Association of Helicobacter Pylori Infection and Giardiasis

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Background & Objectives: To investigate whether Helicobacter pylori (H pylori) infection is associated with Giardiasis infection, presence of enteroparasites, and other surrogates of fecal exposure.

Methods: We conducted a cross-sectional study in 121 children consecutively admitted at a educational hospital in Gorgan, Iran. Serum & Stool specimens were examined for the presence of H. pylori and parasites. A structured questionnaire inquiring about sanitary conditions and life style was applied to each subject.

Results: Fifty-one of the 121 children (42.1%) were found to be seropositive for H pylori, and 45 (37.2%) for Giardia labelia and 21(17.3%) for both H pylori and Giardia labelia. The seroprevalence of H pylori and G.labelia both increased significantly with age. After controlling for possible confounding, the variables remaining independently associated with seropositivity to H. pylori were age, presence of Giardia lamblia in feces (OR = 3.2, 95%CI, 1.1-9.5) and poor garbage disposal quality (OR = 2.4, 95% CI, 1.1-5.1).

Conclusion: Our data suggest that H. pylori infection is associated with surrogate markers of fecal exposure. Thus, we conclude that the fecal-oral route is relevant in the transmission of HP among children in an urban setting of a developing country. The association observed between G. lamblia and H. pylori infection may have several explanations. Further studies to investigate this relationship are warranted.

Keywords: Association, Helicobacter pylori; Giardiasis