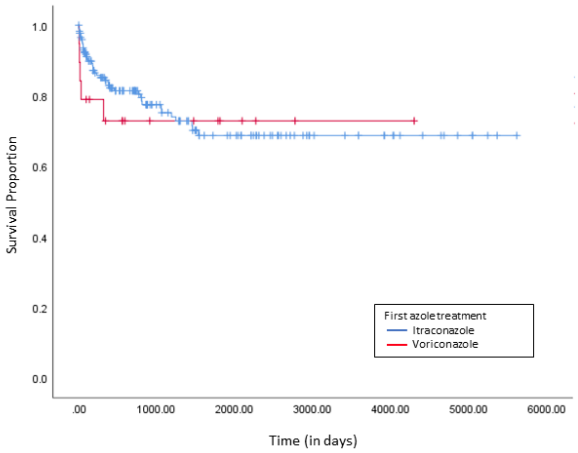
Figure 1: Survival probability of patients receiving Itraconazole versus Voriconazole for first azole treatment



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

2109. Liposomal Amphotericin B-associated Nephrotoxicity in Obese and Non-obese Patients

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Session: 242. Antifungals

Saturday, October 5, 2019: 12:15 PM

Background. Liposomal amphotericin B (L-amb) is an important antifungal agent which exhibits significant rates of dose-dependent nephrotoxicity. Animal studies demonstrate only small amounts of L-amb distribute into adipose tissue and obese animals show greater risk of nephrotoxicity with L-amb administration. This study aims to determine whether obese patients are at a higher risk of nephrotoxicity with weight-based doses of L-amb.

Methods. We performed a multi-center, retrospective cohort study of nephrotoxicity with L-amb in obese (BMI > 30) and non-obese adult patients at University of Utah Health and Intermountain Healthcare from January 1, 2014 through December 31, 2018. Our primary outcome was the rate of nephrotoxicity as determined by AKIN criteria. Patients receiving at least one dose of L-amb were identified for inclusion. Patients were excluded if they were already on a renal replacement at the time of L-amb initiation or they received L-amb prior to admission.

Results. We included 221 patients, 47 (21%) were obese and 174 (79%) were non-obese. Median total body weight was 109 kg in obese patients compared with 70 kg in non-obese patients. Dosage based on ideal body weight was higher in the obese group (median 6.9 mg/kg vs. 4.9 mg/kg). Obese patients were significantly more likely to experience acute kidney injury (AKI) than non-obese patients (55% vs. 37%, $P = 0.03$). Patients who experienced nephrotoxicity received a higher average daily dose than those who did not (365 mg vs. 333 mg, $P = 0.03$), had a higher median cumulative dose (3,130 mg vs. 1,700 mg, $P < 0.001$), and had a higher median total body weight (79.6 kg vs. 71.9 kg, $P = 0.04$.). Additionally, daily dose normalized to total body weight was not associated with AKI (median 4.7 mg/kg in patients with AKI vs. 4.8 mg/kg in patients without AKI, $P = 0.86$). However, daily dose normalized to ideal body weight was associated with AKI (median 5.5 mg/kg in patients with AKI vs. 4.9 mg/kg in patients without AKI, $P = 0.02$).

Conclusion. We identified a higher rate of nephrotoxicity among obese patients receiving L-amb compared with non-obese patients. These data suggest that dosing L-amb based on total body weight places obese patients at a higher risk of nephrotoxicity. This should be considered when assessing the risks and benefits of this dosing strategy in obese patients.

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

2110. Treatment of Coccidioidomycosis with Isavuconazole

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Session: 242. Antifungals

Saturday, October 5, 2019: 12:15 PM

Background. There are limited prospective data available to guide the management of severe coccidioidomycosis. In particular, the treatment of disseminated coccidioidomycosis often requires extended courses of antifungal therapy, for which there are often intolerable side-effects, toxicities, and failures. In recent years, newer oral triazole antifungals with *in vitro* activity against *Coccidioides* have become available, but data are lacking on their efficacy in coccidioidomycosis. Isavuconazole lacks many of the toxicities of older triazole antifungals, such as QT prolongation and certain key drug interactions, making it an appealing option in selected patients.

Methods. Based on pharmacy prescription history at two federal facilities in southern California, we identified adult patients with coccidioidomycosis who received isavuconazole from 2017 to 2019. Patient records were reviewed to identify age, sex, ethnicity, sites of infection, prior antifungal therapy, indication for switch to isavuconazole, duration of follow-up, and outcomes.

Results. 12 patients were identified between the ages of 36 and 86 years; 3 were women. 6 were of Pacific Islander descent, 4 were African American, 1 European-American, and 1 Latino. 6 (50%) had significant pre-infection comorbidities. 8 (67%) had evidence of extrapulmonary dissemination, including 1 patient with meningitis. All but one had received prior treatment with other azoles; two had previously been treated with amphotericin B. Six (50%) were switched to isavuconazole due failure or progression of disease on prior therapy; 3 (25%) due to drug toxicity; and 2 (17%) due to drug interactions. Seven (58%) patients improved on isavuconazole; 4/12 (33%) were stable; one developed hepatotoxicity but improved on posaconazole, and one patient deteriorated.

