Lack of evidence for *Helicobacter pylori* to prevent children growth efficiently

Amin Talebi Bezmin Abadi
Department of Bacteriology,
Faculty of Medical Sciences,
Tarbiat Modares University,
Tehran 14115-111, Iran
Email: Amin.talebi@modaers.ac.ir

We have read with great interest an article by Kocaoglu *et al* published in May issue of the *World Journal of Pediatrics*.[1] A total of 243 children aged between 8-18 years were examined based on growth determinants and existence of *Helicobacter pylori* (*H. pylori*) colonization in Turkey. The conclusion of this research is that *H. pylori* colonization affected children growth; and the longer duration of infection, the worse effect on growth.

We have some points to improve this paper as following. 1) *H. pylori* usually causes a chronic infection which deleterious effects need long-term colonization to be revealed pathologically.[2] In this study, the longest duration (*H. pylori* colonization as authors defined) was six months which is not sufficient for revealing all possible pathologic signs of this chronic infection. Moreover, height and weight determinants in children are strongly affected by various factors such as socioeconomic level, diet, emotional and physical status. Investigating growth status in children can hardly produce reliable result in the case investigating those limited factors; 2) In this study, authors suggested to eradicate the infection in the case of failure to thrive in children. Practically, this action is not feasible for many clear reasons; 3) Basic rationale in this survey was built up from a comparison between the results of various studies using serological methods to determine *H. pylori* presence. However, serology assay cannot determine whether active or past infection.

There are some limitations for this study. 1) Small sample size is the first limitation in this paper. However, larger population can produce more truthful conclusion; 2) Another limitation of this study is not-examining the rate of re-infection among these children and its effect on children growth. We now know that re-infection rate especially in developing countries such as Turkey is relatively high and it can easily affect primary results reported in this study.

In disagreement with authors, designing new public policy to detect high risk children to eradicate *H. pylori* infection (vaccination or antibiotic therapy) are likely complex and impossible at least in developing countries.

References

1 Kocaoglu C, Ozel A, Cayci M, Solak ES. Effect of long-term *Helicobacter pylori* infection on growth of children: a cohort study. World J Pediatr 2016;12:196-201.
2 Talebi Bezmin Abadi A. Vaccine against *Helicobacter pylori*: Inevitable approach. World J Gastroenterol 2016;22:3150-3157.

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Our study involved the children exposed to C14-urea breath test to determine *H. pylori* infection after the admission because of dyspeptic complaints.[1] Those with a history of *H. pylori* infection were excluded, and 243 patients, 131 with *H. pylori* infection and 112 without *H. pylori* infection, were determined. Twelve patients in the *H. pylori* positive group and 18 in the *H. pylori* negative group were excluded because of the incompliance with the follow-up or therapy and re-infection. Additionally, 13 patients in the *H. pylori* negative group were excluded because of *H. pylori* infection in a later period.

We completed our study with 200 participants between the ages of 8-18. Of these, 119 were in the *H.pylori* (+) group, while 81 were in the *H.pylori* (-) group (group 0 or control group). *H.pylori* (+) group was categorized into group 1 (≤1.5 mon), group 2 (>1.5-≤6 mon) and group 3 (>6 mon). The patient and control groups were monitored for 12 months regarding antropometric measurements. In addition, the patient group was monitored through C14-urea breath test in terms of effectiveness of treatment. The objective of our study was to investigate the effect of *H.pylori* infection on growth. Other possible pathologic signs related to *H.pylori* infection are out of the scope of our study.

In our study, mean growth velocity scores in *H. pylori* positive and negative groups were 0.49±3.85 [95% confidence interval (CI), -0.21-1.18] and 1.98±4.42 (95% CI, 1-2.96), respectively. Mean growth velocity scores in groups 1, 2 and 3 were 0.96±3.84, 0.16±4.51 and -0.85±3.09, respectively. These findings indicated that