ECRONICON OPEN ACCESS

EC PULMONOLOGY AND RESPIRATORY MEDICINE

Mini Case Study

Pneumocystis Pneumonia Complicated by Pneumomediastinum in HIV Patient

Yassine Zerhari*, Asaad El Bakkari, Hatim Essaber, Soukaina Allioui, Hounayda Jerguigue, Youssef Omor and Rachid Latib

Radiology Department of National Institute of Oncology of Rabat, Morocco

***Corresponding Author:** Yassine Zerhari, Radiology Department of National Institute of Oncology of Rabat, Morocco.

Received: April 13, 2023; **Published:** April 25, 2023

Abstract

We present a case of a 38-year-old HIV-positive man with pneumocystosis and pneumomediastinum. The patient presented with aggravated respiratory distress, cough, and chest pain, and a follow-up CT scan revealed bilateral ground-glass opacities, interstitial infiltration, and a newly appeared pneumomediastinum. Pneumocystosis is an opportunistic infection caused by *Pneumocystis jirovecii*, which primarily affects immunocompromised patients. CT imaging plays a critical role in diagnosis and the search for potential complications. Treatment includes antifungal agents and corticosteroids, as well as close monitoring to prevent complications.

Keywords: *Pneumocystosis; Pneumomediastinum; CT; HIV Patient*

Case Presentation

A 38-year-old HIV-positive man presented to the hospital with aggravated respiratory distress, cough, and chest pain. He had a history of pneumocystosis and had been treated with antifungal agents in the past. A follow-up CT scan revealed bilateral ground-glass opacities, interstitial infiltration, and a newly appeared pneumomediastinum (Figure A and B). The patient was diagnosed with pneumocystosis with pneumomediastinum based on his clinical presentation, CT findings, and medical history. He was started on antifungal agents and corticosteroids, and close monitoring was initiated to prevent complications.

Discussion

Pneumocystosis is a rare opportunistic infection caused by *Pneumocystis jirovecii* that primarily affects immunocompromised patients, particularly those with HIV [1]. CT imaging is a reliable diagnostic tool for pneumocystosis, with typical findings including diffuse ground-glass opacities, interstitial infiltrates, and consolidation. However, other CT findings may also be present, such as centrilobular nodules, cystic changes, and bronchial wall thickening [2]. In addition to these typical CT findings, pneumomediastinum is a rare complication of pneumocystosis that can also be seen in other lung diseases, such as spontaneous pneumomediastinum, trauma, and other infections such as tuberculosis and aspergillosis. While CT imaging is the gold standard for diagnosing pneumocystosis, other advanced imaging techniques can also aid in the diagnosis and management of this disease. High-resolution CT (HRCT) can provide more detailed

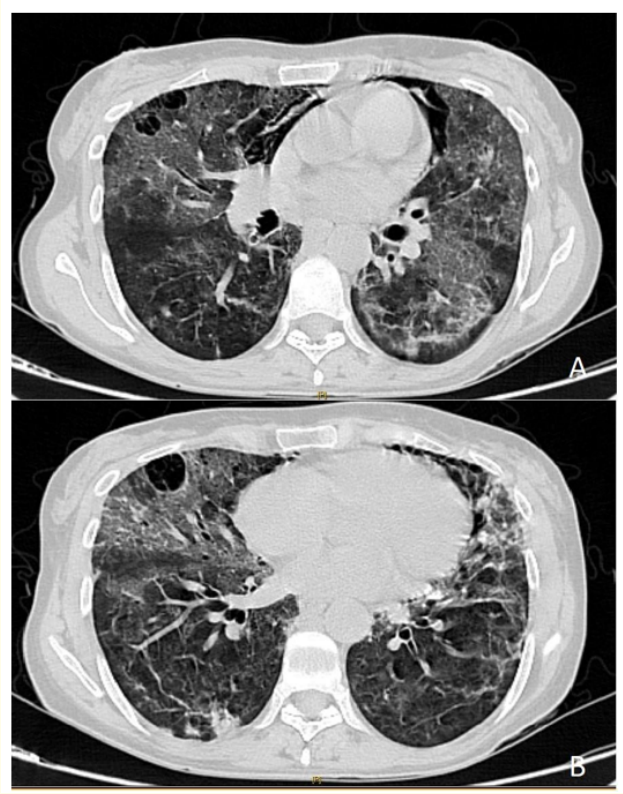

Figure A and B: *CT imaging in axial section at different level in lung window, shows bilateral ground glass opacities and interstitial infiltration with some cystic lesions, complicated by pneumomediastinum (A and B).*

information about the lung parenchyma, while positron emission tomography (PET) and magnetic resonance imaging (MRI) can be useful for assessing disease activity and monitoring treatment response.

The management of pneumocystosis typically includes antifungal agents and corticosteroids, along with other management strategies such as oxygen therapy, mechanical ventilation, and in severe cases, extracorporeal membrane oxygenation (ECMO). The prognosis of pneumocystosis depends on a variety of factors, including the severity of the disease, the presence of comorbidities, and the response to treatment.

Conclusion

Pneumocystosis is a diagnosis to consider in immunocompromised patients, particularly those with HIV. CT imaging plays a critical role in the diagnosis and search for potential complications such as pneumomediastinum. Prompt recognition and management are essential to prevent further complications. Treatment includes antifungal agents and corticosteroids, as well as close monitoring to prevent potential complications.

Funding Information

No funding was given.

Conflict of Interest

All authors declare no conflict of interest relevant to this article.

Bibliography

1. Morris A., *et al*. "Current epidemiology of Pneumocystis pneumonia". *Emerging Infectious Diseases* 10.10 (2004): 1713-1720.

2. Kanne JP., *et al*. "CT findings of pneumocystis pneumonia in patients with AIDS: pictorial essay". *BMC Medical Imaging* 14 (2014): 6.

Volume 12 Issue 4 April 2023