EDITOREAL

Korean J Intern Med 2023;38:141-143
https://doi.org/10.3904/kjim.2023.039

Helicobacter pylori eradication reduces risk for recurrence of gastric hyperplastic polyp after endoscopic resection

Woo Chul Chung

Department of Internal Medicine, St. Vincent Hospital, College of Medicine, The Catholic University of Korea, Seoul, Korea

See Article on Page 167-175

Gastric hyperplastic polyps are the most common type of polypoid lesion of the stomach. These are inflammatory proliferations of gastric foveolar cells due to chronic inflammation caused by *Helicobacter pylori* (*H. pylori*) infection [1]. It has been known that eradication of *H. pylori* could lead to the disappearance or regression of gastric hyperplastic polyps [2]. In Japan and China studies, they reported that the rate of disappearance of gastric hyperplastic polyps after *H. pylori* eradication was 68–85% [2-6]. Also, Japanese and British guidelines recommend *H. pylori* eradication as first treatment in patients with gastric hyperplastic polyps [7,8].

Until now, there is limited data on the efficacy of *H. pylori* eradication for gastric hyperplastic polyps in Korea. Previously, *H. pylori* eradication might be an effective therapeutic option for gastric hyperplastic polyps, and especially for those that are less than 10 mm in size (42.5% vs. 22.2%, $p < 0.05$) [9,10]. In National Cancer Screening Cohort, successful eradication of *H. pylori* infection may induce disappearance of gastric hyperplastic polyps (85.0% vs. 29.0%, $p < 0.01$), although only patients with *H. pylori* eradication therapy were targeted [11]. In prospective study that enrolled 25 *H. pylori*-positive patients diagnosed as having gastric hyperplastic polyps, *H. pylori* eradication (odds ratio, 40.047; 95% confidence interval, 1.112–1442.767; $p = 0.04$) and female sex were significant predictive factors of polyp regression [12]. The domestic clinical studies conducted so far are summarized in the Table 1 [9-14]. However, there are several limitations, and most of studies are relatively small size. Second, we have to consider that small portion of gastric hyperplastic polyps can turn into gastric cancer. Third, *H. pylori* eradication treatment does not eliminate all cases of gastric hyperplastic polyps, and there are no studies on recurrence of gastric hyperplastic polyps after *H. pylori* eradication. Long-term follow-up is required for the disappearance and recurrence of polyps.

In this study, authors focused on the effect of *H. pylori* eradication on the recurrence of gastric hyperplastic polyps after endoscopic resection [15]. Most artificial ulcers caused by endoscopic submucosal resection (EMR) or dissection healed similarly to benign gastric ulcer scars, but in several cases, they would take the form of protruded lesions. According to a previous report, protruded lesions occurred in about 18.8% of EMR scars, and intestinal metaplasia/regenerative hyperplasia were shown in histological examination [16]. All of them were benign lesions unrelated to the recurrence of primary lesions. In the

Received : January 24, 2023
Accepted : February 13, 2023

Correspondence to
Woo Chul Chung, M.D., Ph.D.
Department of Internal Medicine, St. Vincent Hospital, College of Medicine, The Catholic University of Korea, 93 Jungbu-daero, Paldal-gu, Suwon 16247, Korea
Tel: +82-31-249-7138
Fax: +82-31-253-8898
E-mail: jwchulkr@catholic.ac.kr
https://orcid.org/0000-0003-1044-0440

Copyright © 2023 The Korean Association of Internal Medicine
This is an Open Access article distributed under the terms of the Creative Commons Attribution Non-Commercial License (http://creativecommons.org/licenses/by-nc/4.0/) which permits unrestricted noncommercial use, distribution, and reproduction in any medium, provided the original work is properly cited.

pISSN 1226-3303
eISSN 2005-6648
http://www.kjim.org

Table 1. Clinical trials of *Helicobacter pylori* eradication therapy for gastric hyperplastic polyps conducted in Korea

Study	No. of patients	Design	Duration, months	Polyp regression/disappearance
Kim et al. [9] (2005)	34	Prospective	22	Complete response, 35.2% (12/34) Regressed in partial response, 47.1% (16/34)
Lim et al. [10] (2011)	187	Prospective	15	Complete regression (42.5% vs. 22.2%, $p < 0.05$)
Nam et al. [11] (2016)	331	Retrospective	120	Disappearance of hyperplastic polyps Eradicated vs. persistent *Helicobacter pylori*-positive group (85.0 vs. 29.0%, $p < 0.01$)
Nam et al. [12] (2018)	183	Retrospective	22	Complete regression (83.7% vs. 34.1%, $p < 0.01$)
Yoo et al. [13] (2019)	25	Prospective	12	≥ 50% reduction in size Eradication group (70.8%, 12/17) vs. non-eradication group (50.0%, 4/8) ($p = 0.03$)
Nam et al. [14] (2020)	27	Randomized clinical trial	11.2–12.3	Regression of gastric hyperplastic polyps Eradication group (57%, 8/14) vs. non-eradication group (0%, 0/13)

period when there is not much experience of EMR, it was natural to suspect recurrence by looking at the protruded lesions after the procedure. However, most were turned out to be benign lesions, and histologic findings were very similar to those of gastric hyperplastic polyps. In this study, recurrent gastric polyps developed after EMR in 19.2% of the non-eradication group and 8.1% of the eradication group during the mean follow-up period of 18.3 months. Successful eradication of *H. pylori* may reduce the recurrence of gastric hyperplastic polyps in patients after EMR.

