



# Successful prevention of *Strongyloides* reactivation in liver transplant recipients with individualized screening and treatment: 10 year experience at a large transplant center in New York City

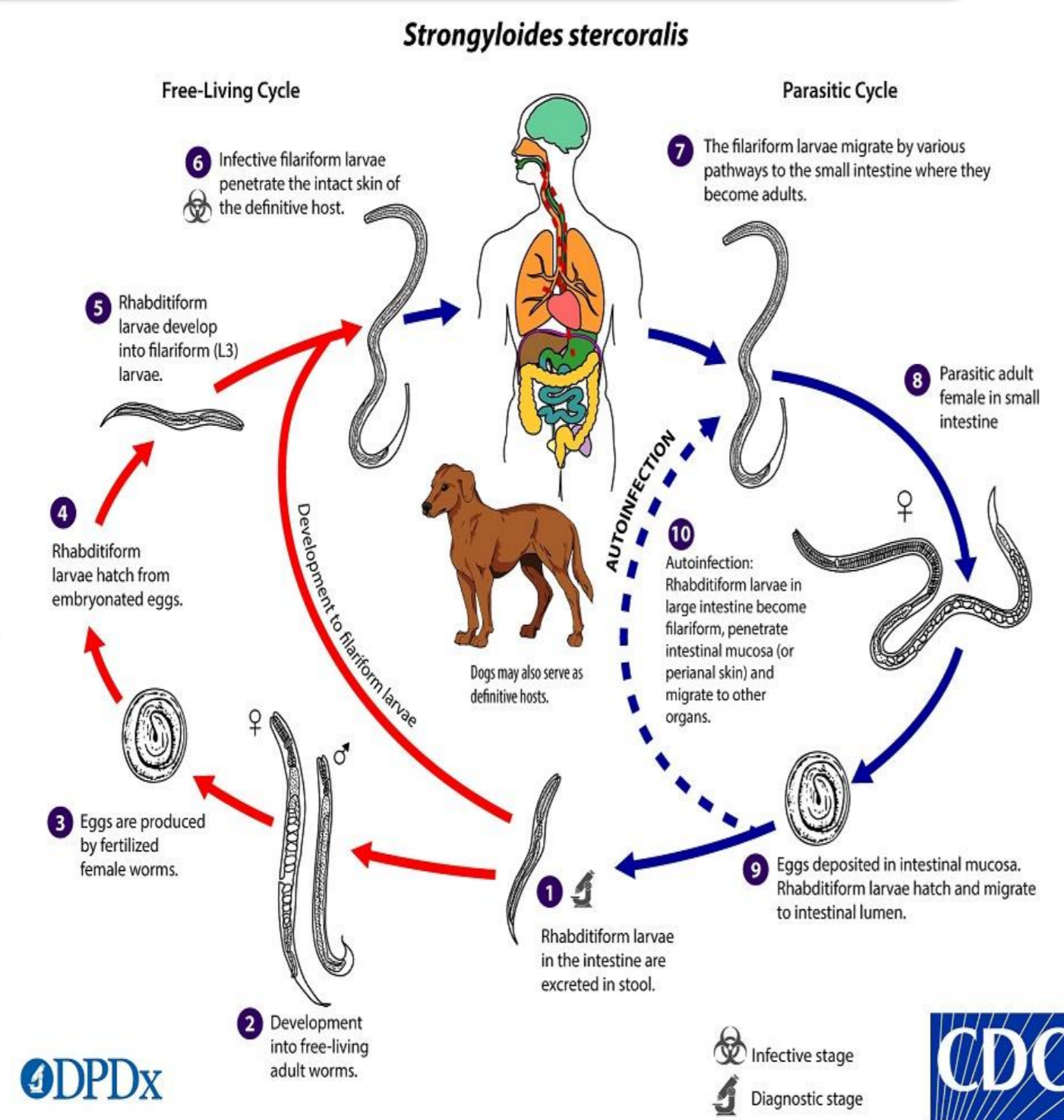
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## Background

*Strongyloides stercoralis* is an intestinal nematode that can establish chronic, asymptomatic infection in human hosts. Following solid organ transplantation, subclinical infection may progress to hyperinfection syndrome, which is associated with high morbidity and mortality. Optimal approach for screening & treatment of strongyloidiasis in liver transplant (LT) candidates in non-endemic areas is unknown.



## Methods

We performed a retrospective chart review of all LT recipients from 2010-2019 to determine the impact of targeted *Strongyloides* screening and treatment. Screening for *Strongyloides* exposure (with *Strongyloides* IgG antibody) was typically limited to those with risk factors for strongyloidiasis. Only patients with positive serologic testing or other evidence of strongyloidiasis were treated with ivermectin.

## Results

### Serology testing: Total of 1,072 patients (including 15 re-transplants) reviewed

- Serologic testing was performed in 664 cases
- 36 (5.4% of those tested) were positive
- 31 had identifiable risk factors including birth place, travel or eosinophilia.
- Eosinophilia was noted in 3 of the 36 recipients who had positive serology.

