

## BACKGROUND

Eosinophilia in migrant patients is a common finding.

While screening guidelines for refugee populations exist, there are no guidelines for the approach to eosinophilia in immigrants.

Etiologic diagnosis in migrant patients requires attention to the epidemiological risk factors.

Serodiagnosis is important for the diagnosis of chronic parasitic diseases and offers an opportunity for screening of other latent diseases.

## OBJECTIVE

Describe the association between eosinophilia and parasitic infections in migrant patients in the outpatient setting.

## METHODS

Retrospective review of demographics, serology, and diagnosis of migrant patients with eosinophilia ( $\geq 500$  cells/mm<sup>3</sup>) who were referred to the Tropical Medicine and Parasitology Clinic at Jacobi Medical Center in Bronx, New York.

## RESULTS

A total of 104 cases with eosinophilia were seen. Most individuals were female and born in the Caribbean, followed by Asia and Central America.

The mean age of patients was 50.7 years and the median time from migration was 18 years.

The mean of the peak of eosinophils in the past 3 months was  $1300 \pm 600$  cells/mm<sup>3</sup>.

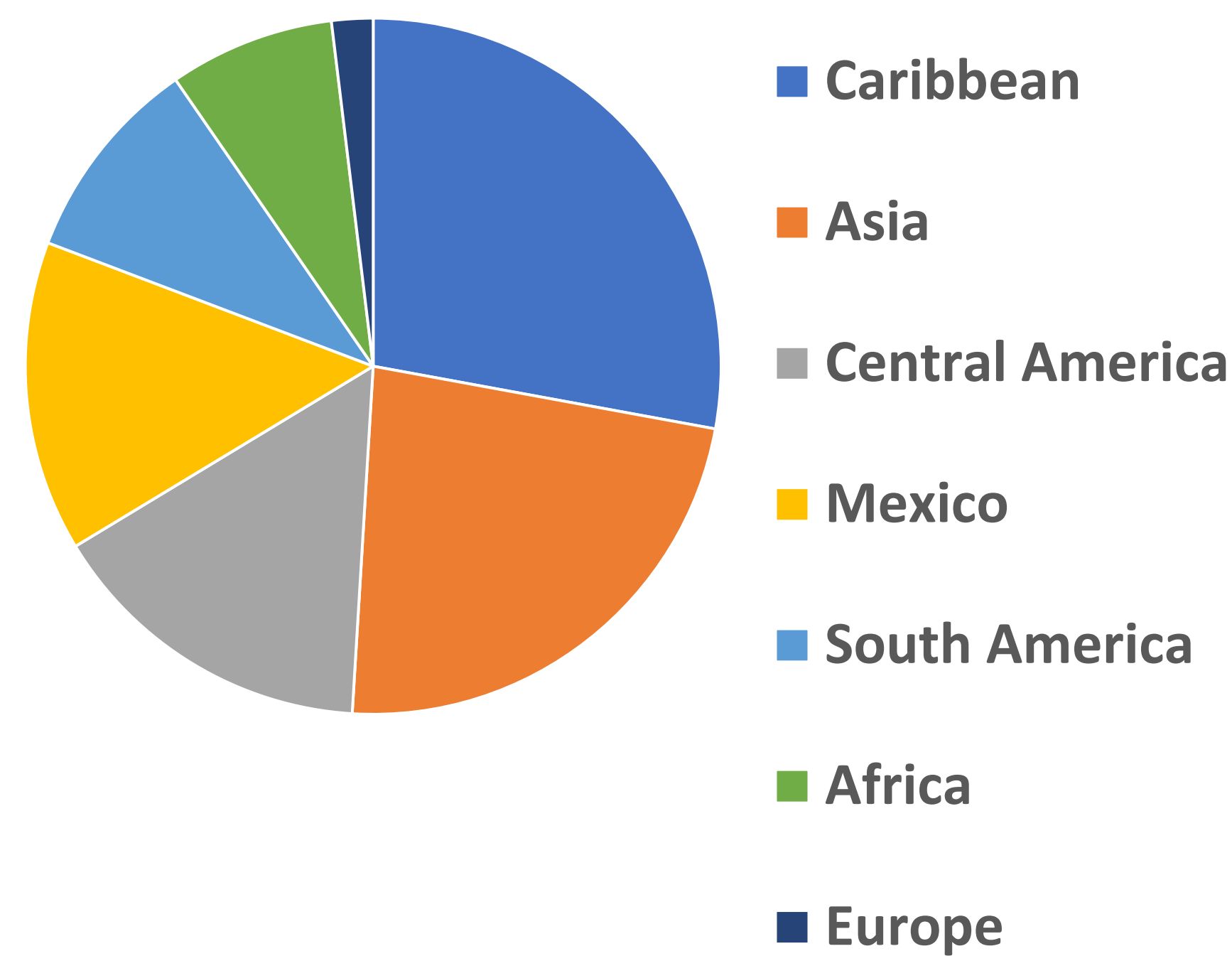
Serology for *Strongyloides* was positive in 24 patients (23.1%). The proportion of seroprevalence for *Strongyloides* by country was higher in Central America (7 patients; 43.8%), Africa (3 patients; 37.5%), and the Caribbean (8 patients; 27.6%). Patients who had outdoor bathrooms were more likely to be seropositive for *Strongyloides* ( $p=0.04$ ).

*T. cruzi* serology was positive in 6/10 patients and *Schistosoma* serology was positive in 3/8 patients. Of note, both results were only tested in patients with epidemiological risk factors.

