Correspondence

Observation of Probable Persistent, Undetected Trichomonas vaginalis Infection among HIV-Positive Women

To the Editor—Peterman et al [1] reported the possibility that after treatment, Trichomonas vaginalis infection can become undetectable for months and then can reappear. His study population consisted of women who were attending 3 clinics that specialized in the treatment of sexually transmitted diseases. The data included 13 women who previously had been infected with T. vaginalis and had been treated, and subsequently 11 (85%) had an intervening negative test result before having a positive result when no sexual exposure was reported [1]. This scenario suggests that T. vaginalis infection was undetectable by testing, which was done by culture using the InPouch TV test (BioMed Diagnostics), but that the infection was still present for many months after treatment. Culture can detect infection only if the concentration of T. vaginalis is higher than a certain level, and the organism concentration may take time to increase to detectable levels after treatment. Therefore, the most appropriate time to retest women for T. vaginalis infection by means of culture remains unknown.

We examined the possibility of persistent, undetected T. vaginalis infection among human immunodeficiency virus (HIV)–infected women by means of data from our recent randomized treatment trial of T. vaginalis infection [2]. Participants (women infected with both HIV and T. vaginalis) were enrolled from selected HIV outpatient clinics in New Orleans, Louisiana; Houston, Texas; and Jackson, Mississippi; and were randomly assigned to one of the 2 treatment arms: (1) metronidazole 2 g single dose or (2) metronidazole 500 mg twice daily for 7 days. T. vaginalis infection was diagnosed by culture (InPouch TV test; BioMed Diagnostics), and women were retested for T. vaginalis infection at a test-of-cure visit that occurred 6–12 days after treatment and at 3 and 6 months after enrollment. To examine persistent, undetected T. vaginalis infection, we looked specifically at participants with a negative test result that preceded a positive result (or repeat T. vaginalis infection) when no sexual exposure to baseline partner(s) or new partner(s) was reported.

At the 3-month visit, there were 26 women who tested positive for T. vaginalis infection after having an intervening negative result (at test-of-cure visit). Of these 26 women, 8 (31%) reported no sexual exposure from the baseline visit to the 3-month visit. These 8 repeat infections were probably due to treatment failure, because the women reported adherence to treatment and no sexual exposure, but the infections were not detected by culture at the test-of-cure visit.

At the 6-month visit, there were 19 women who tested positive for T. vaginalis infection after having ≥1 intervening negative result (at test-of-cure and/or 3-month visit) and no intervening positive result since baseline. Of these 19 women, 4 (21%) reported no sexual exposure from the baseline visit to the 6-month visit, and these 4 also reported adherence to treatment at baseline. It is possible that these repeat infections still represent treatment failure and that the infections remained undetectable by culture for months and then reappeared.

Our findings are consistent with the results from Peterman et al [1] and suggest that prospective studies are needed to assess the time frame for culture detection of persistent T. vaginalis infection. One approach may be to test women frequently after treatment for T. vaginalis infection, by means of both culture and polymerase chain reaction techniques, to determine when the repeat infection reaches culture-detectable levels. It is important to prevent false-negative results, especially if women will not be returning for more testing, given the association between T. vaginalis infection and HIV acquisition and transmission [3–6].

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References

Pandemic Influenza and Pneumonia Due to Legionella pneumophila: A Frequently Underestimated Coinfection

To the Editor—Secondary bacterial pneumonia is recognized as one of the most common causes of death in influenza cases. Coinfection has been found in ~30% of all influenza cases in persons with seasonal influenza, and the pathogens most often involved are Streptococcus pneumoniae, Staphylococcus aureus, and Haemophilus influenzae [1, 2]. However, the role of bacterial coinfection in complicating pandemic flu is not well described, because of the scarcity of data.

From July 2009 through February 2010 in Italy, 2500 confirmed cases of pandemic influenza and 4.5 million cases of influenza-like illnesses were reported to the sentinel surveillance system. Of the confirmed cases of pandemic influenza, 1278 (~50%) were hospitalized. Of the patients hospitalized, 271 (21%) presented with pneumonia, which was attributed to bacterial coinfection in 33 cases.

Of the 33 cases with pneumonia due to bacterial coinfection, 6 (18%) were caused by Legionella pneumophila serogroup 1, and both the national legionellosis and the Italian mandatory 2009 A(H1N1) virus surveillance systems [3] were notified. The 2009 A(H1N1) virus reporting system is Web-based and was established in July 2009, whereas the national legionellosis surveillance system was established in 1983. Both systems include information about symptoms and risk factors, such as chronic illness, previous hospitalization, and travel.

The 6 legionellosis cases (5 confirmed and 1 presumptive) were reported from the end of August to the beginning of November. These patients were aged 25–70 years, with a median age of 53 years and a male-to-female ratio of 5:1. All 6 patients were hospitalized with a clinical picture of pneumonia, and 2 required intensive care unit admission. In the first case, reported in August, the patient developed symptoms after returning from a 1-week travel abroad. All case patients were tested for 2009 A(H1N1) virus (by reverse-transcription polymerase chain reaction test) and for Legionella (by urinary antigen test). Five patients had positive results for both assays, whereas 1 had positive results for 2009 A(H1N1) virus and Legionella serology (single titer) and therefore was classified as a presumptive case. Only 2 patients reported an underlying condition (diabetes), and all 6 patients fully recovered.

With prompt identification of the bacterial etiology of pneumonia, appropriate treatment can be started with both antibacterial therapy and antiviral medications. Therefore, the length of hospital stay and the mortality of both pandemic and seasonal influenza can be reduced.

The emergence of the new virus strain 2009 A(H1N1) has been a unique opportunity to investigate the etiology of bacterial coinfection during a pandemic. The cases described in this report do not derive from a systematic ascertainment of all pneumonia cases associated with pandemic influenza, and the number might be underestimated, because the decision to perform etiological diagnosis rests with the individual physician. However, 6 legionellosis cases in a total of 33 bacterial coinfections may indicate that Legionella is involved more often than expected. In addition, our findings highlight that cross-linkage of different surveillance systems can be a useful method to quantify and to describe pneumonia cases related to influenza.

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References

Long-Term Outcomes of HIV-Infected Patients with <95% Rates of Adherence to Nonnucleoside Reverse-Transcriptase Inhibitors

To the Editor—Persons with human immunodeficiency virus (HIV) infection have a greater likelihood of HIV suppression with the use of nonnucleoside reverse-transcriptase inhibitor (NNRTI)-based regimens than with the use of protease inhibitor–based regimens if there is <95% adherence to the antiretroviral regimen [1–3]. Plausible reasons for this consistent finding in short-term clinical studies include inherent antiretroviral potency of NNRTI drugs, long half-life of plasma drugs, tolerability, and convenient once- or twice-daily dosing schedules [1–6]. To further assess sustained HIV suppression among persons with <95% adherence to NNRTI regimens, we prospectively observed a Thai cohort for 3 years.

The study population comprised 199 patients who were prescribed a regimen of fixed-dose, twice-daily stavudine, lami-