### Treatment of the 36 cases with positive serology

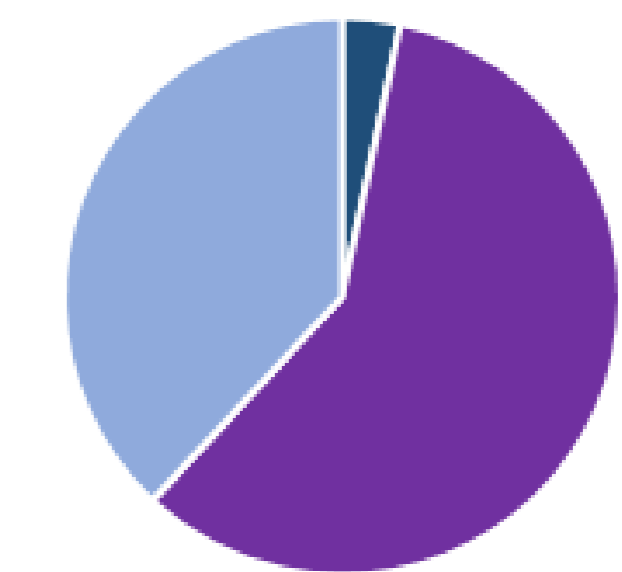
- 18 were treated both pre- and post-transplant
  - 7 were treated only pre-transplant
  - 9 were treated only post-transplant
  - 2 did not receive any treatment
- (1 patient with negative serology empirically tx due to persistent eosinophilia)

### One case of *Strongyloides* hyperinfection

- Likely donor-derived infection
- Recipient was not screened pre-transplant and had a negative *Strongyloides* serology post-transplant.
- Was successfully treated with combination ivermectin and albendazole

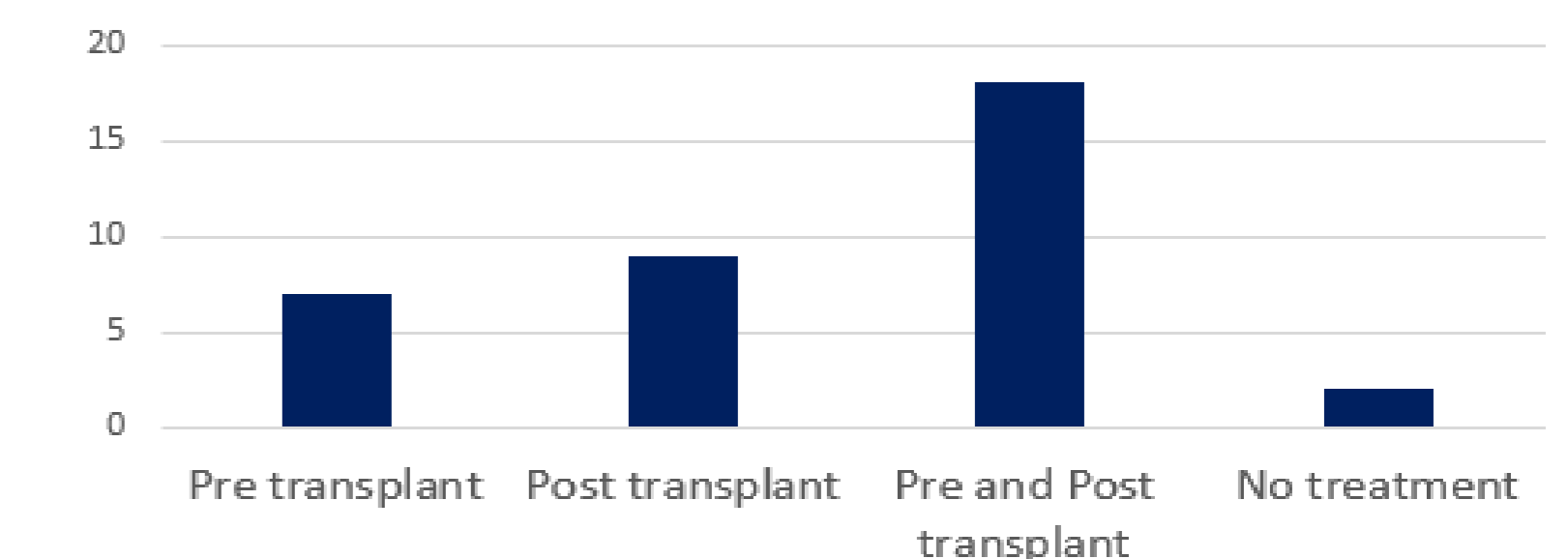
**\*\* There were no cases of *Strongyloides* reactivation in the study cohort \*\***

### Strongyloides Serology Testing for LT Recipients at MSH from 2010- 2019



■ Positive ■ Negative ■ Not tested

### Treatment of Strongyloides Serology Positive LT Recipients at MSH from 2010- 2019



## Conclusions

This study demonstrates that an individualized screening and treatment protocol can effectively prevent *Strongyloides* reactivation in LT recipients. Given the high mortality rate of *Strongyloides* hyperinfection, especially in solid organ transplant recipients, a methodical assessment of epidemiologic risk is essential for appropriate risk stratification and management of *Strongyloides* in LT candidates. Additionally, this study illustrates that even with careful screening and treatment of LT candidates, donor-derived *Strongyloides* infection is still a potential complication of LT.