Case Presentation

A 46-year-old Taiwanese homosexual man, now working in Mainland China, had been lost to follow-up for 3.5 years after being diagnosed human immunodeficiency virus (HIV) infection 5 years ago. He came to our hospital with a 10-day fever, productive cough with purulent sputum and progressive dyspnea. He had intermittent mild fever, which could be relieved with over-the-counter medications, and losing 6 kilograms of weight in two months. On physical examination, oral thrush was noted; there was no otherwise abnormality. The chest radiograph showed a wedge-shaped patchy lesion in the left upper lobe. Laboratory examinations were within normal limit except for elevated C-reactive protein and aspartate aminotransferase.

The computed tomography (CT) of the chest revealed consolidation of the anterior segment of left upper lobe with partial atelectasis, left pleural effusion, and multiple lymphadenopathy. Bronchoscopy revealed multiple whitish patches with oozing coated on the mucosa in the upper division of the left upper bronchus. Intravenous fluconazole was given for suspected fungal infection, and highly active antiretroviral treatment (HAART) was started. He became afebrile on the next day and the symptoms improved gradually. The cytological examination of the BAL fluid uncovered some yeasts with transverse septum, and the pathological examination of the specimens from endobronchial biopsy also found several yeast-like micro-organisms. The culture of the sputum collected on the admission day yielded *Penicillium marneffei*. He received intravenous fluconazole and the chest radiograph confirmed the improving course. After 14-day intravenous fluconazole, he was discharged with oral itraconazole (200 mg twice daily). He had an uneventful recovery with gradual resolution of the patch on the chest radiograph after 4 months of follow-up.

Discussion

*Penicillium marneffei* is an emerging opportunistic pathogen, especially in immunocompromised host. Although pulmonary penicilliosis has been reported previously, its appearance on bronchoscopy is seldom mentioned in the medical literature. Here, we present an immunocompromised patient with pulmonary penicilliosis, demonstrating the role of bronchoscopy in facilitating the adequate diagnosis and appropriate antimicrobial therapy in time. Furthermore, although fluconazole had been reported as less effective for penicilliosis, our patient showed good response to high-dose fluconazole, providing an alternative choice of antifungal regimen.