Seroprevalence of strongyloidiasis in liver transplant candidates on a tertiary-level hospital in Newark, NJ

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Background

- University hospital has one of the busiest liver transplant center in northern NJ
- Current guidelines for Strongyloides stercoralis (Ss) screening in solid transplant recipients recommend targeted testing.
- We perform universal testing in our facility given concern for high seroprevalence in our population

Purpose/Objectives

- We wanted to study the seroprevalence of this infection in our population given the significant percentage of foreign-born patients from Ss endemic areas.

Methods and Materials

- Descriptive study from secondary data.
- We obtained the total number of Strongyloides tests performed in our facility in the last 2 years.
- Medical charts were reviewed for collection of epidemiological and clinical data.

Results

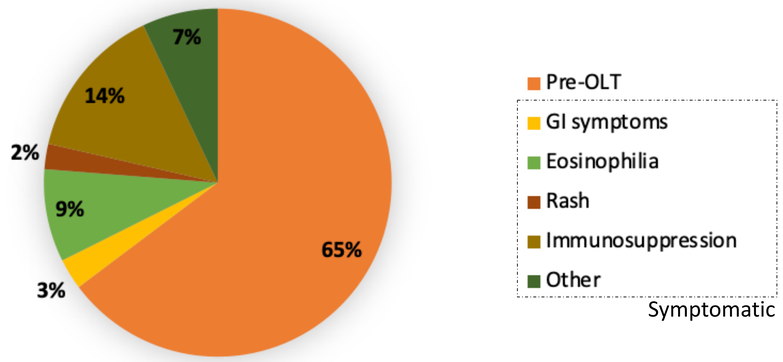
Demographic characteristics of 383 individuals screened for Ss

	Symptomatic patients (n=135)		OLT candidates (n=248)	
Female	36% (n=49)		45% (n=112)	
Age (Median)	51 [41-62]		51 [47-64]	
Region of origin	US Latin America & The Caribbean Africa Asia Europe	27% (n=32) 57% (n=67) 9% (n=11) 2% (n=2) 5% (n=5)	US Latin America & The Caribbean Africa Asia Europe	54% (n=130) 31% (n=75) 4% (n=9) 7% (n=18) 4% (n=9)
Subspecialty that ordered testing	Infectious Diseases Hepatology Internal Medicine Hem/Onc Other	63% (n=85) 12% (n=16) 12% (n=16) 5% (n=7) 7% (n=10)	Infectious Diseases Hepatology	44% (n=110) 56% (n=138)

- We found an association between region of origin and being an OLT candidate (p=0.000)
- Both symptomatic and "asymptomatic/OLT candidates" had a similar proportion of seropositivity (p=0.994)

	Symptomatic patients (n=135)	OLT candidates (n=248)
Positive Strongyloides Ab	18% (n=25)	19% (n=46)

Reason for testing



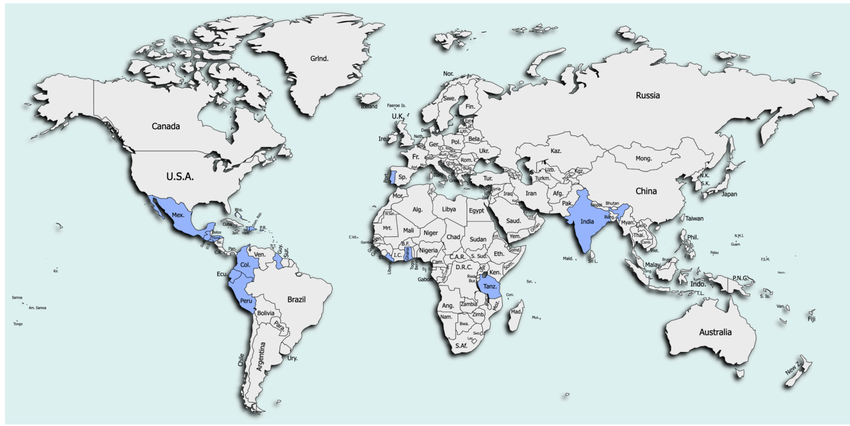
	US-born	Foreign-born
Negative	45% (n=130)	55% (n=159)
Positive Strongyloides Ab	46% (n=32)	54% (n=37)

P = 0.834

	Travel overseas	No travel
Negative	49% (n=35)	52% (n=36)
Positive Strongyloides Ab	74% (n=17)	26% (n=6)

P = 0.039

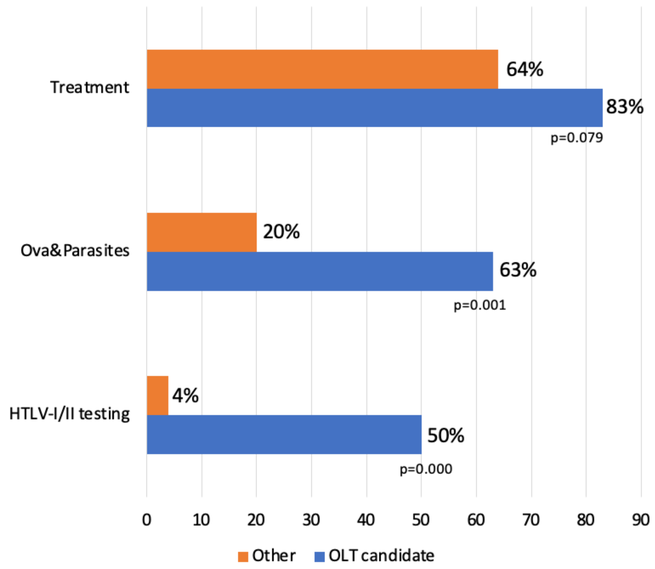
- Almost all (90%) of the patients with a positive Strongyloides test had a history of being foreign-born or travel overseas. We include all the countries registered on the map below



- Latin America and the Caribbean region was the most registered region for both foreign-born and travel overseas (87%)
- Being foreign-born was not associated with a positive test, but in US-born patients, having a history of travel was significantly associated with a positive test.

- Being a liver-transplant candidate was significantly associated with further workup (Ova&Parasites, HTLV testing), but not with treatment.

Further work-up on Positive Strongyloides Ab



Conclusions

- There is a significant seroprevalence of Ss antibodies in our transplant candidate population, both non-foreign and foreign born, validating the indication for universal screening at our facility.
- Not all the patients with a positive test received further work-up showing the need for ongoing education about the disease in our personnel.