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

Tripta Kaur, Karen Ganguly
ESIC Model Hospital, Sector 24, Noida, Delhi, India

Poster session 2, September 22, 2012, 12:10 PM - 1:30 PM

Objective: Neonatal Candidemia causes significant morbidity and mortality in very low birth weight neonates. We report the occurrence of Candidemia due to Candida foetus 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 2010 to April 2011 were received and processed manually in the Microbiology lab. A total of 3 among the 47 yeast 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) and phenotypic method.

Results: Blood culture results. In all, 57 neonates (71.26%; 17/24) admitted to the NICU had positive blood cultures. A total of 47 blood cultures yielded non-albicans Candida spp. (42.4%, 47/109). The other 50% of the isolates were Candida albicans from blood culture with Candida krusei (4.2%) and Candida tropicalis (2.7%). C. parapsilosis isolates were detected in two neonates. All the yeast isolates subjected to MALDI-TOF were identified as Candida foetus and had similar MICs of 0.25, 1, 4, 32, and 16 mg/L for voriconazole, amphotericin, posaconazole, caspofungin, micafungin and flavocarbazone respectively.

Conclusion: This study emphasizes the need for educating healthcare workers and regular monitoring of decontamination practices to prevent health care-associated infections.

P215

Fungal keratitis caused by Pseudallescheria boydii: Clinical and mycological characteristics

Sedghi Khodavand1, Alireza Isaei2, Mahmoud Soleimani2, Clauy Oliveira dos Santos3, Markus C. Telepetny4, Kornremen3, Seyed Ali Mohammad Mousavi3, Roshanzadeh Davoud Ghariz2, Seyed Jamal Hashemi1, Mahdi Aminzadeh5, Zirae-Abadollahi6, E. Verwey2

1Department of Medical Parasitology and Mycology, School of Public Health, Tehran University of Medical Sciences, Tehran, Iran
2Department of Medical Mycology and Bacteriology Research Center, Kerman University of Medical Sciences, Tehran, Iran
3Department of Ocular Trauma and Emergency, Farabi Eye Hospital, Tehran University of Medical Sciences, Tehran, Iran
4Department of Medical Microbiology and Center of Expertise in Mycology Radboudumc/CWz, Radboud University Medical Centre, Nijmegen, The Netherlands
5Eun Research Center, Farabi Eye Hospital, Tehran University of Medical Sciences, Tehran, Iran

Poster session 2, September 22, 2012, 12:30 PM - 1:30 PM

Objective: Pseudallescheria boydii keratitis is rare but important type of fungal keratitis because of the relatively rare occurrence 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 sensitivity of the isolated strain.

Materials and Methods: All the fungal keratitis cases presenting at the outpatient clinic of the Department of Ophthalmology, Kerman University of Medical Sciences, Kerman, Iran, during the periods August 2011 to August 2012 were reviewed. The clinical characteristics, course, and outcome of these patients were recorded and analyzed.

Results: A total of 187 eyes from 40 patients were investigated. Among the isolated microorganisms, 29 eyes contained P. boydii. The mean age of the patients was 30.0 ± 11.1 years and 22 patients were male (55%) and 18 were female (45%). The mean duration of symptoms before presentation was 57.2 ± 40.3 days. The clinical characteristics of patients with P. boydii keratitis are presented in Table 1. 11 eyes (38%) were treated successfully with medical antifungal therapy, 17 eyes (59%) were treated surgically, and 1 eye (3%) was rejected. The mean duration of the treatment was 2 ± 1.4 months. The following medications were used for the medical treatment: amphotericin-B (41%), voriconazole (31%), micafungin (21%), caspofungin (6%), and fluconazole (0%). The overall success rate of medical treatment was 41%. The mean age of the patients who had surgical interventions was 28.0 ± 11.1 years. The mean duration of symptoms before presentation was 79.7 ± 40.3 days. The disease progression was significantly faster in these patients compared to those who were treated with medical therapy. The mean duration of symptoms before presentation was 79.7 ± 40.3 days. The disease progression was significantly faster in these patients compared to those who were treated with medical therapy.

