followed by algorithms for the early detection of diseases. These concepts still need to be fully evaluated on large population studies.

Disclosures. **All authors:** No reported disclosures.

370. Efficacy of Cochleated Amphotericin B (C-AMB) in Mouse Models of Oropharyngeal and Vulvovaginal Candidiasis

Jigar V. Desai, PhD[1]; Ruying Lu, BS[2]; Alexandra F. Freeman, MD[3]; Edmund Tramont, MD, FIDSA[3]; Jerry Jabbour, PhD[4]; Raphael J. Mannino, PhD[2] and Michail S. Lionakis, MD, ScD[5]; [1]Fungal Pathogenesis Section, Laboratory of Clinical Immunology and Microbiology, NIAID, NIH, Bethesda, Maryland, [2]Matinas BioPharma, Inc., Bedminster, New Jersey, [3]National Institute of Allergy and Infectious Diseases, Bethesda, Maryland, [4]Matinas BioPharma Inc, Bedminster Township, New Jersey, [5]Laboratory of Clinical Immunology and Microbiology, NIAID/NIH, Bethesda, Maryland

Session: 56. Fungal Disease: Management and Outcomes
Thursday, October 4, 2018: 12:30 PM

Background. *Candida albicans* causes debilitating mucosal infections in patients with inherited susceptibility to chronic mucocutaneous candidiasis (CMC) such as oropharyngeal candidiasis (OPC) and vulvovaginal candidiasis (VVC), which often require long-term azole-based treatment. Due to the high incidence of azole resistance in these patients, alternative treatment options are desirable. Acquired resistance against amphotericin B (AMB) has not been documented but parenteral administration of AMB is associated with nephrotoxicity and infusion reactions. Cochleated AMB (C-AMB) is a new formulation of AMB designed for oral administration and thus an attractive treatment option for OPC and VVC. The purpose of our study was to assess the efficacy of C-AMB in mouse models OPC and VVC.

Methods. IL-17 signaling deficient mice ($Act1^{-/-}$) were infected with a clinical isolate of *C. albicans* in models of OPC and VVC. From day 1 post-infection (pi) through day 4 pi, mice were treated once daily via oral gavage with C-AMB or placebo or intraperitoneal AMB-deoxycholate (AMB-d). At day 5 pi, the mice were euthanized and tongue tissue (OPC) or vaginal fluid and vaginal tissue (VVC) were harvested to quantify fungal burden.

Results. During OPC, mice treated with C-AMB (25 or 83.5 mg/kg/day) displayed significantly reduced tongue fungal burden compared with placebo-treated mice and comparable to that observed in mice treated with intraperitoneal AMB-d (25 mg/kg/day). During VVC, mice treated with C-AMB exhibited significantly decreased fungal burden in vaginal tissue, but not vaginal fluid, relative to placebo-treated mice.

Conclusion. Oral administration of C-AMB in IL-17-signaling deficient mice results in a reduction in tongue and vaginal tissue fungal burden during mucosal *C. albicans* infections. Ongoing studies are aimed at characterizing the distribution of C-AMB in mouse mucosal tissues and examining C-AMB efficacy relative to fluconazole.

Disclosures. **R. Lu**, Matinas BioPharma Inc.: Employee, Salary. **A. F. Freeman**, Matinas BioPharma Inc.: Research Support, Research support. **J. Jabbour**, Matinas BioPharma Inc.: Employee, Salary. **R. J. Mannino**, Matinas BioPharma Inc.: Employee, Salary. **M. S. Lionakis**, Matinas BioPharma Inc.: Research support, Research support.

