

**THE SPREAD OF THE MOST IMPORTANT ZOOONOTIC  
DISEASES AMONG PEOPLE IN UKRAINE  
AND GENETIC PREDISPOSITIONS TO PARASITOSIS**

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**Introduction.** Parasitic diseases, caused by helminthes, one-celled and arthropods, are a wide group of illnesses, that largely determine the state of health of the population. According to the official statistics of the WHO 4.5 billion of people suffer from parasitics diseases annually. Every third person is ill in Europe, 85-95% of the population in the USA have helminthes diseases. Today it is proved that 95% of the population is infected with parasites, 99.9% of people, who have pets, including rodents and birds, are carriers of the parasites. The share of parasitic diseases account for 14 million deaths per year, representing 25% of the total Earth mortality – every fourth death. In opinion of the WHO experts, the spread of parasitic diseases is connected with the fact that 25% of the population on the Earth don't have an access to the clean epidemic – safe drinking water, and 66% are denied of the normal sanitary facilities. In Ukraine, the share of parasitosis in a sum of all infectious diseases without influenza and URTI (upper respiratory tract infections) is 59.7%. It is approximately 500 thousand new patients per year.

**Aim.** The aim of the study was to investigate the distribution of the most important parasitic disease of people in Ukraine. Research was conducted by analyzing the literature.

**Materials and methods.** Scientific literature and publications of last years were used for analysis.

**Results and discussion.** Protozoan diseases. A big variety of intestinal forms of the single – celled are the most spread protozoonoses in Ukraine. Giardiasis, Amoebiasis are dominant among them, and cystic protists and Toxoplasma are the most dangerous ones. However, the most topical disease, which is caused by the single-celled, is malaria. About 100 countries are epidemic for malaria. From 300 to 500 million of people suffer from malaria every year, at that time from 1.5 to 2.7 million of world population die because of this disease. 10 Thousands cases of malaria are brought in Europe every year, the mortality reaches 1.1%. More than 180 cases of malaria were brought in Ukraine during the recent years. This disease was registered in most regions of our country.

Helminthoses. According to the WHO, 2.5% of the population are infected with helminths. Intestinal helminthoses take the 3d place in the world among all

infectious diseases. About 2 billion of people suffer from helminthoses worldwide. According to the statistics, every third inhabitant of Europe is affected by at least one helminth. About 30 human helminths were found in Ukraine. From 400 to 600 thousands patients with different helminthoses are officially registered every year.

Nematodosis. Enterobiosis and ascariasis are the most spread representatives of Nematodosis among the inhabitants of Ukraine. Enterobiosis proportion among all detected helminths is 77%. Trichuriasis and Trichinosis remain topical. 5 Outbreaks of trichinosis among people in Kherson, Chernivtsi, and Chernihiv regions were registered during the last 5 years, 11 people became ill there, and at that time trichinosis endemic areas were formed in Vinnytsia, Khmelnytsky and Odessa regions.

Trematodosis. The infection of trematodosis in Ukraine during the last 15 years was 0.7 cases per 100.000 people. Opisthorchiasis is the most spread representative among all trematodosis, which were identified. The second largest focus of opisthorchiasis among the countries of the former Soviet Union is situated in Ukraine. It is the basin of the Dniper with its tributaries (Psyol, Sula, Seym, Vorskla etc). The highest level of the infection is observed in Poltava, Chernihiv and Sumy regions where the percent of disease is accordingly 10%, 15% and 70-80% in Sumy region.

Human toxocariasis is caused by the migrating larve of the canine nematodes – *Toxocara canis*, which provoke the disease «syndrome of the migrating larve – syndrome larva migrans». In recent years human toxocariasis has acquired the global dissemination and stay one of the most topical parasitic problems. The number of people, which were infected by toxocariasis, varies widely in the world. In European countries, from 2% (UK) to 6.1% (Netherlands) of population positively responds to the skin testes with toxocara antigens. Seroinfection index in Asia ranges from 3.6% in Japan to 51.4% in Taiwan. This index in Africa is over 30% and in Columbia exceeds 68%.

According to the Central Sanitary Epidemiological Station of the Ministry of Health of Ukraine the number of toxocariasis cases among people in our country annually increase from 1 in 1998 to 154 in 2007 and more than 2.5 times during the last 8 years.

**Conclusions.** Analysis of the literature has revealed widespread human zoonosis in the world and particular in Ukraine. Parasitic diseases are a major reason of the significant mortality of people, in addition they contribute to morbidity by other infectious diseases, causing the deterioration of immunity of the human body. The study of the spread of parasitic diseases is a topical problem nowadays, that needs its solution.