

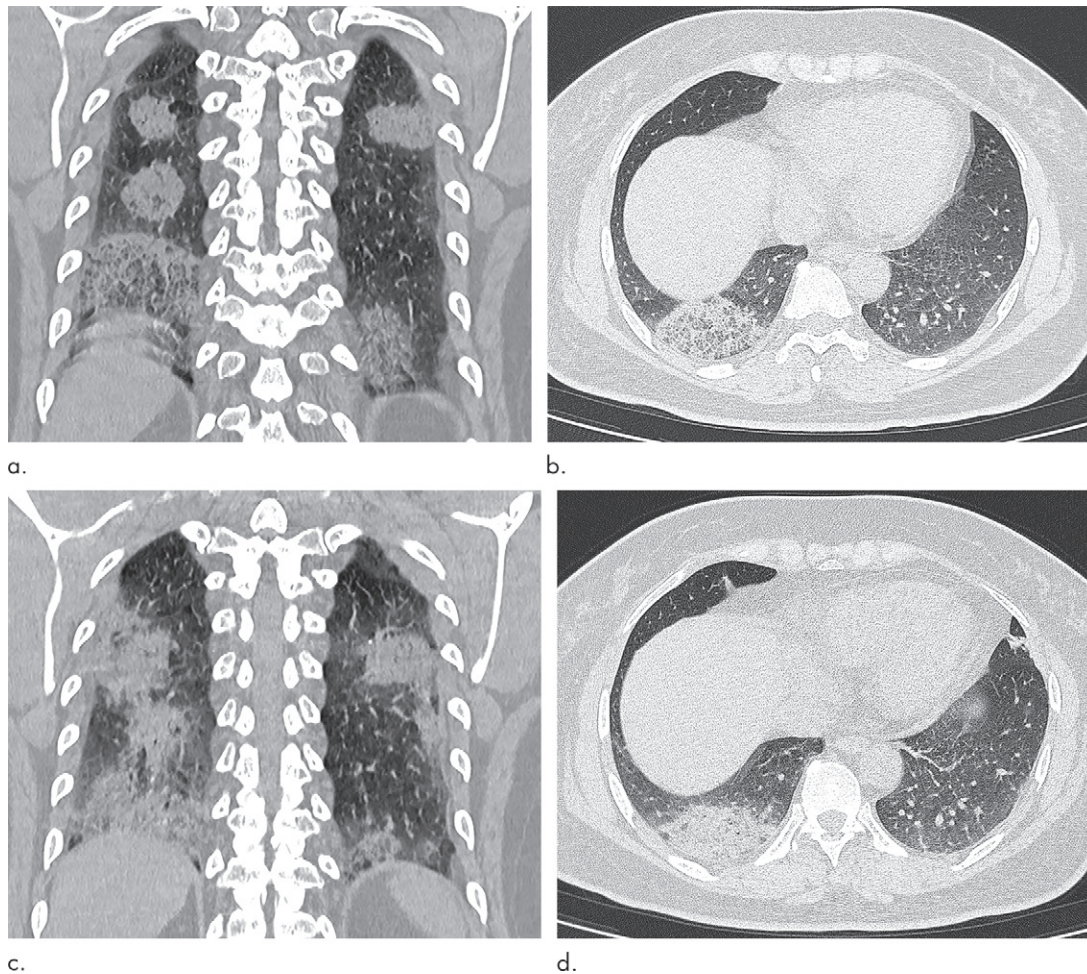
# CT Manifestations of Two Cases of 2019 Novel Coronavirus (2019-nCoV) Pneumonia

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

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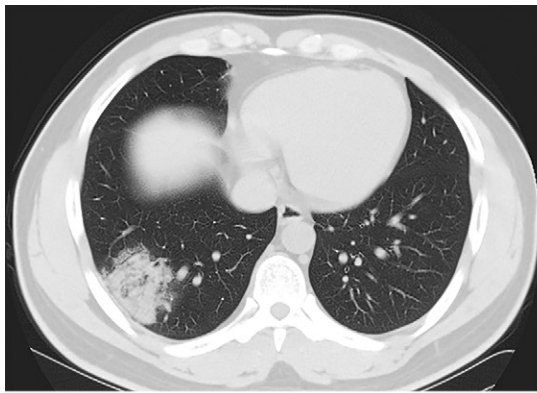
**Figure 1:** Unenhanced chest CT images in a 45-year-old woman with 2019 novel coronavirus (2019-nCoV) pneumonia. **(a)** Coronal CT scan shows multiple bilateral areas of consolidation with some central low attenuation suggesting an organizing pneumonia pattern. **(b)** Axial image shows the right lower lobe organizing pneumonia and an early crazy-paving pattern in the left lower lobe. **(c)** CT coronal reformation obtained 2 days later shows that the bilateral consolidations have increased in CT value. **(d)** Corresponding axial CT scan shows that the crazy-paving pattern has resolved.

Herein, we report two cases of 2019 novel coronavirus (2019-nCoV). Both patients are believed to have exposure related to Wuhan, China (1–4). We demonstrated change in the course of disease over time on CT scans (5,6).

