CLINICAL AND IMMUNOLOGICAL CHARACTERISTICS OF PEDIATRIC HYMENOLEPIASIS IN THE SOUTHERN REGIONS OF THE KASHKADARYA REGION AND THEIR OPTIMIZED DIAGNOSIS

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Abstract

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Title: Clinical and Immunological Optimization of Pediatric Hymenolepiasis Treatment in the Kashkadarya Region

Background: Hymenolepiasis remains a significant public health concern in the southern regions of Uzbekistan, with invasion levels reaching up to 26.2% among schoolchildren in certain districts. Standard deworming protocols often overlook the parasite's suppressive impact on the host's immune system, leading to high rates of autoinvasion and chronic persistence.

Methods: A study was conducted between 2023 and 2024 involving 158 children (aged 7–10 years) from the Kasbi and Karshi districts. Participants were divided into a **Main Group (n=82)**, receiving a complex regimen of enterosorbents, antihistamines, deworming (Praziquantel), and natural immunomodulators/probiotics, and a **Control Group (n=76)**, receiving

standard monotherapy. Evaluation included parasitological (Kato method), hematological, and immunological (IgE levels) analyses.

Results: Baseline findings revealed that 72% of children exhibited clear clinical signs, including dyspeptic (84%), pain (68%), and astheno-vegetative (65%) syndromes. Laboratory data showed a high prevalence of hypochromic anemia (58%) and persistent eosinophilia (46%). Following the intervention, the Main Group showed superior recovery: eosinophil levels normalized in 82% of children compared to only 54% in the Control Group. Crucially, the complex treatment reduced the reinfection rate by 3.6 times compared to standard therapy (21.6% recurrence in the control group).

Conclusions: The integration of immunomodulation and desensitization into standard deworming protocols effectively breaks the cycle of autoinvasion in pediatric hymenolepiasis. Restoring the child's immune status and intestinal microbiocenosis is essential for achieving complete parasitological sanitation and preventing long-term hematological complications.