

Computed tomography manifestations of COVID-19 pneumonia

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On 31 January 2020, a 44-year-old woman was referred to the fever clinic of Xiangyang First People's Hospital Affiliated to Hubei Medical College with severe cough and low fever (37.8°C). She had visited relatives in Wuhan City (the capital of central China's Hubei Province) on 25 January, and returned to Xiangyang City (northwestern Hubei Province) on 28 January.

Computed tomography of the chest showed bilateral multi-focal ground glass opacities with consolidation (An et al, 2020; Lei et al, 2020) (Figure 1), and a subsequent nucleic acid test for severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) (the causative virus for COVID-19) was positive.

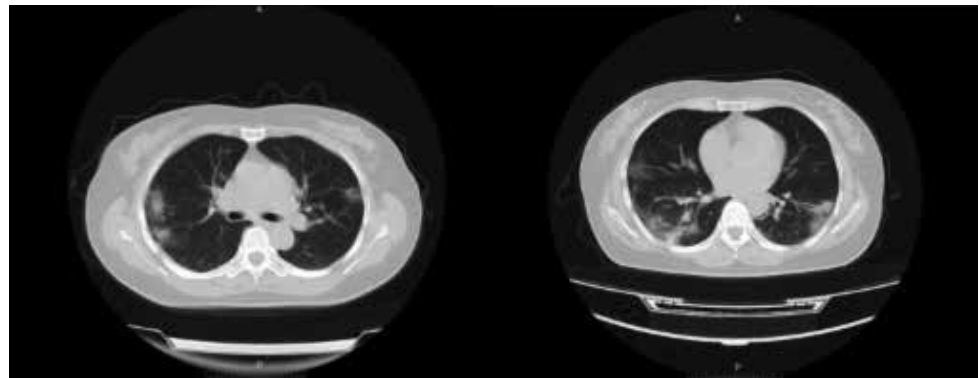


Figure 1. A 44-year-old woman presented with fever and positive polymerase chain reaction assay for severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2). Representative axial thin-section chest computed tomography images show multifocal ground-glass opacities with consolidation.

Blood results were white blood cell count 12.5×10^9 /litre (\uparrow), lymphocyte count 0.72×10^9 /litre (\downarrow), neutrophil count 9.41×10^9 /litre (\uparrow), C-reactive protein 14.6 mg/litre (\uparrow), oxygen saturation (on room air) 94%. She was immediately referred to the isolation ward for intensive treatment.

She was given supplemental oxygen, intravenous cefuroxime 1.5 g, oral arbidol tablets (200 mg, three times a day), and lopinavir/ritonavir 200/50 mg two tablets per day. After 10 days of standard treatment (based on the revised fifth edition of the novel coronavirus pneumonia diagnosis and treatment plan; General Office of the National Health and Health Commission, 2020), her temperature was normal, her cough was reduced, and her oxygen saturation was maintained at 92–96%. The results of two repeat tests for SARS-CoV-2 nucleic acid were negative and computed tomography was normal. The infection foci had resolved (Ai et al, 2020) (Figure 2). On hospital discharge, she was referred to the hospital designated hotel for 15 days isolation. Currently follow-up investigations remain normal.

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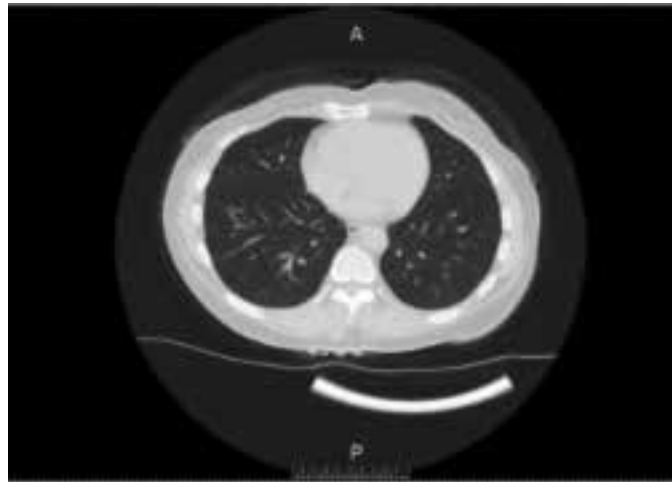


Figure 2. Eight days later, her computed tomography results had returned to normal. The infection foci of both lungs were absorbed and disappeared.

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References

- Ai T, Yang Z, Hou H et al. Correlation of chest CT and RT-PCR testing in coronavirus disease 2019 (COVID-19) in China: a report of 1014 cases. *Radiology*. 2020;200642. <https://doi.org/10.1148/radiol.2020200642>
- An P, Song P, Lian K, Wang Y. CT manifestations of novel coronavirus pneumonia: a case report. *Balkan Med J*. 2020;37(3). <https://doi.org/10.4274/balkanmedj.galenos.2020.2020.2.15>
- General Office of the National Health and Health Commission. Notice on Issuing a New Coronavirus Pneumonia Diagnosis and Treatment Plan (Trial Implementation of Revised Fifth Edition). National Health Office Medical Letter [2020] No. 117. 2020. <http://www.nhc.gov.cn/yzygj/s7653p/202002/3b09b894ac9b4204a79db5b8912d4440.shtml>
- Lei J, Li J, Li X, Qi X. CT imaging of the 2019 novel coronavirus (2019-nCoV) pneumonia. *Radiology*. 2020;200236. <https://doi.org/10.1148/radiol.2020200236>