

***Toxoplasma gondii* antibodies in domestic cats in an urban area**

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The invasion by the protozoan parasite, *Toxoplasma gondii*, is widely prevalent in humans and animals throughout the world. Infected meat, organs and tissues of different animal species are basic sources of infection in cats. The aim of the investigation was to determine the prevalence of *Toxoplasma gondii* in a population of domestic cats in an urban area of Olsztyn.

A total of 135 serum samples were examined. Examinations of anti-*Toxoplasma gondii* IgG antibodies were performed by a indirect agglutination test using the Toxo-Screen DA BioMerieux commercial test. Serum samples were examined at two dilutions: 1:40 and 1:4000, and reading was performed twice, after 5 and 18 hours. Among cat serum samples collected in 2003, 70.6% of seropositive results and almost 24% of negative results were recorded at a 1:40 dilution. At a dilution of 1:4000 the proportions of seropositive and seronegative samples were 58.8% and over 35%, respectively. Among the cats examined in 2004, percentage of seropositive results was lower at a 1:40 dilution (65.2%) and higher (69.5%) at a 1:4000 dilution, compared with the previous year. The results of two-year studies show that cats bred under different conditions (nourishment and care differentiation) in the city of Olsztyn have contact with different forms of invasive *T. gondii*. The high percentage of seropositive results at a 1:40 dilution (65.9%) suggests a past invasion, and the high percentage of seropositive cases at a 1:4000 dilution (68.1%) indicates a current or recent toxoplasmosis process. This suggest that there is a permanent source of *T. gondii* invasion in the living environment of the cats. Due to the lack of accurate data about the living conditions and nourishment of the cats examined in the study, it would be difficult to state that the only pathway of parasite transmission was infected meat.