

Heat therapy shown effective in treating cutaneous leishmaniasis among US soldiers in Iraq

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A single session of heat therapy using the ThermoMed device appears to be as effective as a 10-day intravenous course of sodium stibogluconate (Pentostam) for the treatment of *Leishmania major* skin lesions, according to a new study by Naomi Aronson and her colleagues at the Uniformed Services University of the Health Sciences and Walter Reed Army Medical Center (WRAMC).

Results from the randomized treatment trial, which involved 56 military personnel who contracted *L. major* while serving in Iraq, are reported March 5 in the open-access journal *PLoS Neglected Tropical Diseases*.

Cutaneous leishmaniasis is endemic to Iraq and Afghanistan, and more than 1,300 American military and civilian personnel have developed the parasitic skin infection since operations have commenced in these countries. Initially, the primary treatment option was evacuation to WRAMC for sodium stibogluconate treatment under an investigational drug protocol. Aronson and colleagues therefore tested the efficacy of the ThermoMed device, a potential tool for on-site treatment.

The patients treated in the study received either a single session with the ThermoMed device or a daily intravenous infusion of sodium stibogluconate, a pentavalent antimony drug, over a period of 10 days. They were then checked at two-, six-, and 12-month intervals to assess the healing process. Both treatments resulted in comparable rates of



healing and, though the number and severity of the side effects were greater with sodium stibogluconate treatment, these resolved over time without long-term effect.

Aronson and colleagues suggest that a rugged, battery-operated device such as the ThermoMed, which could be forward-deployed in the field to effectively treat *L. major* skin lesions, is not just operationally significant for the military, but may offer non-governmental agencies another method of treatment for cutaneous leishmaniasis.

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