Original Paper

Drug susceptibility of Aspergillus flavus and A. fumigatus to Itraconazole and Amphotericin B

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Abstract

Background and Objective: Aspergillosis is the most current causative agent of exogenous fungal nosocomial infection. This study was done to evaluate the drug susceptibility of Aspergillus flavus and A. fumigatus to itraconazole and amphotericin B.

Materials and Methods: This Laboratory study was done on 25 Aspergillus fumigatus and 25 Aspergillus flavus species isolated from transplant's patients. Drug susceptibility test was done according to NCCLS M38-P document. Fungal suspensions of mentioned fungi were supplied with ranges 0.5–5 × 10⁴ by spectrophotometer at 530 nm. Serial dilutions of drugs were supplied from 0.03125 to 16 µg/ml and MICs determined following 48h incubation at 35°C.

Results: Obtained MICs ranges for Aspergillus fumigatus and Aspergillus flavus were 1–4 µg/ml and 0.5–4 µg/ml for itraconazole, respectively while MICs ranges against Aspergillus fumigatus and Aspergillus flavus were 0.5–2 µg/ml and 0.25–2 µg/ml for amphotericin B, respectively. Amphotericin B MICs were significantly lower than itraconazole (P<0.05).

Conclusion: Aspergillus flavus and A. fumigatus were susceptible to amphotericin B and itraconazole.

Keywords: Aspergillus flavus, Aspergillus fumigatus, Drug susceptibility, Amphotericin B, Itraconazole

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