

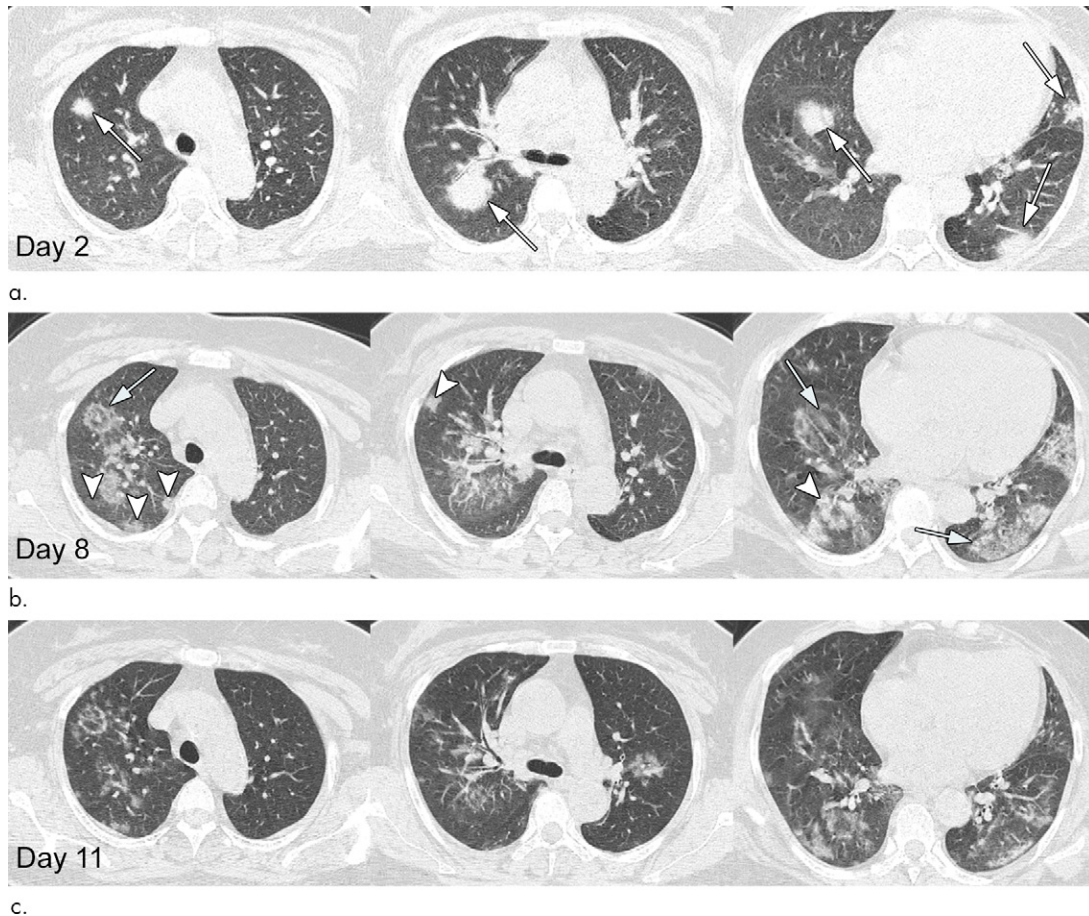
# Longitudinal CT Findings in COVID-19 Pneumonia: Case Presenting Organizing Pneumonia Pattern

Yan Wu, MM • Yuan-liang Xie, MD • Xiang Wang, MM

From the Department of Radiology, Central Hospital of Wuhan, Tongji Medical College, Huazhong University of Science and Technology, Wuhan, 430014, China Received February 7, 2020; revision requested February 10; revision received February 11; accepted February 13. Address correspondence to X.W. (e-mail: wangxiang385@aliyun.com).

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

Radiology: Cardiothoracic Imaging 2020; 2(1):e200031 • <https://doi.org/10.1148/ryct.2020200031> • Content code: CH • ©RSNA, 2020



**a.**  
**b.**  
**c.**  
A 54-year-old woman who presented with fever. **(a)** Axial thin-section unenhanced CT images showed multifocal nodular opacities with peribronchial and subpleural distribution (arrows) in both lungs on day 2 of symptoms. **(b)** Follow-up CT on day 8 showed newly developed ground-glass opacities (arrowheads) and decreasing density of the nodular opacities, with reversed halo sign (arrows). **(c)** Last follow-up CT on day 11, 3 days after initiation of antiviral treatment, showed significantly improvement of the ground-glass opacities.

**A** 54-year-old woman from Wuhan, China, the epicenter of the COVID-19 (formerly known as 2019 novel coronavirus [2019-nCoV]) outbreak (1,2), presented with a 2-day history of fever. The physical examination revealed a temperature of 39.0°C, and laboratory studies showed normal leukocyte with a differential of 82.8% neutrophils, 9.5% lymphocytes, and 0.1% eosinophils. Screening for multiple respiratory pathogens, including influenza A, influenza B, respiratory syncytial virus, adenovirus, human parainfluenza virus, *Mycoplasma pneumoniae*, and *Chlamydia pneumoniae* was negative. At presentation, nonenhanced chest CT showed multifocal nodular opacities in multiple lobes (Fig 1a). After 6 days of supportive treatment, follow-up CT showed decreased density of the opacities and development of ground glass and reversed halo sign (Fig 1b). The initial

nasopharyngeal swab test for the COVID-19 nucleic acids had been negative, but a second test confirmed infection. After 3 days of treatment with oseltamivir, follow-up CT showed significant improvement in the extent and density of the ground-glass opacities (Fig 1c).

**Disclosures of Conflicts of Interest:** Y.W. disclosed no relevant relationships. Y.X. disclosed no relevant relationships. X.W. disclosed no relevant relationships.

## References

1. Zhu N, Zhang D, Wang W, et al. A Novel Coronavirus from Patients with Pneumonia in China, 2019. *N Engl J Med* doi: 10.1056/NEJMoa2001017. Published online January 25, 2020.
2. Chen N, Zhou M, Dong X, et al. Epidemiological and clinical characteristics of 99 cases of 2019 novel coronavirus pneumonia in Wuhan, China: a descriptive study. *Lancet* 2020 Jan 30i: S0140-6736(20)30211-7.