Eradication of Helicobacter pylori reduces metachronous gastric cancer after endoscopic resection of early gastric cancer

Background: Although some studies have shown improvement of precancerous lesions and a decrease of metachronous gastric cancer after eradication of Helicobacter pylori, this is still controversial. We conducted this study to prove the effect of eradication after endoscopic resection of early gastric cancer.

Materials and Methods: We identified 129 patients with early gastric cancer and who had their H. pylori eradicated after undergoing endoscopic resection between September, 2003 and September, 2010. Patients with positive or unknown resection margins were excluded. The success of eradication was verified by the campylobacter-like organism test, the urea breath test and the histology. The endoscopic biopsy specimens were reviewed on the basis of the Updated Sydney System before and after eradication. Relapse of gastric cancer was assessed from the medical records.

Results: Among the 74 study patients, 61 patients (82.4%) were successively eradicated. The mean time after endoscopic resection to follow-up was 27.2±18.7 months (mean±standard deviation). H. pylori colonization ($p<0.001$), neutrophil infiltration ($p<0.001$), mononuclear cell infiltration ($p<0.001$) and intestinal metaplasia ($p=0.03$) decreased after eradication; however, gastric atrophy did not significantly decrease ($n=33$, $p=0.561$). For all the patients, metachronous gastric cancer showed a decrease in the eradicated group, but this did not reach statistical significance (OR: 0.36, 95% CI: 0.07-1.70, $p=0.17$). However, when restricted to those patients who were followed up more than 18 months, metachronous gastric cancer was significantly decreased in the eradicated group (OR: 0.108, 95% CI: 0.016-0.726, $p=0.04$).

Conclusions: Eradication of H. pylori decreased the precancerous lesions, and when following up for more than 18 months, eradication also reduced the metachronous gastric cancer. We suggest eradicating H. pylori after endoscopic resection of gastric cancer.