Session: P-79. Transplant: Studies of Pre-transplant Screening and Evaluation

**Background.** Strongyloides stercoralis is endemic in sub-Saharan Africa, Southeast Asia, Latin America, and the southeastern United States, particularly Appalachia, where Strongyloides seroprevalence approaches 2%. SC is considered a state in which Strongyloides is endemic, however the degree of endemcity is not known. Here we define the epidemiology of chronic strongyloidiasis in our state, through data obtained via universal screening of heart transplant candidates at our center.

**Methods.** This single center retrospective study was performed at a 700 bed academic medical center that is the only comprehensive transplant center in SC. All adult patients who underwent heart transplant evaluation 1/1/2019 - 12/31/2020 were included. Routine pre-transplant evaluation by Transplant Infectious Diseases (TxID) was implemented in the heart transplant program in 2015 and universal screening with Strongyloides IgG began in late 2018. We assessed demographics, risk factors for exposure to Strongyloides, treatment, and outcomes for seropositive subjects.

**Results.** During the study period, 218 patients underwent heart transplant evaluation. Adherence to universal screening was 96.6% (211/218). 187 subjects (88.6%) had negative screening results (≤0.9 IV) and 24 subjects (11.4%) had equivocal or positive screening results (≥1.0 IV). Demographics and risk factors for the 24 equivocal/positive subjects are presented in Table 1. 15 equivocal/positive subjects (66.7%) received ivermectin and 9 (33.3%) did not. The majority of untreated patients were declined for transplant (8/9) and did not have a TxID evaluation (6/9). One untreated patient was waitlisted for transplant and has received ivermectin since being identified in this study. There were no episodes of hyperinfection or disseminated infection in the cohort.

**Conclusion.** Universal screening of adult heart transplant candidates at SC’s only transplant center detected a Strongyloides seroprevalence rate of 11.4%. The majority of subjects with equivocal/positive Strongyloides IgG were born in the US and did not have other known risk factors (residence in the Appalachian region of SC, military service, overseas travel). These data suggest a high level of endemicity of strongyloidiasis in SC.

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

Table 1. Demographics and risk factors for subjects with equivocal or positive Strongyloides IgG

| Country of origin | United States | Mexico | Unknown |
|-------------------|---------------|--------|---------|
|                   | 19 (79.2)     | 1 (4.2)| 4 (16.7)|

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| Sex            | Male       | Female   |
|----------------|------------|----------|
|                | 21 (87.5)  | 3 (12.5) |

| Race/ethnicity | Black     | White    | Hispanic |
|----------------|-----------|----------|----------|
|                | 16 (66.7) | 6 (25.0) | 2 (8.3)  |

| Country of residence | Appalachian region |
|----------------------|--------------------|
|                      | 4 (16.7)           |

*never deployed*
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Background. Hematopoietic stem cell transplantation (HCT), and other forms of cellular therapies such as chimeric antigen receptor T cell therapy (CAR-T), while of critical therapeutic value, confers significant, long-term risk of infectious complications. Recipients would benefit from evaluation by infectious disease (ID) specialists. However, amidst many existing guidelines from ID and oncology societies, pre-transplant ID evaluation and management practices vary across US institutions. To better understand these variations and identify targets for standardization, we conducted a survey of ID and oncology providers at transplant centers in the US.

Methods. A 38-question, anonymous, voluntary, online survey was distributed via Google Forms to a professional organization e-mail list of ID providers as well as to followers of relevant Twitter accounts. Responses were collected and analyzed.

Results. A total of 51 responses were received, the majority of which (68.6%) came from ID providers. 60.8% of respondents worked at healthcare facilities with over 500 beds. 43 respondents (84.3%) reported that their center performed autologous and allogeneic HCT as well as CAR-T. 56.8% of CAR-T centers used a standardized template, compared to 70.8% of those providing HCT. For allogeneic HCT centers, 8% reported that no ID evaluation is offered, 34% reported that it is offered “sometimes.” Practices varied for treatment of latent tuberculosis infection prior to HCT: 26.5% treat “All the time.” 10.2% treat “Very rarely.” In assessing risk factors, only 63% and 54% identified HIV infection and tuberculosis infection, respectively, as epidemiologic risk factors for tuberculosis infection. 59.2% answered that < 10% of patients are screened for Strongyloides. Only 5 respondents reported universal Strongyloides screening prior to transplant. COVID-19 vaccination for family is recommended “Always” by 95.5% of respondents. 25% have treated “Very rarely.” In assessing risk factors, only 63% and 54% identified HIV infection and tuberculosis infection, respectively, as epidemiologic risk factors for tuberculosis infection. 59.2% answered that < 10% of patients are screened for Strongyloides. Only 5 respondents reported universal Strongyloides screening prior to transplant. COVID-19 vaccination for family is recommended “Always” by 95.5% of respondents. 25% have offered influenza vaccination to family through the transplant clinic.

