
COMPARATIVE SAFETY OF AEROSOLIZED AMPHOTERICIN B LIPID COMPLEX (ABELCET®) AND AMPHOTERICIN B DEOXYCHOLATE (FUNGIZONE®) AS ANTIFUNGAL PROPHYLAXIS IN LUNG TRANSPLANT RECIPIENTS: A RANDOMIZED, DOUBLE-BLIND STUDY

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Purpose: We compared the safety and tolerability of aerosolized administrations of amphotericin B deoxycholate (AmBd) and amphotericin B lipid complex (ABLC) in lung transplant recipients. A secondary objective was to observe the incidence of invasive fungal infections in patients receiving aerosolized amphotericin B formulations as sole prophylaxis.

Methods: We conducted a prospective, randomized (1:1), double-blinded trial in 100 subjects. ABLC (Abelcet®:Elan Pharmaceuticals) and AmBd (Fungizone®:Bristol-Myers Squibb) were administered by nebulizer at doses of 50mg and 25mg (respectively), which were doubled in patients requiring mechanical ventilation. The planned postoperative treatment was once every day for 4 days, then once per week for 7 weeks (total 11 doses). Observations for treatment-related adverse events and invasive fungal infections were continued for 2 months after initiation of study drug.

Results: Intent-to-treat analysis revealed that study drug was discontinued for intolerance in 6/49 (12.2%) and 3/51 (5.9%) in the AmBd and ABLC treated groups, respectively ($p=0.313$). Subjects who received AmBd were more likely to have experienced an adverse event (odds ratio 2.16 95% confidence interval 1.10, 4.24; $p=0.02$). Primary prophylaxis failure within 2 months of study drug initiation was observed in 7/49 (14.3%) of AmBd-treated patients and 6/51 (11.8%) of ABLC-treated patients. No fungal pneumonias were observed. Only 2 patients (2%) experienced documented primary prophylaxis failure with *Aspergillus* infections within the follow-up period.

Conclusions: We conclude that both AmBd and ABLC administered by aerosol following transplant appear to be associated with an acceptable rate of invasive pulmonary fungal infection in the early period after transplant. Furthermore, patients receiving ABLC were less likely to experience a treatment-related adverse event when compared to those who received AmBd.