

Candidemia Experience at a Tertiary Care Hospital: Is there Cause for Concern?

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Abstract

Background: Candida spp. are known to be the most common fungal pathogens isolated from blood cultures of neonates and pediatric population. During recent decades there has been a change in the epidemiology of Candida infections, characterized by a progressive shift from a predominance of Candida albicans to non albicans Candida species. This study was undertaken to estimate the incidence of candidemia and determine species profile in the neonatal and pediatric intensive care units at a tertiary care hospital, Mumbai over a period of 20 months. **Method:** The study was conducted in Department of Microbiology at a tertiary care Hospital, India. In a prospective analysis, a total of 2250 clinically suspected cases of sepsis in neonatal and pediatric intensive care unit were studied from April 2014 to November 2015. 1-3 ml of peripheral blood was collected aseptically from each case in BD BACTEC PedsPlus/F culture vials of an automated blood culture system and positive flashed samples showing budding yeast cells on Gram stain smear and/or culture positive for Candida spp were studied further. Candida speciation was done by germ tube test and microscopic morphology on cornmeal agar (CMA). **Results:** A total of 113 Candida species were recovered from suspected cases of neonatal/ pediatric sepsis over a period of 20 months (5.02%). Amongst these, Candida albicans constituted 6.19%, Candida glabrata 44.24%, Candida parapsilosis 11.5%, Candida tropicalis 9.73% and Candida krusei 0.88% while remaining 31 were non-albicans Candida spp (27.43%) which could not be speciated. **Conclusion:** Reporting of fungal blood stream infection and the spectrum of spp involved are essential measures in neonatal ICU and pediatric ICU in order to implement appropriate preventive and therapeutic strategies. In the present study, non Albicans Candida predominated among Candida isolates that was speciated. The striking feature of this study was the predominance of Candida glabrata among total number speciated which is a cause for concern.