

Comparison of the nutritional status between giardia-infected and non-infected primary school students in Ardabil, IranG.H. Ettehad¹, A. Nemati¹, A. Daryani², A. Naghizadeh Baghi¹, S. Hazrati³**1** Department of Basic Sciences, Faculty of Medicine, Ardabil University of Medical Sciences, Ardabil, Iran.**2.** Department of Parasitology and Mycology, Faculty of Medicine, Mazandaran University of Medical Sciences, Mazandaran, Iran**3.** Department of Environmental Health, School of Public Health, Ardabil University of Medical Sciences, Ardabil, Iran.

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Objective: In order to determine the association between giardia infection and nutritional status, a cross-sectional study was performed on students from 20 randomly selected primary schools from two regions of Ardabil Province in 2005. **Materials and Methods:** Anthropometrics including height, weight and midarm muscle circumference (MAC) were measured for 813 children (413 males, 400 females). Daily energy and nutrient intakes were estimated by the 24 hour-recall technique, for three days in a week. Giardia infection was detected by stool examination microscopically, as well as directly (smears) using the zinc sulfate flotation method.

Results: On the whole, 10.9% of the boys and 17.2% of the girls were infected. Weight and MAC in non-infected girls and boys (only 7 and 11 years old) were higher than in infected groups. The average values for weight, height, and MAC for both genders were below the respective NCHS standards. Vitamin E and phosphorous intakes in non-infected boys (7–10 years old) were less than in the infected boys. The daily intakes of energy, protein, vitamins (B3, B5, B6, E, and folacin), and minerals (copper, magnesium, phosphorous, potassium, and selenium) in the infected girls were less than those in the non-infected girls (in the 11–12 year-old category).

Conclusions: Based on the results we conclude that giardia infection may affect some of the anthropometric variables, as well as energy and nutrient intake in some age groups.

Key words: Giardia, height, weight, students, Ardabil