



Clinical Image

Multiple Reversed Halo Sign on Chest CT in COVID-19 Pneumonia

Múltiples signos del halo invertido en la TC de tórax de una neumonía por COVID-19

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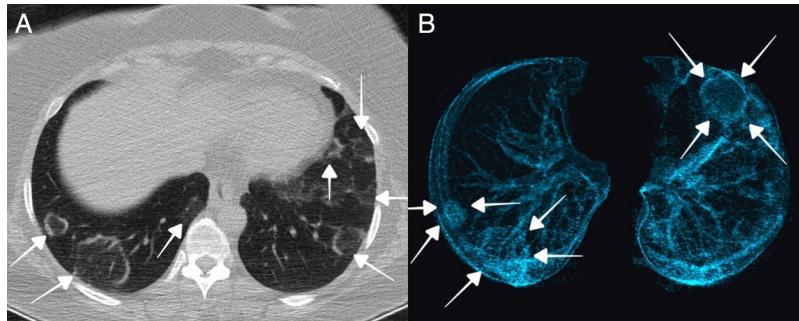


Fig. 1. Axial chest CT (A) and axial 3D volume-rendering (B) images revealed bilateral, multilobular peripherally located lesions with “multiple reversed halo sign” (arrows).

A 43-year-old female presented to the pandemic outpatient clinic of our hospital with the complaints of cough, diarrhea and loss of taste for 3 days. She is a healthcare worker and that her colleagues with whom she worked have been diagnosed with COVID-19. Vital signs and physical examination were normal. Laboratory tests revealed an increased D-Dimer level (1365 ng/ml). Chest CT and 3D volume-rendering images demonstrated bilateral, multilobular peripherally placed lesions with a “multiple reversed halo sign” (Fig. 1A and B). A nasopharyngeal swab was positive for COVID-19. The patient was hospitalized and treated with hydroxychloroquine and enoxaparin. On day 7 of hospitalization, clinical symptoms improved and patient was discharged.

The reversed halo sign is defined as an area with ground-glass opacity surrounded by partial or complete rings of consolidation.¹

This sign is nonspecific and has been reported in cryptogenic, non-cryptogenic organizing pneumonia, viral and fungal pneumonia, neoplastic processes and many of other pathologies.² This sign is often associated with severe cases and occurs long after symptom onset. Such findings in these cases suggest that non-neoplastic processes such as organized pneumonia are one of the mechanisms of lung fibrosis.²

References

- Ye Z, Zhang Y, Wang Y, Huang S, Song B. Chest CT manifestations of new coronavirus disease 2019 (COVID-19): a pictorial review. *Eur Radiol*. 2020;1–9.
- Wu Y, Xie YL, Wang X. Longitudinal CT findings in COVID-19 pneumonia: case presenting organizing pneumonia pattern. *Radiology*. 2020;2:e200031, <http://dx.doi.org/10.1148/radiol.2020200031>.