

## Clinical Images

# Scrub Typhus (Tsutsugamushi Disease) Presenting as Fever with an Eschar

Kiyoshi Shikino, MD, PhD, Yoshiyuki Ohira, MD, PhD, and Masatomi Ikusaka, MD, PhD

Department of General Medicine, Chiba University Hospital, Chiba-City, Chiba Pref., Japan.

**KEY WORDS:** tsutsugamushi disease; scrub typhus; eschar; fever; rash.

J Gen Intern Med 31(5):582

DOI: 10.1007/s11606-015-3371-x

© Society of General Internal Medicine 2015

A 76-year-old Japanese male farmer presented with a 2-day history of high fever, rash, intense headache, and diffuse myalgias. Physical examination revealed a non-pruritic maculopapular rash on his trunk and extremities (Fig. 1). An eschar was located on his right chest, which indicated the site of an infected chigger bite (Fig. 2). Serological tests revealed 1:160 titers of anti-*Orientia tsutsugamushi* IgM and a fourfold increase in titers between paired samples. Scrub typhus was diagnosed. After



**Figure 1** Pink erythematous papules 2–5 mm in diameter are visible on the patient's trunk.



**Figure 2** Infiltrative erythema (diameter, 20 mm) with a black eschar in the center.

treatment with minocycline (200 mg/day for 14 days), his symptoms resolved completely.

Scrub typhus, also known as tsutsugamushi disease, is an acute, potentially lethal infectious disease caused by *Orientia tsutsugamushi*. *Orientia tsutsugamushi* is distributed throughout the Asia Pacific area. Most patients present with high-grade fever, intense generalized headache, and diffuse myalgias. Approximately 50 % of patients develop a non-pruritic macular or maculopapular rash. In addition, some patients develop an eschar at the site of the infected chigger bite, which is an important clinical clue for diagnosing scrub typhus, as 60–88 % of patients with scrub typhus exhibit an eschar.<sup>1</sup> Therefore, a methodical physical examination of the entire body should be performed to identify eschars in patients who come from an endemic area.

**Conflict of Interest:** The authors each declare that they have no conflict of interest.

**Corresponding Author:** Kiyoshi Shikino, MD, PhD; Department of General Medicine, Chiba University Hospital, 1-8-1, Inohana, Chuo-ku, Chiba-city, Chiba pref., Japan (e-mail: kshikino@gmail.com).

## REFERENCES

1. Sheehy TW, Hazlett D, Turk RE. Scrub typhus. A comparison of chloramphenicol and tetracycline in its treatment. Arch Intern Med. 1973;132:77–80.