H. Pylori bacteria may help prevent some esophageal cancers

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Some bacteria may help protect against the development of a type of esophageal cancer, known as adenocarcinoma, according to a new review of the medical literature. These bacteria, which are called *Helicobacter pylori,* live in the stomachs of humans.

The review, published in the October issue of *Cancer Prevention Research,* a journal of the American Association for Cancer Research, found that people who had H. pylori strains carrying a gene called CagA were almost half as likely to get adenocarcinoma of the esophagus, a cancer that develops in the tube that passes food from the throat to the stomach.

"CagA- positive strains of *H. pylori* may decrease the risk of adenocarcinoma by reducing acid production in the stomach and, therefore, reducing acid reflux to the esophagus," said study co-author Farin Kamangar, M.D., Ph.D., a research fellow at the National Cancer Institute. "It may also work by decreasing the production of the hormone ghrelin, which is secreted from the stomach to stimulate appetite. A reduction in the level of ghrelin may lead to lower rates of obesity, an important risk factor for adenocarcinoma."

H. pylori, estimated to be present in about half the world's population, is a known cause of stomach cancer and ulcers. Advancements in sanitation and antibiotics have made *H. pylori* less common and have consequently lowered the incidence stomach cancer and ulcers. However, as *H. pylori,* including CagA-positive *H. pylori,* has become less common, esophageal adenocarcinomas have increased. The study suggests that the declining rates of H. pylori in developed populations may be partly responsible for this increase. Once a rare cancer, esophageal adenocarcinomas now constitute approximately half of all esophageal cancers cases in Western Countries like the U.S. and United Kingdom.

Although *H. pylori* was first discovered in the early 1980s, Kamangar says humans already had been living with the bacteria for 60,000 years. The bacteria were once present in the stomachs of just about everyone. Despite its potential for causing stomach cancer and ulcers, *H. pylori's* long history of co-existence with humans suggests it also may have some beneficial effects, including possible roles in reducing diarrheal diseases and asthma, Kamangar said.

For the study, Kamangar and co-author Farhad Islami of the University of Tehran in Iran analyzed results from 19 published studies examining the associations of H. pylori with esophageal adenocarcinoma and esophageal squamous cell carcinoma, another type of esophageal cancer.

Source: American Association for Cancer Research