179. Candida parapsilosis Candidemia Resistance Patterns and Treatment Outcomes: An Opportunity for Antifungal Stewardship
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Background. Candida parapsilosis has emerged as an important fungal pathogen with mortality rates up to 30%. Recent studies show no difference in treatment outcomes for patients treated both empirically and definitively with either echinocandins or fluconazole. However, the impact of antifungal susceptibility testing and opportunities for antifungal stewardship are less clear in this patient population. The purpose of this study was to assess antifungal susceptibility rates, treatment patterns, and outcomes among patients with C. parapsilosis candidemia.

Methods. This was a single-center, retrospectively cohort review of adult patients with a positive blood culture for C. parapsilosis hospitalized at Baylor St. Luke’s Medical Center, between 2006 and 2016. Patients with mixed or breakthrough candidemia were excluded as well as patients who expired within 3 days of candidemia onset.

Results. Eighty patients with C. parapsilosis candidemia were identified of which 48 met inclusion criteria. Nine patients had infections caused by fluconazole non-susceptible isolates (19%). The most common empiric treatment choice was an echinocandin (33/48, 69%), followed by fluconazole (9/48, 19%), and combination therapy (6/48, 13%). Of the 39 patients with fluconazole susceptible isolates, only 17 were treated with fluconazole (44%). The primary indication for prophylaxis was hematologic malignancy (68%), graft-vs-host disease (18%), and myelodysplastic syndrome (3%). There were no significant differences in demographics or indication between patients receiving the different formulations. The overall incidence rate of MFI was 4.15/10,000 person-days (16 total MFI events). Incidence of MFI was not significantly different between patients receiving the different formulations (P = 0.92). Posaconazole was discontinued early in 147 (17%) courses; frequency of discontinuation was not significantly different between the tablet (20%) and oral suspension (15%) formulations (P = 0.10). The primary reasons for early discontinuation were drug intolerance (11%), serum drug level tests or QT prolongation (25%), inability to take an oral formulation (17%), and drug cost (17%).

Conclusion. Among patients receiving posaconazole prophylaxis, incidence of MFI was low and not significantly different between those receiving the tablet vs oral suspension formulations.

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180. Phaeohyphomycosis: A 10-Year Review (2006–2016)
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Background. Phaeohyphomycosis is a rare infection caused by dematiaceous (pigmented) fungi, frequently reported in tropical and sub-tropical countries. Data regarding incidence of phaeohyphomycosis are scarce and comprised of case reports. This study was carried out to review epidemiology, causative spectrum, clinical features, and treatment outcomes in patients with Phaeohyphomycosis.

Methods. We reviewed 20 cases of culture proven Phaeohyphomycosis over a 10-year period at Christian Medical College, Vellore, South India.

Results. In our cohort, 16 of the 20 patients were male (80%) with an average age of 42 (range 17–66 years). Most of them (35%) were from Tamil Nadu, India and some from Bhutan and Nepal. Eighty-five percent presented with cutaneous lesions, 5% with involvement of the paranasal sinuses, and 5% each had organ involvement in brain and liver. Possible predisposing factors included type 2 diabetes mellitus (35%), renal transplantation (30%), long-term use of steroids (15%), and human immunodeficiency virus (5%). For all the patients, the direct microscopy and the culture positivity was regarding this infection is sparse and comprises mainly of case reports. This study was conducted to evaluate the clinical characteristics and outcomes in hospitalized patients according to this classification.

Methods. Propagating this cohort of patients from 2010 to 2016 included proven and probable coccidiodomycosis hospitalized patients classified according to EORTC/MSG criteria.

Results. Fifty-seven patients were evaluated, 26 proven and 31 probable, mean age 43 years. The group proven was associated with DM2 OR 2.8 (IC95% 1.1–7, P = 0.014) and hemoptysis OR 3.2 (IC95% 1.1–9, P = 0.013), the probable group with dyspnea OR 3.5 (IC95% 1.08–11, P = 0.034), high respiratory rate 27.2 ± 13 vs 22 ± 3 (P = 0.05), and low O2 saturation 83.97% ± 11.1 vs 91.8% ± 4.31 (P < 0.001). In the probable group, multiple cavities in CT scan were more frequent. The probable group had significant difference with some ARDS (P = 0.011), use of invasive mechanical ventilation (P = 0.05), and increase in mortality 14% vs 0% (P = 0.025) with lower survival in Kaplan–Meier (P < 0.02). In the proven group, there was more disseminated disease (P < 0.001), HIV was associated with lower survival (P < 0.001) and they received more days of antifungal treatment 109.5 ± 127 vs 59.8 ± 93 days. Amphotericin B was the most prescribed in both groups.

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