Use of a rapid diagnostic test to detect cutaneous leishmaniasis in Sri Lanka

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Objectives: This study was initiated to determine the sensitivity and specificity of a commercially available rapid diagnostic test (RDT) to detect leishmania antigen in cutaneous leishmaniasis (CL) skin lesions among Sri Lankan patients compared to PCR and Slit skin smear (SSS).

Methods: Patients clinically suggestive of CL lesions were subjected to parasitological investigations. The clinical history was collected by the researcher. Samples were collected by a qualified trained medical officer from the suspected CL lesions at the dermatology clinic in the Hambantota hospital and from the patients coming to the Department of Parasitology, Faculty of Medical Sciences, University of Sri Jayewardenepura. RDT was done at the Hambantota hospital and samples were brought to the Department of Parasitology, to perform SSS, PCR and cultures.

Results: Fifty samples have been collected thus far and PCR was performed only in 48 samples. Out of the 50 samples only 9 were positive by RDT and 32 by SSS and PCR. The 9 samples that were positive for RDT were positive by SSS and 7 positive by PCR. Of the 41 samples that were negative by RDT, 16 were negative by PCR as well as SSS.

Conclusions: From the data collected it can concluded that RDT is not the best method to diagnose CL skin lesions in patients in Sri Lanka. Also it confirms that the best method to diagnose leishmaniasis is PCR.