

The Epidemiological Study on Prevalence of Giardia lamblia among Children in Esfahan City of Iran

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Abstract : Purpose: Giardiasis is a widespread infection in humans caused by Giardia lamblia. The prevalence of this parasite among children in Isfahan of Iran is unknown. This study intended to estimate Giardia lamblia infection prevalence and identify possible associated risk factors in a healthy pediatric population living in the Isfahan, a metropolitan city of Iran. Methods: Between September 2010 and March 2012, 1448 stool sample from children with clinical manifestation that refer to clinical lab in Isfahan city for stool examination were collected and analyzed. About 1218 samples were positive for parasitic disease. All of samples were examined and diagnosed by direct examination and formalin-ether concentration of stools. Results: A total of 1218 positive cases were analyzed in this study. The findings showed that 92.5% of patients were infected by protozoa and 7.5 percent with helminth infection. The highest and lowest rate of infection belongs to Giardia lamblia and Entamoeba histolytica with 75% and 1.1%, respectively. Other infection cases were included of Blastocystis hominis 9.9%, E. coli 6.5%, H. nana 1.3%, Enterobius vermicularis 4% and Ascaris lumbricoides 2.2% percent. The population studied revealed a gender distribution of 53.2% male and 46.8% female. Age distribution was 57.3% between 0-5 years and 42.7% between 6-15 years. The prevalence was higher among children aged 0-5 years (57.8%), than among older children (42.2%). Conclusion: The prevalence of protozoan parasite, especially Giardiasis, in children residing in the region of Isfahan is high. Several risk factors were associated with this prevalence and highlight the importance of parents' education and sanitation conditions in the children's well being. The association between Giardia lamblia and H. pylori seems an important issue deserving further investigation in order to promote prevention or treatment strategies. Other risk factor include presence of Helicobacter pylori infection, living in houses with own drainage system and reported household, pet contact, especially with cat and dog.

Keywords : Giardia duodenalis, prevalence, risk factors, children, Isfahan, Iran

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