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Helicobacter pylori and kindergarten toys

Helikobakter pilori ve kreş oyuncakları

To the Editor,

Helicobacter pylori (H. pylori) is prevalent throughout the world. It is an infection acquired usually at school age, and lasts lifelong if left untreated. Numerous studies have been conducted concerning the prevalence, contamination routes and risk factors of *H. pylori*. Its prevalence varies according to age and country (1). How *H. pylori* is acquired and the contamination routes are clearly not known at present. The commonest route for contamination is oral-oral or fecal-oral. The prevalence has been reported to be high in places with poor hygienic conditions and in crowded living conditions, such as in nurseries, kindergartens and rehabilitation centers, leading to contamination via the fecal-oral route. Various substances, either alive or inorganic, can play a role in *H. pylori* contamination. However, there are numerous sources that might play a role in contamination in childhood, which have not yet been investigated. Do the toys shared among children play a role in *H. pylori* contamination? As far as we know, this is the first study that aims to investigate the role of shared kindergarten toys in *H. pylori* contamination (2,3).

In this study, nine plastic toys were selected among approximately 200 toys in the day care center for the investigation. Toys were washed with sterile saline, and 10 ml saline was centrifuged at 5000 rpm for 5 minutes. The supernatant was discarded and examined for DNA analysis. After analysis, *H. pylori* DNA was detected on five out of nine toys (55.5%).

To the best of our knowledge, no study has been conducted about the role of toys in *H. pylori* contamination in children. By means of the present study, *Helicobacter* DNA was determined for the first time in 56% of the toys of the preschool children via nucleic acid screening method. We think that this finding is important and beneficial in *H. pylori* epidemiology. Oral secretions of the children can easily be smeared over the shared toys. Common places where children stay together, such as nurseries and kindergartens, provide an opportunity for *H. pylori* to spread. Accordingly, the kindergarten toys should be in a form that can be disinfected easily. In addition, frequent disinfection of the toys is important with regard to the prevention of *Helicobacter* contamination.

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Oğuz KARABAY[1], Esra KOCOĞLU[2], Özlem SANDIKÇI[1], Aziz ÖĞÜTLÜ[1], Nazan TUNA[1], Meltem KARABAY[3]

Department of [1]Infectious Diseases and Clinical Microbiology, Sakarya Training and Research Hospital, Sakarya
Department of [2]Clinical Microbiology, Abant İzzet Baysal University School of Medicine, Bolu
Department of [3]Pediatrics, Sakarya Government Woman and Child Hospital, Sakarya

Address for correspondence: Oğuz KARABAY
Sakarya Training and Research Hospital, Department of Infectious Diseases and Clinical Microbiology, Sakarya, Turkey
Phone: + 90 264 275 10 10 (3017)
E-mail: drkarabay@yahoo.com

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