

Abstract

Objective(s): Helminth co-infection with HIV is very common in areas of epidemiological overlap, such as in Sub-Saharan Africa. Co-infection with helminths might lead to faster progression of HIV. We aimed to assess helminth prevalence and analyse the effect of anthelmintic treatment on HIV disease progression.

Design: in a prospective open-label randomized study effects of anthelmintic treatment on CD4 count and HIV viral load were analysed. Baseline data are presented in this Masters thesis.

Methods: anti-retroviral (ART) treatment-naïve HIV-positive patients were randomly assigned to 6-monthly anthelmintic treatment and to helminth diagnostics (one stool and urine sample) or not. Outcome measures were HIV viral load, CD4 count and time to start ART.

Results: 42.9% of patients were infected with ≥ 1 helminth species as tested by parasitological methods; 29.9% had mono-infection, 10.2% and 2.7% had double and triple helminth co-infections respectively, 83% of infected individuals had light intensity infections. 14.4% had a positive filarial serology. There was good evidence for helminth infection to be associated with higher CD4 count (p for trend = 0.02) and lower viral load ($p=0.014$).

Conclusions: Helminth infections are endemic in the adult HIV-positive population. As per WHO recommendations, bi-annual mass treatment rounds would suffice to control detrimental effects of helminths. From prevalence data a causal beneficial effect of helminth infection on HIV disease progression cannot be deducted. The intervention study will shed more light on this question.