Conclusion. Isavuconazole appears to be a promising agent for the treatment of coccidioidomycosis. Long-term follow-up will be required to assess the risks of toxicity, disease progression, or relapse. For patients who are clinically stable but with an extensive disease burden or toxicity from older agents, isavuconazole may present an amphotericin-sparing option.

AGE/ GENDER	ETHNICITY	COMORBIDITY	SITE OF INFECTION	PRIOR THERAPY	CF	FOLLOW-UP MONTHS	INDICATION FOR SWITCH	OUTCOME
67/F	API	DM, asthma	Cavitary pulmonary	F, P	32	2	progression of disease	stable
65/M	C	None	Cavitary pulmonary	F	4	8	hepatotoxicity	improved
81/M	AA	CAD	Prostate	F	8	15	torsades de pointes	improved
67/M	API	DM, CKD	Pulmonary, retinal, fungemia	F	16	1	drug interactions	stable
81/F	API	HCV	Pulmonary, bone	F, V	16	3	progression of disease	stable
86/F	API	DM, CAD	Pulmonary	F	<2	10	drug interactions	improved
39/M	AA	None	Pulmonary	F	4	1	failure to improve	stable
48/M	AA	None	Pulmonary, spine, deep soft tissue	F, I, V, P	1024	26	failure to improve	improved
38/M	API	DM, asthma	Pulmonary, empyema	F	<2	17	Qtc >500	improved
36/M	AA	None	Pulmonary, knee joint	None	512	3	n/a (initial therapy)	hepatotoxicity
74/M	API	None	Knee joint	A, F	16	4	failure to improve	improved
39/M	L	None	Pulmonary, meningeal	A, F	64	2	progression of disease	worse

Table 1. Description of patients with coccidioidomycosis receiving therapy with isavuconazole.
CF = anti-*Coccidioides* complement fixation titer prior to isavuconazole switch
API = Asian/Pacific Islander, C= Caucasian, AA=African-American, L=Latino.
DM=diabetes mellitus, CAD=coronary artery disease, CKD=chronic kidney disease, HCV=chronic hepatitis C infection
F=fluconazole, P=posaconazole, V=voriconazole, I=itraconazole, A=liposomal amphotericin B

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

2111. Anidulafungin vs. Micafungin Treatment in Adult Patients with Candidemia: A Retrospective Study of Single-Center Experience

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Session: 242. Antifungals

Saturday, October 5, 2019: 12:15 PM

Background. Candidemia is one of the fatal causes of nosocomial infection, requiring prompt recognition and treatment. Echinocandins are recommended for the treatment of invasive candidiasis and candidemia. Although similar clinical efficacy and safety are well known between caspofungin and micafungin, there are few studies comparing micafungin and anidulafungin. The objective of this study was to evaluate the clinical efficacy and safety between micafungin and anidulafungin treatment for adult patients with candidemia.

Methods. This retrospective cohort study was performed on adult candidemia patients diagnosed from January 2006 through December 2018 at a tertiary medical center, Seoul, South Korea. The study subjects included adult patients ≥19 years with candidemia who were only treated with micafungin or anidulafungin for more than 3 days. Baseline and clinical characteristics were reviewed through electrical medical records. Liver function was assessed according to Common Terminology Criteria for Adverse Events (CTCAE) Version 5.0. Hepatotoxicity was defined as the elevation of more than CTCAE grade 1 and severe hepatotoxicity was defined as the CTCAE grade 3 or higher elevations.

Results. A total of 98 patients with candidemia was treated with micafungin ($n = 46$, 46.9%) or anidulafungin ($n = 52$, 53.1%). In the univariate analysis, there were no significant differences in age, sex, source of candidemia, and comorbidities between the micafungin and anidulafungin groups. Although the clearance time of candidemia after echinocandin treatment was shorter in the anidulafungin than in the micafungin (5.64 ± 2.79 vs. 8.06 ± 5.30 days, $P = 0.009$) group, there was no significant difference in terms of clinical response (51.9% vs. 46.7%), mycological response (76.9% vs. 67.4%), and mortality (54.3% vs. 55.8%) between these two groups. The overall incidence of hepatotoxicity was similar. Also, there was no difference in the development of hepatotoxicity or severe hepatotoxicity between micafungin and anidulafungin groups for patients with normal baseline liver function test(LFT) and abnormal baseline LFT.

Conclusion. Our results suggest that clinical efficacy and hepatotoxicity may be similar between micafungin and anidulafungin treatment for adult patients with candidemia.