

## عنوان مقاله:

The potency of Luliconazole, against Clinical and Environmental Aspergillus Nigri Complex

## محل انتشار:

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

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## خلاصه مقاله:

**Introduction and Objectives:** Black aspergilli are, the most causes of otomycosis and *Aspergillus niger* and *A. tubingensis* are two more frequently isolates. Although, amphotericin B was a Gold standard for the treatment of invasive fungal infection for several decades, it replaced by fluconazole and /or voriconazole. Luliconazole, appears to offer the potential for in vitro activity against black aspergilli. The aim of the present study was to compare the in vitro activity of a novel antifungal agent, luliconazole, with commonly used antifungals against clinical and environmental strains of black aspergilli. **Materials and Methods:** Sixty-seven strains of black aspergilli were identified using morphological and molecular tests ( $\beta$ -Tubulin gene). Antifungal susceptibility test was applied according to CLSI M38 A2. The results were reported as minimum inhibitory concentration (MIC) range, MIC50, MIC90 and MICGM. **Results:** It was found that the lowest MIC range, MIC50, MIC90, and MICGM was attributed to luliconazole in clinical strains. *Aspergillus niger* was the common isolate followed by, *A. tubingensis* and 54.1% (clinical) and 30% (environmental) of isolates were resistant to caspofungin. The highest resistant rate was found in amphotericin B for both clinical (86.5%) and environmental (96.7%) strains. Clinical strains of *Aspergillus* were more sensitive to voriconazole (86.7%) than environmental strains (70.3%). On the other hand, 83.8% of clinical and 70% of environmental isolates were resistant to posaconazole, respectively. **Conclusion:** In conclusion, luliconazole compare to routine antifungals is a potent antifungal for *A. niger* complex in vitro. The MIC range, MIC50, MIC90 and MICGM of luliconazole against black aspergilli were the lowest among the representative tested antifungals.

## کلمات کلیدی:

Black aspergilli, Luliconazole, Clinical and environmental isolates, Antifungal profile

