

## *Helicobacter pylori*

### Association between *Helicobacter pylori* and Colorectal Neoplasm

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**Purpose :** *Helicobacter pylori* infection has been reported as a major factor of chronic gastritis, peptic ulcer, gastropharyngeal cancer, and stomach cancer. In some uncontrolled studies, a high seroprevalence of *H. pylori* infection unexpectedly has been found in patients with colorectal cancer. The purpose of this study was to investigate the prevalence of *H. pylori* infection in patients with colorectal neoplasms.

**Methods :** 93 colonic tissue samples were collected from the colonoscopic biopsy. The specimens included polypoid cancer, and normal colonic mucosa. The CLO test™ (Delta West Ltd., Bentley, Western Australia) was used for the detection of *H. pylori*. The SAS program (USA) was used for the Fisher's exact test.

**Results :** *H. pylori* infection was detected in 11 (11.8%) of 93 specimens, 7 (25.7%) of 27 in cancers and 3 (6.0%) of 43 in polyps. Significantly higher *H. pylori* infection was detected in the colorectal cancers than non-cancer patients (p=0.012) and polyps (p=0.038).

**Conclusions :** These results suggest a statistically significant association between *H. pylori* and colorectal neoplasms. The mechanism underlying this association needs to be investigated. **JKSCP 2001;17:125-129**

**Key Words :** *Helicobacter pylori*, Colorectal neoplasms, CLO test

*Helicobacter pylori* ( *H. pylori*) 1983 Warren Marshall

1-6  
*H. pylori*  
2 *H. pylori*

6 *H. pylori*  
가 , 7-11 *H. pylori*가

1)  
1998 3 2000 1

93  
27 , 43 , CLO test  
가 23

2)  
CLO test™ kit (Delta West Ltd., Bentley, Western Australia)

6가 70  
( : 110-783)  
Tel: 02-760-5165, Fax: 02-760-5681  
E-mail: eastgate@mm.ewha.ac.kr

2000

. 24

, 24



Fig. 1. CLO test kit indicates positive result as red color and negative result as yellow color.

Table 1. CLO test positive rate

	Colorectal cancer	Polyp	Normal
Total (n)	27	43	23
CLO positive [n, (%)]	7 (25.9%)	3 (6.9%)	1 (4%)

Table 2. CLO test positivity in colorectal cancer and non-cancer groups

	Colorectal cancer (n=27)	Non-cancer (n=66)	p-value
CLO (+)	7	4	p=0.012
CLO (-)	20	62	

Table 3. CLO test positivity in colorectal cancer and polyp groups

	Colorectal cancer (n=27)	Polyp (n=43)	p-value
CLO (+)	7	3	p=0.038
CLO (-)	20	40	

24  
24  
(Fig. 1).

3)

SAS (USA)  
, Fisher's exact test p < 0.05

1) CLO test

93 CLO test 11  
11.8% CLO test  
CLO test 27 7 (25.7%),  
43 3 (6.9%), 23 1 (4%)  
(Table 1).

2)

CLO test  
CLO test 27 7 가 CLO test  
25.7% 66  
4 CLO test 6%

(p=0.012)(Table 2).

3)

CLO test

27 43 CLO test  
CLO test 27 7 (25.7%),  
43 4 (6.9%)  
가 (p=0.038)(Table 3).

4)

CLO test

(carcinoma in situ) (ad-  
vanced cancer) CLO test  
. 27 12 ,  
15 , CLO test 2  
, 5 CLO test  
가 (p > 0.05)(Table 4).

5)

CLO test

(hyperplastic) (adenomatous)

**Table 4.** CLO test positivity in early and advanced cancer groups

	Early cancer (n=12)	Advanced cancer (n=15)	p-value
CLO (+)	2	5	NS*
CLO (-)	10	10	

\*NS = Statistically not-significant (p > 0.05)

**Table 5.** CLO test positivity in hyperplastic and adenomatous polyp groups

	Hyperplastic polyp (n=12)	Adenomatous polyp (n=31)	p-value
CLO (+)	0	3	NS*
CLO (-)	12	28	

\*NS = Statistically not-significant (p > 0.05)

CLO test  
12 CLO test  
, 29 3  
(Table 5).

*H. pylori* - *H. pylori*가  
1,2,6,12-17  
*H. pylori* 가  
7-9  
*H. pylori*  
*H. pylori* 가  
1,2  
가 18 29  
10% 20%  
, 50 60  
50%가  
12  
20 29 58.7%, 40 49 76.9%, 50 59 71.9%  
54.3% 12

*H. pylori*  
37가  
12,14,18  
*H. pylori*가  
, ,  
12,13  
,  
15  
*H. pylori*  
2  
가  
, touch print Gram ,  
(rapid urease test) . War-  
thin-Starry silver , Giemsa , acridine orange  
2  
2,4  
*H. pylori*  
1  
가 CLO  
test CLO test 가  
CLO test 가  
98%, 100% 2  
C<sup>13</sup> C<sup>14</sup>-  
(urea breath test)가  
IgG 가  
(ELISA)  
10 U/l ,  
96%, 94% 16,17,19 C<sup>13</sup> C<sup>14</sup>-  
가  
*H. pylori*  
*H. pylori*  
*H. pylori*  
49%, 71.4%,  
55%  
8,9 *H. pylori*  
*H. pylori* gastrin  
가 gastrin

trophic effect  
 Gastrin  
 G cell , gastrin  
 gastrin 가 H. pylori  
 gastrin 가 H. pylori  
 test , H. pylori  
 H. pylori  
 pylori  
 , H. pylori  
 55%, 71.4%  
 CLO test  
 11.8%,  
 25.7%, 6.9%  
 H. pylori  
 test  
 20%  
 H. pylori  
 가  
 H. pylori  
 H. pylori

가

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- 15.

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- Rebamipide  
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