Candida albicans by broth microdilution method (BMD) and E-test. Tests were done by BMD and E-tests. Reference strain of patients were speciated by standard tests. Antifungal susceptibility of patients and determined the face, incubated at 35°C for 48h and the results were read.

Epidemiology and in vitro susceptibilities of Candida albicans isolated from HIV patients in South India

S. Periasamy1,*, T. Menon2

1 Govt. villupuram Medical College, Villupuram, Tamil nadu, India
2 Dr.ALM PG IBMS University of madras, Chennai, Tamilnadu, India

Background: Candidiasis is frequently seen in HIV infected patients. We studied the distribution of Candida species in HIV patients and determined the in vitro antifungal susceptibility of Candida albicans by broth microdilution method (BMD) and E-test.

Methods & Materials: Candida isolates from oral cavities of HIV patients were speciated by standard tests. Antifungal susceptibility tests were done by BMD and E-tests. Reference strain of C. albicans (ATCC 90028) was also included.

BMD was performed using RPMI 1640 buffered with MOPS, according to the CLSI method M27 A2. MIC end points were read after 24h. Drug-free and yeast-free controls were included.

The E-test was performed as specified by the manufacturer (AB Biodisk, Solna, Sweden) on solid RPMI 1640 medium using a 0.5 McFarland standard cell suspension of the test organism. Strips impregnated with antifungal agents were placed on the agar surface, incubated at 35°C for 48h and the results were read.

Results: A total of 233 Candida species were obtained from 247 HIV cases. Of the 233 Candida species, 72(30.9%) were C. albicans, and 161(69.1%) were non albicans species such as Candida krusei (27.5%), Candida tropicalis (14.6%), Candida guilliermondii (13.3%), Candida glabrata (8.6%), Candida parapsilosis (2.1%), Candida rugosa (1.7%) and Candida kefyr (1.3%).

Of the 71 C. albicans tested by BMD, 42/71(59.2%) were susceptible to fluconazole, 25/71(35.2%) were susceptible to itraconazole, 47/71(66.2%) were susceptible to voriconazole, all the strains (100%) were susceptible to amphotericin B.

Of the 71 C. albicans tested by E-test, 42/71(59.2%) were susceptible to fluconazole, 44/71(62%) were susceptible to itraconazole, 48/71(67.6%) were susceptible to voriconazole, and 70/71(98.6%) were susceptible to amphotericin B.

Conclusion: Real-time panfungal PCR is a promising tool for the early diagnosis of IFI in immunosuppressed patients. It may be most useful as a screening method in high-risk patients and will help in the decision to either treat or withhold early pre-emptive antifungal therapy in patients with neutropenia.

Microbiological profile of mycotic eye infections at a tertiary care institution in the Caribbean: A retrospective analysis

G. Reynolds1,*, L. Campbell2, T.-D. Monroe–Williams1, O. Heslop1

1 University of the West Indies Mona, Kingston, Jamaica
2 University Hospital of the West Indies, Kingston, Jamaica

Background: This study identifies the aetiologic agents associated with mycotic eye disease in samples sent for fungal investigation, to the Department of Microbiology, University of the West Indies (UWI).

Methods & Materials: A retrospective analysis of mycotic eye disease was conducted using microbiology records of all eye related specimens received in the mycology section from January 1998 to December 2014. The study population was comprised mainly of hospitalized patients, those seen in the ophthalmology clinics at the University Hospital of the West Indies (UHWI), as well as those seen by private physicians. The frequency and distribution of the causative agents of fungal eye infections were ascertained.

Results: Microbiology records showed that 312 samples were received from 254 patients during the 17 years being examined, with a clinical diagnosis of fungal eye disease. A total of 52 of these samples were positive and the microbiological diagnosis was established in 39 (15.4%) of these patients (26 males, 13 females). Filamentous fungi such as Aspergillus spp n = 17 (32%) and Fusarium spp n = 16 (31%) were the most frequently isolated. They were followed by Penicillium spp n = 5 (9%), Acremonium spp and Aureobasidium spp n = 3 each (6%), Curvularia spp and Scopulariopsis spp n = 2 each (4%), Cladosporium spp, Papulospora and Mucor spp n = 1 each (2%). No yeasts were identified. The ≥ 50 years age group had the most isolates (10/39).

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