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CLINICAL AND EPIDEMIOLOGICAL CHARACTERISTICS OF CHILDREN WITH HYMENOLEPIDOSIS IN BUKHARA

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SUMMARU: The data showed that the proportion of hymenolepiasis in different age groups of children about the same and vary from 19,0 ± 3,9 to 31,4 ± 7,8 %. In this rather alarming high rate among children aged less than 4 years (19,0 ± 3,9 %). Indicators symptomatic clinical form hymenolepiasis a^ had severe confinement and age ranged from 21,5 ± 5,1 to 30,8 ± 5,7 %, with subclinical form hymenolepiasis ranged from 12,3 ± 5,5 to 31,4 ± 7,8. Symptoms such as regular acute abdominal pain due to trauma of the mucous membrane of the intestinal wall hooks embedded parasite, subfebrile body temperature (usually marked increase to 37,5°, at least until 38,0°), moderately expressed normal and hypochromic anemia (marked reduction hemoglobin in the blood to 100 g / l or less), moderate enlargement of the liver pr., observed with high frequency in many children - up to 65,7 ± 8,1; 83,1 ± 4,7 %. In the manifest form, epileptiform convulsions, frequent diarrhea mixed with blood, dysbacteriosis are noted, which were recorded in most children - from 67.7 ± .8 to 87.7 ± 4.1% of cases. Complex antiallergic and antiparasitic treatment has a pronounced immunological effect, activates the severity of the immune response, switches the nature of the immune response to suppressor, and thereby contributes to a more rapid relief of the allergic process in the body.

Key words: hymenolepiasis, helminthiasis, children , clinic, traumatization

Relevance

Hymenolepiasis is one of the most widespread human helminth infections and remains a pressing issue for practical healthcare due to the imperfections in health improvement measures. Currently, there are no scientifically substantiated preventive measures for its control [1, 2, 3, 9]. The peculiarities of the transmission mechanism of hymenolepiasis (a contagious helminthiasis) make it a difficult disease to control. Even in relatively favorable hygienic conditions, it is widely prevalent. The global decline in immune status among children, on the one hand, and the acquired resistance of pathogens to anthelmintic drugs, on the other hand, have led to changes in the clinical presentation of hymenolepiasis [4, 5, 6, 7, 8]. Some symptoms weaken or disappear entirely, while new symptoms emerge [11]. As a result, timely and accurate clinical diagnosis of hymenolepiasis, especially differentiation of its main forms by practicing physicians, becomes complicated [10].

In this regard, the aim of our study was to examine the clinical forms of hymenolepiasis among the pediatric population of Bukhara [12].

Materials and Methods

The study was conducted among 65 children with manifest and 35 children with subclinical forms of hymenolepiasis, aged 4-15 years, who were identified through parasitological examinations in preschool institutions in Bukhara. Through repeated observations, examinations, and detailed interviews with children and their parents, clinical symptoms of different forms of hymenolepiasis were recorded.

Hymenolepiasis diagnosis was performed using the coproovoscopy method. Stool samples were collected three times at intervals of 2-3 weeks due to the developmental cycle of the pathogen, the dwarf tapeworm. It was necessary to examine fresh material (morning stool samples). Statistical analysis of the data was performed using Microsoft Excel spreadsheets, which were structured according to the study's requirements.

Results and Discussion

Assessing the quality of medical care for parasitic infections often involves analyzing the age distribution of diseases among children. We used this method and categorized the identified cases of hymenolepiasis by age groups.

At the same time, statistical data from outpatient medical records were insufficiently informative, as they did not accurately reflect the true prevalence of hymenolepiasis among children.

No clear pattern was observed in the data presented in the table. The proportion of hymenolepiasis cases in different age groups was approximately the same, ranging from 19.0 ± 3.9% to 31.4 ± 7.8% ($\chi^2 = 2.50$; $p > 0.05$). However, the relatively high rate among children under four years old (19.0 ± 3.9%) is concerning, which is linked to the contact-based transmission mechanism.

