

A new explanation of 'Asian paradox'

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There is abundant evidence of an association between *Helicobacter pylori* chronic infection and gastric cancer. The incidence of gastric cancer is much higher in Japan than Indonesia. A research from Indonesia and Japan found there was a significant difference in the grade and activity of gastric mucosal changes between Indonesian and Japanese *H. pylori* positive patients. This finding may prove to be an initial step to explain the "Asian paradox."

Although *Helicobacter pylori* (*H. pylori*) has been classified as a class I (or definite) [carcinogen](#) by [World Health Organization](#) (WHO), the controversy as to why only a minority of infected patients develop gastric cancer still remains. Moreover, in Asian countries such as Indonesia, Japan, China, and Thailand, where the *H. pylori* infection rates are similar, there is a significant difference regarding the outcome of gastric cancer. That fact has been termed the "Asian paradox".

A research article to be published on October 21, 2009 in the World Journal of Gastroenterology addresses this question. A research, led by Murdani Abdullah, MD from Division of Gastroenterology, Department of Internal Medicine, University of Indonesia, was based on the old concept of a cascade of mucosal changes that develops from acute/chronic gastritis to gastric cancer as proposed by P. Correa. The difference in the pattern of *H. pylori*-associated gastritis may explain the difference in the incidence of gastric cancer between Indonesia and Japan. Previous studies have never evaluated the cascade of gastric mucosal changes prior to gastric cancer. In this research, the transformation of gastric mucosa that is induced by *H. pylori* infection

prior to [gastric cancer](#) was investigated. The transformation was then compared between Indonesian and Japanese patients, the two countries that represent the "Asian paradox".

From 1998 to 1999, 42 Japanese patients at Yamanashi Medical University Hospital, Koufu and 125 Indonesian patients at Metropolitan Medical Centre Hospital, Jakarta were consecutively enrolled. From this research, it was seen that there was a significant difference in the grade and activity of gastric mucosal changes between Indonesian and Japanese *H. pylori*-positive patients. This finding suggests that there may be a different host response between Indonesian and Japanese people regarding *H. pylori* infection. The authors believe that lifestyle and genetic factors are considered to play a major role, in the meantime, their research may act as the initial step in explaining the "Asian paradox".

More information: Abdullah M, Ohtsuka H, Rani AA, Sato T, Syam AF, Fujino MA. Helicobacter pylori infection and gastropathy: A comparison between Indonesian and Japanese patients. World J Gastroenterol 2009; 15(39): 4928-4931
www.wjgnet.com/1007-9327/15/4928.asp

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