CORRESPONDENCE

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High-resolution computed tomography findings in an HIV-positive patient with Swine-origin Influenza A (H1N1) virus-associated pneumonia

To the Editor: Since the introduction of highly active antiretroviral therapy, morbidity and mortality from human immunodeficiency virus (HIV) disease and various associated opportunistic infections have decreased significantly. The 2009 Swine-origin influenza A (H1N1) pandemic is the first to occur since the emergence of HIV/AIDS.

A 35-year-old HIV-positive man presented with a four-day history of fever, chills, fatigue, anorexia and mild dyspnea, without cough or chest pain. He was in significant respiratory distress. Physical examination revealed tachypnea, tachycardia, fever of 101.5°F (38.6°C), oxygen saturation on room air of 88%, and crackles in both lungs. Laboratory tests revealed leucopenia, C-reactive protein of 6.1 mg dL⁻¹ and lactate dehydrogenase of 940 IU L⁻¹. Chest X-ray was considered normal. High-resolution CT showed mild ground-glass opacities in both lower lobes, predominantly in the right lung (Figure 1). Bronchoalveolar lavage was negative for *Pneumocystis jiroveci*, mycobacteria, and malignancy. Real-time polymerase chain reaction confirmed the infection with novel H1N1 virus.

Early data suggest that people co-infected with H1N1 and HIV are not at increased risk of severe or fatal illness when receiving antiretroviral therapy. In most cases, illness caused by H1N1 has been mild, with full recovery [1]. However, HIV-infected individuals may be at higher

risk for more severe disease and complications from H1N1 flu virus [2, 3].

Lung infection is a significant cause of morbidity and mortality in patients with advanced HIV infection. Among these patients, *Pneumocystis jiroveci* pneumonia (PCP) is the most frequent AIDS-defining infection. The clinical symptoms of PCP in HIV-infected patients are non-specific and similar to many other infectious processes. Since empirical treatment for these infections is not devoid of complications, it is necessary to carry out diagnostic tests before effective specific treatment can be established [4].

High-resolution computed tomography (HRCT) is a reliable method for differentiating PCP from other infectious processes in HIV-positive patients. Although ground-glass attenuation on HRCT of patients with AIDS can be the result of several other abnormalities, such as cytomegalovirus (CMV) pneumonia or lymphocytic interstitial pneumonitis, this pattern is considered virtually diagnostic of PCP in most cases [4, 5]. In this case, H1N1 virus-associated pneumonia appeared as ground-glass opacities on HRCT. This infection should be included in the differential diagnosis of pulmonary infections that cause ground-glass opacities in patients with HIV/AIDS.

¹EDSON MARCHIORI, MD, PhD,

²GLÁUCIA ZANETTI, MD, PhD,

²BRUNO HOCHHEGGER, MD AND

³KLAUS L IRION, MD, PhD

¹Fluminense Federal University

Rio de Janeiro Brazil, ²Federal University of Rio de Janeiro Rio de Janeiro Brazil and ³The Cardiothoracic Centre Liverpool NHS Trust and The Royal Liverpool University Hospital, Liverpool, UK

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Figure 1. High-resolution CT shows mild ground-glass opacities in both lower lobes, predominantly in the right lung.

Address correspondence to: Edson Marchiori, Rua Thomaz Cameron, 438 Valparaíso, CEP 25685, 120 Petrópolis, Rio de Janeiro, Brazil. E-mail: edmarchiori@gmail.com

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