The prevalence of the manifest clinical form of hymenolepiasis also lacked a distinct age-related trend, ranging from 21.5 ± 5.1% to 30.8 ± 5.7% ($\chi^2 = 3.36$; $p > 0.05$). This form was expected to increase with age due to the accumulation of pathogens. Moreover, the prevalence was notably high among children under four years old (21.5 ± 5.1%). A similar pattern was observed in the subclinical form of hymenolepiasis, which varied from 12.3 ± 5.5% to 31.4 ± 7.8% ($\chi^2 = 0.36$; $p > 0.05$).

These findings highlight deficiencies in the diagnosis of hymenolepiasis, particularly in differentiating its clinical forms. Based on this, the quality of helminthological care for children can be considered satisfactory. However, the low rate of medical visits and the preference for home treatment are concerning and require investigation into the underlying reasons. Even more alarming is the increasing trend of parents self-medicating their children for helminth infections. Only after multiple unsuccessful attempts do they seek medical assistance, according to outpatient records.

Objective clinical symptoms, as well as subjective ones, are highly informative in diagnosing hymenolepiasis. Symptoms such as recurrent acute abdominal pain due to mucosal trauma caused by the parasite's hooks, low-grade fever (usually up to 37.5°C, rarely reaching 38.0°C), moderately pronounced normochromic and hypochromic anemia (with hemoglobin levels decreasing to 100 g/L or lower), and moderate liver enlargement were observed with high frequency in many children—ranging from 65.7 ± 8.1% to 83.1 ± 4.7% ($\chi^2 = 3.87$; $p < 0.05$).

Moreover, these symptoms are easily recognizable by parasitology service doctors, and with careful examination of children, diagnosing helminth infections should not be particularly difficult or lead to diagnostic errors. Table 2 presents the symptom indicators that, in addition to diagnosing hymenolepiasis, also facilitate differentiation of its clinical forms.

For the manifest form, characteristic symptoms include epileptiform seizures, frequent diarrhea with blood, and dysbacteriosis, which were recorded in the majority of children—ranging from 67.7 ± 8.0% to 87.7 ± 4.1% of cases ($\chi^2 = 7.50$; $p < 0.01$). The occurrence of these symptoms in the subclinical form was significantly lower ($\chi^2 = 7.16$; $p < 0.01$), making them diagnostically less significant—ranging from 8.6 ± 4.8% to 40.0 ± 8.4% ($\chi^2 = 9.40$; $p < 0.01$).

Symptoms such as asthenoneurotic syndrome (general weakness, headaches, dizziness) were also significantly more frequent in the manifest form—ranging from 41.5 ± 6.2% to 55.4 ± 6.2% ($\chi^2 = 2.49$; $p > 0.05$), whereas their prevalence in the subclinical form was noticeably lower ($\chi^2 = 0.86$; $p > 0.05$)—ranging from 17.1 ± 6.5% to 34.3 ± 8.1% ($\chi^2 = 1.14$; $p > 0.05$).

Conclusion

The identified symptomatology of hymenolepiasis is strong evidence of the systemic nature of this infection and its pathogenic impact on the body's organs and systems. It is not difficult to conclude (as supported by recent literature) that the high incidence of hymenolepiasis and its pronounced pathogenic effects on the body are likely due to weakened immune systems in children and the underdeveloped non-specific protective functions of their bodies.

The importance of timely and accurate diagnosis of helminth infections, including hymenolepiasis, is well known, as early qualified treatment leads to a higher therapeutic effect. Even more crucial is the timely differentiation of its clinical forms. If advanced cases of the subclinical form can still be treated with the proper selection of specific anthelmintic drugs, then advanced cases of the manifest form are difficult to treat and pose a serious threat to children's health.

The effectiveness of such an approach is reinforced by the fact that most children under seven attend preschool institutions, and almost all children aged 7-15 attend school. Additionally, during visits to territorial children's institutions, it is possible to engage parents in appropriate health education efforts. Parents are generally

cooperative and, as a result, voluntarily bring even healthy children for parasitological examination.

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