levofloxacin and amikacin produced a successful outcome in this case; no recurrent pulmonary disease was reported in the patient. However, treatment with other drugs to which _M. canariasense_ is susceptible might also succeed. In a 2006 report, Campos-Herrero et al. noted the favorable outcomes produced by fluoroquinolones and amikacin (8). However, the optimal antimycobacterial regimen for _M. canariasense_ infection needs to be clearly established in more cases.

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**Mycobacterium conceptionense** Pneumonitis in Patient with HIV/AIDS¹

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Approximately 21 human cases of infection with _Mycobacterium conceptionense_ have been reported. However, most cases were outside the United States, and optimal treatment remains uncertain. We report a case of _M. conceptionense_ pneumonitis in a patient with HIV/AIDS in the United States. The patient was cured with azithromycin and doxycycline.

_Mycobacterium conceptionense_ is a nonpigmented, rapidly growing, nontuberculous mycobacterium, first isolated in France in 2006 (1). Approximately 21 cases of human infection have been reported (1–10). However, excluding the case we report here, only 2 cases have been reported in the United States (2). Optimal treatment for _M. conceptionense_ infection remains uncertain. We report the clinical course and management of _M. conceptionense_ pneumonitis in a patient with HIV/AIDS in the United States.

A 47-year-old black cisgender man sought care at an emergency department during 2015 for cough, shortness of breath, and weight loss. He lived in the United States for 2 years, had been homeless for the past year, and had never used recreational drugs. He had been diagnosed with HIV/AIDS 2 years prior to this presentation, with a CD4 cell count of 61 cells/μL and a viral load of 50,000 copies/mL at presentation. He was on antiretroviral therapy, which included tenofovir disoproxil fumarate (Viread) and emtricitabine (S chatt), with incomplete adherence.

¹Results from this study were presented at the American College of Clinical Pharmacy 2018 Global Conference, October 20–23, 2018, Seattle, Washington, USA.
breath, and diarrhea. He denied travel outside of the United States. The patient had HIV/AIDS, which was diagnosed during the 1980s but was untreated until this admission. He also had chronic hepatitis C, which was diagnosed during this admission. He was positive for HLA-B*5701, indicating hypersensitivity to the antiretroviral drug abacavir, but had no other known allergies to medications.

At admission, the patient was febrile (temperature 38.9°C) and had tachycardia (heart rate 112 beats/min) with low oxygen saturation (92% on room air), bibasilar rales, and poor inspiratory effort. Baseline laboratory test values were compiled (Table). A baseline chest radiograph showed increased interstitial marking and bibasilar patchy opacities. A baseline chest computed tomography scan showed bilateral interstitial and ground-glass opacities and a 6-mm nodule in the right middle lobe.

The patient was given empiric antimicrobial drugs (azithromycin 250 mg/d and ceftriaxone 1 g/d, both intravenously [IV]) for presumptive community-acquired pneumonia and trimethoprim/sulfamethoxazole (TMP/SMX; 800/160 mg every 6 h IV) for presumptive Pneumocystis jirovecii pneumonia (PJP). On day 4, ceftriaxone and azithromycin were discontinued. Induced sputum culture obtained on day 2 showed acid-fast bacilli (AFB) on day 8.

Infection with M. tuberculosis was not suspected because of the patient’s clinical manifestations and fast growth of the organism. The symptoms improved after admission. On day 11, he was discharged from the hospital and received oral TMP/SMX equivalent to that for intravenous dosing for PJP treatment. In addition, he erroneously received oral azithromycin (1,250 mg/wk) for M. avium complex prophylaxis.

On day 22, the patient returned to the ambulatory care clinic at the same institution. At this time, additional induced sputum cultures from days 3 and 4 were positive for AFB. His TMP/SMX treatment course was completed and decreased to 800/160 mg/day orally for secondary PJP prophylaxis. Azithromycin was corrected to treatment doses and increased to 250 mg/d orally. Baseline HIV genotyping showed wild-type virus, and antiretroviral therapy (ART) was initiated with elvitegravir/cobicistat/emontricitabine/tenofovir alafenamide (E/c/F/TAF) in a fixed-dose combination.

At day 43, the pneumonitis had clinically resolved, and repeat computed tomography and AFB culture showed negative results. A diagnosis of infection with M. conceptionense was confirmed from 3 induced sputum cultures obtained during days 2–4. Growth of M. conceptionense was identified by rpoB gene sequencing. Testing was performed at National Jewish Mycobacteriology Reference Laboratory (Denver, CO, USA). Drug susceptibility testing was not performed. An environmental source of the infection was not sought. Doxycycline (100 mg 2×/day orally) was given in addition to azithromycin because of lack of susceptibility information and previous case reports using dual therapy, although there is no clear guidance for management. ART with E/c/F/TAF was continued.

