Why Inhibiting Acid Production With Prilosec and Prevacid Could Make Ulcers Worse

Posted by: Dr. Mercola
February 06 2002 | 10,953 views

When it comes to cooling the burning pain of gastritis or an inflamed stomach lining, reducing the amount of acid in the stomach may seem like a good idea.

But two new studies with laboratory mice, conducted by Howard Hughes Medical Institute scientists at the University of Michigan Medical School, indicate it could be exactly the wrong thing to do.

University of Michigan scientists found that antibiotics were the best way to kill the bacteria that cause gastritis and eliminate stomach inflammation in their experimental mice. Mice treated with prescription drugs called proton pump inhibitors or PPIs, like Prilosec and Prevacid, which block acid production, **acquired more bacteria and developed more inflammatory changes in their stomach linings than untreated mice.**

These animal studies indicate that it is the inflammatory response - triggering the overproduction of hydrochloric acid, which is the stomach's primary response to bacterial colonization. Inflammation of the stomach lining coincides with production of peptides called cytokines, which stimulate production of a hormone called gastrin.

Gastrin triggers parietal cells in the stomach lining to produce more hydrochloric acid, which kills off most invading microbes. If you inhibit gastric acid production, you interfere with the stomach's natural defense mechanism."

Since reduced gastric acidity does appear to make the mammalian stomach more vulnerable to bacterial invasion and gastritis, however, Physicians may want to re-evaluate the long-term use of Prilosec and other proton-pump-inhibiting drugs in their patients.

Researchers compared stomach cells from normal mice with those from a strain of transgenic mice that lack the gene for producing gastrin. Their goal was to understand the feedback relationship between bacteria, pro-inflammatory factors, hormones and acid secretion in the stomach.

Mice contracted gastritis just like people do - from eating food or drinking water contaminated with bacteria. While **75 percent of people with gastritis test positive for Helicobacter pylori,** many other species of bacteria can trigger inflammatory changes, too, and often co-exist with Helicobacter.

No matter what type of bacteria causes the problem, it is a serious medical condition. If untreated, chronic gastritis can lead to peptic ulcers and stomach cancer.

H. pylori is the only bacterial organism in the stomach that cannot be killed by hydrochloric acid. Since investigators wanted to study the relationship between other bacteria and gastric acid, they needed to exclude the presence of H. pylori.

They cultured and analyzed bacteria from stomach washings of all normal and gastrin-deficient mice to confirm the absence of Helicobacter. Major types of bacteria identified included Lactobacillus, Enterobacter and Staphylococcus.

Researchers treated infected gastrin-deficient mice and normal control mice with antibiotics for 20 days. Other mice were treated for two months with a proton-pump-inhibiting drug called omeprazole or with a combination of omeprazole and antibiotics. At the end of the treatment period, **researchers compared cell changes and bacterial counts from the stomach linings of all mice.**

Major findings from the studies include:

- Stomach cell samples from both the transgenic gastrin-deficient mice and the normal mice whose ability to produce gastric acid was inhibited by Prilosec all showed significant inflammatory changes -- including more immune cells called lymphocytes -- and greater numbers of bacteria.
- Gastritis that developed in mice on Prilosec resolved after 20 days of antibiotic treatment, despite continued Prilosec treatment and low stomach acidity.
- The number of acid-producing parietal cells and gastrin-secreting G-cells in the stomach increased in all mice with abnormally low levels of hydrochloric acid. Elevated numbers of parietal and G-cells correlated with the presence of inflammation, not with stomach acidity.
- Elevated levels of gastrin during chronic inflammation suppressed production of a growth hormone called somatostatin, which inhibits parietal and G-cell function. When the inflammation subsided following antibiotic treatment, gastrin levels returned to normal releasing the hormonal brake inhibiting somatostatin.

The findings show that changes observed in gastrin-deficient mice are caused by inflammation triggered by an overgrowth of many bacterial species,. An abnormally low level of acidity in the stomach is the factor initiating all these events.

Gastroenterology and The American Journal of Physiology January 2002

Dr. Mercola's Comments:

Prilosec and Prevacid were found to be ineffective for many. This article will offer natural options to these expensive and potentially dangerous drugs.

A recent online survey of over 4200 patients taking Priolosec or Prevacid found:

- 35% to 41% of the respondents continue to experience daily heartburn symptoms.
- As many as 60% of the respondents reported experiencing symptoms three or more times per week.
- 75% of PPI patients also take nonprescription medications, such as Pepcid, Maalox and Tums.
- Up to 25% of the respondents said they take over-the-counter medications in place of their prescription medication.

The January 8, 2001 issue of Business Week mentions that Priolsec is the top selling prescription drug in the world. It earns Astra Zeneca (the drug"s maker) 6 billion dollars per year.

The drug, and others like it, clearly are effective at what they do or there is no way in the world these companies could convince people to buy them. BUT they do NOT solve the problem. In fact, they actually worsen it.

Then, when you are using the wrong solution for the problem, you are bound to have problems. Drugs are rarely, if ever, indicated for the common ulcer and associated stomach problems. The proton pump inhibitors like Prevacid and Prilosec and the H2 blocker agents like Tagament, Pepcid, and Zantac are some of the worst drugs that you could possible take.

Why?

They significantly reduce the amount of acid you have and with that your ability to properly digest food. Reduction of acid in the stomach also diminishes your primary defense mechanism for food borne infections and will increase your risk of food poisoning.

What are the options? Normally following the food choice program and drinking about one gallon of pure water per day along with high doses of a good quality probiotic (beneficial bacteria) is enough to restore normal stomach function in the vast majority of patients.

Occasionally, those with a hiatal hernia will require additional structural adjustments and the one I currently find that works the best is NST.

Garlic is one food that you should be eating every day. Dr. Klinghardt and I are very impressed with its ability to optimize bowel flora and kill pathogenic organisms such as H. pylori.

It is important to note that the garlic MUST be fresh. The active ingredient is destroyed within several hours of smashing the garlic. Garlic pills are virtually worthless and should not be used. When you use the garlic it will be important to compress the garlic with a spoon prior to swallowing it if you are not going to juice it. If you swallow the clove intact you will not convert the allicin to its active ingredient.

One problem, of course, is the smell, but generally a few cloves a day are tolerated by most people. If one develops a "socially offensive" odor then all you do is slightly decrease the volume of garlic until there is no odor present.

Related Articles:

RAW Garlic For Parasites and Viral Infections

Herbal Therapy Works On Acid Reflux

Reference website: http://articles.mercola.com/sites/articles/archive/2002/02/06/acid-production.aspx