

## Medical Imagery

## Necrotizing pneumonia: a hidden complication

Ana Luísa Ramos\*, Ana Margarida Mestre

Pulmonology Department, Egas Moniz Hospital, 1349-019 Lisbon



## ARTICLE INFO

## Article history:

Received 6 February 2022

Revised 9 March 2022

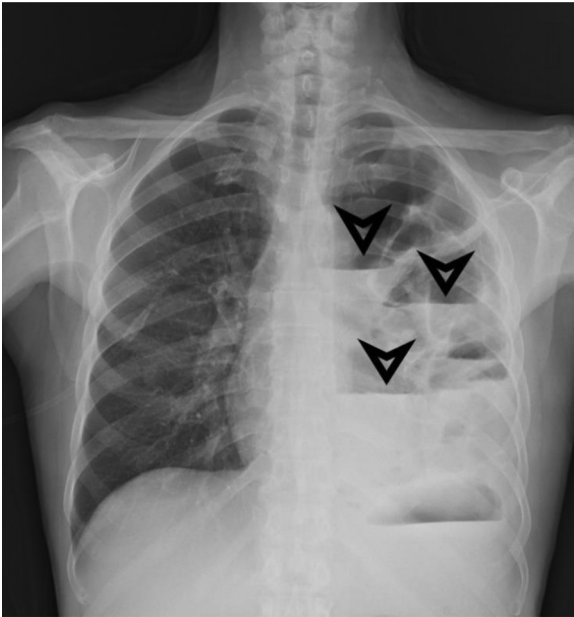
Accepted 12 March 2022

The authors present a 61-year-old man, an active smoker (60 unit-pack-year), with excessive alcohol consumption (30 g/day), admitted to the emergency department owing to asthenia, anorexia, and unquantified weight loss after 1 month of

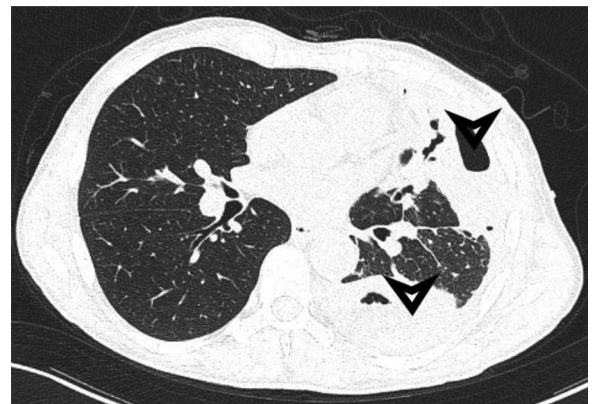
evolution. He denied experiencing coughing, sputum, chest pain, and fever. Physical examination revealed a decrease in vesicular murmur throughout the left hemithorax and psychomotor slowing. Analytically, he had ketonemia (5.3 mmol/L) and hyperglycemia (683 mg/dL). The thoracic x-ray revealed a hypotransparency with air-fluid levels in the lower two-thirds of the left hemithorax (Figure 1).

Chest computed tomography revealed areas of consolidation (with heterogeneous appearance and necrosis) and areas of air-fluid content communicating with each other, more extensive in the anterior segment of the left upper lobe and lingula (Figure 2).

A diagnosis of ketoacidosis was admitted as a first manifestation of diabetes mellitus and necrotizing community-acquired pneumonia. There was a rapid clinical improvement with insulin

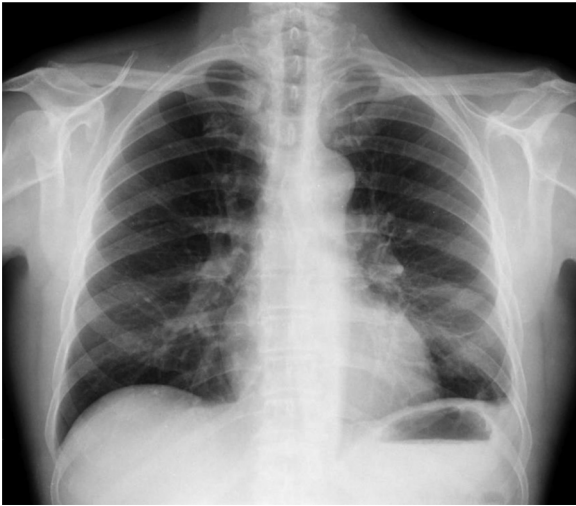


**Figure 1.** Chest radiography (posteroanterior view) showing heterogeneous hypotransparency in the lower two-thirds of the left hemithorax, with air-fluid levels (arrows).



**Figure 2.** Computed tomography (CT) (axial axis) showing multiple areas of consolidation, more extensive in the anterior segment and lingula of the left upper lobe (LUL), with a heterogeneous appearance and with associated phenomena of necrosis/suppuration and areas of air-fluid content (arrows) communicating between them.

\* Corresponding author: Dr Ana Luísa Ramos, Pulmonology Department, Egas Moniz Hospital, 126 Junqueira Street, 1349-019 Lisbon, Portugal.  
E-mail address: [analuisarces@gmail.com](mailto:analuisarces@gmail.com) (A.L. Ramos).



**Figure 3.** Chest x-ray (posteroanterior view) 6 months after infection with no evidence of consolidation.

therapy, broad-spectrum antibiotic therapy (during 21 days) (negative microbiological tests), placement of chest tube, and respiratory physiotherapy. After 6 months, a radiologic improvement was observed (Figure 3).

Individuals with diabetes mellitus and community-acquired pneumonia often have atypical symptoms, delaying diagnosis and

the start of treatment (Berbudi et al., 2020; Cheng et al., 2020). The authors highlight the immunological dysfunction associated with diabetes mellitus, making patients particularly susceptible to severe bacterial infections. The clinical course without any respiratory symptoms leads to clinical-radiologic dissociation.

### Competing interests

The authors declare that they have no competing interests.

### Funding

No funding was received.

### Ethics approval and consent to participate

Informed consent was obtained from the patient for publication of this case report and accompanying image.

### References

- Berbudi A, Rahmadika N, Tjahjadi AI, Ruslami R. Type 2 Diabetes and its Impact on the Immune System. *Current Diabetes Reviews* 2020(16):442–9. doi:[10.2174/157339981566619102408583](https://doi.org/10.2174/157339981566619102408583) 8.
- Cheng S, Hou G, Liu Z, Lu Y, Liang S, Cang L, et al. Risk prediction of in-hospital mortality among patients with type 2 diabetes mellitus and concomitant community-acquired pneumonia. *Annals of Palliative Medicine* 2020. doi:[10.21037/apm-20-1489](https://doi.org/10.21037/apm-20-1489).