

CLINICAL AND EPIDEMIOLOGICAL EVALUATION OF  
HELMINTHIASIS AMONG PRIMARY SCHOOL  
CHILDREN IN KASHKADARYA REGION, UZBEKISTAN

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**Abstract**

**Keywords:** *helminthiasis, Hymenolepiasis, Giardiasis, pediatric health, epidemiological control, Kashkadarya region, school hygiene.*

**Background:** Helminthiasis remains a significant public health challenge in modern pediatrics, affecting over 25% of the global population, primarily school-aged children. Long-term parasitic invasion can lead to chronic intoxication, anemia, and delayed physical or mental development. This study aimed to evaluate the prevalence and structural distribution of parasitic infections among 1st to 3rd-grade students in the Kasbi and Karshi districts of the Kashkadarya region.

**Methods:** A comprehensive cross-sectional study was conducted involving 1,850 students from 24 secondary schools (1,138 from Kasbi and 712 from Karshi). The methodology included laboratory parasitological fecal analysis using standard coprological methods, epidemiological questionnaires ("Dictations") to assess hygiene knowledge, and a sanitary-hygienic audit of school infrastructures.

**Results:** The average infection rate across both districts was 21.0%. Significant regional disparities were observed: the infection rate in the Karshi district (26.2%) was notably higher than in the Kasbi district (17.7%). Hymenolepiasis (dwarf tapeworm) was the most prevalent parasite, accounting for 40.6% of identified cases, followed by Giardiasis at 26.2%. Notably, Karshi district showed a significantly higher incidence of Taeniarhynchosis (18 cases) and Ascariasis (16 cases) compared to Kasbi (1 and 2 cases, respectively). Sanitary audits revealed deficiencies in hand-washing facilities and environmental cleanliness, particularly in Karshi.

**Conclusion:** The high prevalence of fecal-oral parasitic infections highlights the need for improved school infrastructure and enhanced sanitary education. The elevated rates of Taeniarhynchosis and Ascariasis in Karshi indicate specific gaps in food safety, veterinary control, and the management of household fertilizers. Effective control requires a multi-sectoral approach combining medical treatment with "Health Lessons" and improved access to clean water and soap.