Investigation of an outbreak of neonatal Candida emia in the NICU of a 300-bedded hospital in North India

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Objective: Neonatal Candidaemia causes significant morbidity and mortality in very low birth weight neonates. We report the occurrence of such an outbreak of Candidaemia due to Candida furent in the neonatal intensive care unit (NICU) of a 300-bedded hospital in India.

Method: A total of 96 blood cultures from 80 neonates admitted in the NICU from October 2012 to April 2012 were received and processed manually in the Microbiology lab. A total of 15 among the 47 asymptote isolates were sent to a teaching hospital for identification and antifungal susceptibility testing by matrix-assisted laser desorption ionization-time of flight mass spectrometry (MALDI-TOF).

Results: Candida albicans was isolated from blood cultures of 62 neonates (89.4%). C. krusei and C. parapsilosis were isolated in 2 cases each. The susceptibility results showed 70.2% isolates to be susceptible to amphotericin B while 15.5% and 14.3% were resistant and intermediate to fluconazole respectively.

Conclusion: A proper and comprehensive outbreak investigation is mandatory in order to prevent similar outbreaks in the future.

Fungal keratitis caused by Pseudallescheria boydii: Clinical and mycological characteristics

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Objective: Pseudallescheria boydii keratitis is rare but important type of fungal keratitis because of the subclinically trans- mission of the organism to many existing antifungal agents. We present the clinical characteristics, risk factors, treatment, and prognosis of patients with P. boydii keratitis, and also present the antifungal sensitivities of the isolated strain.

Methods: Of 150 patients with fungal keratitis who were referred to our clinic, 3 patients were found to have fungal keratitis caused by P. boydii. The patients were followed for at least 6 months. Their medical records were reviewed focusing on demographic characteristics, clinical presentation, and antifungal responses.

Results: Among the patients, 2 patients were males and 1 patient was female. The mean age was 47±12 years. The patients were all presented with pain and loss of vision, and in all cases, the infection was located in the central cornea. The maximum visual acuity after treatment was 0.8 and in all patients the best corrected visual acuity was 0.4. The strains isolated were susceptible to voriconazole and itraconazole, but the susceptibility of the strains was low to fluconazole and to the azoles.

Conclusion: These patients help to determine the importance of causal organism of fungal keratitis and their antifungal susceptibility. Culture findings are limited in identifying organisms. Sequencing of polymerase chain reaction amplified DNA is good for acarats and rapid identification of species that can be helpful for optimizing treatment.