

## Pleuropulmonary scrub typhus: A summary of Thai cases

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Scrub typhus is an important tropical infection. The pathogenic organism is *Rickettsia tsutsugamushi* which can be transmitted to humans by the bite of larval-stage trombiculid mites or chiggers. This disease can cause acute febrile illness. The pleuropulmonary manifestation of scrub typhus can be seen although it is not common. Here, the author reviewed and summarized the characteristics of reported pulmonary scrub typhus from Thailand.

This work is designed as a retrospective descriptive study. The literature searching was firstly performed to include the reports on pleuropulmonary scrub typhus in Thailand. The search engines were PubMed and Thai Index Medicus. The exclusion was set in any case without complete clinical history description. For assessment, the descriptive statistical analysis was done where it was appropriate.

According to this work, there are 5 reports<sup>1-5</sup> on 23 cases of pleuropulmonary scrub typhus (16 males, 7 females). In all cases, scrub typhus was definitely diagnosed by Weil-Felix OX-K agglutination test and immunofluorescent antibody test. The identified disorders include pleural effusion (16 cases), pneumonia (3 cases), interstitial pneumonitis (2 cases) and respiratory distress syndrome (1 case). There are 14 cases of asymptomatic pleuropulmonary involvement; all with pleural effusion determined in chest X ray. There are 3 deaths; all with respiratory distress syndrome. For treatment, in all survived cases, classical doxycycline regimen brought satisfied outcome; complete recovery (within 2 wk) without any sequelae.

Scrub typhus is an important tropical rickettsial infection. It is commonly found in rainy season. The most common signs and symptoms of scrub typhus are high fever, headache, injected conjunctiva, muscleache and generalised lymphadenopathy. Some cases can be severe and fatal.

A pleuropulmonary scrub typhus is also an uncommon presentation of scrub typhus. It can be in any form; pneumonia, interstitial pneumonitis, pulmonary edema, pulmonary hemorrhage and pleural effusion<sup>6</sup>. In this report, it can be seen that there can be either asymptomatic or symptomatic pleuropulmonary scrub typhus. In symptomatic pleuropulmonary scrub typhus, it can be fatal with respiratory distress syndrome. Of interest, in some cases the diagnosis was delayed and mistreated. This is the case which usually ends up with respiratory distress syndrome.

Indeed, scrub typhus should be a differential diagnosis in the patient with acute febrile illness with history of a short trip in a jungle. This is of specific concern for Asia<sup>7</sup>. In case that early diagnosis is derived, the standard doxycycline antibiotic therapy can be successful.

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