| Table 1 | ID evaluation offered to candidates | Pre-AllHCT | Pre-AutoHCT | Pre-CAR-T |
| --- | --- | --- | --- | --- |
| All the time | 58% | 34% | 40.9% |
| Sometimes | 41.2% | 57.8% | 41.2% |
| Average percentage of candidates undergoing ID evaluation | 40.76% | 27.21% | 30.25% |
| Standard template available for ID evaluations | 62.5% | 45.5% |

Table 2

| Table 2 | Respondent / Patient populations represented (n=51) |
| --- | --- |
| Pediatrics | 17.6% |
| Adults | 76.5% |
| Both | 6.8% |
| Urban | 88.2% |
| Rural | 41.2% |
| Suburban | 52.9% |

| Table 2 | Size of medical facility | Pre-AllHCT | Pre-AutoHCT | Pre-CAR-T |
| --- | --- | --- | --- | --- |
| >500 beds | 60.8% | 70.6% | 48.2% |
| 100-500 beds | 37.3% | 32.8% | 35.1% |
| <300 beds | 2% | 1.7% | 2% |

| Table 2 | Region | Pre-AllHCT | Pre-AutoHCT | Pre-CAR-T |
| --- | --- | --- | --- | --- |
| Northeast | 37.3% | 37.3% | 37.3% |
| Midwest | 37.3% | 37.3% | 37.3% |
| Southwest | 5.9% | 5.9% | 5.9% |
| Gulf Coast | 2% | 2% | 2% |
| Pacific Northwest | 7.8% | 7.8% | 7.8% |
| West / Rocky Mountains | 5.9% | 5.9% | 5.9% |

Characteristics of survey respondents.

Conclusion. Practices around pre-HCT infectious disease evaluation and management are heterogeneous among the centers surveyed. The adoption of standardized screening for and management of infectious diseases in this patient population would likely be beneficial.

Disclosures. All Authors: No reported disclosures

1385. Impact of Deceased Organ Donor Injection Drug Use on Donor Culture Positivity

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Background. With the ongoing opioid epidemic in the US, there has been an increase in the proportion of deceased organ donors with a history of injection drug use (IDU), raising concern for additional infectious risks to transplantation. We sought to determine how recent IDU among deceased organ donors impacted donor culture results.

Methods. A retrospective cohort study was conducted at four transplant centers in Philadelphia between 1/1/2015 and 6/30/2016. All deceased organ donors who donated ≥ 1 organ to one of the centers were included. Exposed donors were those with a recent history of IDU (defined by use in the prior 12 months based on donor chart review). Unexposed donors were those with no recent history of IDU. The primary outcome was any positive donor culture (taken during the terminal hospitalization or at the time of organ procurement) for bacteria or Candida. Multivariable logistic regression was used to determine the association between recent IDU and donor culture positivity. Secondary analysis included the association between donor IDU and isolation of (1) a multidrug-resistant organism (MDRO) on culture, (2) Staphylococcus aureus on culture, (3) Candida on non-respiratory culture, and (4) bacteria or Candida on blood culture were determined.

Results. Of 394 total donors, 66 (17%) had a history of recent IDU and 343 (87%) had at least one positive donor culture. On multivariable analysis, recent IDU was associated with significantly increased odds of having at least one positive donor culture (OR 3.6, 95% CI 1.1-11.9, P=0.03). Recent IDU was not significantly associated with increased odds of MDRO on culture (OR 0.90, 95% CI 0.41-1.93, P=0.79), S. aureus on culture (OR 1.35, 95% CI 0.79-2.28, P=0.27), or positive blood culture (OR 0.79, 95% CI 0.32-1.95, P=0.60).

Conclusion. Donors with a recent history of IDU are more likely to have bacteriuria or Candida isolated on cultures taken during their terminal hospitalization or at organ procurement. This increase does not appear to be driven by MDROS, S. aureus, or bloodstream infections but rather by Candida isolated from non-respiratory sites, potentially alleviating some fears surrounding the acceptance of solid organs from donors with a history of recent IDU.

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1386. Seroprevalence of Strongyloides in Liver Transplant Candidates at a Tertiary-Level Hospital in Newark, NJ

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Session: P-79. Transplant: Studies of Pre-transplant Screening and Evaluation

Background. The liver transplant center at University Hospital (Newark, NJ) is one of the busiest in northern NJ. Current guidelines for Strongyloides stercoralis (Ss) screening in solid transplant recipients recommend targeted testing. We propose a high seroprevalence of this infection in our facility given its significant percentage of foreign-born patients from Ss endemic areas such as Latin America, the Caribbean, and Africa.

Methods. Descriptive study from secondary data. We obtained the total number of Strongyloides antibody tests performed at University Hospital in the last two years (08/2018-10/2020). Subsequently, medical charts were reviewed to obtain epidemiologic and clinical data.

Results. A total of 388 patients underwent screening for Strongyloides antibody, of whom 71 (18%) were positive. The test was mainly performed in male (58%) and foreign-born (55%) patients. More than half (55%) of the US-born individuals had history of travel overseas. The main reasons for testing were transplant evaluation (65%), immunosuppression (14%) and eosinophilia (9%). There was no association between transplant evaluation and seropositivity (81% vs 81%, p = 0.994). Being foreign-born