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"ANALYSIS OF CASES OF ECHINOCOCCOSIS FROM 2013 TO 2023 (USING THE EXAMPLE OF SAMARKAND REGION)"

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Abstract: Parasitic diseases are found in almost every country. A third of the planet's population is infected with parasitic pathogens. Every year, more than 100 million people worldwide become infected with these parasitic diseases. In various outbreaks, infection rates range from 22% to 96%. In recent years, the number of patients with helminthic diseases has increased among children (enterobiasis, hymenolepiasis) and adults (ascariasis, echinococcosis, opisthorchiasis, trichinosis, etc.), so this problem remains relevant.

Key words: parasitic diseases, exinococcosis, incidence rate by region, morbidity.

«АНАЛИЗ СЛУЧАЕВ ЭХИНОКОККОЗА ЗА ПЕРИОД С 2013 ПО 2023 ГОДЫ (НА ПРИМЕРЕ САМАРКАНДСКОЙ ОБЛАСТИ)»

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Аннотация: Паразитарные заболевания встречаются почти во всех странах. Треть населения нашей планеты заражена возбудителями паразитарных болезней. Каждый год более 100 миллионов человек в мире заболевают этими паразитозами. В различных очагах уровень заражения достигает от 22 до 96 %.

В последние годы увеличивается число больных глистной болезнью среди детей (энтеробиоз, гименолепидоз) и взрослых (аскаридоз, эхинококкоз, описторхоз, трихинеллез и др.), поэтому данная проблема остается актуальной.

Ключевые слова: паразитарных болезней, экзинококкоз, коэффициент заболеваемости по регионам, заболеваемость.

Relevance of the topic: Currently, according to the World Health Organization, about 50 million people die annually in the world from various diseases, of which 16 million are infectious and parasitic diseases.

Echinococcosis remains a widespread disease in Uzbekistan, as in many other regions. This disease, which affects 20-50% of small and large horned animals, causes significant economic damage to agriculture. However, the most important thing is that echinococcosis poses a serious threat to humans, especially to the liver and lungs. More than 1,500 surgical operations for echinococcosis are performed annually in Uzbekistan. The incidence rate among those applying to surgical departments is 4-9 people per year. Severe forms of the disease account for 25-40%. Echinococcosis affects the liver and lungs in 80% of cases, and in rare cases other organs. The mortality rate from this disease is 2-5%, and the frequency of complications after surgery.

According to official data, the incidence of echinococcosis in Uzbekistan reaches 6%. This means that among every 100,000 people living in the country, 4-9 people suffer from echinococcosis. In 2000, 1,435 cases of this helminthiasis were registered in the republic. The urgency of the disease is explained by incorrect treatment tactics, difficulties in diagnosis and the occurrence of serious complications. The prevalence of echinococcosis among common infectious diseases in the world ranges from 0.05% to

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1.5%. This indicator depends on geographical and climatic zones, as well as on sanitary services and the level of culture of the population.

Objective: To determine the distribution of morbidity by region using the example of the Samarkand region, analyzing cases of the disease in cities and districts. Based on these data, identify the factors contributing to the disease and improve epidemiological control. Improving the system of epidemiological control and prevention of echinococcosis should help reduce the incidence.

The results of the study: In the initial year of analysis - 2012 - the intensive incidence of echinococcosis was 2.3 per 100,000 population, which is the highest indicator for the analyzed period. In subsequent years, there was a downward trend, and by 2022 the incidence rate decreased to 0.4. To determine the distribution of morbidity by region in the period from 2015 to 2022, the disease situation in cities and districts of the region was analyzed (Table 3.3). An analysis of the incidence of echinococcosis in cities and districts of the Samarkand region in 2015-2022 shows that the incidence is not evenly distributed across all regions. In order to identify the seasonality of the incidence of echinococcosis, a monthly analysis of patients was carried out, the results of which are shown in Figure 1.

