

## **Epidemiological Factors Associated with Spotted Fever Rickettsioses in the Central Province, Sri Lanka**

**K.G.A.D. Weerakoon<sup>1</sup>, R.P.V.J. Rajapakse<sup>2</sup>, S.B. Adikari<sup>3</sup>, S.C. Medagedara<sup>4</sup>,  
D.M. Nanayakkara<sup>2</sup>, S. Ranasingha<sup>2</sup> and S.A.M. Kularatne<sup>4</sup>**

<sup>1</sup>*Department of Parasitology, Faculty of Medicine and Allied Sciences,  
Rajarata University of Sri Lanka*

<sup>2</sup>*Department of Veterinary Pathobiology, Faculty of Veterinary Medicine and Animal  
Science, University of Peradeniya*

<sup>3</sup>*Department of Anatomy, Faculty of Medicine, University of Peradeniya*

<sup>4</sup>*Department of Medicine, Faculty of Medicine, University of Peradeniya*

The spotted fever group (SFG) rickettsioses are common throughout the rural and suburban areas in central hills of Sri Lanka. The aim of this study is to describe the risk factors and epidemiological factors associated with SFG in the region.

Confirmation of diagnosis was made with Immunofluorescence antibody assays (IFA) by detecting specific rickettsial IgM and IgG serum antibodies for *Rickettsia conorii* antigen. The patients presented to the General Hospital, Peradeniya from 2008-2010 were interviewed and examined on admission and basic demographic data such as age, gender, residence, history of contacts with animals and arthropod bites were recorded.

During the three years under study, 247 patients residing in the Kandy district in rural and suburban areas had SFG infection. Of them, 130(53%) were males and 117 (47%) were females. The mean age was 43 years (range 12 to 87 years) and they were. A majority of, 204 (82%) patients were living in solidly constructed asbestos or tile roofed houses, 211 (85%) had cemented floors. One hundred and seventy (70%) patients had less than 3 rooms in their houses. Two hundred and twenty eight (92%) patients had contact with one or more animals, and the exposure status was: wild boar 194 (78 %), dogs 160, (65 %), cats 97(39%) and cows 25 (10 %). History of arthropod bites (mainly tick bites) was 76(30%) and 84 (34%) patients had a recent contact history of febrile illness. The occupational status of the study group was: office workers 105 (42 %), field workers 54 (22%), house wives 64 (26%) and unemployed 22 (9%). The seasonal distribution showed occurrence of cases throughout the year with peaks in June 29 (12%), July 36 (15%) and December 26 (11%).

The SFG caused infection throughout the year and all age groups irrespective of gender were affected. High rate of contact with animals, predominantly wild boars, history of tick bites and occupational status of patients may give clues to possible mode of transmission of the infection.