371. Risk Factors for Non-Albicans Candidal Vulvovaginitis

Andrea Boyd Tressler, PhD[1]; Chelsea Fortin, MD[2]; Milena Radeva, MS[2] and Oluwatosin Goje, MD, MSCR[2]; [1]Cleveland Clinic Lerner College of Medicine of Case Western Reserve, Cleveland, Ohio, [2]Women's Health Institute, Cleveland Clinic, Cleveland, Ohio

Session: 56. Fungal Disease: Management and Outcomes
Thursday, October 4, 2018: 12:30 PM

Background. Every year millions of women experience vulvo-vaginal candida. While the majority of the women with vulvo-vaginal candida are infected with albicans, the distribution of non-albicans candida (NAC) species varies depending on geography, race and ethnicity, and past medical history. While there are studies that explore the relationship between these factors and the incidence of NAC many of these studies are outdated. In this study, we explore the clinical risk factors for development of NAC compared with the more common albicans candida infections.

Methods. We performed a retrospective cohort study. 174 women with a positive candida culture were identified via a database maintained by the Cleveland Clinic Microbiology department. Exclusion criteria were women with negative cultures, those under the age of 18, or with an initial encounter prior to 2004.

Results. The average age of women who presented with NAC was 41.5 [31.0, 53.0] and was not statistically significant from women with no NAC, 43.0 [42.0, 45.0] ($P = 0.19$). Among all initial positive yeast cultures 34.5% were *C. glabrata* followed by *C. parapsilosis* at 3.4%. Women who had a positive NAC culture were more likely to be post-menopausal than those with no NAC, 73.8 NAC vs. 26.2 no NAC ($P \leq 0.001$). Additionally, women cultured with NAC were more likely to be on hormone replacement therapy, 77.8 NAC vs. 22.2 no NAC ($P = 0.011$). However, we found that recent antibiotic use, diabetes, and probiotic use had no impact.

Conclusion. This study shows that post-menopausal women and women who are hormone replacement therapy are more likely to be colonized by NAC indicating that these are risk factors.

Disclosures. **All authors:** No reported disclosures.

372. Attributable Mortality of Candidemia After Introduction of Echinocandins

Florian Cornely, Medical Student[1]; Oliver Cornely, MD, FACP, FIDSA, FAAM[1]; Philipp Koehler, MD[2]; Felix Koehler, Medical Student[1] and Sibylle Mellinghoff, MD[1]; [1]University Hospital of Cologne, Cologne, Germany, [2]Department I for Internal Medicine, Excellence Center for Medical Mycology (ECMM), University of Cologne, Germany, Cologne, Germany

Session: 56. Fungal Disease: Management and Outcomes
Thursday, October 4, 2018: 12:30 PM

Background. Candidemia is among the most frequent nosocomial blood stream infections and associated with considerable morbidity and mortality. Landmark case–control studies estimated an attributable mortality of 38% and 49%. After introduction of echinocandins, attributable mortality may have decreased.

Methods. In a case–control design, 100 consecutive, hospitalized patients with candidemia were enrolled at the University Hospital of Cologne. These cases had at least one blood culture positive for *Candida* spp. >48 hours post admission. We enrolled patients from January 2017 backwards until February 2014. Controls were patients without candidemia matched for age, sex, calendar year, duration of hospitalization, main admission diagnosis, and Patient Clinical Complexity Level. Risk factors for candidemia captured were malignancy, diabetes, infection other than candidemia, liver cirrhosis, hemodialysis, congestive heart failure, coronary artery disease, chronic lung disease, intensive care, mechanical ventilation, and presence of central lines. For each control patient, we considered the day of candidemia of its matched case to compare post diagnosis length of stay. We estimated attributable mortality until day 30 post candidemia diagnosis. We performed χ^2-test for categorical and Student's *t*-test for continuous variables, and defined a two-tailed *P*-value of <0.05 statistically significant.

Results. Cases and controls were 68% males. Median age was 62 and 63 years, and 25th and 75th percentile 55 and 74 years in both groups. Candidemia occurred a median 18 days post admission. For cases and controls, median length of stay post diagnosis was 17 and 15.5 days ($P = 0.13$), for those controls who died 12 and 19 days ($P = 0.21$), and for survivors 24 and 13 days ($P = 0.006$). Day 30 mortality rates were 38% and 11% for cases and controls ($P = 0.03$); thus attributable mortality was 27% (95% CI, 16%–28%).

