

P0226

**Paper Poster Session I**

**News on antifungal prophylaxis and therapy**

**Erythropoietin combined with liposomal amphotericin B improves outcome during disseminated aspergillosis in mice**

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**Objectives**

Disseminated aspergillosis is responsible for a high mortality rate despite the use of antifungal drugs. Adjuvant therapies are urgently needed to improve the outcome. The aim of this study was to demonstrate that the cytoprotective effect of erythropoietin combined to amphotericin b can reduce the mortality rate in a murine model of disseminated aspergillosis.

**Methods**

After infection with *Aspergillus fumigatus*, neutropenic mice were randomized to receive vehicle or 7,5 mg/Kg of Liposomal Amphotericin B (LAmB) or 7,5 mg/Kg of LAmB combined with 1000 IU/Kg of EPO (16 mice per group). *Aspergillus* galactomannan and organ cultures were performed to evaluate fungal burden at day 5. Cumulative long-term survival was analyzed at day 12 post-infection according to the Kaplan-Meier method.

**Results**

At day 5, fungal burden was similar between non-treated and treated groups. At day 12, mortality rates were 75 %, 62.5 % and 31 % in control group, LAmB group and EPO/LAmB group, respectively. We observed a significant decreased in mortality using EPO/LAmB combination compared to control group ( $p < 0.01$ ). LAmB single treatment did not improve the survival rate compared to control group ( $p = 0.155$ ).

**Conclusion**

Our results provided the first evidence that erythropoietin improved the outcome of mice presenting disseminated aspergillosis when combined with amphotericin b.