



P 42 Serological diagnosis of rickettsial diseases in Sri Lanka using a commercial ELISA

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Rickettsioses are an emerging group of diseases in Sri Lanka according to clinical data. However, laboratory diagnosis remains a challenge in Sri Lanka due to a lack of availability of validated assays. The objective of this study was to identify the types of rickettsial infections present in different areas of Sri Lanka using a commercial ELISA kit.

Clinicians were informed through workshops conducted in collaboration with the Epidemiology Unit, Colombo, and requested to send serum samples from patients with a clinical diagnosis of a rickettsial infection considered. All samples were tested using Panbio (Australia) IgM and IgG ELISA kits for the diagnosis of spotted fever (SF) and scrub typhus (ST).

Samples from 262 patients presenting to 13 hospitals were received from January to December 2009. Fifty-two patients were negative for SF and ST serology. Of the remaining 210, 99 and 48 patients were positive for SF and ST IgM, respectively. Twenty-three patients were IgM-positive for both SF and ST. The remaining patients were IgM-negative, but IgG-positive for SF, ST, or both. Mean duration of fever in IgM-positive patients was 7 days (SD±2). SF IgM-positive patients were characterized by rash (87/99) and low incidence of eschar (2/99). In contrast, ST IgM-positive patients had an eschar (43/48) with no rash (0/48). The distribution of SF and ST was found to be geographically restricted.

It is evident from the data obtained that both SF and ST are present in the island. Presence of a rash and eschar seem to vary according to the type of rickettsiosis: rash being more common in SF patients and eschar being found predominantly in patients with ST.

The findings of this study are useful for planning a more specific methodology for the laboratory testing of rickettsial infections in different locations in Sri Lanka.

NSF/RG/HS/07 is acknowledged for financial assistance, and Panbio (Australia) is acknowledged for donating the ELISA kits.