

COVID-19 pneumonia and target sign

Pneumonia por COVID-19 e o sinal do alvo

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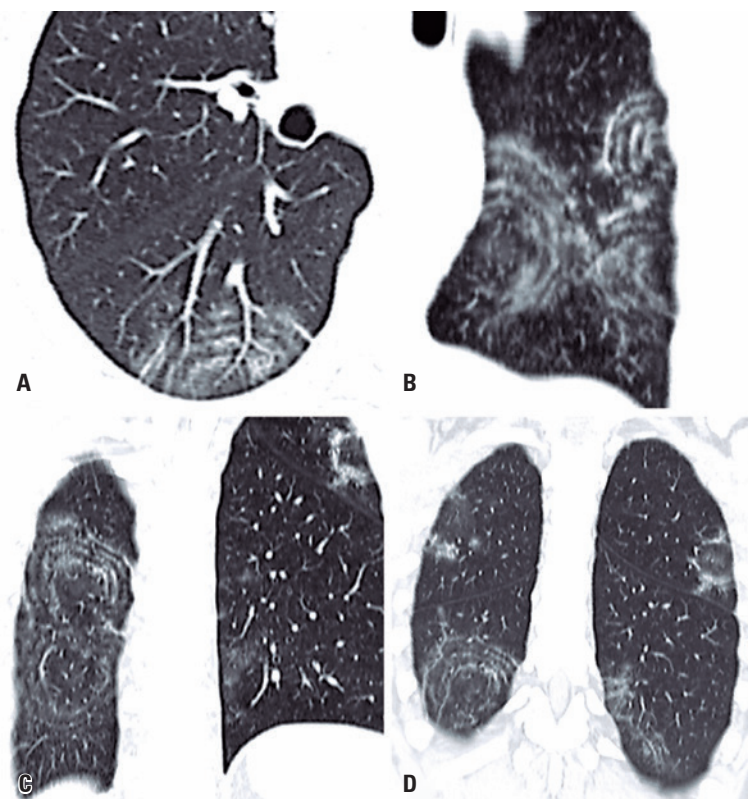


Figure 1. Chest computed tomography imaging (A) axial, (B) sagittal oblique, and (C and D) coronal oblique show the target sign characterized by multiple concentric ring-like opacities, with a central nodular peribronchovascular opacity, in a 49-year-old man with COVID-19 pneumonia. Note the reversed halo sign in the left upper lobe

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A 49-year-old man came to our emergency department with a 2-day history of fever, cough, anosmia, ageusia and odynophagia. His past medical history included hypertension. At the time of this presentation, chest computed tomography revealed peripheral and bilateral ground-glass opacities, with some visible intralobular lines – typical findings of pneumonia caused by the severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2). In addition, some findings revealed the target sign (Figure 1). The patient’s supportive treatment was continued, and reverse-transcriptase polymerase chain reaction (RT-PCR) confirmed the infection by SARS-CoV-2.

The target sign has been recently described and associated with organizing pneumonia and vascular features related to the viral infection.⁽¹⁻³⁾ It is characterized by a nodular opacity in the center of a ring-like opacity, which can have ground-glass or consolidation attenuation, as well multiple concentric ring-like opacities.⁽⁴⁾ When only with one or two ring-like opacities, this sign is not specific to COVID-19, and the differential diagnosis includes conditions other than organizing pneumonia, such as metastasis and post-radiofrequency ablation zone.^(5,6) However, the manifestation with multiple concentric ring-like opacities (Figure 1) has only been reported so far in patients with COVID-19 pneumonia.⁽⁴⁾

We emphasize the importance of familiarizing radiologists with imaging findings of COVID-19 pneumonia to contribute to its diagnostic suspicion. The description of new radiological patterns, so far infrequent or little known, is of great value in the scenario of the SARS-CoV-2 pandemic, since the use of chest computed tomography has increased significantly in patients suspected to have COVID-19 pneumonia. It is noteworthy that further studies are still required to better assess the target sign and its accuracy in SARS-CoV-2 infection.

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