

## **Clinical and epidemiological studies on the cutaneous leishmaniasis caused by *Leishmania (Leishmania) donovani* in Sri Lanka**

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### **Abstract**

Sri Lanka is the newest reported focus of human leishmaniasis within the Indian subcontinent. Over the last 8 years, more than 2000 cases of cutaneous leishmaniasis (CL), apparently caused by *Leishmania donovani* (a species usually associated with the visceral form of the disease), have been passively identified in the country. The clinical profiles of 401 suspected cases of CL in Sri Lanka were recently explored and some of the cases' immunological responses were investigated, in antibody-detection assays based on the rk39 antigen. These studies were followed by cross-sectional surveys, involving active case detection, in three areas of Sri Lanka, two of them known to be at relatively high risk for CL, with the aims of estimating the local prevalences of the disease and identifying the main risk factors for its acquisition. This appears to be the first detailed report on the prevalence, risk factors and human serological response associated with human leishmaniasis in Sri Lanka.

Although the data collected indicated that the transmission of the parasite causing CL was mostly outdoor (and possibly zoonotic) in the north of the country, most of the transmission in the south seemed to be peridomestic. The CL was found to affect a wide age range, in both male and female subjects. Curiously, the 24 cases of CL that were investigated in the rk39 assays gave negative results whereas the single cases of mucosal or visceral leishmaniasis that were studied were found positive for antibodies reacting with the rk39 antigen.

More programmes of active case detection need to be launched across Sri Lanka before the true national burden posed by human leishmaniasis can be accurately evaluated. General awareness of leishmaniasis needs to be raised. Hopefully, continued research and disease monitoring will allow the effective control of leishmaniasis in Sri Lanka.