

Symptoms of infectious diseases in HIV positive travelers: A prospective study with exposure-matched controls

Franciska Suryapranata^{3,4}, Anders Boyd^{2,4}, Martin Grobusch¹, Gerard Sonder^{1,3,4}

¹Academic Medical Center (AMC), Amsterdam

²Institut Pierre Louis d'Epidémiologie et de Santé Publique

³National Coordination Centre for Travellers' Health Advice (LCR)

⁴Public Health Service (GGD) of Amsterdam

Background

Due to improved treatment options and overall health of patients living with HIV, the number of HIV-positive travelers has increased. In the Netherlands, HIV-positive travelers with CD4-cells of $< 500/\text{mm}^3$ are advised to carry antibiotics for stand-by treatment against travelers' diarrhea. We conducted a study to determine if HIV-infection leads to more travel-related symptoms of infectious diseases, particularly diarrhea.

Methods

A prospective study was performed between HIV-positive travelers and their age-matched HIV-uninfected travel companions, serving as controls attending two travel clinics in Amsterdam. Daily questionnaires were filled out by participants, before, during, and after their trip. Symptoms were compared between HIV infection groups.

Results

Overall, 50 pairs of HIV-positive travelers and controls were included. CD4⁺ cell counts in HIV-positive patients were distributed as follows: 2% $< 200/\text{mm}^3$, 46% 200-500/ mm^3 , 52% $> 500/\text{mm}^3$. Prevalence of travel-related diarrhea was 50% among HIV-positive travelers and 38% among controls. No significant differences were observed for incident travel-related diarrhea (incidence rate ratio= 1.74, 95%CI=0.82-3.76) or duration of symptoms (odds ratio=1.62, 95%CI=0.68-4.04). Similarly, there were no significant differences in symptom incidence or duration for travel-related vomiting, cough, rhinitis, pruritus, fatigue, or nausea. Only 7.4% of HIV-positive travelers with diarrhea used their stand by antibiotic treatment as recommended.

Conclusions

Travel-related symptoms were not significantly more frequent or longer lasting in HIV-positive travelers compared to their HIV-uninfected travel companions with similar age. Most HIV-positive travelers with diarrhea did not take their stand-by antibiotic treatment. These results might question the need for routine prescription of stand-by antibiotics among HIV-positive individuals.