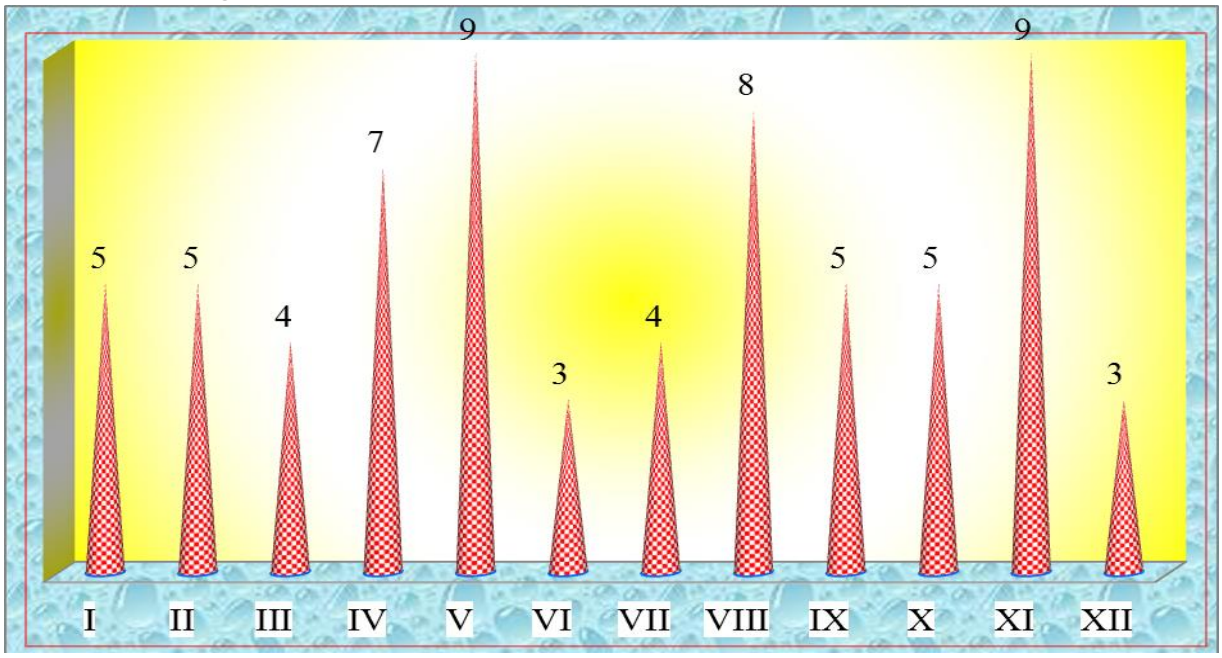

Figure 1. Distribution of cases by month in the Samarkand region

During the conducted research, it became clear that when we analyzed the monthly cases of patients with echinococcosis in the Samarkand region (Fig. 1), more cases were identified in May, August, and November, while the number of patients in the other months remained almost the same. From this, we can conclude that the spread of the disease may occur regardless of the season.

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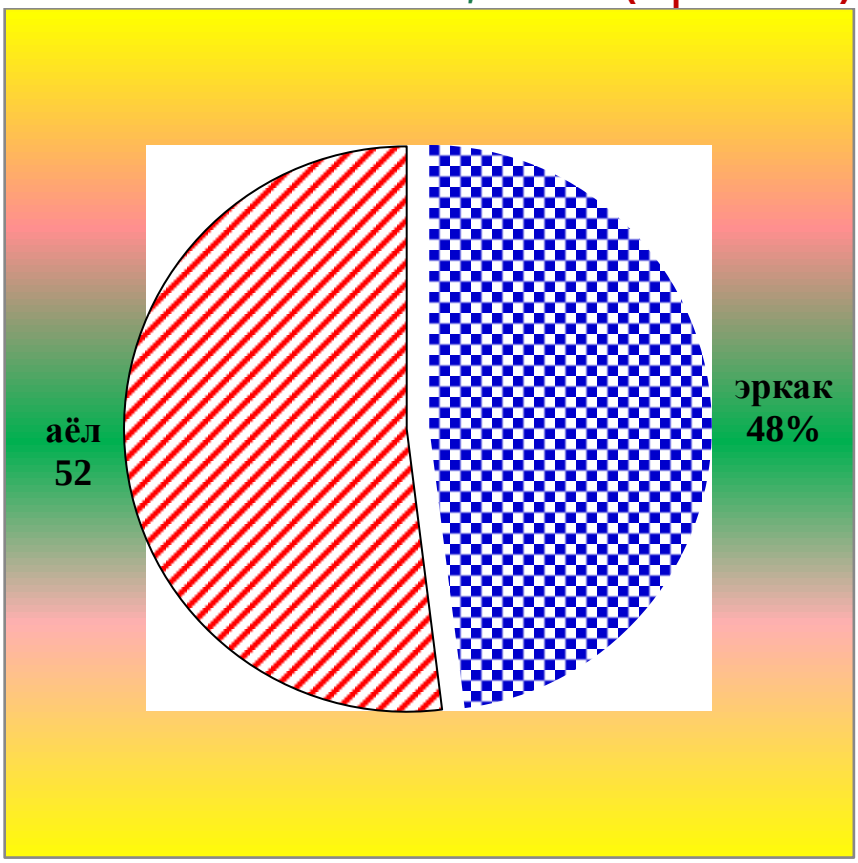

Figure 2. Distribution of cases between men and women in the Samarkand region

When preventing infection with exinococcosis and developing preventive measures, it is very important to determine the degree of prevalence of the disease among various population groups. The results of the 2022 analysis of the incidence of men and women in the Samarkand region show that (Fig. 2) in the Samarkand region, exinococcosis does not matter much for men (48%) and women (52%), the incidence is evenly distributed. This indicates that gender does not matter when the disease spreads..

