Radiology

Pre- and Posttreatment Chest CT Findings: 2019 Novel Coronavirus (2019-nCoV) Pneumonia

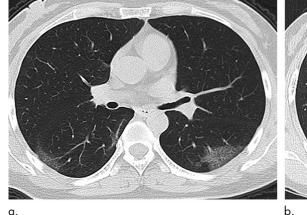
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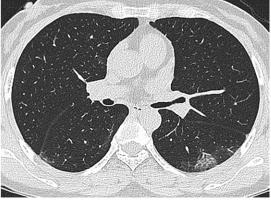
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Conflicts of interest are listed at the end of this article.

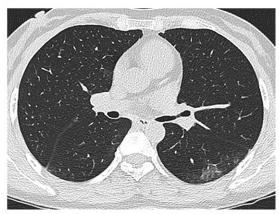
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a.

CT scans (slice thickness = 1 mm) in a 46-year-old woman with the 2019 novel coronavirus (2019-nCoV). (a) Transverse thin-section CT scan obtained at first day after admission shows multiple ground-glass opacities in both lungs. Ground-glass opacities are seen in the superior segment of both lower lobes. (b) Follow-up CT scan obtained on day 7 after admission shows ground-glass opacities are completely resolved in the superior segment of right lower lobe and partly resolved in the superior segment of left lower lobe. (c) Follow-up CT scan obtained at day 13 after admission shows ground-glass opacities are completely resolved in the superior segment of right lower lobe and partly resolved in the superior segment of left lower lobe.



46-year-old woman presented to the hospital with a 7-day Ahistory of fever without chills and rigor, nasal discharge, cough, and myalgia. She had stayed with a friend who had been diagnosed with 2019 novel coronavirus (2019-nCoV) pneumonia in Wuhan, China, 5 days previously.

At presentation, her body temperature was elevated to 38.3°C (100.9°F) with normal pulmonary auscultation. Laboratory studies showed a normal total white blood cell count of $4.2 \times 10^9/L$ (normal range, 4.0–10.0 \times 10⁹/L), and the differential count showed 52.9% neutrophils (normal range, 40.0%-74.0%) and 28.3% lymphocytes (normal range, 18.0%-43.0%). There were elevated blood levels for C-reactive protein (6.4 mg/L; normal range, 0-6 mg/L), erythrocyte sedimentation rate (27 mm/h; normal range, 0-20 mm/h), and D-dimer (566 ng/mL; normal range, 500 ng/mL).

Unenhanced chest CT showed multiple bilateral and peripheral ground-glass opacities (Figure a) in the superior segments of both lower lobes without sparing of subpleural regions (1,2). Real-time fluorescence polymerase chain reaction of the patient's

pharyngeal swab was positive for 2019-nCoV nucleic acid 2 days after hospitalization.

After the patient received 7 days of treatment, combined with interferon inhalation, real-time fluorescence polymerase chain reaction of the patient's pharyngeal swab became negative for 2019-nCoV nucleic acid. At 7 days, chest CT showed decreasing ground-glass opacities (Figure b). At day 13 after admission, the ground-glass opacities in the right lung had resolved; the left ground-glass opacities showed partial resolution (Figure c).

Disclosures of Conflicts of Interest: Y.D. disclosed no relevant relationships. J.Q. disclosed no relevant relationships.

References

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