Isolation and identification of Candida species from different wards of Jundishapur educational hospitals

Simin Taghipour, Ali Zarei Mahmoudabadi, Ali Rezaei-Matehkolaei

1 Infectious and Tropical Diseases Research Center, Health Research Institute, Ahvaz Jundishapur University of Medical Sciences, Ahvaz, Iran

ARTICLE INFO

Keywords: Candida species, PCR-RFLP, Hospital environment

ABSTRACT

Introduction: Nosocomial infections commonly occur during hospitalization in specialized wards, urology, surgery, ICUs, NICUs and infectious wards. Hospital infections are a serious infection with significant mortality rates. Candida infections are one of the most important nosocomial infection that has been increased 3.5 to 14-fold over the past two decades. Although, the sources of infection are human normal flora, hospital environments have undeniable role. The aim of this study was to determine of Candida species profile in different hospital wards in Ahvaz.

Materials and Methods: Two hundred and twenty one samples, including hospital environments, hospital workers, and clinical samples using moisture swabs. Swabs were inoculated on CHROMagar Candida, incubated at 35°C and detected all isolated Candida species using morphological, microcopy and molecular methods (PCR-RFLP).

Results: Out of 72 positive samples, 92 Candida isolates belonging to 10 different species were detected. The most common isolates was C. albicans (n=43, 46.74%) followed by C. glabrata (n=21, 22.8%), C. tropicalis (n=12, 13%), C. parapsilosis (n=6, 6.52), C. krusei (n=3, 3.26), C. lusitaniae (n=1, 1.08%), C. guilliermondii (n=1, 1.08%), C. rugosa (n=2, 2.17%), C. famata (n=2, 2.17%) and C. kefyr (n=1, 1.08%).

Conclusion: Candida albicans was majority of species that obtained from oral sample. Non-albicans species with non-common frequency were obtained from hospital environment samples.