

History of H. Pylori

Introduction

Peptic ulceration is a result of *Helicobacter pylori*, a gastric spirochaetal organism present in the stomach. The presence of these infectious microbes was discovered nearly 120 years ago, but its physiology, lifespan and health impact on humans was never understood that well until 1982 when Marshall and Warren revolutionized the world of gastric microbiology (Dunn et al. 1997; Lynch 1997; Buckley and O'Morain 1998). It is the research by Marshall and Warren that connected *Helicobacter pylori* to stomach ulcers and until today no gastric microbiologists has come up with an upgrade or dispute to the 1982 stipulations.

Dunn et al (1997) maintain that *Helicobacter pylori* is found in the human stomach in the whole world. In third world countries, it is reported that 70-90% of the population are carriers of the microorganism and that nearly all of them get infected under the age of 10. In the developed countries, 25-50% of the population carries the bacteria.

There is also another organism, *Helicobacter heilmanii* that is also suspected to be present, but its connection to peptic ulceration, gastric carcinoma or gastric lymphoma in humans has not yet been established. The microorganism is, however, found in cats and dogs and its treatment is similar to that used for *Helicobacter pylori* (Dunn et al. 1997; Lynch 1997; Buckley and O'Morain 1998).

Transmission

Warren (1998) asserts that *Helicobacter pylori* is found in the human stomach in most cases, although animals like dogs and cats harbor *Helicobacter heilmannii*. The two are so close in appearance that one might confuse which one is which. Here transmission of *Helicobacter pylori* from one human to another is a substantial subject of discussion. There are two major modes of transmission.

The first and most common mode of transmission is fecal-oral. Fecal treatment and isolation is an important step regarding the eradication of *Helicobacter pylori*, but traces of feces in drinking water is enough to cause peptic ulcers.

The second method of transmission is oral-oral, especially among developing world women in mother-baby feeding situations. Mothers who chew food for their babies unknowingly spread the micro-organisms.

Causes of Peptic Ulcers

The *Helicobacter pylori* is a huge source of gastric inflammation and without early medication intervention might result to bigger problems. The bacteria attack the mucus wall of the stomach and eat it off, leaving blood cells and tissues exposed to the hydrochloric acid found in the stomach. The hydrochloric acid, secreted by parietal cells, causes what is referred to as acidic corrosion. Corrosion is one of the most popular characteristics of hydrochloric acid.

Peptic ulcers are commonly associated with stress, according to psychological studies, but *Helicobacter pylori* is the most common cause. Duodenal ulceration is another infection caused by *Helicobacter pylori*, although it is rare.

Other causes are:

- ✓ Radiotherapy
- ✓ Smoking
- ✓ Stomach cancer
- ✓ Excessive drinking of alcohol
- ✓ Frequent use of aspirin, ibuprofen and other anti-inflammatory drugs.

Symptoms

The symptoms of stomach (peptic) ulcers are many, but pain is the most common. The ulcers, commonly known as stomach wounds get into contact with the hydrochloric acid in the stomach. The result is an extremely painful burning feeling that would leave the patient holding their stomach with both hands with their heads facing down (Dunn et al. 1997; Lynch 1997; Buckley and O'Morain 1998). The pain is aggravated by sitting and standing or even sleeping in certain positions. Ulcers patients are usually advised to keep off from alcohol, cigarettes, pepper, and acidic foods and fruits. Other clinical manifestations of ulcers are as follows:

- ✓ Unexplained weight loss
- ✓ Change of appetite
- ✓ Nausea or vomiting
- ✓ Presence of blood in vomits that is usually indicated by red or black color.
- ✓ Dark blood in feces. Stools appear dark or tarry, indicating the stomach walls are producing blood (Dunn et al. 1997; Lynch 1997; Buckley and O'Morain 1998).

The following shows how the pain may vary depending on circumstances

- ✓ Flare up at night hours; ulcers patients cannot get sleep at night because the pain really intensifies at night. It is unfortunate that pain killers and sleep pills do not do much to neutralize the agony.
- ✓ The pain becomes worse when one is hungry. The presence of food in the stomach occupies the wounds areas in the stomach, preventing acids from getting into contact with them. When one is hungry, however, the otherwise happens (Dunn et al. 1997; Lynch 1997; Buckley and O'Morain 1998). Patients of peptic ulcers are, thus, recommended to eat regularly to control the pain. This is not a curative procedure; it is a pain relieving one.
- ✓ The pain goes away and comes back in a matter of days or weeks.

Treatment

Ulcers are no joke. They can kill somebody if not treated adequately and on time. Upon seeing the above signs in persistence, OTC (over-the-counter) antacids and acid buffers can temporarily relieve the pain. The best thing is to see a doctor.

Helicobacter pylori is a bacterium, so it can be treated by antibiotics. Antibiotics kill the infections in a more promising way than other drugs, but the disease must be diagnosed by a qualified doctor. Rushing to over-the-counter options are immethodical and do not provide reliable solutions.

Proton pump inhibitors (PPIs) also treat ulcers. The doctor will recommend the most appropriate medicine for the patient and the dosage must be completed to guarantee full recovery.

These treatments mostly work for microbe-rooted ulcerations; non-microbial sources are hard to treat. For example, ulcers caused by too much alcohol drinking can be difficult to deal with. Good health habits including regular exercises and dietary control can work miracles in the fight against stomach ulcers. Avoid over-reliance on pain killers to treat cancer. Visiting a doctor for proper diagnosis and treatment is the only way out of this monster disease.

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