Yeast Species Causing Candidemias in the University Hospital of Botucatu Medical School, São Paulo, Brasil (UNESP).

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Fungal infections caused by yeasts are a major problem in the hospitalized patients in intensive care units (ICUS) in the world and have become the important cause of morbidity and mortality. Although *C. albicans* is the most frequently isolated species and its form of infection usually occurs by the endogenous translocation, it has observed an increase of the non-albicans species, especially *C. parapsilosis*, whose main form of infection is exogenous, probably by the hands of health professionals. This study aimed to characterize the profile of species causing of candidemias in the patients from the different wards, including ICUs, in the University Hospital of Botucatu Medical School, São Paulo, between the periods from 2007 to 2013. 166 samples of yeasts isolated of distinct episodes of fungal infections were obtained and evaluated. The samples were cultured in the Sabouraud Dextrose Agar medium, immediately after were seeded in Chromagar for the preliminary identification and then identified by VITEK-2 (BIOMÉRIEUX®). The unidentified or inconclusive samples in the morphophysiological methods, as well as the "*psilosis*" group were also evaluated by the DNA sequencing (ITS1-5.8S-ITS2 regions of the rDNA). Among the 166 samples studied, the VITEK-2 identified correctly 77% of the isolates. The molecular technique identified 20 isolates which were discriminated only as "yeast" by the VITEK-2, 10 inconclusive isolates between VITEK-2 and Chromagar, and also differentiated 7 isolates of *C. orthopsilosis* that were previously identified by morphophysiological methods as *C. parapsilosis*. Thus, we observed the following species profile: *Candida albicans* (78), *C. parapsilosis* (37), *C. tropicalis* (24), *C. glabrata* (8), *C. orthopsilosis* (7), *C. guilliermondii* (4), *C. kefyr* (2), *Pichia anomala* (2), *Sacharomyces cerevisiae* (2), *C. krusei* (1) and *Cryptococcus neoformans var. grubii* (1). The data confirm that the VITEK-2 present good perform, but with limitations in the identification of the less common species and the differentiation of the "*psilosis*" group. The occurrence of 53% of non-albicans species, associated with the presence of the considered rare species indicates the importance of molecular methods for the correct identification of these agents, which certainly present different manners of acquiring and prognosis of these infections.

Keywords: candidemias, *Candida albicans*, *Candida parapsilosis*, *psilosis* group; molecular identification.