



Clinical Image

Reversed Halo Sign: What Lies Beneath?☆

Signo del halo invertido: ¿qué hay debajo?

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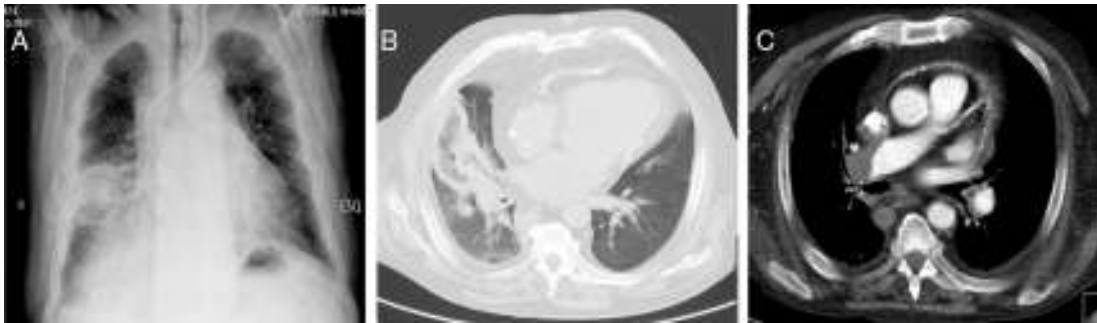


Fig. 1. (A) Chest X-ray showing a roughly nodular opacity in the right perihilar region; (B) Chest CT showing the reversed halo sign; (C) CT pulmonary angiography showing the presence of a thrombus in the right main pulmonary artery.

We report the case of a 63-year-old man, non-smoker, who presented in the emergency room with acute onset of dyspnea and fever. A chest X-ray showed a roughly nodular opacity in the right perihilar region (Fig. 1A), so the patient was admitted to a medical department with a diagnosis of pneumonia. Due to clinical worsening despite broad-spectrum antibiotic coverage, a chest CT was performed which showed a reversed halo sign (RHS) in the right lung (Fig. 1B). This prompted an extensive investigation including a CT pulmonary angiography that demonstrated the presence of a thrombus in the right main pulmonary artery (Fig. 1C).

The RHS or atoll sign is characterized by a central ground-glass opacity surrounded by denser air-space consolidation in the shape of a crescent or a ring.¹

Although it was initially considered a pathognomonic sign for organizing pneumonia, this manifestation has been associated with a wide range of infectious and non-infectious diseases, including pulmonary embolism (PE).¹ In the latter, the RHS seems to correspond to pulmonary infarction in PE² and diagnosis should be based on clinical and radiological findings.

References

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2. Casullo J, Semionov A. Reversed halo sign in acute pulmonary embolism and infarction. *Acta Radiol.* 2013;54:505–10.

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