In the near future, large-scale multicenter studies organized by academic societies or national institutions would be expected on the efficacy of *H. pylori* eradication for gastric hyperplastic polyps. We hope to include the patients with *H. pylori*-positive gastric hyperplastic polyps in the Korean *H. pylori* treatment guidelines, and insurance reimbursement criteria.

Conflict of interest

No potential conflict of interest relevant to this article was reported.

REFERENCES

1. Horvath B, Pai RK. Prevalence of Helicobacter pylori in gastric hyperplastic polyps. Int J Surg Pathol 2016;24:704-708.
2. Kume K, Hirakoba M, Murata I, Yoshikawa I, Otsuki M. Disappearance of both MALT lymphoma and hyperplastic polyps in the stomach after eradication of Helicobacter pylori. Am J Gastroenterol 2001;96:2796-2797.
3. Suzuki S, Ohkusa T, Shimoi K, Horiuchi T, Fujiki K, Takashimizu I. Disappearance of multiple hyperplastic polyps after the eradication of Helicobacter pylori. Gastrointest Endosc 1997;46:566-568.
4. Ohkusa T, Takashimizu I, Fujiki K, et al. Disappearance of hyperplastic polyps in the stomach after eradication of Helicobacter pylori. A randomized, clinical trial. Ann Intern Med 1998;129:712-715.
5. Ohkusa T, Miwa H, Hojo M, et al. Endoscopic, histological and serologic findings of gastric hyperplastic polyps after eradication of Helicobacter pylori: comparison between responder and non-responder cases. Digestion 2003;68:57-62.
6. Ji F, Wang ZW, Ning JW, Wang QY, Chen JY, Li YM. Effect of drug treatment on hyperplastic gastric polyps infected with Helicobacter pylori: a randomized, controlled trial. World J Gastroenterol 2006;12:1770-1773.
7. Asaka M, Kato M, Takahashi S, et al. Guidelines for the management of Helicobacter pylori infection in Japan: 2009 revised edition. Helicobacter 2010;15:1-20.
8. Goddard AF, Badreldin R, Pritchard DM, Walker MM, Warren B; British Society of Gastroenterology. The management of gastric polyps. Gut 2010;59:1270-1276.
9. Kim GW, Kim JH, Yoon YH, et al. The effect of Helicobacter pylori eradication in benign gastric polyps: a preliminary study. Korean J Helicobacter Up Gastrointest Res 2005;5:6-13.

https://doi.org/10.3904/kjim.2023.039

10. Lim SA, Yun JW, Yoon D, et al. Regression of hyperplastic gastric polyp after Helicobacter pylori eradication. Korean J Gastrointest Endosc 2011;42:74-82.
11. Nam SY, Park BJ, Ryu KH, Nam JH. Effect of Helicobacter pylori infection and its eradication on the fate of gastric polyps. Eur J Gastroenterol Hepatol 2016;28:449-454.
12. Nam SY, Park BJ, Ryu KH, Nam JH. Effect of Helicobacter pylori eradication on the regression of gastric polyps in National Cancer Screening Program. Korean J Intern Med 2018;33:506-511.
13. Yoo AY, Park JJ, Joo MK, Lee BJ, Chun HJ, Lee SW. Change in size of gastric hyperplastic polyps after Helicobacter pylori eradication: a prospective study. Korean J Helicobacter Up Gastrointest Res 2019;19:236-244.
14. Nam SY, Lee SW, Jeon SW, Kwon YH, Lee HS. Helicobacter pylori eradication regressed gastric hyperplastic polyp: a randomized controlled trial. Dig Dis Sci 2020;65:3652-3659.
15. Cho YS, Nam SY, Moon HS, Kim TH, Kim SE, Jung JT. Helicobacter pylori eradication reduces risk for recurrence of gastric hyperplastic polyp after endoscopic resection. Korean J Intern Med 2023;38:167-175.
16. Cheon YK, Ryu CB, Ko BM, et al. A clinical study of protruding lesions that arise at the scar of an endoscopic mucosal resection for an early gastric carcinoma and a gastric flat adenoma. J Gastric Cancer 2001;1:55-59.