The patient is still profoundly immunosuppressed (CD4 cell count 60 cells/μL [6%]) because of nonadherence to ART. Darunavir (800 mg/day orally) was added to E/c/F/TAF because of development of resistance to ART, most notably the M184V pathway. We plan to continue oral azithromycin and doxycycline at current doses until immune reconstitution is achieved.

Cases of infection with M. conceptionense have been reported in immunocompetent and immunocompromised patients and in traumatic (e.g., after surgery or injury) and nontraumatic situations (1–10). The lungs are the most common site for M. conceptionense infection, comprising 7 of the ≈21 cases reported (1–4). Our patient was immunocompromised because of infection with HIV. Pathogen entry occurred by inhalation in a nontraumatic fashion and led to pneumonitis.

Outside the United States, M. conceptionense infection has been reported in France, Iran, Taiwan, South Korea, China, and Japan (1,3–10). The only 2 previously reported case-patients with M. conceptionense infection in the United States were also in Chicago but were epidemiologically unrelated to the patient we describe (2).

Similar to other reported case-patients, this patient was given broad-spectrum antimicrobial drugs, which were tailored once diagnosis of nontuberculous mycobacterium was confirmed. In vitro drug susceptibility data from rapidly growing mycobacteria indicate that M. conceptionense is susceptible to clarithromycin, doxycycline, and fluoroquinolones but resistant to sulfamethoxazole (3). In addition, macrolides, fluoroquinolones, or doxycycline have been used for treatment of M. conceptionense infections in case reports. (1–10) These cases have assisted our choice of treatment for this case. In summary, our case report shows

| Laboratory test               | Value or result |
|-------------------------------|-----------------|
| Serum creatinine              | 0.89 mg/dL      |
| Aspartate aminotransferase    | 25 U/L          |
| Alanine aminotransferase      | 23 U/L          |
| HIV RNA                       | 25,611 copies/mL|
| CD4 cells                     | 19 cells/μL (5%)|
| Hepatitis C virus antibody    | Positive        |
| Leukocytes                    | 2.3 × 10³/μL    |
| Neutrophils                   | 1.9 × 10³/μL    |
| Lymphocytes                   | 0.2 × 10³/μL    |
| Lactate dehydrogenase         | 546 U/L         |
| Histoplasma antigen           | Negative        |
| Rapid plasma reagin           | 1:0             |
| Clostridioides difficile      | Negative        |
| Stool culture                 | Negative        |

*Abnormal values are indicated in bold.
clinical and microbiological cure of *M. conceptionense* pneumonitis by using azithromycin and doxycycline in a patient with HIV/AIDS in the United States.

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**Emergence of Influenza A(H7N4) Virus, Cambodia**

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Active surveillance in high-risk sites in Cambodia has identified multiple low-pathogenicity influenza A(H7) viruses, mainly in ducks. None fall within the A/Anhui/1/2013(H7N9) lineage; however, some A(H7) viruses from 2018 show temporal and phylogenetic similarity to the H7N4 virus that caused a nonfatal infection in Jiangsu Province, China, in December 2017.

Avian influenza virus (AIV) subtype A(H7) is of concern because it has been a leading cause of zoonotic infections over the past 2 decades (1). The A/Anhui/1/2013-lineage A(H7N9) viruses, a leading cause of zoonotic infections in Asia since 2013, have not been detected in the Greater Mekong Subregion, but independent H7 lineages, including H7N3, H7N7, and H7Nx, have been detected occasionally in Cambodia since 2009 (2–4). H7N3 virus was detected from a duck mortality event in Kampong Thom during January 2017 (2), and H7N7 virus was detected in a live-bird market (LBM) in Takeo in September 2017 (4). Furthermore, highly pathogenic avian influenza (HPAI) A(H5N1) and low-pathogenicity avian influenza (LPAI) A(H9N2) are endemic in Cambodia (5); 59 poultry outbreaks of AIV and 56 human HPAI A(H5N1) cases have occurred since 2006. Although the exact ecological links are unknown, serologic studies suggest that AIVs of multiple subtypes are frequently introduced into poultry in Cambodia, possibly through cross-border trade or through wild birds (2,6,7).

In December 2017, a 68-year-old woman in Jiangsu, China, who had underlying medical conditions was infected by an LPAI influenza A(H7N4) virus, which led to severe pneumonia and intensive care unit admission, but