

Severe acute respiratory syndrome coronavirus 2 infection masquerading as possible pulmonary embolism

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Coronavirus disease 2019 (COVID-19) is an acute infectious disease of the respiratory system caused by severe acute respiratory syndrome coronavirus (SARS-CoV-2). The first cases were reported in Wuhan City, Hubei Province, China in December 2019.¹ The most common symptoms have been described in the literature.^{2,3} Moreover, COVID-19 is associated with an increased risk of venous thromboembolism.⁴

A 32-year-old Caucasian woman was admitted to the emergency department with a 4-day history of dyspnea and a slight nonproductive cough. She was referred to the hospital by the family doctor with “dyspnea, pneumonia, or pulmonary embolism (PE) suspected.” Her past medical history included type 2 diabetes mellitus, hypertension, depression, polycystic ovary syndrome, and severe obesity. She was undergoing long-term treatment with metformin, medroxyprogesterone, angiotensin II receptor blocker, and fluoxetine. The patient denied contact with any persons with respiratory symptoms before admission to the emergency department, as well as any recent travel.

On physical examination, the patient displayed adequate verbal responses disturbed by dyspnea and moist skin. Her skin temperature was 35.6 °C, blood pressure was 110/75 mm Hg, she had a regular heart rate of 95 bpm, and body weight of about 170 kg. Her respiratory rate was 28/minute. Saturation by pulse oximetry was 75%. During a 5-meter walk test her oxygen desaturation fell to 60%. On auscultation, crackles were heard throughout the left lung. Her abdomen was soft, with no discomfort on palpation. In view of the risk factors for venous thromboembolism (4 points at the Padua Prediction Score) computed tomography angiography of the thorax was performed, revealing multifocal, patchy, extensive pulmonary

consolidations—mostly in the upper and lower lobes of the left lung. A less substantial consolidation was also present in the upper lobe of the right lung (FIGURE 1A–1D). Pulmonary embolism was ruled out based on computed tomography angiography.

Laboratory tests showed a normal white blood cell count with lymphopenia (lymphocyte count 280 cells/ μ l; normal range, 900–4500 cells/ μ l), no anemia, a normal platelet count, elevated C-reactive protein levels (144 mg/l; normal range <10 mg/l), elevated D-dimer levels (814 ng/ml; normal range <500 ng/ml), normal troponin I levels, normal electrolyte levels, increased aspartate transaminase levels (42 U/l; normal range <34 U/l), normal bilirubin levels, and low procalcitonin levels (0.07 ng/ml; normal range <0.5 ng/ml). Moreover, the chemiluminescent test for detecting IgM-class SARS-CoV-2 antibodies in blood was negative.

To confirm SARS-CoV-2 infection, a nasopharynx swab was also taken. While waiting for the results of the COVID-19 molecular test, the patient underwent oxygen therapy with a face mask (oxygen, 5 l/min), received an intravenous infusion of ceftriaxone, clarithromycin, and fluids.

Real-time reverse transcriptase-polymerase chain reaction from the patient’s nasal and pharyngeal swab specimen was positive for the SARS-CoV-2 nucleic acid, so the patient was transported by ambulance to a hospital for infectious diseases.

To summarize, in the face of the COVID-19 pandemic, dyspnea and cough may be the only symptoms of the SARS-CoV-2 infection, even without fever. COVID-19 may manifest with symptoms suggestive of PE. However, PE can also complicate COVID-19.⁵

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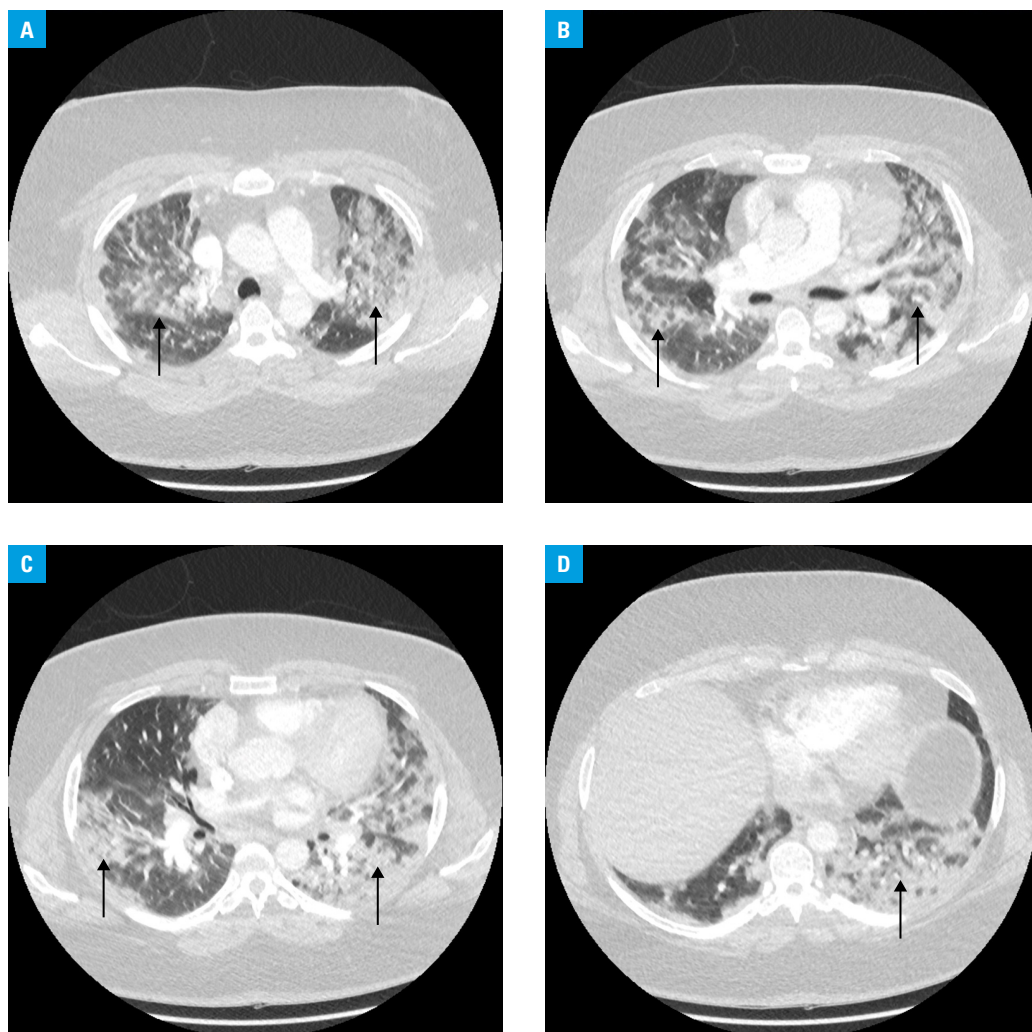


FIGURE 1 Chest computed tomography angiography of a patient with coronavirus disease 2019: **A–D** – multifocal, patchy consolidations in the left and right lungs distributed mostly in the upper and lower lobes of the left lung, and fewer in the upper lobe of the right lung (arrows). Artifacts are associated with the patient's obesity.

ARTICLE INFORMATION

CONFLICT OF INTEREST None declared.

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