LETTER TO EDITOR (VIEWERS CHOICE)

THE ROLE OF BREAST MILK IN PREVENTION OF H. PYLORI INFECTION IN EARLY INFANCY

Pishva Narjes, Alian Zahra, Haghighat Mahmood, Moslehi Mohammad Ashkan

Infection with helicobacter pylori plays a crucial role in the pathogenesis of both chronic active gastritis and peptic ulcer disease in children and adults. An increasing amount of the evidence also supports the hypothesis that H. pylori is an important cofactor in the development of gastric cancer (1). H. pylori infection is predominantly acquired in early childhood. The prevalence of H. pylori infection in the pediatric population ranges from less than 10% to more than 80%. The prevalence in Europe and Japan are low, whereas in India, Bangladesh and Africa is high. (2) Even though the mechanism of transmission of helicobacter pylori is not clearly known, socioeconomic class and overcrowding are important risk factors which increase the rate of infection by H.pylori (Rosenthal). Longer duration of breast feeding has been reported to lead to lesser H. pylori infection. (3,4)

We undertook a study to compare the incidence of H.pylori infection between exclusively breast fed and exclusively formula fed infants in similar conditions. From March 2005 to September 2006, 85 healthy infants between 2 to 6 months old were studied. Forty three of the infants were formula fed and 42 were exclusively breast fed. None of the infants were receiving baby food. The fresh stool samples were

collected from the infants and stored at -70^0 C. The H. pylori antigen was detected by HPAT kit (Diagnostic Bioprobes srI company, Italy). Maternal serum also was studied for H.pylori IgG antibody by ELISA. The rate of H.pylori infection in breast fed infants was 32% and in formula fed infants was 60% (p=0.006). The rate of H. pylori antibody in mothers of both groups (breast milk and formula fed) was similar and 70%.

We found that the incidence of H.pylori infection is significantly lower in the infants who are exclusively breast fed.

ACKNOWLEDGEMENT

The authors would like to thank the office of Vice-Chancellor for Research of Shiraz University of Medical Sciences for financial support and Dr. Davood Mehrabani at Center for Development of Clinical studies of Nemazee Hospital for editorial assistance.

REFERENCES

1. Konturek JW. Discovery by Jaworski of Helicobacter pylori and its pathogenetic role in peptic ulcer, gastritis and gastric cancer. J Physiol Pharmacol. 2003; 54 Suppl 3: 23-41
2. Brown LM. Helicobacter pylori: epidemiology and routes of transmission. Epidemiol Rev. 2000; 22: 283-297
3. Okuda M, Miyashiro E, Koike M, Okuda S, Minami K, Yoshikawa N. Breast-feeding prevents Helicobacter pylori infection in early childhood. Pediatr Int. 2001; 43: 714-715
4. Fujimura S, Kato S, Nagai K, Kawamura T, Iinuma K. Detection of Helicobacter pylori in the stools of newborn infants. Pediatr Infect Dis J. 2004; 23: 1055-1056

From: Department of Pediatrics, Gastroenterohepatology Research Center, Nemazee Hospital Shiraz University of Medical Sciences, Shiraz, Iran.

Address for Correspondence: Mohammad Ashkan Moslehi, MD, Pediatrician, Department of Pediatrics, Nemazee Hospital, Shiraz, Iran. Email: ashkanmoslehi@gmail.com

E-published: 1st August 2011. **Art**#52