Conclusion. Attributable mortality of nosocomial candidemia is still substantial, but was lower in our study when compared with literature from before introduction of echinocandins.

Disclosures. **O. Cornely**, Actelion, Amplyx, Arsanis, Astellas, AstraZeneca, Basilea, Bayer, Cidara, F2G, Gilead, GSK, Leeds University, Matinas, MedPace, Melinta, Merck/MSD, Miltenyi, Pfizer, Rempex, Roche, sanofi pasteur, Scynexis, Seres, Medicines Company: Research Contractor, Research grant and Research support. Allecra Therapeutics, Amplyx, Actelion, Astellas, Basilea, Cidara, Da Volterra, F2G, Gilead, IQVIA, Janssen, Matinas, Menarini, Merck/MSD, Paratek, PSI, Scynexis, Seres, Summit, Tetraphase, Vical: Consultant, Consulting fee. Astellas, Basilea, Gilead, Merck/MSD, Pfizer: Speaker's Bureau, Speaker honorarium.

373. Impact of Concurrent Renal Replacement Therapy on Treatment Outcomes of Candidemia in Adults

Brandon Hill, PharmD, BCPS[1,2]; Dustin Wilson, PharmD, BCPS[1,2] and Richard Drew, PharmD, MS, FCCP, FIDP[1,2]; [1]Duke University Hospital, Durham, North Carolina, [2]Campbell University College of Pharmacy and Health Sciences, Buies Creek, North Carolina

Session: 56. Fungal Disease: Management and Outcomes
Thursday, October 4, 2018: 12:30 PM

Background. Treatment of candidemia is complex. Studies examining relationships between patient-related factors and treatment outcome are limited, often based on all-cause mortality. Our objectives were to compare concurrent prespecified factors between patients with and without treatment failure among adults with candidemia.

Methods. This IRB-approved, single-center, case-cohort study included patients >18 years old admitted to Duke University Hospital between June 1, 2013 and June 1, 2017 with a blood culture positive for *Candida* spp. Treatment-, patient-, and disease-specific data were collected, and outcome (success/failure) determined 90 days after the index culture. An odds ratio (OR) and 95% confidence interval (95% CI) were determined for receipt of renal replacement therapy (RRT), fluconazole-containing regimen, ICU stay, and neutropenia between outcome groups.

Results. Among the 112 encounters (from 110 unique patients) included, treatment success was observed in 104/112 (92.9%). Demographics were comparable between treatment success and treatment failure groups. Among patients receiving concomitant RRT, 11/12 encounters (91.7%) were successfully treated. No significant differences were observed with regards to treatment failure with a fluconazole-containing regimen (OR, 1.59; 95% CI, 0.3–8.27), ICU stay (OR, 1.43; 95% CI, 0.32–6.29), and neutropenia (OR incomputable due to 0 treatment failures).

Conclusion. Treatment success occurred in 91.7% of adult patients receiving concomitant RRT while undergoing treatment for candidemia. Treatment with a fluconazole-containing regimen, RRT, ICU stay, and neutropenia did not differ between the treatment outcome groups.

Disclosures. **All authors:** No reported disclosures.

374. Candidemia Management and Associated Clinical Outcomes in Hospitalized Patients: An Opportunity for Antifungal Stewardship

Saloni Patel, PharmD, Stephanie Shulder, PharmD and Travis Dick, PharmD, MBA, BCPS; University of Rochester Medical Center, Rochester, New York

Session: 56. Fungal Disease: Management and Outcomes
Thursday, October 4, 2018: 12:30 PM

Background. The incidence of candidemia has increased significantly over the past two decades and is a major cause of morbidity and mortality, prolonged hospital