Can a unisegmental pulmonary infarct be lethal?

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Abstract

To highlight the risk of septic complications following a pulmonary embolism (PE), we report the case of an elderly patient, that was hospitalized for a PE, and had progressively worsen his respiratory and septic state. Chest CT slices showed a gangrenous lung segment with an associated pleuropulmonary abscess.

TITLE: Can a unisegmental pulmonary infarct be lethal?

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Written informed consent was obtained from the patient to publish this report in accordance with the journal's patient consent policy

TEXT:

A 78 years-old patient, admitted to our cardiology clinic for a pulmonary embolism involving the right lower and middle lobar arteries. At admission, he was stable and benefited from an anticoagulative therapy based on LMWH. The evolution was marked by a progressive dyspnea and cough. Then, serial chest radiographs were realized, showing an increasing right pleural effusion. At day 12 of his admission, he installed a tachycardia at 104 ppm, with a high inflammatory blood markers (WBC:22000/mm³, CRP: 305 mg/L, Procalcitonine: 6ng/mL). A contrast-enhanced chest CT was managed (Figure) showing a large right pleuropulmonary collection, including a fluid-air level, with a visceral pleural enhancement. The lateral segment of the middle lobe was collapsed and gangrenous. A percutaneous pleural drainage was performed, with identification of *Klebsiella pneumoniae* in the liquid culture. He benefited from a large specter antibiotic and was discharged after 4 more weeks of hospitalization.

Pulmonary infarcts don't systematically occur in pulmonary embolism, due to the dual nature of pulmonary blood flow.[1,2] However, they are a well-recognized cause of cavitation, mostly in elderly patients with comorbid conditions. [2] Herein, cavitation is faster with infected pulmonary infarcts than with bland aseptic ones. [1,2] Then, complications such as pneumothorax, empyema, and bronchopleural fistula may occur leading to lethal conditions. [1]

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