Multi-organ Dysfunction Caused by Scrub Typhus Initially Misinterpreted as Acute Tonsillitis

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Scrub typhus is an acute febrile infectious disease caused by Orientia tsutsugamushi. Although not uncommonly seen in northern, eastern and southern Taiwan and the offshore islands, an imported case from the offshore islands might be misdiagnosed in western Taiwan hospitals. Herein, we presented an initially unrecognized case of scrub typhus in a 21 year-old man who was a soldier in Ma-Tzu. He developed nonspecific symptoms including general malaise, muscle pain and fever and was diagnosed with acute tonsillitis at a district hospital in Chang-Hua County. The clinical condition did not respond to penicillin and was complicated by multi-organ dysfunction. After being transferred to our department of emergency medicine, a clinical diagnosis of scrub typhus was made on the basis of chest wall eschar and axillary lymphadenopathy. Although the fever subsided quickly after the administration of tetracycline (100mg, intravenous, every 12 hours), cardiac ischemia, pericardial effusion and acute pulmonary edema together with bone marrow suppression occurred in addition to liver and kidney dysfunction. After one week of above antibiotic control and other supportive treatment, the patient recovered gradually and was discharged uneventfully. Coping with fever of unknown origin in the emergency department remains challenging. Early recognition of eschar, which is rarely seen in other insect-bite diseases, helps differentiate scrub typhus from other infectious diseases and guides the clinician to the proper antibiotics. Diagnosis of scrub typhus depends on a high index of clinical suspicion, detailed travel history and complete physical examination. Serum tests play a limited role in the acute stage but help in eventual confirmation of the clinical diagnosis.

Key words: multi-organ dysfunction, orientia tsutsugamushi, scrub typhus, eschar

Introduction

Scrub typhus may not be recognized, especially in non-endemic area such as western Taiwan. Delayed diagnosis and treatment may lead to severe complications such as multi-organ dysfunction and failure with a high mortality rate. Serological analysis might be negative in the first two weeks of the disease. Early diagnosis relies on a high index of suspicion, a detailed travel history and familiarity with the typical primary skin lesion in a febrile patient. Herein we report a case of scrub typhus imported from Ma-Tzu. It was initially diagnosed as acute tonsillitis, leading to delayed treatment and multi-organ dysfunction.