## CARDIOVASCULAR FLASHLIGHT

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# Acute pulmonary embolism and COVID-19 pneumonia: a random association?

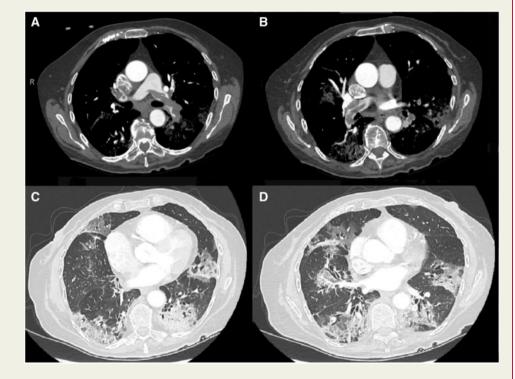
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In a 75-year-old Covid-19positive woman hospitalized for severe bilateral pneumonia, CT scan documented bilateral pulmonary embolism associated with extensive groundglass opacifications involving both the lung parenchymas.

Acute infections are associated with a transient increased risk of venous thromboembolic events. A COVID-19positive 75-year-old woman, with severe bilateral pneumonia and concomitant acute pulmonary embolism, was hospitalized after 10 days of fever and a recent onset of dyspnoea. She was haemodynamically stable and without strong predisposing risk factors for venous thrombo-embolism. The baseline ECG was normal. A modest leucocytosis was



present (11.360/mm<sup>2</sup>) with increased values of C-reactive protein (180 mg/L), troponin I (3240.4 ng/mL), and D-dimer (21  $\mu$ g/mL). While on oxygen, arterial blood gas revealed a PaO<sub>2</sub> of 78.0 mmHg with a PcO<sub>2</sub> of 25.1 mmHg and an sO<sub>2</sub> of 95.6%. A right basal infiltrate was evident at the chest X-ray, while echocardiographic evaluation showed a dilated and severely hypokinetic right ventricle with a mean derived pulmonary arterial pressure of 60 mmHg. CT scan documented the presence of a bilateral filling defect diagnostic for pulmonary embolism (*Panels 1A* and *B*; *Supplementary material online Video 1*), associated with extensive ground-glass opacifications involving both the lung parenchymas with predominant consolidation in the posterior basal segment of the left lower lobe (*Panels 1C* and *D*; *Supplementary material online Video 2*). Lower-limb compression ultrasonography was negative. Based on these findings, treatment with low molecular weight heparin, lopinavir/ritonavir, and hydroxychloroquine was started.

In conclusion, the absence of major predisposing factors in this case of diffuse bilateral COVID-19 pneumonia seems to confirm the role of severe infections as a precipitant factor for acute venous thrombo-embolism and the causal relationship.

Supplementary material is available at European Heart Journal online.

### Conflict of interest: none declared.

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