

Epidemiological Features, Diagnosis and New Approaches to the Treatment of Toxocariasis in Children

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Abstract

*Toxocariasis is a little studied but widespread disease caused by *Toxocara canis* larvae, characterized by a long relapsing course and multiple organ lesions. Since the beginning of its official registration in 1991, the level of the population affected has increased by 20 times by 2021. This is due both to the improvement of diagnostic methods, and to an even greater extent, due to an increase in the number of dogs in cities, non-compliance with the rules for their maintenance, and the lack of measures for the deinvation of their excrement, which leads to the circulation of the pathogen. Diagnosis of toxocariasis is difficult due to polymorphism and uncertainty of clinical manifestations. In everyday clinical practice, timely diagnosis and the appointment of specific therapy is the exception rather than the rule. Clinical manifestations of toxocariasis in children do not have their own specific features, which makes diagnosis even more difficult. Therefore, a key role in making a diagnosis could belong to laboratory diagnostic methods. However, at present, morphological verification of the diagnosis is extremely rare. The development and implementation of immunological diagnostic methods based on the detection of IgG antibodies to the *Toxocara canis* antigen made it possible to expand knowledge about the susceptibility of the population and about the infection itself. The sensitivity of the ELISA test system for the detection of antibodies to the *T. canis* antigen is 78-82%, the specificity is 92-94%. At the same time, the determination of specific antibodies is not an indicator of the viability of *Toxocara* larvae [3, 5]. Thus, all this determines the need to develop and apply a whole range of methods - clinical, immunological, special parasitological and optimization of therapy for this disease*

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