

## Germ that causes stomach ulcers protective for oesophageal cancer

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(PhysOrg.com) -- An Australian study has found that a bacterium that causes ulcers and cancers of the stomach appears to dramatically reduce the risk of one particular type of oesophageal cancer.

Dr David Whiteman from the Queensland Institute of Medical Research (QIMR) said <u>Helicobacter pylori</u> might be considered an unusual candidate for protection against gastro-intestinal disease. "We know that H. pylori infection causes gastritis, stomach ulcers and cancers of the stomach, so it might seem odd to propose that this <u>germ</u> could also have benefits."

"Previous research has suggested that H. pylori may actually reduce the risk of oesophageal cancer, but little was known about how it did so."

The study analysed blood samples from more than 2,000 Australian participants (800 with oesophageal cancer and 1,400 without) to determine if they had H. pylori <u>antibodies</u> in their blood. Researchers also determined whether participants carried common genes that are thought to determine a person's response to H. pylori.

"We found that patients with one particular type of oesophageal cancer - adenocarcinomas - were less than half as likely to be infected with H. pylori than people without cancer, whereas patients with squamous cell cancers had a similar rate of infection as people without <u>cancer</u>. In other words, H. pylori infection appeared to reduce the risk of adenocarcinoma by more than 50%."



The investigators had expected to find that the protective effects of H. pylori infection might be restricted to those people carrying certain genes that regulate inflammation, but they found that the reduction in risk was the same regardless of which genes a person had.

"We now need to understand how this <u>bacterium</u> reduces the risk of <u>adenocarcinoma</u> of the oesophagus. We have some theories."

Infection with H. pylori is common worldwide, although the prevalence of infection has declined in Western countries due to smaller family sizes and improved hygiene.

"About 50% of people worldwide have H. pylori living in their stomach. In most, the infection does not cause any symptoms, but in about 10% of people, it causes inflammation of the stomach," said Dr Whiteman.

The study is published in the *Gastroenterology*, and is available <u>online</u>.

Provided by Queensland Institute of Medical Research

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