## INFLUENCE OF PARASITOSIS ON THE IMMUNE SYSTEM OF THE BODY AND ON INTESTINAL DYSBIOSIS

Nargiz Guseynova, Shirin Mamedova

Azerbaijan Medical University, Department of Infectious Diseases, Baku, Azerbaijan E-mail: prof.nergiz@gmail.com, shirinmamedova@gmail.com

In the 21st century, the problem of intestinal parasitic invasions has not lost its relevance. The prevalence of protozoa and helminthiasis among the adult and child population of Azerbaijan is a criterion for the socio-economic well-being of the republic and regions.

The relevance of the work is associated with the high prevalence of various forms of intestinal parasitic invasion without concomitant pathology from the organs and systems of the body.

Among the large number of studies devoted to various aspects of the pathogenesis, diagnosis and treatment of various diseases, there is a limited number of works devoted to assessing the effect of intestinal parasitosis and intestinal dysbiosis on the health of adults without concomitant pathology and requires a comprehensive consideration of diagnostic and treatment methods.

The immune response of a macroorganism to intestinal parasitic infections includes the functioning of humoral and cellular immunity. It is known that the nature of the immune response in intestinal parasitic invasion depends on the dominant participation of CD4 + clones, T-lymphocytes - type 1 (Th1) and 2 (Th2) helper cells, which differ in the cytokines produced by them and their role in stimulating the development of the immune response by cellular or humoral type. Activation of Th1-lymphocytes producing IL-6, TNF- $\alpha$  leads to stimulation of the functions of T-lymphocytes and macrophages and the development of an immune response according to the cellular type, which plays a decisive role in the antiparasitic defense of the macroorganism. Th2 lymphocytes secrete IL-4, IL-10, which stimulate mainly the humoral link of immunity. The normal functioning of the immune system is based on the balance of Th1 and Th2 lymphocytes, based on the equivalent production of regulatory cytokines.

In coronavirus infection (COVID-19), the body's immune system plays a huge role. With weak immunity in adults (65+) with concomitant diseases (diabetes mellitus, bronchial asthma, etc.) with COVID-19, against the background of parasitosis as a result of intestinal microflora disorders, conditions are created for the aggravation of the course of coronavirus infection.

To prevent the aggravating effect of parasitosis and intestinal dysbiosis on the course of coronavirus infection, it is necessary to include in the plan for examining patients for the presence of parasitosis and intestinal dysbiosis. When this pathology is detected, it is necessary to carry out antiparasitic therapy and correction of dysbiosis using generally accepted schemes, the effectiveness of which has been confirmed during the observation process.

