

## عنوان مقاله:

The efficacy of luliconazole against Fusarium complex

## محل انتشار:

بیستمین کنگره بین المللی میکروب شناسی ایران (سال: 1398)

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## خلاصه مقاله:

**Introduction and Objectives:** Fusarium species are widespread saprophytic fungi that originally considered as phytopathogen, however during the last decades were shifted to humans and animals' diseases. Fusarium solani is responsible for the majority cases of fusariosis, and usually causes severe infections with high mortality rates among predisposed patients. Fusarium species are inherently resistant to the most available antifungals in vitro with considerable high minimum inhibitory concentration (MIC). Luliconazole is a new antifungal that was originally used for the treatment of dermatophytosis. However, some study has shown that it has excellent efficacy against Aspergillus, and Candida species. The present study was aimed to the evaluation of luliconazole activity against some clinical and environmental isolates of Fusarium. Furthermore, this efficacy was compared to other systemic antifungals including; caspofungin, posaconazole, fluconazole, itraconazole, amphotericin B and voriconazole. **Materials and Methods:** In our study 48 isolates of Fusarium including 2 clinical isolates and 46 environmental isolates were tested against several antifungals. All species were identified using morphology features and PCR sequencing. Antifungal susceptibility was performed according to CLSI M38 A2 guideline against Fusarium species with luliconazole, caspofungin, posaconazole, fluconazole, itraconazole, amphotericin B and voriconazole. **Results:** Our results showed that luliconazole has very low MICGM value 1 to 0.0645 µg/ml in comparison with 2.78 µg/ml for posaconazole, 2.14 µg/ml for terbinafine, 0.54 µg/ml for itraconazole, 10.7 µg/ml for amphotericin B, 1.18 µg/ml for voriconazole and 1.39 for caspofungin. Also, the highest resistance to antifungal drugs were observed in amphotericin B (85.1%). **Conclusion:** Overall, our finding indicates that luliconazole has a great activity against environmental and clinical Fusarium species complex. As well as this drug has a potency to use for fusariosis

## کلمات کلیدی:

Fusarium, Luliconazole, Antifungal susceptibility

