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Occurrence of *Giardia duodenalis* in children from public schools in Araçatuba, São Paulo

Nowadays, parasitic diseases are associated with socioeconomic vulnerability and immunocompromised populations. Its occurrence in susceptible populations, such as school-age children, may be related to an immature immune system, poor hygiene habits, and contact with domestic animals that can be hosts of potential zoonotic parasites. This study's objective was to evaluate intestinal parasites' occurrence in schoolchildren and their families in the city of Araçatuba, São Paulo, using the *TF-Test* technique. A total of 381 individuals were assessed, 239 children aged 0 to 6 years old, enrolled in six municipal schools, and 142 adults who were family members of these children. The participants were instructed to collect fecal samples using the three *TF-Test* collection tubes (BioBrasil®) on alternate days. This study was approved by the Research Ethics Committee (protocol 75939417.7.0000.5404). Data were analyzed using descriptive and inferential statistics. The statistical frequency of the results, presented in percentage, was defined as the number of positive and negative cases that occurred during the observation period. The chi-square test and Fisher's exact test were used to verify the association of parasitism variables with the age, sex of participants, and positivity in different schools. Statistics were considered significant when $p < 0.05$. No statistical significance was found between parasitism and the age or sex of volunteers. A total of 45.93% (175/381) of the participants were positive in the parasitological test. Although several studies demonstrate that age group can be an important risk factor for intestinal parasites, mainly due to the higher probability of infection in children, no significant association was demonstrated between age and parasitism when comparing only the percentages of total positivity. However, when analyzing the species detected individually, it was possible to observe significant associations between infection and age. The species whose prevalence was statistically significant were *Blastocystis* spp., *Cryptosporidium* spp.,

and *Giardia duodenalis*. The relation of the positivity for *G. duodenalis* and the variable "age" showed the lowest p-value ($p < 0.0001$) and the highest prevalence in children up to 7 years old. In the case of the *Blastocystis* spp. ($p = 0.0146$) and *Cryptosporidium* spp. ($p = 0.0102$) there was also a significant association, but the most affected age group was volunteers over 18. We conclude that despite the studied population having access to basic sanitation and the municipal treated water network, intestinal parasites are still present with a relevant prevalence. The protozoa stood out, an expected fact, since it is a group of parasites well adapted to urban regions and has a history of water treatment resistance.