

Commentary

# A severe scrub typhus case with erythema multiforme caused by *Orientia tsutsugamushi*

Masafumi Seki \*

Department of Infectious Diseases and Infection Control, Saitama Medical University International Medical Center, Hidaka City, Saitama, Japan

\*Correspondence: Masafumi Seki (sekimm@saitama-med.ac.jp)

**Abstract:** Scrub typhus is a common disease caused by *Orientia tsutsugamushi* in the tropical/temperate zone. It usually shows the skin lesions, including eschar, but erythema multiforme is rare.

**Keywords:** Rickettsia, Ticks, Drug eruption, Minocycline, DIC

## How to cite this paper:

Seki, M. (2024). A severe scrub typhus case with erythema multiforme caused by *Orientia tsutsugamushi*. *Global Journal of Medical Case Reports*, 4(1), 14–15. Retrieved from <https://www.scipublications.com/journal/index.php/gjmcr/article/view/1002>

## Academic Editor:

Ravi Kumar Chittoria

Received: May 12, 2024

Revised: July 1, 2024

Accepted: July 5, 2024

Published: July 6, 2024



**Copyright:** © 2024 by the author. Submitted for possible open access publication under the terms and conditions of the Creative Commons Attribution (CC BY) license (<http://creativecommons.org/licenses/by/4.0/>).

## 1. Commentary

Scrub typhus is a disease caused by a rickettsia, *Orientia tsutsugamushi*, and patients usually show a specific eschar, papules, and erythema ranging in size from rice grains to beans, with treatment being antibiotics for mild cases [1, 2].

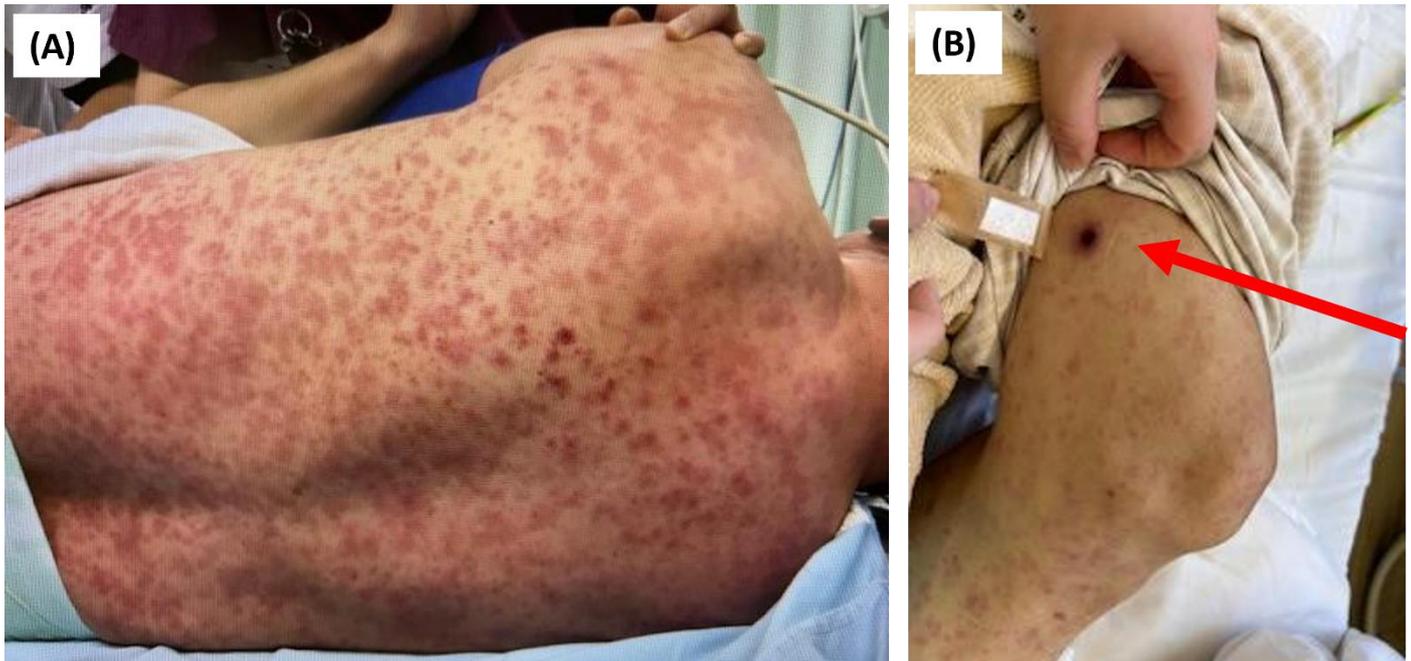
However, severe cases can occur. A 72-year-old man who was taking oral amoxicillin 500 mg three times/day following tooth extraction 10 days earlier presented with general malaise and erythema multiforme with target lesion, and a drug eruption was diagnosed (Figure 1A). No medications were given, and antibiotic treatment was withdrawn, but he lost consciousness half a day later and was transported to the Emergency Department.

The characteristic eschar from a tick bite was found (Figure 1B), and scrub typhus, such as tsutsugamushi disease, was diagnosed. We found anti-Tsutsugamushi IgG and IgM were also increased significantly. Intravenous minocycline 100 mg twice/day was started immediately, and his fever decreased the day after admission and finally improved two weeks later.

Erythema multiforme is a very rare skin lesion in tsutsugamushi disease and is often misdiagnosed as a drug eruption [3, 4], but severe rickettsial diseases should be considered, and efforts should be made to identify the characteristic eschar caused by the tick bite.

**Conflict of Interest:** The author has no competing interests to disclose.

**Funding:** This research received no specific grant from any funding agency in the public, commercial, or not-for-profit sectors.



**Figure 1.** The patient's skin lesions. (A) Erythema multiforme is found on the whole of his back. (B) The characteristic eschar is found on the medial side of his left thigh.

## References

- [1] Taylor AJ, Paris DH, Newton PN. A Systematic Review of the Mortality from Untreated Leptospirosis. *PLoS Negl Trop Dis* 2015; 9(6): e0003866.
- [2] Pradhan RR. Eschar of scrub typhus. *IDCases* 2022; 30: e01630.
- [3] Grünwald P, Mockenhaupt M, Panzer R, Emmert S. Erythema multiforme, Stevens-Johnson syndrome/toxic epidermal necrolysis - diagnosis and treatment. *J Dtsch Dermatol Ges* 2020; 18(6): 547-53.
- [4] Hu YQ, Mu ZL, Zhang JZ. Erythema multiforme-like drug eruption in a patient with systemic lupus erythematosus treated with leflunomide. *Dermatol Ther* 2020; 33(3): e13382.