Clinical and Laboratory Features of Spotted Fever Rickettsioses in Patients Presented to Teaching Hospital, Peradeniya

K.G.A.D Weerakoon[1], R.P.V.J. Rajapakse[2], S.B Adikari[3], S.C. Medagedara[4], D.M. Nanayakkara[2], S. Ranasingha[2] and S.A.M. Kularatne[4]

[1]Department of Parasitology, Faculty of Medicine and Allied sciences, Rajarata University of Sri Lanka
[2]Department of Veterinary Pathobiology, Faculty of Veterinary Medicine and Animal Science, University of Peradeniya
[3]Department of Anatomy, Faculty of Medicine, University of Peradeniya
[4]Department of Medicine, Faculty of Medicine, University of Peradeniya

Spotted fever group rickettsioses (SFG) are predominantly seen in the central hills of Sri Lanka. Unfortunately, routine laboratory diagnostic facilities are not available in the hospitals. Therefore, logical use of the clinical features may help to arrive at a clinical diagnosis and to institute treatment, or otherwise delay in treatment could be detrimental. The aim of this study was to describe clinical and laboratory features of SFG from a prospective case series.

Those patients who were presented to Medical Unit, General Hospital, Peradeniya from 2008-2010 with an IgG titer > 1/256 were included in the study. The confirmation of the diagnosis was made with Immunofluorescence antibody assays (IFA) which detected specific rickettsial IgM and IgG antibodies for *Rickettsia conorii* antigen. Ethical clearance for the study was obtained from ethical review committee, Faculty of medicine, Peradeniya.

A total of 247 patients were confirmed to have either primary (19%) or secondary SFG (81%). Of them, 130 (53%) were males and 117 (47%) were females and the mean age of the group was 43 years (12 to 87 years). Patients were presented to the hospital after an average of six days (SD = 4) of fever. A maculopapular skin rash was observed in 78% and a rash with skin necrosis was seen in 6% of patients. Fever (98%), headache (95%), skin rash, arthralgia (70%), myalgia (84%), nausea (51%), vomiting (47%), cough (28%) and conjunctival injections (66%) were the predominant clinical findings. Leucopaenia, thrombocytopaenia and anaemia were seen in 17%, 74% and 19% of patients respectively. Both transaminases, (AST and ALT) were elevated in 66% of cases and ESR was elevatefd in 25 of 37 patients. Rapid response was noted with prompt administration of anti-rickettsial therapy including doxycycline or chloramphenicol.

A wider clinical spectrum was noted among SFG patients. Cardinal clinical features such as skin rash, arthritis and response to anti-rickettsial antibiotics would help to arrive at a diagnosis. However, PCR and sero-diagnositic facilities must be available in the hospitals for confirmation of diagnosis.