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SPREAD OF PARASITIC DISEASES AMONG THE POPULATION OF CITY GULISTAN

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ABSTRACT

The dynamics of parasitic diseases of the population of the city Gulistan were compared with the results of helminthological examinations of open water bodies, soil, fruits and vegetables, meat, and fish products used by the population for drinking and household purposes. In 2022, a weak correlation was found between the level of parasitic diseases in the city Gulistan and the level of contamination indicators of soil, fruit, and vegetable samples (rxy=0.17; mr=0.01), and no correlation was detected with open water bodies, meat, and fish products.

Key words: helminthiasis, children, parasite, water, soil, disease.

INTRODUCTION

Relevance of the topic. Helminthiasis has been known to mankind since ancient times, and it accounts for 90% of all parasitic diseases [1,2]. According to the WHO, 1.4 billion (23.3%) people are infected with helminthiasis. Currently, more than 270 species of worms that live as parasites in the human body are known worldwide, but about 40 of them cause significant foci of infection in the human body [1,3]. Currently, the incidence of enterobiasis (infection with

pinworm) among other types of helminths is 80%. This statistical indicator shows that cases of parasitic diseases are observed in both developed and developing countries [6]. Helminthiasis is also one of the most widespread diseases in Uzbekistan, accounting for more than 90% of the total number of parasitic diseases. More than 200 thousand cases are registered in our country annually. Due to the fact that 80% of the disease is recorded among children, it remains one of the most pressing problems among the population of this age group [4,5].

Purpose of the study: To study the relationship between environmental factors and the spread of helminthic diseases among the population of the city Gulistan.

Material and methods. Data from the city Gulistan Department of Sanitary and Epidemiological Peace and Public Health's annual report (2022) were used. Epidemiological, helminthological, and statistical methods were used in the study.

Research results. The study of the prevalence of helminthiasis among the population of the city Gulistan showed that the disease incidence among the population (2022) was mainly recorded among children in 80% of cases compared to adults [7]. This situation primarily indicates the negative impact of external environmental factors on the spread of the disease. It should be emphasized that as a result of the development of the locomotor system in children, they come into close contact with external environmental factors (soil, open water bodies) contaminated with pathogens (toys, household appliances, etc.), which in turn leads to an increase in disease indicators.

Thus, the incidence of parasitic diseases in 2022 was 0.9 cases of Echinococcus, 0-cases of Ascariasis, 0-cases of Teniarhiniasis, 52.7-cases of Hymenolepiasis, and 315.7 cases of Enterobiasis per 1,000 population. Among the diseases, the incidence of hymenolepiasis and enterobiasis significantly increased compared to others (Table 1).

Table 1

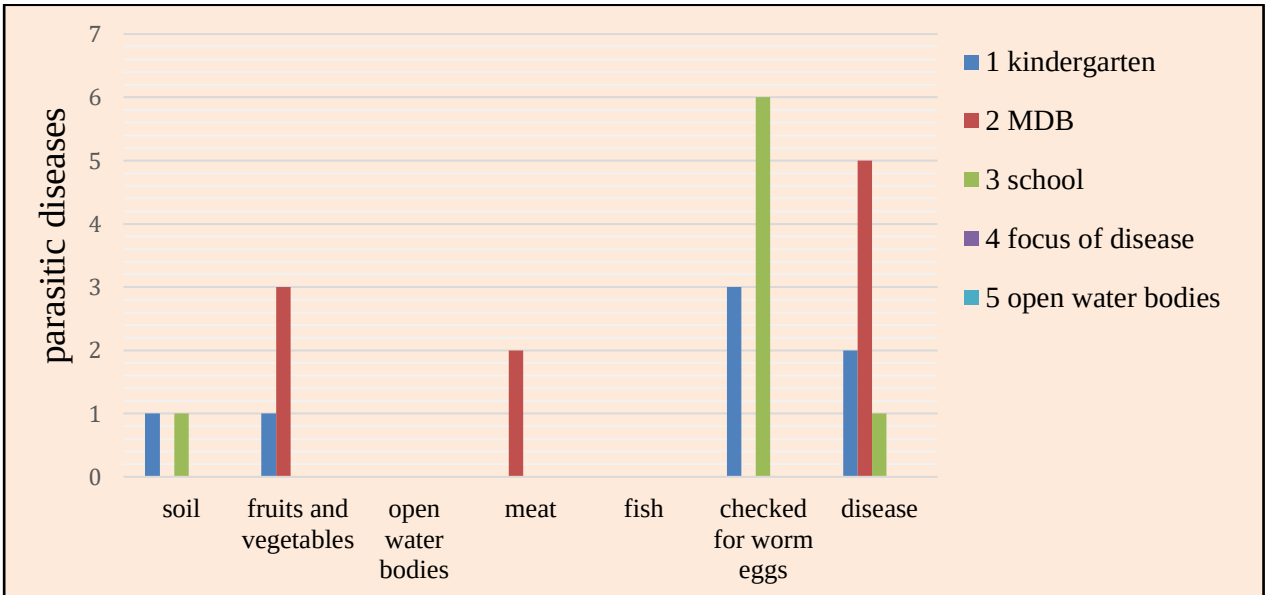
Parasitic disease incidence among the examined population

Indicator	Disease registered at the first diagnosis				
2022 year	Echinococcus	Ascariasis	Teniarhiniasis	Hymenolepiasis	Enterobiasis
For 1000 people	0,9	0	0	52,7	315,7
Absolute number	1	0	0	52	323

A high level of parasitic disease incidence (Hymenolepiasis, Enterobiasis) across the region was observed mainly among children aged 6–17. We attempted to identify the causes of the diseases and the factors that provoked these diseases.

The presence of eggs or larvae of parasites that cause various types of hookworm diseases in external environmental factors causes diseases such as enterobiasis (Pinworm infection), hymenolepiasis (dwarf tapeworm infection), and ascariasis (Ascaris) among children. Taking this into account, we tested soil samples, water from open water bodies, fruits and vegetables, fish, and meat products for hookworm eggs, and these tests were carried out mainly in kindergartens, medical centers, schools, and disease epicenters. (Diagram 1.)

Diagram 1



The relationship between parasitic diseases and environmental factors

According to the results of the study, in 2022, when the quality of soil, fruit, and vegetable samples among the environmental factors deteriorated, the level of parasitic diseases (Hymenolepiasis and Enterobiasis) increased.

Conclusion. Based on the results above, the following conclusions can be drawn it was found that the incidence of parasitic diseases among children in the city Guliston is more associated with the contamination of soil, fruit, and vegetable samples, and not with samples of open water bodies, fish, and meat products.

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