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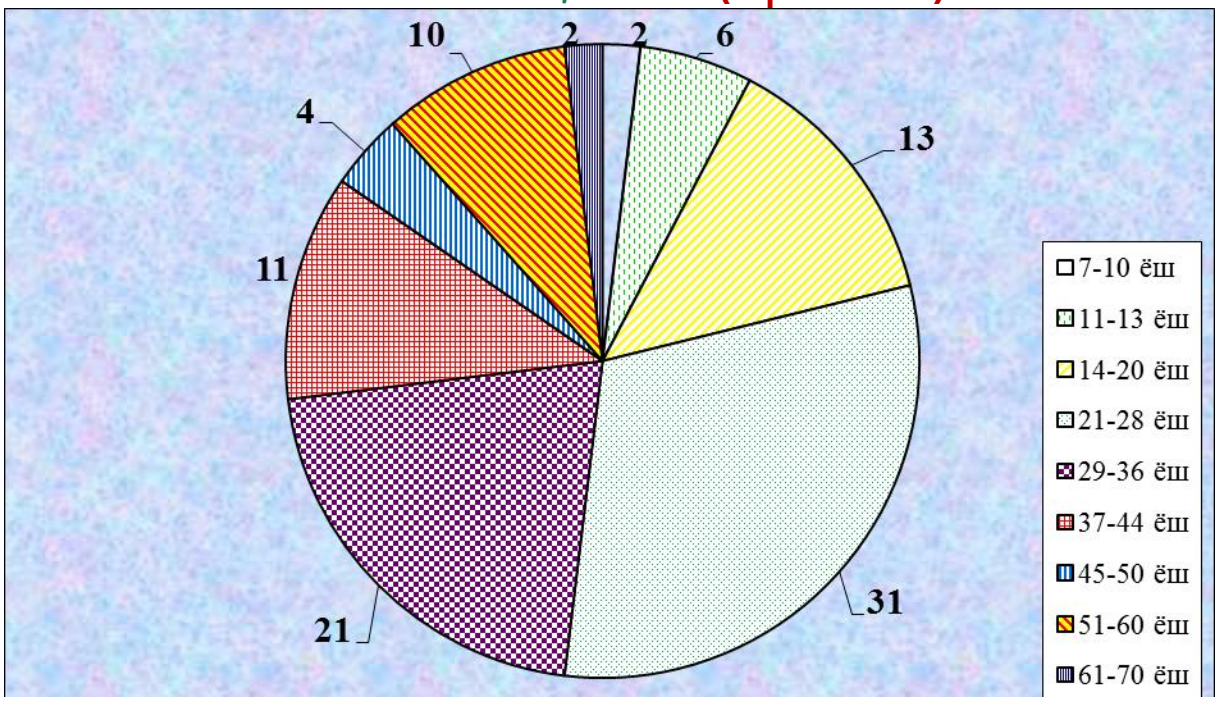

Figure 3. Age distribution of pathogens of exinococcosis

Based on the research, when analyzing the morbidity rates among youth in the Samarkand region, it was found that the incidence was 14% among 15-20 year olds, 31% among 20-28 year olds, 20% among 30-36 year olds, and 101% among 38-44 year olds. From this, we can conclude that the disease is most frequently recorded primarily among the working-age adolescents and older individuals (Figure 3). 7842 people were examined in the republic as part of a mass medical examination, which was attended by surgeons, therapists and radiologists. Mobile fluorography and ultrasound devices were used during the inspection. Among the surveyed, 60.4% are women, 39.4% are men. Among the tested 158 people (2%) had contact with animals. As a result of the examination, echinococcosis was detected in 49 people, of whom 43 (88%) developed it in the liver, and 6 (12%) — in the lungs. Single cysts were detected in 43 people (88%), while 6 people (12%) had two or more cysts. Distribution of the incidence of echinococcosis.

Conclusion: During the conducted research, it became clear that the weakening of epidemiological and veterinary control, as well as the population's lack of awareness about the consequences of these diseases, in many respects, contributes to the increase in cases of illness.

The above information indicates the necessity to study the modern epidemiological characteristics of echinococcosis, improve the effectiveness of diagnosing this disease, and enhance the inspection systems. In order to determine the connection between

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disturbances in electrolyte and enzyme metabolism and relapse cases of pathological processes in patients suffering from echinococcosis, it is necessary to conduct biochemical studies on the blood of patients with echinococcosis and to develop a serological diagnostic algorithm and rapid methods to improve the serological diagnosis of echinococcosis.

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