



**EFFECTS OF HELMINTHIASES TO BLOOD
BIOCHEMICAL PARAMETERS IN CHILDREN OF THE
ARAL SEA REGION**

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***Summary.** With helminthiases, a special feature is the extreme variety of clinical manifestations, even when infected with one type of pathogen, and they cause damage not only to the organs in which they directly parasitize, but also to the entire body.*

***Key words:** helminthiases, pathogen, larvae, infections.*

Relevance. Helminthiases are the most common and widespread parasitic diseases of humans, in which complex relationships arise between two living organisms - the parasite and the host [1]. Most helminthiases tend to be protracted or chronic with a wide range of clinical manifestations. In Europe, every third resident is affected by helminths [6,9]. In Uzbekistan, the most common

helminthiasis are: enterobiasis, ascariasis, trematodiasis. The incidence of enterobiasis in the country is 1,100 cases per 100 thousand population. Among the patients, 90% are children, mainly aged 1 to 3 years. The incidence of ascariasis is 100 cases per 100 thousand population.

An urgent problem in pediatrics is childhood helminthiasis [2]. In children, helminths are often a factor contributing to the development of chronic nutritional disorders, gastrointestinal (GIT) dysfunction, intoxication, sensitization of the body, and weakened immunity [3,5]. In children, helminthiasis are a common cause of anemia, and also lead to various forms of acquired immunodeficiency associated with a decrease in the immune response of the T-immune system to any antigens. Even in the absence of clinical manifestations, the development of a secondary immunodeficiency state has been noted with intestinal parasitosis [7].

Intestinal helminthiasis are the most common in the Aral Sea region. Among them, ascariasis takes the leading place in the structure of morbidity, accounting for more than 30% of all identified helminthiasis [4]. Currently, there are many works covering the problem of ascariasis, the clinical manifestations of ascariasis have been sufficiently studied, however, global environmental changes in recent decades, the widespread use of antibacterial, immunotropic and other drugs and a number of other factors have changed the clinical picture of nematodes, which requires additional study [5,8].

Goal of the work: Grade changes in laboratory and biochemical tests in the early detection of vitamin D and calcium deficiency and prevention of complications in parasitic diseases in children.

Material and methods. Clinical and laboratory data of 50 children with ascariasis aged from 1 year to 16 years were analyzed. Clinical examination of children included collection of complaints, epidemiological history, life history, and examination of the patient. Standard laboratory and biochemical research methods

were carried out. All examined children underwent a scatological examination, fecal analysis for helminth eggs using the Kato method, based on the detection of helminth eggs in a thick smear of feces cleared with glycerin and tinted with malachite green.

Results. As a result of a clinical and laboratory examination, 50 children with the intestinal stage of ascariasis were identified, of which 27 were boys and 23 were girls.

Initially, the diagnosis of the intestinal stage of ascariasis was established based on the presence of risk factors for infection with roundworms in the anamnesis, the nature of the complaints of dyspeptic, psychovegetative, skin-allergic and respiratory nature, the presence of helminth eggs or adult parasites in feces or vomit, direct helminthological methods of fecal examination (including enrichment methods, etc.), special methods: scraping from perianal folds, using adhesive tape.

To identify enterobiasis, examination of sputum (roundworm, etc.), bile (giardia, etc.), urine (genitourinary schistosomiasis), tissue biopsies (trichinella). In a general clinical blood test, you should pay attention to anemia (difollobothriasis, trichocephalosis, taeniasis, etc.), eosinophilia (toxocariasis, trichinosis, ascariasis, strongyloidiasis, etc.), and a thick drop of blood (filariasis) is examined.

It was found that clinically significant invasion was present in all subjects. Instrumental diagnostics sometimes provide significant benefits in identifying invasion, for example, radiation diagnostic methods (chest x-ray, abdominal ultrasound, brain neuroimaging methods, etc.), ophthalmoscopy (ocular cysticercosis).

At the intestinal stage of ascariasis, the examined children also presented complaints of a dyspeptic, astheno-neurotic, skin-allergic, and respiratory nature. The results of the study showed that ascariasis in children is characterized by dyspeptic 23 (45.6%), astheno-neurotic 16 (32.3%), skin-allergic 9 (18%) and respiratory 2 (4.1%) syndromes.

Conclusions. Thus, a set of laboratory tests is aimed at detecting eggs, larvae and adults. A positive stool test result allows the diagnosis of intestinal infestations and protozoal infections.

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