Conclusion. Posaconazole was not as effective as SOC in treating invasive mold infections but patients experienced comparatively fewer adverse events.

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

719. Susceptibility Testing of Oteseconazole (VT-1161) Against Clinical Isolates from Phase 3 Clinical Studies in Subjects with Recurrent Vulvovaginal Candidiasis

Mahmoud Ghannoum, PhD[1]; Thorsten Degenhardt, Ph.D[2]; Karen Person, M.S.[2]; Stephen Brand, Ph.D[2]; [1]Case Western Reserve, Cleveland, Ohio; [2]Mycovia Pharmaceuticals, Inc., Durham, North Carolina

Session: P-34. Eukaryotic Diagnostics

Background. Oteseconazole (VT-1161) is a novel, investigational oral therapy that is currently under FDA review for the treatment of recurrent vulvovaginal candidiasis (RVVC). Susceptibility testing was performed on all viable clinical isolates collected from three Phase 3 studies to determine the susceptibility of causative pathogens to oteseconazole versus the current treatment standard of care, fluconazole.

Methods. Vaginal cultures were obtained at screening and at all subsequent study visits throughout the duration of the studies (approx. 48 Weeks) and submitted to a central mycology laboratory for fungal species identification and storage. Susceptibility testing was conducted in accordance with the CLSI Reference Method for Broth Dilution Antifungal Susceptibility Testing of Yeast M27-Ed4.

Results. *Candida albicans* was identified as the primary causative pathogen in 87% of women with RVVC presenting with an acute infection, followed by *C. glabrata* (8%). Other non-albicans species including; *C. parapsilosis, C. tropicalis, C. krusei, C. dubliniensis, C. kefyr* and *Saccharomyces cerevisiae* were responsible for < 1% of infections. A total of 1910 isolates were collected. The MIC range, MIC_{50} and MIC_{90} values against all isolates for oteseconazole were ≤ 0.0005 to > 0.25, 0.002 and 0.06 µg/mL, respectively. In comparison, the MIC range, MIC_{50} and MIC_{90} values for fluconazole were, ≤ 0.06 to > 32, 0.25 and 8 µg/mL respectively. The MIC range, MIC_{50} and MIC_{90} values against all *C.glabrata* isolates for oteseconazole were 0.002 to > 0.25, 0.03 and 0.125 µg/mL, respectively. In comparison, the MIC range, MIC_{50} and MIC_{90} values for fluconazole were, ≤ 0.06 to 32, 2 and 8 µg/mL respectively.

Conclusion. Oteseconazole demonstrated very low MIC values against most *Candida* strains, including fluconazole resistant isolates, aligning with clinical study outcomes. Oteseconazole MICs against *C. glabrata* strains were approximately 6-fold lower than fluconazole.

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720. Efficacy of Nifurtimox + Eflornithine in the Treatment of African Trypanosomiasis. Systematic Review

Jessica Hidalgo, MD[1]; Raghavendra Tirupathi, MD, FACP[2]; Juan Fernando Ortiz, MD[3]; Stephanie P. Fabara, MD[4]; Dinesh Reddy, MBBS[5]; Ali A. Rabaan, PhD[6]; Jaffar A. Al-Tawfiq, MD, FIDSA[7]; [1]Universidad San Francisco de Quito, Quito, Pichincha, Ecuador; [2]WellSpan Health, Chambersburg, Pennsylvania; [3]Larkin Community Hospital, Miami, Florida; [4]Universidad Catolica De Santiago De Guayaquil, Guayaquil, Guayas, Ecuador; [5]Rajiv Gandhi University of Health Science, Hyderabad, Telangana, India; [6]Johns Hopkins Aramco Health Care, Dhahran, Al Bahah, Saudi Arabia; [7]Johns Hopkins school of medicine, Dhahran, Al Bahah, Saudi Arabia; Jessica Hidalgo MD, Juan Fernando Ortiz MD, Stephanie Fabara MD

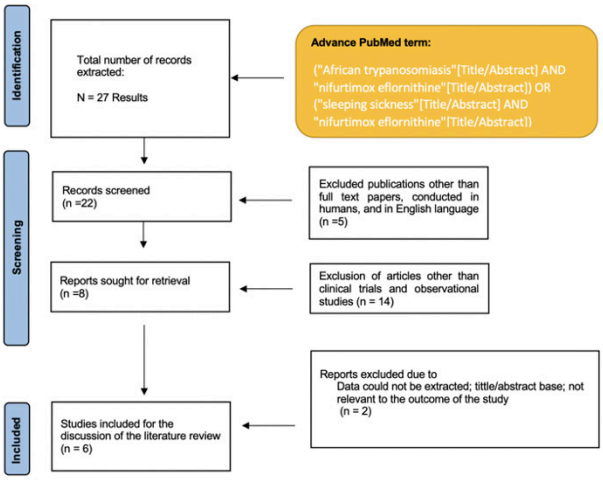
Session: P-34. Eukaryotic Diagnostics

Background. Sleeping sickness is an infectious disease transmitted mainly by the Trypanosoma Brucei, with the tsetse fly as a vector. The condition has two stages: The hemolymphatic and the meningo-encephalitic stage. The second stage is caused mainly by the Trypanosoma Brucei Gambiense. The treatment of the second stage has changed from melarsoprol, eflornithine, to now nifurtimox-eflornithine (NECT). This systematic review will focus on the efficacy and the toxicity of the medication.

