

Oral miltefosine to treat new world cutaneous leishmaniasis

In a review of new world cutaneous leishmaniasis in travellers, Schwartz¹ mentioned that miltefosine "failed to cure" *Leishmania braziliensis* infections. Our paper² in 2004 on the use of miltefosine against *L. braziliensis* cutaneous leishmaniasis did, however, report a low efficacy rate in a small group of Central American patients. The efficacy rate for miltefosine was 2.5 times higher compared with placebo. For this reason, we are conducting controlled trials in Palos Blancos, Bolivia, to establish the efficacy and safety of oral miltefosine (given for 28 days) in patients with *L. braziliensis* infections presenting either as mucosal leishmaniasis or cutaneous leishmaniasis. We mention this unpublished study at this time because the data is opposed to data from investigations on *L. braziliensis* in Guatemala.²

To date, 78 mucosal patients have reached 12-months' follow up. The cure rate was greater than 75% in patients with mild disease, although lower in patients with severe disease. In this region, antimony has failed as treatment for mucosal disease and amphotericin B is used, so a group of amphotericin B patients, entered just before the miltefosine patients, was also evaluated. Seven of 14 (50%) evaluable amphotericin B patients were cured.

With respect to prevention of mucosal leishmaniasis, it was also essential to confirm efficacy of miltefosine in the precursor stage (cutaneous leishmaniasis). Therefore, a second trial was initiated, including 71 patients with cutaneous leishmaniasis, of whom 45 received miltefosine, and 26 received intramuscular meglumine antimonate (glucantime). So far, 25 patients of this ongoing study have reached 6-months of post-treatment follow up. At 2, 4, and 6 months' follow up the cure rates for miltefosine were 85%, 88%, and 82%, respectively.

Corresponding rates for meglumine antimonate were 70%, 90%, and 88%. Miltefosine was well tolerated; serum glutamic aminotransferase and creatinine levels had mild increases of 11% and 13%, respectively. Patients receiving meglumine antimonate complained about mild to severe local pain at the injection site; myalgias or arthralgias and headache, increased levels of liver and pancreatic enzymes, and increases in creatinine levels were frequent with diverse grades of severity.³

Miltefosine is safe and effective for the treatment of mucosal leishmaniasis and cutaneous leishmaniasis caused by *L. braziliensis* in Bolivia. Ironically, a problem experienced by the clinical trial team was caused by the efficacy of this agent. In the mucosal trial we urged the treating physicians to randomise patients to miltefosine versus antimony or amphotericin B, but the promising early results with miltefosine caused all of these requests to be refused. Determination of the exact value of miltefosine for mucosal leishmaniasis and cutaneous leishmaniasis in Bolivia is still ongoing, but our present results make it clear that this oral compound is highly effective for the treatment of *L. braziliensis* disease in this region.

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- 1 Schwartz E, Hatz C, Blum J. New world cutaneous leishmaniasis in travellers. *Lancet Infect Dis* 2006; **6**: 342-49.
- 2 Soto J, Arana BA, Toledo J, et al. Miltefosine for new world cutaneous leishmaniasis. *Clin Infect Dis* 2004; **38**: 1266-72.
- 3 Soto J, Toledo J, Balderrama M, et al, et al: Experience with Impavido (INN: Miltefosine) in *Leishmania braziliensis* infections. Northern European Conference on Travel Medicine; Edinburgh, UK; June 7-10, 2006.



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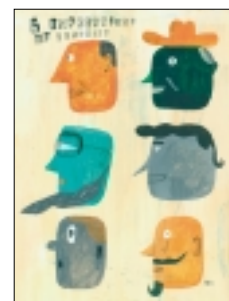
New year, new cover

We thank Alan McDermott for his 2 years of service as the journal's cover illustrator, and welcome Martin Haake to the role for 2007. Haake lives in Berlin with his wife and two sons. He has been working as a freelance illustrator for about 14 years for clients worldwide such as Barnes & Noble, Daimler Chrysler, Pfizer, Penguin Books, Washington Post, and Playboy. Haake's work has won international prizes including the silver award at the German and British Art Directors'

Club. The accompanying illustration, Expressions of surprise, was prepared by Haake for Illustrative Berlin 06; Kunsthallen am Pfefferberg, Berlin, Germany; Aug 25-Sep 10, 2006.

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