

## Impact of *Helicobacter pylori* treatment on the risk of incident nonalcoholic fatty liver disease

성균관대학교 삼성서울병원 내과

김지원, 김태준, 이혁

**Background/Aims:** Previous studies reported an association between *Helicobacter pylori* (*H. pylori*) infection and nonalcoholic fatty liver disease (NAFLD), yet it is now questioned about whether *H. pylori* treatment reduces the risk for incident NAFLD.

**Methods:** This retrospective cohort study included 3,780 adults without NAFLD at baseline, who had infected with *H. pylori*, between January 1995 and January 2020. *H. pylori* infection was determined by *H. pylori*-specific immunoglobulin G antibody test. Fatty liver was diagnosed by ultrasound.

**Results:** During a median follow-up of 7.9 years, NAFLD developed in 1,294 participants. In a multivariable model adjusted for age, sex, body mass index (BMI), smoking status, alcohol intake, and metabolic variables, the no-treatment (for *H. pylori*) group exhibited a higher risk of incident NAFLD than the treatment group [hazard ratio (HR), 1.36; 95% confidence interval (CI), 1.18-1.56]. In the multivariable analysis, higher BMI (HR, 1.19; 95% CI, 1.16-1.22), current smoking (HR, 1.27; 95% CI, 1.10-1.45), several metabolic abnormalities (higher glucose level, lower high-density lipoprotein cholesterol level, and higher triglycerides level) were significant risk factors for NAFLD. Subgroup analysis also revealed that no-treatment for *H. pylori* infection was correlated to an increased risk of NAFLD.

**Conclusions:** *H. pylori* treatment was associated with a decreased risk of NAFLD development. *H. pylori* infection may have a pathophysiological role in NAFLD development and, after successful eradication of *H. pylori*, the risk of incident NAFLD might decrease.

