

Original Paper

Drug susceptibility testing of clinical isolates of *Candida albicans* against Amphotericin B and Ketoconazole by microdilution and disk diffusion methods

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Abstract

Background and Objective: *Candida albicans* is the normal flora of the body as opportunistic fungi. It causes candidiasis in immunocompromised condition. This study was done to drug susceptibility testing of *Candida albicans* isolated from patients against Amphotericin B and Ketoconazole.

Methods: In this descriptive – analytic study, drug susceptibility of 30 *Candida albicans* isolated from patients admitted to Tehran hospitals, Iran was tested against Amphotericin B and Ketoconazole by micro dilution method in accordance with CLSI M27-A2 guideline and disk diffusion method in accordance with CLSI M44-S2 guideline. Standard isolate *Candida albicans* PTCC (5027) and *Candida krusei* PTCC (5295) were used for quality control.

Results: The minimum and maximum MIC against Amphotericin B was 0.0625 µg.ml⁻¹ and 4 µg.ml⁻¹, respectively. The minimum and maximum MIC against Ketoconazole was 0.5 µg/ml⁻¹ and 32 µg/ml⁻¹, respectively. The minimum and maximum zone diameter was 6 and 28 mm for both drugs. The results of drug susceptibility testing by two methods did not show significant differences. 25 isolates (83.3%) against ketoconazole and 2 isolates (6.7%) against Amphotericin B were resistant.

Conclusion: Amphotericin B administration seems better choice in candidiasis treatment in comparison with Ketoconazole.

Keywords: *Candida albicans*, Amphotericin B, Ketoconazole

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