Conclusion: Patients should be informed of the importance of recognizing aspergillus keratitis and their antibiotic susceptibility. Culture findings are limited in identifying organisms. Susceptibility of polymyxine cation reaction-amplified DNA is good for acarids and rapid identification of species that can be helpful for optimizing treatment.

P216

Rare isolates from subcutaneous mycotic lesions: A study from tertiary care center in Chhattisgarh, India

Archanna Koch, Richa Tiggia, Ganguly Satyaki, Narramta Chhabra, Rakesh Gupta
AIIMS Raipur, Raipur, India

Poster session 2, September 22, 2012, 12:10 PM - 1:30 PM

Aims: To identify the causative agents of suspected subcutaneous mycosis patients attending to a tertiary care hospital, Chhattisgarh, India.

Introduction: Subcutaneous mycosis are a group of fungal infections of dermis and subcutaneous tissue caused by both endothal and hyphal moulds. It often affects patients with immunocompromised condition. It consists of Aspergillus, Cladosporium, Phialophora, Rhizopus, Mycocorpha, subcutaneous, and Actinomyces, Lactobacillus, and disseminated Pseudomonas. It is proven pathogenic agents causing subcutaneous mycosis though are not regularly isolated and reported. Few of them are commonly come across in the laboratory literature, emphasized on the unusual clinical isolates from the patients having subcutaneous mycotic lesions with chronic diseases.

Method: It is a retrospective descriptive analysis of data of subcutaneous mycotic cases of duration January 2019 to March 2022.

Result: Out of 32 clinical specimens from the suspected subcutaneous mycotic lesion were studied. Male dominance was observed among these patients. Among these 16 patients suspected positive for fungal identity by direct microscopy, 15, 17%, 22% positivity was observed in Culture and by both KOH test and mount. Samples were processed and identified by using standard protocol.

The least unusual clinical isolates were Candida albicans/corona from cutaneous from burn, Madura foot from human. See Table for a full list. These findings highlight the importance of considering fungal infections in the differential diagnosis of chronic dermal lesions, especially in immunocompromised patients. Serological testing and other laboratory tests can be used to confirm the diagnosis and guide treatment.

P217

Pevacyclic mycoses—an unusual presentation of Rhodotorula arbusia in an immunocompetent patient

Yash Khato1, Neeta Sh, Kirti Kumar Rathod1, Vidji Jan1, Sivarama Dhirug1, Durgashankar Meena1
1Medicine, AIIMS, Jodhpur, India

Pediatric surgery, AIIMS, Jodhpur, India

Pediatrics, AIIMS, Jodhpur, India

Pediatrics, AIIMS, Jodhpur, India

Poster session 2, September 22, 2012, 12:10 PM - 1:30 PM

Introduction: The rare but increasingly identified infections caused by Mucorales are usually detrimental to the patient due to rapid mucosal invasion and the need for thorough surgical debridement and definitive antifungal therapy for its cure. Among the Mucorales, maximum cases have been reported among Mucor and Rhizopus spp. respectively.

Case: Here we present a case of a 9-year-old immunocompetent child presenting with oral and oesophageal lesions and 1 month of duration followed by swelling of bilateral lower limbs, which was gradual in onset. Ultrasoundography of the abdomen and pelvis revealed multiple hypoechoic lesions which were suggestive of malignancy. The child developed a fever that was responsive to amoxicillin, the fever was followed by brownish discoloration of the bilateral lower limb, which was evaluated to reveal a loose connection between uterus and rectum for which transverse colostomy was done. The UGIE guided biopsy of the left pubic mass showed broad septate hyphae in Hematoxylin and Eosin staining whereas the KMOH mould culture was positive for Rhodotorula. C. albicans, T. metagricina, and C. krusei was grown in Czapek-Dox culture medium. C. guilliermondii and C. rugosa were grown in sabouraud dextrose broth, and C. guilliermondii was grown in RPMI 1640 medium.

Conclusion: Aside from the case reported by Sharif et al., there is an additional case from India of a 9-year-old immunocompetent child where the patient had bilateral lower limb swelling, which was associated with oral lesions. The patient had an incomplete colostomy with a transverse colostomy for which the patient was operated on. The patient had an incomplete colostomy and developed a bacteraemia. Therefore, a careful case report for possible Rhodotorula arbusia in an immunocompetent patient needs to be evaluated.