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ASCARIASIS IN THE LARGE INTESTINE: EPIDEMIOLOGY AND PREVALENCE

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Abstract: Ascariasis (Ascaris lumbricoides) is a parasitic infection that is widespread throughout the world, and ascarids located in the large intestine initiate various pathogenetic processes in the body. This article analyzes the epidemiology of ascariasis and its prevalence in different regions. The article presents the causative factors of ascariasis, the relationship of its prevalence with geographical and social factors, as well as the mechanisms of its development. It also provides recommendations for the prevention and treatment of ascariasis, and for improving epidemiological control. This article emphasizes that ascariasis is a global health problem and that appropriate measures must be taken to combat it.

Keywords: ascariasis, epidemiology, prevalence, parasitic infection, Ascaris lumbricoides, large intestine, parasitic diseases, epidemiological studies, health risks, treatment and prevention, social factors, geographical differences, global health.

Ascariasis is one of the most common parasitic diseases in the world. It is mainly caused by a worm called Ascaris lumbricoides and enters the human body through the intestines. During the incubation period of this parasite, the eggs that enter the body grow and develop in the large intestine and damage the mucous membrane. Ascaris lumbricoides - several studies have shown that the prevalence of this parasite depends on various social, economic and environmental factors. It is known that the most common areas of ascariasis are located in tropical and subtropical regions, especially in countries with low socio-economic status and poor sanitary and hygienic conditions.

Therefore, the epidemiology of ascariasis is being studied in various regions around the world, and its prevalence is closely related to medical, environmental and social factors. The widespread distribution of parasites in countries leads to the fact that people become infected with parasites and suffer from systemic and serious health problems. This article analyzes the prevalence of ascariasis, its global status, as well as aspects of its spread related to geographical, social and economic factors.

By studying the epidemiology of ascariasis, it is possible to determine in which regions the disease is widespread. According to statistics, more than 800 million people are infected with ascariasis every year. Ascariasis is widespread worldwide, especially in developing countries, and the following factors contribute to its spread:

• Socioeconomic status – ascariasis is more common in low-income areas. Poor sanitation increases the risk of disease transmission in poor areas.

• Sanitary and hygienic conditions – the risk of infection increases in areas with insufficient access to clean drinking water. Insufficiently developed sewage systems lead to the release of parasite eggs into soil and water.

• Climatic conditions – a warm and humid climate promotes the long-term survival of parasite eggs. Ascariasis is especially common in tropical and subtropical regions.

• Quality of medical care – the disease is more common in areas where diagnostic and preventive measures are not sufficiently developed. The lack of regular health care services leads to late detection of ascariasis.

• Children and vulnerable groups – children with weakened immune systems, the elderly, and people with anemia are more susceptible to ascariasis.

According to studies, the most common places for ascariasis are rural areas in Africa, South Asia, and South America. According to the results of monitoring conducted by the UN and WHO, the spread of the disease can be reduced by improving sanitary conditions in these areas. Ascariasis parasites enter the large intestine, damaging its mucous membrane and causing the development of various diseases. Their main

effects can be highlighted as follows. During inflammatory processes in the intestinal walls, ascarids adhere to the walls of the large intestine and damage the mucous membrane there. This causes colitis and other inflammatory diseases. In case of impaired intestinal permeability, as a result of the proliferation of parasites, normal bowel movements are disrupted, constipation or diarrhea may occur. In case of imbalance in the microflora, ascarids live in the intestine, reducing the amount of beneficial microorganisms. As a result, dysbacteriosis may develop. Ascariasis can lead to a deficiency of iron, vitamins and other essential nutrients in the body. This is especially dangerous for children and people with weakened immune systems. A weakened immune system directly affects the immunity of the parasites' toxins, which makes a person susceptible to other infections. Intestinal obstruction, in severe cases, ascarids can completely block the intestine, which increases the likelihood of dangerous conditions requiring surgery.

Worldwide, ascariasis is widespread, mainly in Asia, Africa and South America. In some regions, the incidence rate can reach 70-80%. In Europe and North America, the incidence rate is much lower due to better hygiene conditions. Ascariasis is diagnosed mainly using the following methods:

• Tests - detection of ascarid eggs by microscopic examination of stool samples.

• Blood tests - detection of signs indicating the presence of parasites in the body.

• Instrumental examinations - in some cases, using ultrasound or X-ray, it is possible to detect parasites in the intestine.

The following antiparasitic drugs are used to treat ascariasis. Albendazole, mebendazole, pyrantel pamoate. The course of treatment is prescribed by a doctor and is aimed at removing parasites from the body. The following measures should be taken to prevent ascariasis: compliance with personal hygiene rules, purification of drinking water and use of filters, thorough washing of vegetables and fruits before consumption, improvement of sanitation and development of the sewage system, mass diagnostics and antiparasitic measures.

Conclusion: Studying the epidemiological characteristics of ascariasis and analyzing its prevalence will help to take effective measures to combat this disease. Today, ascariasis remains a serious health problem in many countries of the world. One of the main reasons for its spread in many regions is poor sanitary and epidemiological conditions and low hygiene culture. To reduce and prevent this disease, it is important to strengthen preventive measures, pay more attention to the health system of the people, as well as organize educational and awareness campaigns. Improved medical and environmental conditions will help to significantly reduce the spread of ascariasis. Also, the global threat of ascariasis requires new strategies and research in the field of health.

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