

Amphotericin B Lipid Complex A Viewpoint by Fernando Laguna

Internal Medicine Service, Hospital Carlos III,
Madrid, Spain

The development of lipid formulations of amphotericin B in the 1990s was the most important advance in the treatment of visceral leishmaniasis (VL) for over 50 years. Although these formulations have similar pharmacokinetic characteristics and a lower incidence of serious toxicity than antimonials, they have different *in vitro* and *in vivo* efficacies in VL. For example, the efficacy of the liposomal amphotericin B formulation seems better in patients with Indian or Kenyan VL than in Mediterranean or Brazilian VL. In the latter regions, considerably higher total dosages of liposomal amphotericin B are necessary for attaining definitive cure.

Amphotericin B lipid complex, another lipid formulation of amphotericin B, has been widely tested in Indian VL, particularly in antimony-unresponsive immunocompetent patients. In these subjects, amphotericin B lipid complex has showed a high efficacy with low-dose, short-course regimens.

Moreover, the toxicity has been slight and mainly infusion-related.

Amphotericin B lipid complex has also been tested in HIV-infected Spanish patients with VL. The initial parasitological cure rate was very low but similar to that achieved with meglumine antimonate. The total dosages, however, of amphotericin B lipid complex required to produce a high-level response in immunocompetent or immunosuppressed patients with VL from non-Indian areas are unknown at this time.

Other factors to consider in the treatment of VL, besides the causative parasite, include the possibility of parasite resistance, the toxicity of treatment, and hospital and drug costs. Amphotericin B lipid complex is an excellent therapeutic option in Indian VL, however, the high drug cost is a serious handicap for generalised use in developing countries. In other regions, more clinical trials with amphotericin B lipid complex are required to clarify the total dosage needed to produce parasitological cure and to determine its effect on hospital costs. ▲