

Self-reported neurocognitive impairment in people living with HIV: Characterizing clusters of patients with similar changes in self-reported neurocognitive impairment 2013-2017 in the Swiss HIV Cohort Study

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INTRODUCTION

Self-reported neurocognitive impairment (srni) in people living with human immunodeficiency virus-1 (HIV-1) infection are frequent. We use longitudinal information on srni in the Swiss HIV Cohort Study (SHCS) to identify and characterize groups of patients with persisting srni over time.

METHODS

We included all SHCS patients who were assessed for srni during at least 5 visits spanning at least 2.5 years in 2013-2017. We first compared patients with srni to those without srni over the whole study period. Second, we used a hierarchical cluster algorithm to identify groups of patients with similar changes of srni over time. In both analyses, we studied clinical and demographic factors potentially influencing srni.

RESULTS

In total, 79'683 questionnaires of 11'029 patients contained information about srni, and 8'545/11'029 (77.5%) patients had longitudinal information. The overall percentage of patients with srni decreased from 19.6% in 2013 to 10.7% in 2017. Compared to patients in the cluster with low-level srni over time, patients in the cluster with high-level persisting srni had more often a prior opportunistic infection of the central nervous system (CNS) (OR=3.7, $p<0.001$), imperfect adherence to antiretroviral treatment (ART) (OR=2.8, $p<0.001$) and a depression (OR=1.9, $p<0.001$).

CONCLUSIONS

Although overall srni is decreasing in the SHCS, there is a group of patients with persisting srni over time. Past opportunistic infections of the CNS, imperfect adherence to ART as well as depression were associated most with

persisting srni. Patients with these characteristics should be preferentially tested for neurocognitive impairment.

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