

## **Review: Thermotherapy for treatment of cutaneous leishmaniasis in Sri Lanka**

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Leishmaniasis is a neglected tropical disease caused by a protozoan parasite and transmitted by phlebotomine sand flies. In Sri Lanka, Cutaneous Leishmaniasis (CL) is caused by *Leishmania donovani*, a usually virsceralizing strain in other parts of the world. Thus it is important to study the treatment methods available for treatment of CL.

Commonly used treatment for leishmaniasis in Sri Lanka is Intra-Lesional (IL), intramuscular or intravenous sodium stibogluconate. Thermotherapy is currently studied as an alternative treatment. Several clinical trials have been carried out in the world to see the efficacy and safety of thermotherapy versus intralesional SSG for treatment of CL. A device generating heat using radio waves had been used in these studies. This device is costly and is not freely available in Sri Lanka. A device with a lower cost would be better for Sri Lanka.

A pilot study conducted in Peru looked into the use of a novel low-cost thermotherapy for CL using a hand Held Exothermic Crystallization Thermotherapy (HECT) device. 25 patients enrolled in the pilot study and 13 patients treated on compassionate grounds showed a definitive clinical cure rate of 68.4%. Another study conducted in Pakistan using a HECT device had a 83% cure rate by Day180.

Aforementioned studies show the efficacy and safety of thermotherapy with HECT device is comparable with SSG, well tolerated by patients and the only side effect experienced was reversible burns which healed without a scar. On the contrary, conventional treatment with IL-SSG is painful, requires many hospital visits, have adverse effects, high treatment cost and poor patient compliance. Thus thermotherapy using HECT device might be considered as a better alternative treatment method for CL patients in a developing country like Sri Lanka.