

中文題目：根除幽門螺旋桿菌可能會增加糖尿病患者自體免疫疾病及發炎性腸炎的發生率

英文題目：Eradication of *Helicobacter pylori* may increase the incidence of autoimmune disease and inflammatory bowel disease in diabetes mellitus patients.

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Introduction:

Helicobacter pylori (*H. pylori*) infection is one of the most widely spread infectious diseases in Taiwan. It can cause chronic gastritis, repeatedly peptic ulcer disease and gastric malignancies in humans. Eradication of *H. pylori* could lower the incidence of related gastrointestinal tract malignancies. However, in recent studies, eradication of *H. pylori* in asymptomatic ulcer patients may cause unexpected consequences, such as higher risk of developing inflammatory bowel disease (IBD) and other autoimmune disease (AD). Here we separated general population and diabetes mellitus (DM) patients and studied the effect of *H. pylori* eradication on these two groups.

Material and methods:

The National Health Insurance Research Database in Taiwan was used to screen for patients >18 years of age without a prior diagnosis of AD or IBD. Diabetes mellitus (DM) patients with peptic ulcer disease (PUD) with *H. pylori* treatment (PUD+HpRx), PUD without *H. pylori* treatment (PUD-HpRx), and Genreal population with peptic ulcer disease (PUD) without *H. pylori* treatment (PUD-HpRx) were matched 1:1:1 for age, gender, income status, Charlson's Comorbidity Index Score, and ulcerogenic medications. IBD group means patients diagnosed with Crohn's disease and chronic ulcerative colitis. Non-IBD AD group means all autoimmune patients except IBD group.

Results:

Of the one million population sampled during 2000-2010, 79,181 eligible patients were included in the study. We found a trend of higher incident rate of AD and IBD compared with non-*H. pylori* eradication groups in diabetes mellitus patients. We also found the incident risk of IBD were lower in the male gender and the older(>35) patients with *H. pylori* eradication.

Conclusion:

The link and mechanism between *H. pylori* infection and IBD was still unclear. Epidemiological data showed that IBD was more prevalent in areas with lower rates of *H. pylori* infection and suggested a possible protective effect of *H. pylori* infection against

IBD and some diseases with an autoimmune component. Our study demonstrates that eradication of *H. pylori* could be associated higher incidence of AD and IBD group compared with non-*H. pyloric* eradication group in diabetes mellitus patients. Subgroup analyses also showed the male gender and the older patients with *H. pylori* eradication may reduce the risk of IBD. It suggested a possible protective role of *H. pylori* infection against the development of IBD. More studies to investigate the effect of *H. pylori* infection eradication on the development and natural history of IBD were needed.