

# **Intestinal parasites in preschool-aged children: a two year consecutive study in nursery setting of an Eastern Turkish region**

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**Background and aim:** Studies from Turkey indicate varying degrees of intestinal parasite incidence, ranging from 7.9% to 64.8% in preschool-aged children. To investigate the intestinal parasite infestation rate and risk factors for acquisition of intestinal parasites in pre-school-aged children, in an eastern Anatolia region nursery class setting, stool samples were obtained from all nursery school attendees in the city center of Elazig.

**Materials and methods:** All of the preschool-aged children attending to 7 nursery schools present in Elazig city center were involved and the study was performed between January 2003 and March 2004. Stool samples were obtained from the children and were freshly examined using native-lugol method, and trichrom staining was also performed when needed.

**Results:** During the present study, intestinal parasites were found in 8.9% of the children (6.6% of the male and 11.3% of the female) in 2003; whereas in 2004 intestinal parasite infestation was determined in 8.5% of the study population (7.1% of the male and 9.7% of the female), respectively. The species of the parasites determined in 2003 were as follows: *Blastocystis hominis* in 7 samples and *Giardia intestinalis* in 4 samples. 2004 investigations revealed 7 *Blastocystis hominis*, 3 *Giardia intestinalis* and 2 *Enterobius vermicularis*. Of the students who involved in both surveys with parasite in stool, 3 were identified to have parasite in both of the yearly consecutive samples, *Blastocystis hominis* being identified in one case while in the other different parasites were identified. There was a statistically significant difference between the cases with and without parasitosis with respect to the reported routine hand washing ( $p < 0.05$ ).

**Conclusion:** This one year consecutive study identified parasite infection with similar rate and type in nursery attending preschool-aged children of this Eastern Turkish city. Our results confirmed and emphasized the importance of routine washing of hands in prevention of parasite infection. Thus, we believe that, in addition to family and primary school, the nursery centers which provide preschool education have great importance for increased awareness about the risk of parasite infection and gaining personal hygiene habit.

**Key words:** preschool children, intestinal parasites, nursery center