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Neonatal candidemia in India: An overview and update

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The incidence of candidemia has increased worldwide over the last more than five decades due to increasing population of immunocompromised hosts and advances in medical procedures. Nosocomial candidemia is a major cause of neonatal morbidity and mortality. The incidence of candidemia in Asia ranges from 0.026 to 4.2 per 1000 admissions. Its exact prevalence in India is not known due to paucity of systematic epidemiological. In PG Institute of Medical Education & Research, Chandigarh, 143 neonates were diagnosed to have acquired systemic candidiasis out of a total 4,530 admissions (3.2%). Though C. albicans is the most frequent etiological agent of candidemia in neonates in India, there has been increased prevalence of other Candida spp., notably *C. tropicalis*, followed in order of frequency by *C. glabrata*, *C. parapsilosis*, *C. krusei* and *C. guillermondii*. In a couple of studies *C. tropicalis* was more frequent etiological agent of neonatal candidemia than *C. albicans*. Also *C. glabrata* predominated among non-*C. albicans* species in a few of the investigations. Further, *C. aureus* has recently emerged as an important cause of neonatal candidamia in India. Multiple risk factors for neonatal candidemia include low birth weights less than 1250 g, prolonged indwelling intravascular catheters and central venous catheters, intrapartum use of antibiotics (often prolonged), unclean vaginal examination, parenteral nutrition, ventilator support and prior Candida colonization and inherent resistance to fluconazole observed in *C. kruei* and *C. glabrata*. It conclusion it can be said that neonatal candidemia in a challenging problem in India. We should prevent it by identifying risk factors in hospital settings and minimizing their level, implementation of hand washing procedures and precise identification of causative Candida species and in vitro antifungal susceptibility tests for formulation of effective therapy.

Biography

Harish C Gugnani has completed his PhD in Medical Microbiology in 1970 from University of Delhi. He was the Fellow of the Royal College of Pathologists, London (FRC Path) in 1990. He currently serves as an honorary Consultant in diagnosis of fungal infections in Delhi hospitals. He has published 240 research articles in highly reputed journals including 30 on global burden of diseases of various kinds in Lancet and two each in American Journal of Tropical Medicine, JAMA Pediatrics and International Journal of Public Health, and one in New England Journal of Medicine. He has been serving as Member of Editorial Board and a Referee for several medical journals.

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