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Meeting abstract



# Pharmacokinetics of amphotericin B colloidal dispersion in liver failure

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## Introduction

Clinical studies on the elimination of amphotericin B (AMB) lipid formulations in liver failure have been lacking so far. Therefore, the pharmacokinetics of AMB colloidal dispersion (ABCD) was assessed in critically ill patients with cholestatic liver failure.

## Patients and methods

Time-concentration profiles were determined in critically ill patients with cholestatic liver failure and in critically ill patients with normal hepatic function requiring ABCD for invasive fungal infections. Lipid-associated and liberated AMB were separated by solid phase extraction and quantified by high performance liquid chromatography.

## Results

Three patients with impaired and two patients with normal hepatic function (one patient on day 1, one patient on day 5 of therapy) were enrolled so far. After a single dose of ABCD, the AMB half life was similar in patients with impaired and normal liver function. The AMB clearance was slower in liver failure (0.15 vs. 0.54 L/h/kg for total AMB, 0.22 vs. 0.55 L/h/kg for the liberated AMB fraction and 0.52 vs. 35.6 L/kg for lipid-associated AMB) and the apparent volume of distribution was smaller (2.2 vs. 10.9 L/kg for total AMB, 3.1 vs. 11.2 L/kg for liberated and 8.2 vs. 154.5 L/h/kg for lipid-associated AMB).

## Conclusion

The elimination of ABCD appears to be delayed in cholestatic liver failure. More pharmacokinetic data are required to establish reliable dose recommendations for ABCD in patients with liver failure.