

## Prevalence, clinical and demographic features of scrub typhus among clinically suspected typhus patients attending the District General Hospital Kilinochchi

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Scrub typhus is a mite-borne acute febrile illness caused by *Orientia tsutsugamushi*. It is an emerging infectious disease in the northern region of Sri Lanka. Kilinochchi district is predominantly an agriculture-based area, which is in the dry zone of Sri Lanka, most of the area is considered as a rural area and scrub vegetation are plentiful, such nature of these area is favorable to acquiring scrub typhus infections. Kilinochchi district in the northern region was not included in the previous study. This study aims to determine the prevalence, clinical and demographic features of scrub typhus among clinically suspected typhus patients attending the District General Hospital Kilinochchi. Blood samples were collected from all the clinically suspected typhus patients attending the District General Hospital Kilinochchi from June 2021 to August 2021. All these patients rapidly responded within 2-3 hours to doxycycline. Testing for anti-scrub typhus IgM was performed in serum using an anti-scrub typhus IgM ELISA kit (AccuDiag™, USA) A total 39 patients were recruited for this study. Thirteen (33.3%) patients were positive for anti-scrub typhus IgM, of whom 8 were males and 5 were females with a mean age of 40.6 years. All the positive cases were from rural areas and 46.2% of them were farmers. The major clinical presentations in these patients were fever (100%), chills (69.2%), headache (69.2%), nausea (53.8%), vomiting (53.8%) and abdominal pain (46.8%) while an eschar was found in only 23.1%. Nearly two thirds of the patients had thrombocytopenia and a normal WBC count. Only 33.3% of acute febrile illnesses in this study were attributed to scrub typhus. Patients with negative results must be investigated for other possible infectious diseases, especially leptospirosis, which also responds to doxycycline and is prevalent in the geographical area of Kilinochchi.

**Keywords:** Scrub typhus, Prevalence, ELISA