% INSTI-based); 8% of pts received dolutegravir. In overall population, HAND prevalence was 22%: ANI 16%, MND 5.5%, HAD 1%. In 791/2,383 (33%) tests a cognitive complaint was reported and HAND prevalence was 40%, higher than among not-complaining (13%). Over the study period, a decreasing frequency of HAND was found in the entire population (Tab.1). Factors associated to HAND were older age, lower educational level, lower current CD4+ count and HCV co-infection. Compared to pts receiving a NNRTI, those receiving dual and INSTI-based therapies were associated to a decreased risk of having HAND. To be tested in more recent years significantly predicted a reduced risk of HAND (Tab.2).

In this large cohort of ART-treated PLWH, mostly virologically suppressed, we observed a clear decrease in HAND prevalence over the last decade. Besides HIV-related factors and patient characteristics, the reduced risk of HAND observed with dual and INSTI-based regimens along with a more recent initiation of ART, could suggest a potential role of new treatment strategies in this decline, due to their greater virological efficacy and better tolerability.

AUTHORS

Ilaria Mastrorosa¹, Anna Clelia Brita¹, Annalisa Mondì¹, Giulia Del Duca¹, Patrizia Lorenzini¹, Alessandra Vergori¹, Valentina Mazzotta¹, Roberta Gagliardini¹, Marta Camici¹, Rita Bellagamba¹, Federico De Zottis¹, Marisa Fusto¹, Stefania Cicalini¹, Andrea Antinori¹, Carmela Pinnetti¹