
USE OF AMPHOTERICIN B LIPID COMPLEX (ABLC) IN PATIENTS OVER 65 YEARS

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Purpose

Conventional Amphotericin B (AMB) is regarded as the gold standard therapy for many invasive fungal infections due to its broad spectrum of activity. However, owing to its nephrotoxic potential, AMB treatment is often limited, especially in patients who are at increased risk of developing renal insufficiency. This potential side effect is of concern in older adults who due to age-related decrease in baseline renal function, have lower tolerability for any further decline in function. Since older adults often undergo frequent and prolonged treatment at hospitals and intensive care units and have age associated decrease in cellular immunity, they are rendered susceptible to opportunistic fungal infections. This retrospective analysis was designed to evaluate the safety and efficacy of ABLC in patients >65 yrs versus patients ≤65yrs.

Materials and Methods

The Collaborative Exchange of Antifungal Research (CLEAR) registry contains information on 3514 ABLC-treated patients from 160 hospitals in the United States and Canada. Participating clinicians retrospectively documented patient information from hospital charts by completing standardized data collection forms. Variables including demographic data, patients' underlying medical condition(s), treatment history, information pertaining to the fungal infection (including pathogen, sites of infection, episode of infection, and diagnostic methods used to identify the infection), and an outcomes assessment based on pre-defined clinical criteria were recorded for patients treated during January 1996 through November 2000. Data from ABLC recipients > 65 yrs and for those ≤ 65 yrs were compared with regard renal tolerability of the drug and clinical outcome.

Results

The CLEAR registry had 572 patients > 65 yrs and 2930 patients ≤ 65 yrs (for 12 patients age was not recorded). Patients > 65 yrs were typically treated empirically with ABLC (28%) or for Candidiasis (45%), multiple fungal pathogens (11%), or Aspergillosis (9%). The median cumulative dose of ABLC was similar in those > 65 yrs and those ≤ 65 yrs (3000 mg and 3258 mg, respectively, $P=0.127$). Despite higher median baseline serum creatinine (S-Cr) among patients > 65 yrs (1.7 mg/dL versus 1.4 mg/dL in patients <65 yrs, $P<0.001$), both groups showed only a 0.1 mg/dL median S-Cr change from baseline by the end of therapy ($P=0.525$). S-Cr remained stable in patients > 65 over the entire range of ABLC doses and durations of treatment. In addition, physician-assessed positive outcomes of "cured" or "improved" (Clinical Response Rate) were slightly higher in patients > 65 yrs compared to patients < 65 yrs (56% and 51% respectively, $P=0.049$).

Conclusion

In the largest collection of elderly patients treated for systemic mycoses published to date (N=572), ABLC treated patients > 65 yrs had comparable minimal changes in renal function and equivalent therapeutic efficacy following therapy when compared to patients ≤ 65 yrs. Although the elderly patient presents additional medical challenges when treating systemic mycoses, ABLC related nephrotoxicity does not appear to be one of these concerns.