the compound, and then observed using time-lapse microscopy revealed that the effect of pravibismane is reversible and that cells recovered 8–12 hours after removing the compound. Wash out experiments with cells treated with E. coli tolC(a) strain carrying a plasmid with an IPTG inducible GFP demonstrated that transcription and translation ultimately resumed in most cells after washout. The bioenergetics of the membrane was measured using DiBAC 4(3), a membrane potential sensitive dye which can enter depolarized cells, which revealed that pravibismane caused depolarization of the membrane within 30 mins of exposure in a concentration dependent manner. Finally, a luciferase assay determined pravibismane reduced ATP levels (resulting in decreased luminescence) within 15 mins of exposure in a concentration dependent manner unlike antibiotic controls that had modest or no effect on luminescence.

Conclusion. Our results suggest that pravibismane acts rapidly to disrupt cellular bioenergetics, resulting in the immediate cessation of cell growth and protein expression.

Disclosures. Brett Baker, M.Sc., D.C., Microbion Corporation (Board Member, Employee)

1290. Real-World Experience with Omacadine for Nontuberculous Mycobacterial and Gram-Negative Infections: A Multicenter Evaluation

Taylortown et al.

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Session: P-58. Novel Agents

Background. Omacadine (OMC) is an aminomycinylcyclic antibiotic in the tetracycline class that has been Food and Drug Administration-approved for acute bacterial skin and skin structure infections and community-acquired bacterial pneumonia. OMC has been shown to have potent in vitro activity against a broad-spectrum of Gram-positive and Gram-negative organisms, as well as Nontuberculous Mycobacteria (NTM). Due to its unique activity and availability as an oral agent, OMC appears to be effective and well-tolerated for a variety of infections.

Methods. This was a multicenter, retrospective, observational study that was conducted from January 2020 to June 2020. We included all patients ≥ 18 years of age that received OMC for ≥ 2 hours for any indication and/or pathogen. The primary outcome was clinical success, defined as a lack of 30-day (non-NTM) or 90-day (NTM) mortality or microbiologic recurrence and absence of therapy escalation or alteration. Reasons for OMC utilization and incidence of potential adverse effects attributable to OMC were also analyzed.

Results. A total of 18 patients were included from six geographically distinct academic health systems (median age: 56 (IQR, 49-60.5) years; 61% male; 72% Caucasian). The majority of OMC use was in NTM (61%; 100% for bone/joint (39%) and respiratory tract (33%) infections. OMC was used primarily in the outpatient setting alone (83%) and most isolates (83%) were NTM. The majority of patients (83%) came was clinical success, defined as a lack of 30-day (non-NTM) or 90-day (NTM) mortality or microbiologic recurrence and absence of therapy escalation or alteration.

Disclosures. Michael J. Rybak, PharmD, MPH, PhD, Paratek (Grant/Research Support)

1291. Safety of Isavuconazole Compared with Voriconazole as Primary Antifungal Prophylaxis in Allogeneic Hematopoietic Cell Transplant Recipients

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Session: P-58. Novel Agents

Background. Voriconazole (VCZ) is used as mold active primary antifungal prophylaxis (AFP) after allogeneic hematopoietic cell transplant (HCT) but is frequently discontinued due to adverse events (AE), variable pharmacokinetics and drug-drug interactions. Limited data exists on the safety of Isavuconazole (ICZ) as AFP in HCT patients (pts). The study objectives were to compare 1) rates of AFP premature discontinuation (d/c), 2) changes in transaminases values from start to end of treatment (EOT) and 3) rates of invasive fungal infections (IFI) and all-cause mortality by Day (D) +180 post HCT between VCZ and ICZ AFP.

Methods. This is a matched cohort analysis of 95 pts enrolled in a clinical trial of ICZ AFP from 7/1/2017-10/31/2018 (ICZ-cohort) and 210 pts who received VCZ AFP standard of care between 9/1/2014-12/31/2015 at MSKCC (VCZ-cohort). The cohorts were matched using propensity scores (Table 1). AFP was administered for 75-100 days per institutional guidelines. Premature d/c of AFP was defined as d/c for IFI or AE by D +100 post HCT or interruption of >14 days for any reason. The cumulative incidence function and log rank test were used to compare groups. Mean transaminase values were compared using paired T-tests.

Table 1. Baseline characteristics

| Characteristics | Voriconazole (n=210) | Isavuconazole (n=95) | P value |
|-----------------|---------------------|---------------------|---------|
| Age (years)     |                     |                     |         |
| Median (IQR)    | 56 (45, 64)         | 57.4 (50, 66)       | 0.180   |
| Sex             |                     |                     |         |
| Female          | 82 (39.6%)          | 31 (32.6%)          | 0.283   |
| Male            | 128 (60.4%)         | 64 (67.4%)          |         |
| Disease         |                     |                     | 0.589   |
| Leukemia        | 100 (47.6%)         | 51 (53.7%)          |         |
| Lymphoma        | 52 (24.7%)          | 16 (16.8%)          |         |
| Myelodysplastic syndrome | 29 (13.9%) | 15 (15.8%) |         |
| Others          | 39 (18.6%)          | 13 (13.7%)          |         |
| Conditioning intensity |     |                     | 0.653   |
| Ablative        | 99 (44.3%)          | 53 (55.8%)          |         |
| Nonabative      | 117 (55.7%)         | 42 (44.2%)          |         |
| Donor HLA match|                     |                     | 0.114   |
| Matched         | 100 (47.6%)         | 86 (37.9%)          |         |
| Mismatched      | 110 (52.4%)         | 59 (62.1%)          |         |
| Stem cell source|                     |                     | 0.154   |
| Bone marrow     | 21 (10.6%)          | 17 (17.9%)          |         |
| Cord blood      | 94 (46.2%)          | 14 (14.7%)          |         |
| Peripherial Blood| 155 (73.8%)        | 64 (67.4%)          |         |
| Time to ANC > 500 | 78 (37.5%)         | 31 (32.6%)          | 0.2113  |
| Median (IQR)    | 12 (11, 15)         | 12 (11, 18.5)       |         |
| Graft vs Host Disease (GVHD) |        |                     | 0.935   |
| GVHD < grade 2  | 94 (44.7%)          | 43 (45.2%)          |         |

Results. The median (Interquartile range) duration of AFP was 94 (87-100) days and 76 (23-94) days in ICZ and VCZ cohorts respectively (p= 0.0001). Premature d/c occurred in 14/95 (14.7%) of ICZ and 92/210 (43.8%) of VCZ cohorts (p< 0.0001) (Figure 1). The most common cause for AFP d/c was hepatotoxicity: ICZ-cohort: 5/95 (5.26%) vs VCZ-cohort: 48/210 (22.8%). Transaminases at EOT and up to 14 days were increased in VCZ but not ICZ cohort (Figure 2). IFI occurred in 3.1% (3/95) in ICZ-cohort and 2.8% (6/210) in VCZ-cohort (p=0.88) (Figure 3). In ICZ-cohort IFI included 3 Candida bloodstream infections (BSI) occurring on ICZ AFP. In VCZ-cohort IFI included one Candida BSI after VCZ d/c, and 5 probable mold infections; 3/5 with serum galactomannan > 0.5 and 2 with beta-D glucan > 80. IFI occurred on VCZ in 1 pt and after VCZ premature d/c in 5 pts. All-cause mortality was 6.3% (6/95) in ICZ-cohort and 2.8% (6/210) in VCZ-cohort (p=0.089).