

## STUDYING THE FEATURES OF HELMINTHOTHERAPY

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**Introduction.** Is the use of helminths for medicinal purposes. This method is experimental. At the present time, clinical trials of the effectiveness of helminthotherapy in the treatment of autoimmune diseases are being conducted. Mechanisms of development of allergic reactions, immunodeficiency and autoimmune diseases are not fully understood, however, an important role in this process is played by disruptions in the work of regulatory T-lymphocytes, controlling the strength and duration of the immune response.

**Aim.** The purpose of the study was to study the specific features of helminthotherapy as an experimental method for treating autoimmune diseases.

**Materials and methods.** An alternative treatment method refers to a «hygienic» theory, according to which the origin of autoimmune diseases is due to the lack of involvement of the immune system in the fight against foreign infectious agents, why she starts to attack her own tissues. The hypothesis has been experimentally confirmed: mice exposed to intestinal bacteria, were protected from the development of type 1 diabetes, and the spread in the helminth population favorably influences the evolution of inflammatory mediators associated with Crohn's disease, ulcerative colitis and celiac disease.

**Results and discussion.** Analysis of the secretion secreted by *Ancylostoma caninum*, *Ancylostoma ceylanicum* and *Brugia malayi* showed the presence of specific proteins in it, and this AcK1 and BmK1, which can weaken the activity of immunity and reduce the risk of developing a number of autoimmune diseases. In experimental studies, widespread use of *Ancylostoma* and *Trichocephalus suis* for the purpose of the efficacy of helminth therapy for multiple sclerosis, allergies, celiac disease, Crohn's disease and ulcerative colitis. Helminthotherapy requires strict control. Therefore, the helminths used to infect the patient must be: not deadly in the therapeutic dosage; can not reproduce themselves in the human body; not to be carriers of other parasites, bacteria and viruses; not be transferred to other people; if necessary, «therapeutic» helminths should be easily expelled from the body. While there is only one patented drug containing larvae of helminths. It is called TSO, this is from the abbreviated name of worm-nematode larvae (*Trichuris suis ova*). The technology of its production was developed by German company Ovamed.

**Conclusions.** In this way, the isolated helminth peptides will allow to create probiotic preparations in the future for the treatment of autoimmune diseases.