

## Images in Clinical Tropical Medicine

### Scrub Typhus without Eruption

Takaaki Yoshimoto\* and Taiji Yoshimoto  
Hitachiota City Kegano Clinic, Hitachiota City, Ibaraki, Japan

A 72-year-old woman presented with a chief complaint of fever for 5 days. Her blood pressure was 120/70 mmHg, and her body temperature was 38°C (axillary). Physical examination showed that her chest was clear, and her liver and spleen were not palpable. No skin rash was observed, but an eschar on her chest was discovered (Figure 1). Routine laboratory tests revealed normal leukocyte and platelet counts, elevated C-reactive protein level (10.2 mg/dL), and elevated aspartate aminotransferase (AST) 285 U/L and alanine aminotransferase (ALT) 185 U/L. *Orientia tsutsugamushi* infection was confirmed by indirect immunofluorescent antibody test. Immunoglobulin (Ig) M/IgG titers of Kato, Karp, and Gilliam strains were 80/160, 160/160, and 40/80, respectively.

She was successfully treated with minocycline. Scrub typhus is often acquired during outdoor work such as farming,



FIGURE 1. An eschar over her left upper chest was a clue to diagnose scrub typhus without skin rash.

forestry, collecting edible wild plants, and recreation. About 400 cases of scrub typhus were reported annually in recent years in Japan. The largest number of cases was in Kyushu followed by Tohoku-Hokuriku and Kanto areas. There were two peaks of incidence of scrub typhus in Japan, a large peak in November and a small peak in May. Males and females were almost equally affected. The peak incidence was in the age group of 70–74 years.<sup>1</sup> As a result of population aging in this country, young people move to cities for work, and elderly people, spending more time in outdoor activities than other age groups, may be more likely to be exposed to infected mites. Fever, skin rash, and eschar are three major clinical symptoms of scrub typhus. Individuals of Caucasian and Japanese ancestry are more likely to develop a rash compared with other racial groups, like Southeast Asians, who contract the disease.<sup>2</sup> However, it is imperative to find evidence of an eschar to diagnose this condition. Empiric antimicrobial treatment, usually a tetracycline class antibiotic, will produce rapid amelioration of the clinical symptoms of scrub typhus and may also prevent fatal complications.

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Authors' addresses: Takaaki Yoshimoto and Taiji Yoshimoto, Hitachiota City Kegano Clinic, Hitachiota City, Ibaraki, Japan, E-mails: ymta@beige.ocn.ne.jp and jyfrk268@yahoo.co.jp.

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\*Address correspondence to Takaaki Yoshimoto, Hitachiota City Kegano Clinic, 4954, Kegano-Chou, Hitachiota City, Ibaraki Prefecture, Japan. E-mail: ymta@beige.ocn.ne.jp