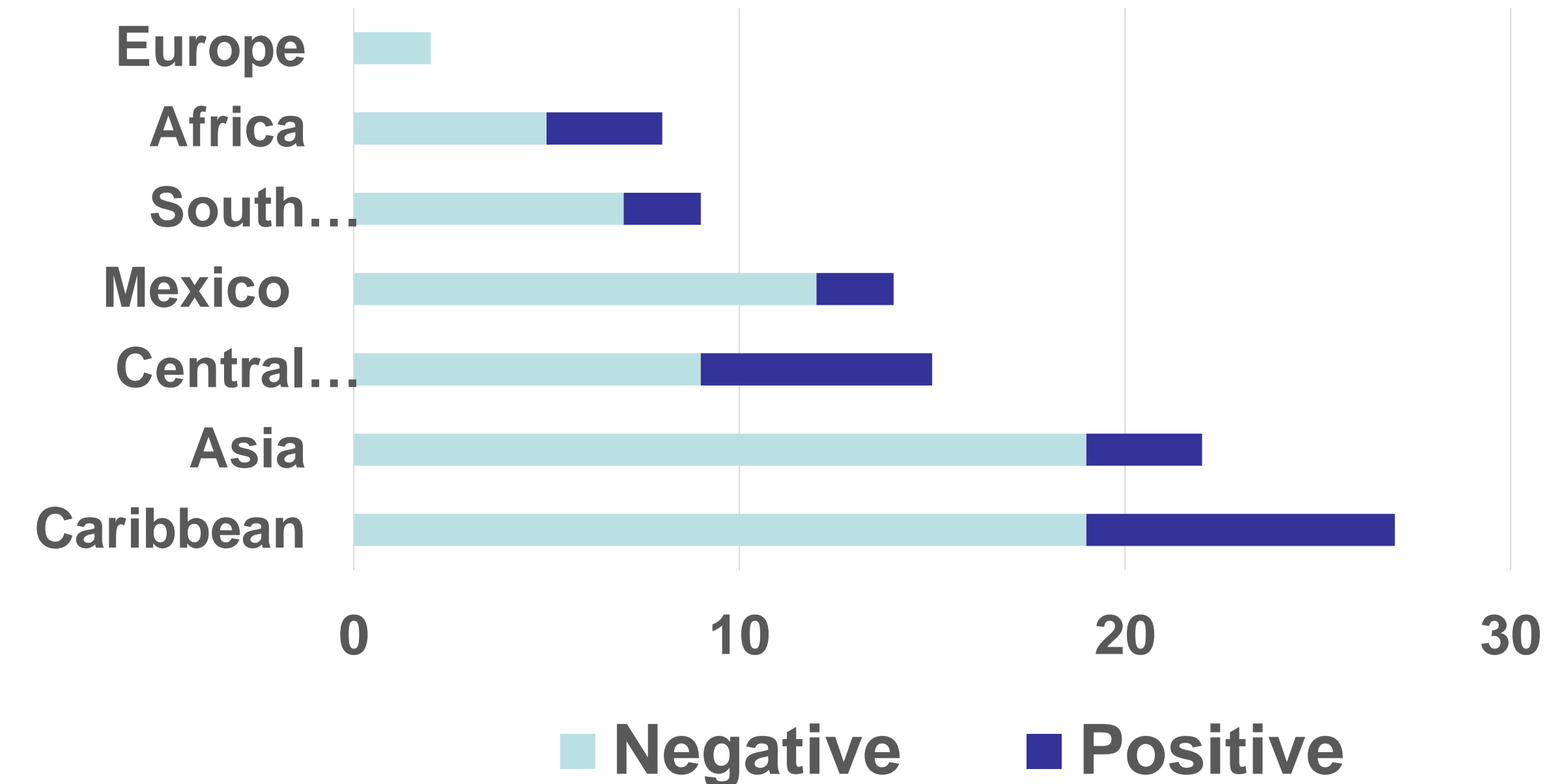
## CONCLUSION

- Strongyloidiasis was common in our migrant patients.
- Individuals who had an outdoor bathroom were more likely to have positive serology. These patients can develop a disseminated infection if they were to receive corticosteroids.
- Screening at-risk asymptomatic patients allows for the identification and treatment of latent disease.
- It also offers a screening opportunity for other latent infections such as Chagas disease and Hepatitis B.
- Further studies are needed to help inform guidelines on screening immigrant populations.

Graph 1. Distribution of patients by country of origin



Graph 2. *Strongyloides* serology of patients by country of origin



Characteristics	n = 104	%
Sex (female)	57	54.8
Language		
English	25	24.0
Spanish	54	51.9
Bengali	17	16.3
Other	4	3.8
Time from migration (years)	18 [6-28]	
Time from last visit to home country (years)	2 [5-18]	
Peak abs. eosinophil count (last 3 months)	1.3 $\pm$ 0.6	

Eosinophilia screening	n = 104	%
<i>Strongyloides</i>	24	23.1
<i>Schistosoma</i>	3	2.9
<i>Toxocara</i>	15	14.4
Other immigrant screening		
Quantiferon	14	13.5
Hep B Ab	25	24.0
Hep B Ag	2	1.9
Chagas	6	5.8
Syphilis	2	1.9

Bathroom	<i>Strongyloides</i>			p-value
	Neg	Pos	Total	
Inside house	39	7	46	0.039
Outside house	34	17	51	
Total	73	24	97	

