

Rising Eosinophilia After a Trip to the Caribbean in an HIV-Infected Man *Infections of Leisure?*

To the Editor:

A middle-aged man from New York living with HIV-1 for 10 years and doing well on antiretroviral therapy (elvitegravir/cobicistat/emtricitabine/tenofovir alafenamide) with robust CD4+ T-cell count of 1299 (43.3%) and viral load of <20 copies/mL presented with rising peripheral eosinophilia during a 12-month duration (Fig. 1). One month before initial presentation, the patient was vacationing with his male partner in the Caribbean Islands. He recalls walking barefoot on the sand, and swimming in the ocean and local river. During this trip, he also recalls a brief episode of diarrheal illness that resolved spontaneously without treatment. He has a history of furuncles and was treated for methicillin-resistant *Staphylococcus aureus* with clindamycin. He denied ever having a febrile illness, weight loss, or persistent diarrhea. Laboratory evaluation 13 months after the Caribbean trip showed a white blood cell count of 13,400/mL with 14% eosinophils (1900/mL) and erythrocyte sedimentation rate of 14 mm/h. A strongyloides antibody was performed at the Centers for Disease Control and Prevention laboratory and was 40.04 U/ μ L (reference value [positive], >1.7 U/ μ L), and the *Schistosoma mansoni* antibody (also performed at the Centers for Disease Control and Prevention) was 16 (reference value [positive], >10). The stool ova and parasites were negative on 3 separate accounts; fecal leukocytes were present, and stool occult blood was negative. The patient was treated with praziquantel 40 mg/kg in 2 divided doses in 1 day and with ivermectin 200 μ g/kg in 1 dose for treatment of schistosomiasis and strongyloidiasis, respectively. The eosinophilia resolved 1 month after treatment.

We believe that our patient was exposed to the aforementioned helminthic infections during his Caribbean vacation. Before his trip to the Caribbean, he did not have eosinophilia. Also, he had never traveled to any other known endemic location for the aforementioned parasites. Although there were no other signs or symptoms of active disease, the rise in the eosinophil count led to an investigative workup. These helminthic infections

can exist in asymptomatic individuals living with HIV-1. Sadlier et al¹ demonstrated a high prevalence of helminthic infections of 10% in their European cohort of immigrants from endemic areas living with HIV-1: 8% positive for schistosomiasis and 2% for strongyloides. It is interesting to note that concurrent infections in the same host are rarely observed and were not reported in the cohort above. Similar studies carried out in Europe report a seroprevalence for schistosomiasis of 17% African immigrants living with HIV and 11% for strongyloides.^{2,3} The chance of infection with schistosomiasis and/or strongyloidiasis during one short-term journey to an endemic area is low.⁴ Baaten et al⁴ found schistosomiasis in 0.51% of susceptible travelers at risk and 0.25% for strongyloidiasis. Eosinophilia in patients living with HIV-1 is associated with a variety of conditions including atopic conditions, parasitic and fungal infections, advanced HIV disease, and adrenal insufficiency.⁵ *Schistosoma* and strongyloides are the most likely parasites to be associated with eosinophilia in travelers or ex-patriates, regardless of CD4+ T-cell count or duration of travel.⁵ Therefore, we suggest any new or unexplained eosinophilia in a patient living with HIV-1 that occurred after traveling to Caribbean or other endemic areas, to be screened for the aforementioned helminthic infections.

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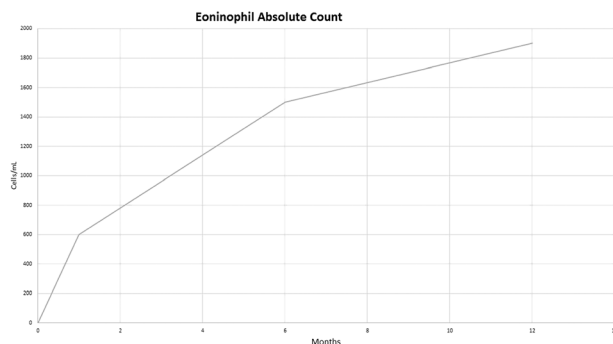


FIGURE 1. Eosinophil absolute count (in cells per milliliter).