Clinical picture

Scrub typhus pneumonitis

A 57-year-old male previously healthy patient presented with a 1-week history of fever. Two weeks ago, he went to Orchid Island, which is near the east coast of Taiwan for diving. One week later, he experienced fever, shaking chills, headache cough with yellowish sputum and mild dyspnea after returning from Orchid Island. He visited our hospital and was admitted. Physical examination revealed a red indurated lesion surrounding a black necrotic center over left flank area (Figure 1A). Eschar was suspected. Blood examination showed elevated liver enzymes and thrombocytopenia. Chest radiography (Figure 1B) showed bilateral reticulonodular opacities and septal lines distributed particularly in the lower lung zone. Small bilateral pleural effusions are present. Chest computer tomography (Figure 1C) showed interlobular septal thickening, bronchial wall thickening, diffuse ground glass opacities and patchy consolidations in the dependent lung zones. The indirect immunofluorescence antibody tests against the *Orientia tsutsugamushi* were positive and scrub typhus infection with pneumonitis was diagnosed. We prescribed the antibiotic with Minocycline and fever resolved within 24 h. Chest radiography also improved after treatment. Patient was discharged after 1 week of treatment without any complication.

Scrub typhus is an acute febrile illness, in which radiological findings may be of value in differentiation from other febrile episodes. Scrub typhus pneumonitis may be due to an immunological reaction due to vasculitis secondary to direct endothelial injury or direct injury by the organism of *Orientia tsutsugamushi*.¹ Chest radiographic abnormalities were documented in 78% of patients with scrub typhus.² Bilateral diffuse reticulonodular opacities and septal lines were the most frequent findings. The presence of pneumonitis is closely associated with morbidity and severity of disease for patients with scrub typhus.³ The physician should keep in

Figure 1. (A) Left flank area showed eschar formation with red indurated lesion and black necrotic centre. (B) Chest radiography showed bilateral reticulonodular opacities and septal lines distributed particularly in the lower lung zone.

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mind the specific characteristic of chest radiographic abnormalities from scrub typhus and prescribed adequate antibiotic as soon as possible if scrub typhus is suspected from chest radiography.

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References

Figure 1. (Continued) (C) Chest computer tomography showed interlobular septal thickening, bronchial wall thickening, diffuse ground glass opacities and patchy consolidations in the dependent lung zones.