

A Systematic Review and Meta-analysis of Toxocariasis in Iran: Is it Time to Take it Seriously?

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Abstract

Background: Toxocariasis is one of the neglected zoonosis with considerable public health importance around the world. The current study aimed to elucidate the overall prevalence of *Toxocara* infection in human and definitive hosts and also the contamination of soil and raw vegetables with the ova of these parasites, in Iran, using systematic review and meta-analysis. **Methods:** Six English and Persian databases were explored from 2000 to 2017 using the terms toxocariasis, *Toxocara* spp., visceral larva migrans, Iran, epidemiology, and prevalence. This meta-analysis conducted using STATA, and for all statistical tests, a p value less than 0.05 was considered significant. The random-effects model was used to the report of the pooled prevalence with a 95% confidence interval (CI). **Results:** The pooled prevalence of toxocariasis in human was calculated as 11% (95% CI 8–13%). In terms of definitive hosts, the pooled prevalence of *Toxocara* infection in dogs and cats were calculated as 17% (95% CI 14–20%) and 37% (95% CI 26–48%), respectively. Also, the pooled prevalence of *Toxocara* spp. eggs in the soil and raw vegetable samples were calculated as 18% (95% CI 13–23%) and 2% (95% CI 1–3%), respectively. **Conclusions:** The results of current study demonstrate that toxocariasis should be taken more seriously by health authorities. Implementing an appropriate control program is necessary to reduce the incidence of this disease in Iran.