

A typical case of scrub typhus (tsutsugamushi disease)

Sho Fujiwara,¹ Taro Shimizu²

¹Iwate Prefectural Chubu Hospital, Iwate, Japan
²Joto Hospital, Tokyo, Japan

Correspondence to

Dr Taro Shimizu,
shimizutaro7@gmail.com

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DESCRIPTION

A 79-year-old Japanese woman presented to the emergency department with a 4-day history of fever (37–39°C) of unknown origin, headache and loss of appetite. She denied respiratory distress and other symptoms; her SpO₂ was 88% on room air. Two weeks before presentation, she travelled to a mountain in Japan to collect edible plants.

On physical examination, purple-coloured, non-pruritic eruptions were observed on her face, extremities and trunk (figure 1). An eschar was observed in the left lower extremity (figure 2). Laboratory tests revealed the following: platelet count 70 000/μL; aspartate aminotransferase level 144 U/L and alanine aminotransferase level 444 U/L. Serological tests revealed high *Orientia tsutsugamushi* IgG and IgM antibody titres. She was diagnosed with scrub typhus (tsutsugamushi disease) and was started on 200 mg of minocycline. After 2 weeks of the treatment, her symptoms resolved and the eruptions disappeared. She was discharged without complication.

Scrub typhus, also known as tsutsugamushi disease, is an acute lethal infectious disease caused by *O. tsutsugamushi*. It is endemic to the Asian Pacific area. Common clinical manifestations of the disease are febrile, headache and rash.¹ Diagnosis is difficult because many patients present as fever of unknown origin. Evidence of an eschar is the only



Figure 2 An eschar in the left lower extremity.

clue for the diagnosis, while serological methods play limited roles in making a decision on whether or not treatment should be initiated.^{2 3}

Learning points

- ▶ Scrub typhus is a lethal infectious disease; it is difficult to diagnose without experience.
- ▶ Fever of unknown origin and low platelet count in a patient could be clues to diagnose the disease.
- ▶ A thorough inspection of the skin for an eschar, a pivotal indicator for scrub typhus diagnosis, is essential.

Contributors SF saw the patient and wrote the manuscript. TS saw the patient and revised the manuscript.

Competing interests None.

Patient consent Obtained.

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- 2 Kim D-M, Won KJ, Park CY, *et al.* Distribution of eschars on the body of scrub typhus patients: a prospective study. *Am J Trop Med Hyg* 2007;76:806–9.
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Figure 1 Purple-coloured, non-pruritic eruptions on the trunk.



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