

中文題目：肺栓塞病患呈現出非典型表徵：反暈徵候 (Reverse halo sign)

英文題目：An atypical presentation in a typical patient: Reverse halo sign in a patient with unexpected pulmonary infarction

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Introduction:

The reverse halo sign (RHS) is a rare sign initially reported to be specific for cryptogenic organizing pneumonia but was later found to be present in other pulmonary conditions. Therefore, the finding should be interpreted with the help of clinical history and examination.

Case presentation:

A 60-year-old woman with rheumatoid arthritis presented to our hospital with intermittent dyspnea and dry coughs for two months. Two days prior to this admission, she has right calf pain and leg swelling. Physical examination showed right foot edema with positive Homan sign. D-dimer was 4860ng/ml. Chest radiograph revealed right pleural effusion and suspicious pleural base tumor. Chest CT angiography scan showed no pulmonary embolism, but the presence of right lower lung mass with reverse halo sign, some mediastinal lymphadenopathy and moderate amount of pleural effusion. Right chest thoracentesis yielded exudative fluid, but analyses were not suggestive of pyogenic infection. The leg swelling resolved spontaneously during stay and the subsequent lower limbs doppler ultrasound did not find occluded veins. CT-guided biopsy was done to rule out malignancy, but instead, disclosed hemorrhagic infarction. She was diagnosed with recent pulmonary infarction likely from subacute pulmonary embolism. She received anticoagulant therapy at the outpatient clinic. Subsequent serial chest radiograph revealed melting ice cube sign and slow resolving right pleural effusion.

Discussion:

The reverse halo sign was less specific than initially discovered as it has been found in patients with various pulmonary diseases, including invasive fungal infections, tuberculosis, Wegener granulomatosis, sarcoidosis, neoplasm and infarctions. Pulmonary embolism with pulmonary infarction may present as subpleural wedge-shape consolidation on CT. Signs on chest radiograph that are more specific towards pulmonary embolism include Fleischner sign and Westermark sign. Distal pulmonary infarctions may present with Hampton hump. With reperfusion after the pulmonary infarction, the hemorrhagic infarction gradually resolves and melting ice cube sign can be observed in serial chest roentgenogram. Majority of the lesion would form a linear scar by around 7 months.

Conclusion:

Despite a sign not as specific as it used to, the RHS is still an important finding on chest CT as it prompts further evaluation. Clinical history and examination may provide important clues to arrive at the right diagnosis.