

SUMMARY

Introduction: Toxocariasis is an infection caused in canines, felines, humans, and other vertebrates by species of the genus *Toxocara*, such as *T. canis* and *T. cati*. The embryonated eggs of these parasites are the main form of acquisition of the infection both for definitive hosts, such as the dog and the cat, respectively and for paratenic hosts, such as humans and other vertebrates. Toxocariasis infection in humans causes visceral larva migrans syndrome. When deposited on park soils, environmental contamination becomes a risk for environmental, human, and animal health.

Objective: To systemically estimate the prevalence of *Toxocara* spp. eggs in park soils in Latin America.

Methods: A systematic review and meta-analysis were performed to evaluate the prevalence of *Toxocara* eggs in park soils in Latin America, defined by copro-parasitological, molecular and immunological techniques. We searched PubMed, Scopus, Web of Sciences, Embase, LILACS and SciELO for studies published from 1900 through 28 January 2023. A meta-analysis was performed using a random-effects model to calculate the pooled prevalence and 95% confidence intervals (95% CI). Heterogeneity was measured through I² statistics.

Results: Forty-nine studies (2,508 parks and 12,833 samples) were included, of whom 44 had a low risk of bias. The pooled prevalence of *Toxocara* eggs in parks in Latin America was 50.0% (95% CI: 40.0%-60.0%). Argentina had the highest prevalence of *Toxocara* eggs in parks (100%), followed by Brazil (66%) and Venezuela (63%). The pooled prevalence of *Toxocara* eggs in soil samples was 20.0% (95% CI: 14.0%-26.0%); in faecal samples, it was 13.0% (95% CI: 6.0%-23.0%).

Conclusion: The presence of *Toxocara canis* eggs in public parks in Latin America is a zoonotic and public health threat for the people who go to these places, especially if children play on the ground with dirt or contaminated objects; since many pet owners and general public are not adequately informed about the mode of transmission of this parasite.

Keywords: *Toxocara*, prevalence, park, Latin America, systematic review, meta-analysis.