



ZOONOTIC PARASITIC DISEASES - A HIDDEN PUBLIC HEALTH RISK

Antonina DUMITRIU

Faculty of Veterinary Medicine, Technical University of Moldova, Chisinau, Republic of Moldova

Corresponding author: Antonina Dumitriu, e-mail: toniadumitriu@gmail.com

Keywords: zoonoses, parasites, pets, recreational areas, public health.

Introduction. Pet owners enjoy smiles, happy moments and a sense of well-being from their "little furries." However, the presence of dogs and cats can have a direct impact on the health of the population, since they serve as carriers of parasites, including protozoa (*Toxoplasma gondii*, *Giardia* spp., *Cryptosporidium* spp.), cestodes (*Echinococcus* spp., *Taenia* spp.), nematodes (*Toxocara* spp., *Ancylostoma* spp., etc.). These parasites are the sources of zoonotic infections, leading to the pollution of green spaces and recreational areas. The issue of parasitic burden within urban ecosystems has become increasingly prevalent, exacerbated by the rising population of stray dogs and cats. **Aim.** To assess the level of research and the dissemination of information regarding zoonotic diseases caused by parasitic agents within the Republic of Moldova. **Material and methods.** The study of bibliographic sources across multiple platforms, including PubMed, specialized scientific journals, the European Directive concerning zoonoses and zoonotic agents surveillance, and websites such as "Centers for Disease Control and Prevention" and "Fauna Europaea: All European Animal Species Online," was conducted. **Results.** Human toxocarosis represents an undeniable medical and societal challenge, exhibiting a widespread prevalence and a progressive increase in morbidity. Toxocariasis is a neglected, highly prevalent parasitic zoonosis with significant socioeconomic impact, affecting millions of pediatric and adolescent populations worldwide, particularly in lower-income communities. This disease is caused by infestation with the larvae of *Toxocara canis* and *Toxocara cati*, which is the most widespread intestinal nematode parasite found in dogs and cats, respectively. Worldwide, *T. canis* contamination in dogs accounts for approximately over 40% among certain regions worldwide, the incidence being higher among stray dogs. According to the World Health Organization data, the prevalence of parasitic infestations in dogs ranges from 15% to 93%, whilst population-based screening studies conducted in various regions have revealed specific antibodies 2-14% of the samples examined. In their natural definitive hosts (dogs and cats), nematodes colonize the lumen of the gastrointestinal tract and excrete the oncospheres via faecal masses into the environment. Humans are considered accidental hosts, whose infestation occurs through the ingestion of embryonated eggs/larvae, typically found in soil, water, sand, dirty hands, contaminated food or by ingesting encapsulated forms located within various tissues of undercooked animal products of paratenic hosts such as large and small ruminants, pigs and birds. **Conclusions.** The prevention of the diseases caused by parasites poses a complex challenge that requires collaborative efforts among veterinarians, the National Food Safety Agency, and specialists in human health. Compliance to hygiene protocols, avoiding geophagy, prophylactic deworming of dogs carrying parasites, setting up special spaces for pet walks, installing waste receptacles with informative labels for fecal waste disposal, collecting the faecal masses in polyethylene bags and properly disposing them in specialized bins and dumpsters and, last but not least, fostering communication with the pet owners and the society, represent effective approaches for combating these parasites. Unfortunately, there is no clear current understanding on both the number of pets owned by the population within the country and in Chisinau, as well as the number of homeless dogs and cats, the medical and veterinary interventions to which they have been subjected, and their respective health statuses.