

Factors that alter the progression of atrophic gastritis in patients  
with H. pylori eradication.

by

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## Abstract

**Background:** Atrophy of the gastric mucosa, a preliminary stage of gastric cancer, is known to be caused by *Helicobacter pylori* infection, and eradication therapy is said to restore atrophic mucosa or prevent its progression. Anecdotally, patients with progressive atrophy despite *Helicobacter pylori* eradication can often be found in the clinical setting.

**Methods:** A retrospective open cohort study was conducted. Patients who underwent physical examinations and upper gastrointestinal endoscopy at St. Luke's International Hospital Preventive Medicine Center from 2014 to 2023 were endoscopically evaluated for changes in atrophic gastritis after *Helicobacter pylori* eradication and background factors for progression of atrophic gastritis were analyzed.

**Results:** Multivariate logistic analysis showed that the results of AOR 1.90 (1.26-2.84,  $p=0.002$ ) for those aged 65 years and older, AOR 1.67 (1.12-2.47,  $P=0.011$ ) for fruit intake, HbA1c AOR 1.64 (1.09-2.48),  $P=0.017$ ) for metabolic syndrome AOR 2.29 (1.39-3.78,  $P=0.001$ ), and regular time meals AOR 1.81 (0.98-3.32,  $P=0.058$ ).

**Discussion:** The progression of age-related atrophy is related to residual effects of mutation of gastric mucosal DNA by *Helicobacter pylori*; HbA1c is associated with diabetes and metabolic syndrome with obesity, both risk factors for gastric cancer. These diseases advanced atrophic gastritis, a precursor to gastric cancer. Anemia and smoking, which have been noted in previous studies, were less relevant because the data used in this study were from health-conscious health checkup recipients.

**Conclusion:** In an aging society, improvement of lifestyle-related diseases such as diabetes and obesity is associated with prevention of all cancers, including gastric cancer.

**Keywords:** Atrophic Gastritis, Lifestyle, After Helicobacter pylori eradication