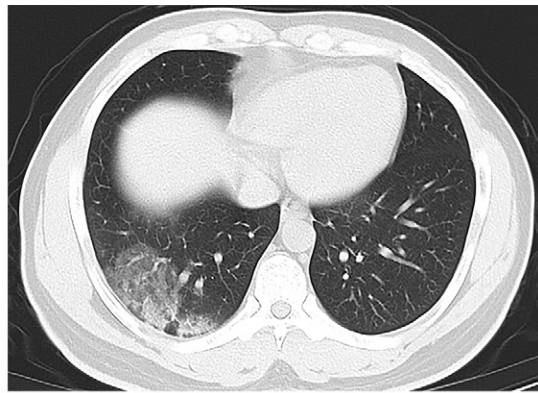
## Case 1

A 45-year-old woman living in Wuhan, China, was admitted to the hospital for 2 days due to cough and fever. On admission, her body temperature was elevated (38.2°C [100.76°F]) and there were coarse breath sounds of both lungs at auscultation. Her laboratory studies showed an

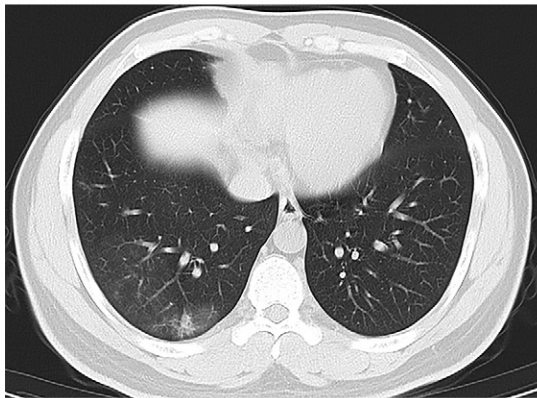
increased neutrophil ratio (81.2%; normal range, 40.0%–75.0%), decreased lymphocyte ratio (12.8%; normal range, 20.0%–50.0%), increased erythrocyte sedimentation rate (24 mm/h; normal range, <20 mm/h), normal D-dimer concentration, and increased lymphokine interleukin 6 (27.47 pg/mL; normal range, 0.1–2.9 pg/mL). Real-time fluorescence polymerase chain reaction of the patient's sputum was positive for the 2019-nCoV nucleic acid. Unenhanced chest CT showed multiple bilateral areas of peripheral consolidation (Fig 1a, 1b). There was interlobular septal thickening with a crazy paving appearance



a.



b.



c.

**Figure 2:** Unenhanced chest CT images in a 32-year-old man with 2019 novel coronavirus (2019-nCoV) pneumonia. **(a)** CT scan shows a right lower lobe subpleural consolidation. **(b)** CT scan obtained 3 days later shows that the right lower lobe consolidation has evolved into more of an organizing pneumonia pattern. **(c)** CT scan obtained after 8 days of therapy shows near-complete resolution of the right lower lobe airspace disease.

and bronchiectasis. The adjacent pleura was thickened, without mediastinal lymphadenopathy or pleural fluid. Two days after admission, the patient's temperature rose to 39.2°C (102.56°F) and constitutional symptoms worsened. Repeat chest CT showed progressive consolidation with loss of the areas of crazy paving (Fig 1c, 1d). After antiviral and symptomatic treatment, the patient remains under close observation with improvement in symptoms.

## Case 2

A 32-year-old man had a history of business travel to Wuhan, China. He was admitted to the hospital with cough and fever. At admission, his body temperature was slightly elevated (38.1°C [100.58°F]) and coarse breath sounds of both lungs were found at auscultation. Laboratory studies showed normal complete blood count values, normal C-reactive protein, and normal D-dimer concentration. The lymphokine interleukin 6 level was increased (413.6 pg/mL; normal range, 0.1–2.9 pg/mL). Real-time fluorescence polymerase chain reaction of the patient's sputum was positive for 2019-nCoV nucleic acid. Unenhanced chest CT showed subpleural right lower lobe consolidation (Fig 2a). There was bronchiectasis with reactive thickening of the adjacent pleura. There was no mediastinal lymphadenopathy or pleural effusion. After 3 days of antiviral and symptomatic treatment, the right lower lobe consolidation increased (Fig 2b).

Repeat chest CT 8 days later (Fig 2c) showed improvement. The patient recovered uneventfully after 10 days.

**Author contributions:** Guarantors of integrity of entire study, all authors; study concepts/study design or data acquisition or data analysis/interpretation, all authors; manuscript drafting or manuscript revision for important intellectual content, all authors; approval of final version of submitted manuscript, all authors; agrees to ensure any questions related to the work are appropriately resolved, all authors; literature research, Y.F., H.Z., J.X., P.P., W.J.; clinical studies, Y.F., H.Z., Y.X., J.X., W.J.; experimental studies, Y.F., H.Z., P.P.; statistical analysis, Y.F., H.Z.; and manuscript editing, Y.F., H.Z., Y.X., J.X., W.J.

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