

Virulence factors and antifungal susceptibilities of clinical and environmental *Candida parapsilosis* complex isolates from a tertiary public university hospital (HC/FMB/UNESP), located in Botucatu, Brazil.

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Yeast infections are important cause of morbidity and mortality. Although *Candida albicans* is the most frequent, significant increase has been observed of non-albicans species, mainly in *C. parapsilosis* complex. This work aimed to identify clinical and environmental isolates of *C. parapsilosis* complex in HC/FMB/UNESP, and determining its virulence factors and antifungals susceptibilities. Clinical isolates were obtained from blood cultures and the environmental isolates from the air, surfaces and hands of health professionals. All isolates were identified by Chromagar, VITEK-2, rDNA sequencing and inteins profiles. Proteinase, phospholipase and biofilm production were evaluated, and the antifungal susceptibilities determined for clinical isolates using the microdilution method according to the CLSI M27-A3 and M27-S4. Of the 45 clinical isolates, *C. parapsilosis sensu stricto* (s.s.) represented 84%, *C. orthopsilosis* 16% and no isolation of *C. metapsilosis*. All environmental isolates (14) were identified as *C. parapsilosis* s.s. Proteinase production was positive or strongly positive in 55% of the clinical *C. parapsilosis* s.s. isolates, and negative for *C. orthopsilosis* isolates; all environmental *C. parapsilosis* s.s. isolates were proteinase producers (64% of them strongly positive). Phospholipase production was positive for only one environmental *C. parapsilosis* s.s. isolate. *C. orthopsilosis* produced more biofilm than *C. parapsilosis* s.s.. All isolates of *C. parapsilosis* s.s. were sensitive to amphotericin B and voriconazole; five were dose-dependent sensitive and two resistant to fluconazole; three were simultaneously dose-dependent sensitive to caspofungin and micafungin; all *C. orthopsilosis* isolates were sensitive to all antifungals tested. A correct identification and understanding of *C. parapsilosis* complex will impact positively in the treatments and preventions of new infections.

Keywords: complex *C. parapsilosis*, non-albicans, candidemia, virulence factors, antifungal susceptibility.