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CLINICAL IMAGE

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Cavitary lesions emerged rapidly in *Pseudomonas aeruginosa* pneumonia

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Abstract

Pseudomonas aeruginosa should be highly considered as a causative pathogen, when patients deteriorate rapidly despite community-acquired pathogen, and the radiological findings display a rapid emergence of cavitary lung lesions especially among patients at high risk of *P aeruginosa* pneumonia.

KEYWORDS

cavitary lesions, community-acquired pneumonia, lung abscesses, *Pseudomonas aeruginosa* pneumonia

1 | PICTURE IN CLINICAL MEDICINE

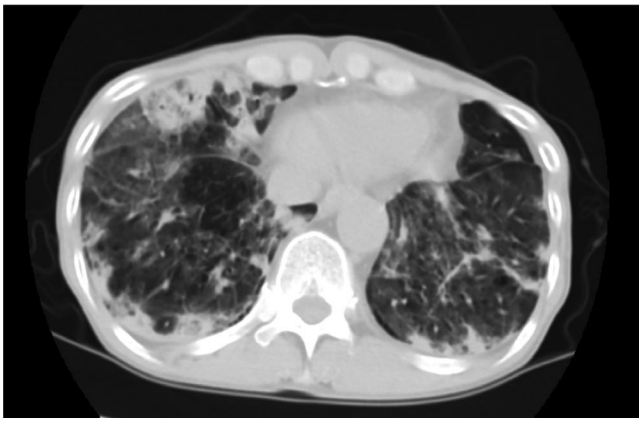

FIGURE 1 Chest computed tomography scan obtained at admission, showing consolidation and ground-glass opacity in both the lower lung lobes

A 59-year-old male ex-smoker who received chemotherapy for lung adenocarcinoma a month ago presented with one-week history of shortness of breath without any antibiotics. As risk factors for pseudomonas colonization or infection, he had a recent history of chemotherapy and underlying lung diseases of lung cancer and COPD.

Chest computed tomography (CT) revealed consolidation and ground-glass opacities in bilateral lower lobes (Figure 1). We initiated antibiotics for presumptive community-acquired pneumonia (CAP), but his respiratory condition worsened after 3 days of treatment. A repeat CT revealed multiple rapidly emerging giant cavitary lesions with air-fluid levels in right lower lobe (Figure 2). He died the next day. Sputum and fluid cultured from cavitary lesions during autopsy were positive for *Pseudomonas aeruginosa*.

Pseudomonas aeruginosa is a common pathogen of nosocomial pneumonia but rare in CAP. It is the etiological agent in 0.9%-1.9% of patients with CAP requiring

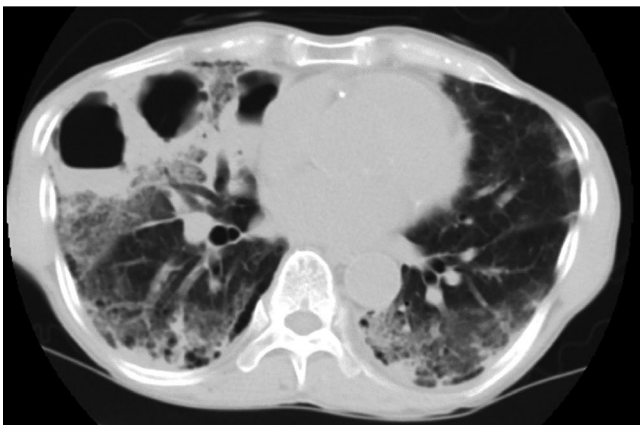

FIGURE 2 Chest computed tomography scan obtained three days after admission, showing multiple giant cavitary lesions with air-fluid levels in the right lower lung lobe

hospitalization. However, the mortality rate with CAP due to *Pseudomonas aeruginosa* is reported to be 61.1%.[1] It occasionally induces rapid and progressive tissue destruction, leading to the formation of cavitary lesions and abscesses.[2] When CAP patients display unusual rapid growth of cavitary lesions, *P aeruginosa* should be strongly considered as a causative pathogen.

CONFLICT OF INTEREST

None declared.

AUTHOR CONTRIBUTIONS

All authors participated in the review of the manuscript. NK: drafted the manuscript. SO and HN: participated in the data collections. HN: drafted the manuscript. All authors read and approved the final manuscript.

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