

Interstitial pneumonia due to Japanese spotted fever

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Key message

We report case of Japanese spotted fever with interstitial pneumonia. In patients with signs of interstitial pneumonia on chest computed tomography, Rickettsial pneumonia should be considered in the differential diagnosis, especially if they have visited a *Rickettsia*-endemic area.

KEYWORDS

interstitial pneumonia, Japanese spotted fever, rickettsial pneumonia

CLINICAL IMAGE

A 47-year-old man presented to the emergency department with a 6-day history of fever 10 days after visiting a mountain in an area in which Japanese spotted fever (JSF) is endemic. He had scattered purpura over his whole body, but no tick

bite eschar was observed. Laboratory investigations revealed thrombocytopenia, elevated liver enzyme, bilirubin, and creatinine levels, and prolonged activated partial thromboplastin time. Chest computed tomography (CT) revealed bilateral ventral-predominant interlobular septal thickening (Figure 1). *Rickettsia japonica* polymerase chain reaction testing of a

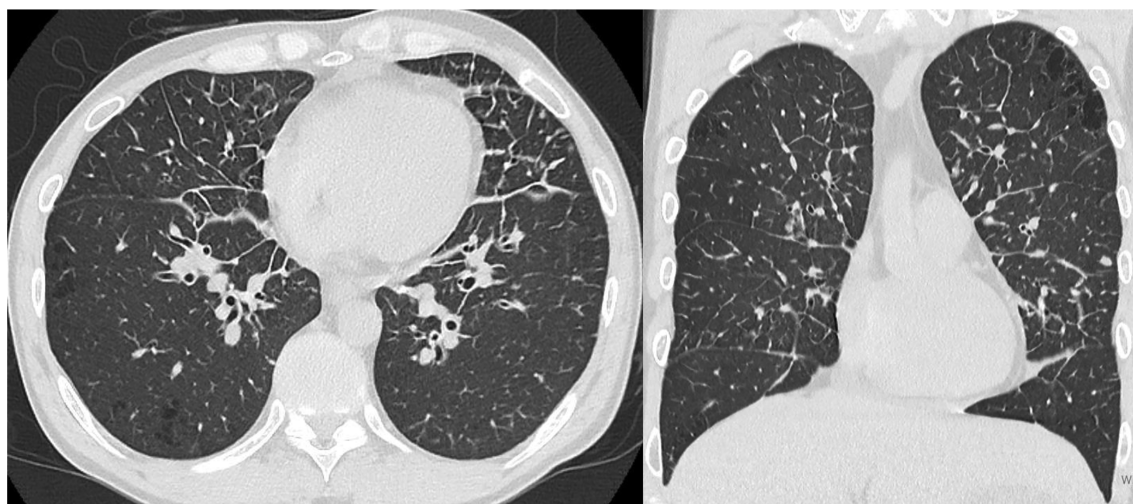


FIGURE 1 Chest computed tomography showing bilateral ventral-predominant interlobular septal thickening.

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FIGURE 2 Follow-up chest computed tomography after completing a 12-day course of minocycline and levofloxacin, showing clearing of the lung infiltrates.

serum sample was positive, leading to a diagnosis of JSF. After completing a 12-day course of minocycline and levofloxacin, follow-up chest CT (Figure 2) revealed clearing of the lung infiltrates. Pulmonary lesions associated with JSF are rare, but heavy inflammatory cell infiltration can cause interlobular septal thickening.^{1,2} Clinicians should consider rickettsial pneumonia in the differential diagnosis of interstitial pneumonia, especially in patients presenting with systemic symptoms such as rash and thrombocytopenia, and check whether the patient has visited a *Rickettsia*-endemic area.

AUTHOR CONTRIBUTIONS

Katsunori Arai and Hirokazu Tokuyasu conceived and drafted the manuscript. Katsunori Arai, Tatsuya Konishi, Toshiyuki Tatsukawa and Kenichi Takeda contributed to clinical management of the patient. Akira Yamasaki revised the manuscript for intellectual content. All authors contributed to and approved the final version of the manuscript.

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CONFLICT OF INTEREST STATEMENT

None declared.

DATA AVAILABILITY STATEMENT

The data that support the findings of this study are available on request from the corresponding author. The data are not publicly available due to privacy or ethical restrictions.

ETHICS STATEMENT

The authors declare that appropriate written informed consent was obtained for the publication of this manuscript and the accompanying images.

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