

**Title: ANTIFUNGAL SUSCEPTIBILITY PROFILE TO CASPOFUNGIN, MICAFUNGIN AND VORICONAZOLE TO *Candida albicans* BLOODSTREAM ISOLATES FROM PATIENTS WITH CANDIDEMIA IN MANAUS, AMAZONAS, BRAZIL**

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**Abstract**

Fungemias caused by *Candida* (candidemias) has shown increasing importance in clinical medicine being related to various factors including the use of broad-spectrum antimicrobials, major surgeries and the use of vascular catheter for long periods. The high mortality rate has become very common especially in neonates, which could be related to fungal resistance due to inappropriate use of antifungal agents and empirical or prophylactic treatment. This study aimed to evaluate the antifungal susceptibility of *Candida albicans* bloodstream isolates from patients with candidemia. A total of 28 isolates from patients in the Intensive Care Unit (ICU) of 11 different hospitals in the city of Manaus in 2013 were evaluated, identified as *C. albicans* and genetically characterized by MLST technique. The susceptibility profile was performed using Etest<sup>®</sup> plastic strips in RPMI 1640 agar supplemented with 2% glucose and buffered to pH 7.0 with MOPS to evaluate the antifungal agents Caspofungin (CS), Micafungin (MYC) and Voriconazole (VO). The 90% minimum inhibitory concentration (MIC 90) and susceptibility range were as follows: 3 (0.004 - 32µg/mL) for caspofungin, 0.38 (0.012 - 1,5µg/mL) for micafungin, and 0.25 (0.002 - 2µg/mL) for voriconazol. Was found 14.3% resistance for Caspofungin, 7.1% to Micafungin, and 3.6% for Voriconazole. By comparing the isolates with genetic MLST profile, it was detected that all resistant strains belonged to DST90. The results displayed that already exist *in vitro* resistance to echinocandins, an alternative drug used in cases of resistance to azoles by the *Candida*. This emphasizes the importance of encouraging the rational use of drugs in hospitals, in order to reduce the incidence of antifungal resistance and mainly encourage the most appropriate therapy to increasing patient survival.

**Keywords:** Susceptibility, Etest, *C. albicans*

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