Publications Digest- June 2019

The relationship between cognitive change and physical health and behavioural outcomes in a Ugandan cohort of adults living with HIV - a longitudinal study.

Spies G, Denckla CA, Mall S, Levin J, Seedat S, Nakasujja N, Kinyanda E. AIDS Care. 2019 Jul;31(7):803-808.

Abstract

We investigated changes in cognitive function and physical health and behavioural outcomes (HIV disease progression, health-seeking behaviour, adherence to HIV medications and risky sexual behaviour) at baseline and 12 months later among 1126 Ugandan adults living with HIV. Overall, cognitive function improved from baseline to follow-up, except for gait speed, which was slower at follow-up compared to baseline. There were improvements in physical health and behavioural outcomes by follow-up, with greater improvements among individuals on ART compared to those not on ART. Change in gait speed over time significantly predicted risky sexual behaviours at follow-up. This is the first study to investigate the longitudinal relationships between cognitive function and health outcomes among Ugandan adults living with HIV and provide insights into the possible links between cognitive function and negative clinical and behavioural health outcomes in people living with HIV.

Rates of HIV-1 virological suppression and patterns of acquired drug resistance among fisherfolk on first-line antiretroviral therapy in Uganda.

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Abstract

OBJECTIVES: We examined virological outcomes, patterns of acquired HIV drug resistance (ADR), correlates of virological failure (VF) and acquired drug resistance among fisherfolk on first-line ART.

METHODS: We enrolled 1169 adults on ART for a median duration of 6, 12, 24, 36 and ≥48 months and used a pooled VL testing approach to identify VF (VL ≥1000 copies/mL). We performed genotyping among VF cases and determined correlates of VF and ADR by logistic regression.

RESULTS: The overall virological suppression rate was 91.7% and ADR was detected in 71/97 (73.2%) VF cases. The most prevalent mutations were M184V/I (53.6%) for NRTIs and K103N (39.2%) for NNRTIs. Thymidine analogue mutations were detected in 21.6% of VF cases while PI mutations were absent. A zidovudine-based ART regimen, duration on ART (≥24 months) and secondary/higher education level were significantly associated with VF. A nevirapine-based regimen [adjusted OR (aOR): 1.87; 95% CI: 0.03-0.54)] and VL ≥10000 copies/mL (aOR: 3.48; 95% CI: 1.37-8.85) were ADR correlates. The pooling strategies for VL testing with a negative predictive value (NPV) of ≥95.2% saved US $20 320 (43.5%) in VL testing costs.

CONCLUSIONS: We observed high virological suppression rates among these highly mobile fisherfolk; however, there was widespread ADR among those with VF at the first VL testing prior to intensive adherence counselling. Timely treatment switching and adherence support is recommended for better treatment outcomes. Adoption of pooled VL testing could be cost effective, particularly in resource-limited settings.