Resolution of Cutaneous Old World and New World Leishmaniasis after Oral Miltefosine Treatment

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An Afghan migrant who had returned from a visit to the Middle East 2 years before was seen with a non-healing painless lesion on the forearm (Figure 1A). A skin biopsy showed intracellular Leishmania parasites in the subcutis (Figure 1B and C), and the polymerase chain reaction (PCR) was positive for Leishmania tropica. At the same time, a German traveler who had returned from a vacation to Central America 1 month before was seen with progressively ulcerating painless lesions on the ankle, thigh, and forearm (Figure 2A). Scarification of the lesions’ margins showed sparse Leishmania amastigotes (Figure 2B and C) and the PCR from biopsies was positive for L. braziliensis. A 28-day treatment with oral miltefosine (2 mg and 2.5 mg/kg, respectively) was initiated in both individuals and the patients were seen at intervals of several weeks (Figures 3 and 4). All lesions healed, but both patients developed nausea and elevated liver function tests during pharmacotherapy. The highest values of aspartate aminotransferase (AST) and alanine aminotransferase (ALT) were 66 U/L and 44 U/L in the female migrant and 73 U/L and 33 U/L in the male traveler, respectively. Bilirubin levels were normal in both patients.
but the male patient developed \( \gamma \)GT levels of 113 U/L. All values returned to normal 2 and 3 weeks after the end of treatment, respectively. Neither patient’s lesions showed clinical relapse when examined 4 months after the end of therapy. Miltefosine (hexadecylphosphocholine) has been shown to be effective in cutaneous and visceral leishmaniasis.\(^1\) At least some strains of \( L. \) braziliensis, a species that can cause both cutaneous and mucocutaneous disease in the New World, have demonstrated a decreased sensitivity to the drug \textit{in vitro}, however.\(^2\)

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\text{Figure 3. Follow-up presentation of Old World cutaneous leishmaniasis. A, Increasing local inflammation 14 days after start of miltefosine treatment. The lesion looks more nodular than before treatment. B, Decreasing inflammation 21 days after start of pharmacotherapy. C, Resolution of lesion 4 weeks after the end of treatment. Repeated } \textit{Leishmania} \text{ serology remained negative throughout the observation period in this patient. This figure appears in color at www.ajtmh.org.}\]

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\text{Figure 4. Follow-up presentation of New World cutaneous leishmaniasis. A, Inflammatory accentuation of the lesions’ ring walls 2 weeks after start of miltefosine treatment. B, Wounds are nearly fully covered by scar tissue 3 weeks after cessation of miltefosine therapy. C, Resolution of lesions 7 weeks after the end of treatment. Upper row, lesion on the ankle; middle row, lesion on the thigh; lower row, lesion on the forearm. } \textit{Leishmania} \text{ immunoblot was positive in this patient at initial presentation. This figure appears in color at www.ajtmh.org.}\]
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