Methods. We use PRISMA and MOOSE protocol for this review. On figure 1, we detail the methodology used for the extraction of information from the systematic review. To assess the study's bias, we used Cochrane Collaboration's tool for risk assessment of the clinical trials and the Robins I tool for the observational studies.

Results. We collected four clinical trials and two observational studies after an extensive search. Three clinical trials showed that NECT was non-inferior to eflornithine with the following cure rates (NECT VS eflornithine): 1) 96.3% vs. 94.1% ; 2) 90.9% vs. 88.9%; 3) 91.6% vs. 96.5%. An additional clinical trial revealed that the proportion of patient discharge from the hospital was 98.4% (619/629); 95% CI [97.1%; 99.1%]). The two observational studies discussed the pharmacovigilance of the drug and toxicity related to NECT. In one study, patients treated with NECT, 589 (86%) experienced at least one adverse effect (AE) during treatment, and 70 (10.2%) experience serious AE. On average, children experienced fewer AEs than adults. In the other study at least one AE was described in 1043 patients (60.1%), and Serious AE was reported in 19 patients (1.1% of treated), leading to nine deaths (case fatality rate of 0.5%). The major limitations of the studies were the lack of blinding because most of them were open-label. Also, there was heterogenicity in the definition of the outcomes in the observational studies.

PRISMA Flow Chart



Conclusion. NECT is not inferior to eflornithine, and the proportion of patients discharged from the hospital alive showed favorable results. The observational studies revealed a high frequency of AE. However, NECT is more convenient and safe than Eflornithine and Melarsoprol.

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721. Diagnosis of Histoplasmosis Using the MVista *Histoplasma* Galactomannan Antigen Qualitative Lateral Flow-Based Immunoassay; A Multicenter Study

Wassim Abdallah, MD[1]; Thein Myint, MBBS[2]; Richard W. LaRue, MD[3]; Melissa Minderman, Bachelor's Degree, Molecular Biology[4]; Suphansa Gunn, Bachelor's Degree, psychology[4]; Lawrence J. Wheat, MD[4]; Chadi A. Hage, MD[5]; [1]Indiana University School of Medicine, Indianapolis, Indiana; [2]University of Kentucky, Lexington, KY; [3]Vanderbilt University Medical Center, Nashville, Tennessee; [4]MiraVista Diagnostics, Indianapolis, Indiana; [5]Indiana University, Indianapolis, Indiana

Session: P-34. Eukaryotic Diagnostics

Background. Accurate and timely methods for the diagnosis of histoplasmosis in endemic resource-limited settings are largely lacking. *Histoplasma* galactomannan antigen detection by enzyme immunoassay (EIA) is the most widely used method for the diagnosis of acute pulmonary and disseminated histoplasmosis in the United States (USA). EIA methods have constraints in resource-limited settings including cost, turnaround time, and the need for large reference laboratories, leading to missed or delayed diagnoses and poor outcomes. Lateral flow assays (LFA) are practical methods that can be used in this setting for *Histoplasma* antigen detection.

Methods. Frozen urine specimens were submitted to MiraVista (MVista) for *Histoplasma* antigen EIA testing from three academic medical centers in highly endemic areas of the USA. They were also blinded and tested for the MVista *Histoplasma* LFA by skilled MVista technologists. Medical records were reviewed for clinical information. Patients were classified as controls or cases of histoplasmosis. Cases were divided into proven or probable, pulmonary, or disseminated, immune competent or immune suppressed, and mild, moderate, or severe.

Results. 352 subjects were enrolled, including 66 cases of histoplasmosis (44 proven, 22 probable) and 286 controls. Most of the cases were immunocompromised (68%). 76% had disseminated histoplasmosis. 6% were mild, 66% moderate, and 28% severe. A high degree of concordance was found between LFA and EIA results (kappa 0.837, OR 372.7, LR 204, p< 0.001). Overall, the sensitivity and specificity of the LFA were 78.8% and 99.3% respectively (kappa 0.84, p< 0.001). The sensitivity was higher in proven cases (93.2%), in patient with disseminated (94.7%), moderate (80%) and severe disease (94%), and those with galactomannan levels ≥ 2 ng/mL (97.7%). Specificity was 99.3% in proven cases, 99.3% in patient with moderate and severe disease, and 96.4% in those with galactomannan levels ≥ 2 ng/mL.

Table 1. Statistical characteristics of the LFA test for histoplasmosis in different categories. PPV: Positive Predictive Value. NPV: Negative Predictive Value. EIA: Enzyme Immunoassay.

	Total cases	Proven histoplasmosis	Probable histoplasmosis	Disseminated histoplasmosis	Moderate and severe	EIA Antigen ≥2ng/mL
Sensitivity	78.79	93.18	50.00	94.74	84.21	97.73
Specificity	99.30	99.30	99.30	99.30	99.30	96.43
NPV	95.30	98.96	96.27	99.30	96.93	99.66
PPV	96.30	95.35	84.62	94.74	96.00	79.63
Accuracy	95.46	98.49	95.78	98.77	96.80	96.59