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THE PLACE OF LEISHMANIN SKIN TEST IN THE DIAGNOSIS OF CUTANEOUS LEISHMANIASIS IN SRI LANKA

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Cutaneous leishmaniasis (CL) is an emerging, zoonotic disease in Sri Lanka where more than 2500 cases have been reported in the last decade. Its wide spectrum of clinical manifestations may mimic other chronic dermatological conditions such as tuberculoid leprosy or lupus vulgaris. It is routinely diagnosed by microscopy or histology although both techniques have low sensitivity (53 - 84% and 59 - 68%, respectively). The absence of a more accurate diagnostic technique causes problems to clinicians in deciding the correct course of treatment as leishmaniasis is treated with toxic drugs with adverse reactions and long treatment regimes. The Leishmanin Skin Test (LST) measures the delayed-type hypersensitivity response to *Leishmania*-derived antigen and is a useful and inexpensive tool for clinical diagnosis of CL which has been shown to have very high diagnostic values in other countries. This is a preliminary study to determine whether LST can be used in the diagnosis of CL in Sri Lanka. Twenty five patients referred to Teaching Hospital Kurunegala and Department of Parasitology, Faculty of Medicine, Peradeniya from December 2011 to November 2012 were given an intradermal preparation of Leishmanin (Pasteur Institute, Iran) comprising killed promastigotes of *Leishmania* sp. The test was taken as positive if the induration measured after 48 - 72 hours was > 5 mm. Three methods were used to diagnose CL; namely, microscopy of Slit Skin Smear, Polymerase Chain Reaction, and a set of clinical criteria. The patients were given a diagnosis of CL if they gave a positive result in any one of the above three methods. The prevalence of CL in the sample was 76% (n = 19) while the positivity of LST was 44% (n = 11). The majority (80%) of patients in the sample presented late (> 1 month duration of lesions) for treatment. All five patients who had the LST done at < 1 month duration of lesions gave a negative result. There was a significant relationship between the duration of the infection and the positivity of the LST (P = 0.027). Of the three types of lesions; papular, ulcerative and plaque, the ulcerative type (comprising 40% of the total) had a significant association with the positivity of LST (P = 0.036). Sensitivity and specificity values for the whole sample, for those who presented after one month, and for those with ulcerative lesions who presented after one month were 53% and 83%; 63% and 75%; and 88% and 100% respectively. This study reveals that the LST can be used as a diagnostic test in suspected CL patients with ulcerative type of lesions of more than one month duration.

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