The purpose of this study was to evaluate the performance of the Sensititre YeastOne (SYO) panel to determine the in vitro activity of echinocandins against Candida species isolated from clinical specimens using the recently revised CLSI clinical breakpoints (CBPs) and epidemiological cutoff values (ECVs) criteria, as appropriate.

A total of 205 clinical Candida isolates were included. The Clinical and Laboratory Standards Institute (CLSI) reference broth microdilution method (BMD) was performed for the isolates against anidulafungin and caspofungin at the Mycology Reference Laboratory, Public Health Institution of Turkey. Reference CLSI BMD MIC end points and the SYO (Thermo Fisher Scientific, Waltham, MA, USA) end points were read after 24-h of incubation and interpreted according to CLSI M27-S4, as susceptible (S), intermediate (I), resistant (R) and ECVs criteria, as appropriate.

Among the common species anidulafungin resistance was observed only in two isolates (C. albicans, n=1 and C. krusei, n=1) with both tests (Table 1). However, using the CLSI BMD method, 32% of C. glabrata isolates were anidulafungin S, caspofungin I-R, similar discrepancies were also observed for 11% and 22% of C. parapsilosis and C. tropicalis isolates, respectively. If only SYO data were considered for caspofungin, these discrepancies would not be observed (Table 2). Due to the lack of species-specific CBPs for the less common species (n=29), evaluation for this group was done according to the ECVs; the nine C. kefyr (9/16) were found caspofungin non-WT / anidulafungin WT with the CLSI BMD method, however using SYO all C. kefyr isolates were WT.

The invasive Candida isolates (n=205) revealed 176 isolates from five common (Candida albicans, n=81; C. parapsilosis, n=35; C. glabrata, n=25; C. tropicalis, n=23; C. krusei, n=12) and 29 isolates from five rare (C. kefyr, n=16; C. lusitaniae, n=7, C. lipolytica, n=3; C. guilliermondii, n=2; C. zeylanoides, n=1).

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