

, * , † ,

. . . . * . † .

The Significance of Synchronous Colorectal Polyps in Colon Cancer Proximal to the Splenic Flexure

Jin Suk Kim, M.D., Won Ho Kim, M.D., Jung Sun Kim, M.D.
 Yong Suk Cho, M.D., Nam Kyu Kim, M.D.*, Hoguen Kim, M.D. †
 and In Suh Park, M.D.

Department of Internal Medicine, *General Surgery and †Pathology, Institute of Gastroenterology,
 Yonsei University College of Medicine, Seoul, Korea

Background/Aims: The aim of this study was to evaluate the characteristics of colorectal polyps, especially distal colorectal polyps and their frequency in patients with colon cancer located proximal to the splenic flexure. **Methods:** Among 1,250 patients with colorectal cancer, 269 patients (21.5%) had colon cancer located proximal to the splenic flexure. Of these, 183 patients were involved in this study because complete colonoscopic evaluations to the cecum or to the level of proximal colon cancer were possible. **Results:** 54 patients (29.5%) had one or more distal colorectal polyps, 33 patients (18.1%) had one or more adenomatous distal polyps, and 3 patients (1.6%) had synchronous distal carcinoma. The percentage of patients without distal polyps was 70.5% of 183 patients with proximal colon cancer, and 80.3% of patients without distal neoplastic lesions. The percentage of patients with advanced lesions (villous component, high-grade dysplasia, or ≥ 1 cm in diameter) was 40.7% of 54 patients with distal colorectal polyps. **Conclusions:** Flexible sigmoidoscopy is insensitive and ineffective for the detection of proximal colon cancer. Ongoing evaluation of colonoscopy as a general screening test is appropriate. (*Korean J Gastrointest Endosc* 2000;20:177 – 182)

Key Words: Proximal colon cancer, Flexible sigmoidoscopy, Colonoscopy, Screening test

1
 S
 S (adenoma)
 가 (colonoscopy)
 .2 S
 (flexible sigmoidoscopy) (polyp)
 가 ,
 (neoplastic)
 (synchronous) 가
 : 1999 8 31 , : 1999 11 11
 : , 134
 : 120-752,
 Tel: 361-5435, Fax: 393-6883
 E-mail: kimwonho@yumc.yonsei.ac.kr

S 가 가
 , S - 가 가
 60 cm S 16%
 (splenic flexure)
 .3 S
 , S
 가 가 가
 가
 .5
 3.
 , S
 , 2
 , 가 가
 (index polyp)
 ,
 (carcinoma) ,
 (hyperplastic), (inflammatory),
 (hamartomatous), (submucosal)
 (tubular), - (tubulovillous),
 (villous)
 25% ,
 25% 75% - , 75%
 .6
 1.
 1995 1 1998 9
 1,250 4.
 269 ,
 183 .
 57.5 (27 88) 103 , 80 , 2 Fisher's Exact test
 1.3 : 1 . independent-samples T test
 2.
 1988
 4 , 1.
 (ulcerative), (polypoid), (villous),
 (ulcerative-fungating), (fungating), -
 (annular constrictive) 127 , 30 , 26 .
 (expanding), 183 1
 (expanding and infiltrative) 70 (38.3%)
 (infiltrative) 139 . 70
 (papillary adenocarcinoma), (tubular adeno- 16 ,

21
33
37 54 (29.5%) (Table 1).
139
61 (43.9%) ,
78 (56.1%) . 139
99 (71.2%) 54 , 45
가 3 (2.2%)
102 73.4% ,
54 , 48 .
12 (8.6%), (, ,
,) 25 (18%) (Table 2).
10.01 ± 6.83 mm,
4.76 ± 1.28 mm (p < 0.05)

Table 1. Synchronous Colorectal Polyps in 183 Patients with Proximal Colon Cancer

	Proximal* No. of pts § (n=37)	Distal † No. of pts (n=54)	Total ‡ No. of pts (n=70)
Adenoma	31	33	48
Synchronous carcinoma	0	3	3
Hyperplastic polyp	2	9	10
Other polyp	4	9	9

*, proximal colon; †, distal colon; ‡, total colon; §, number of patients.

Table 2. Histologic Characteristics of 139 Colorectal Polyps Associated with Proximal Colon Cancer

Histology	Proximal* No. of Polyps ‡	Distal † No. of Polyps
Neoplastic	54	48
Tubular	52	37
Tubulovillous	2	6
Villous	0	2
Adenocarcinoma	0	3
Non-neoplastic	7	30
Hyperplastic	2	10
Others	5	20
Total	61	78

*, proximal colon; †, distal colon; ‡, number of polyps.

2.
183
54 (29.5%) . 1
33 (18.1%) 3 (1.6%) 가
36
183 19.7% . 9
(4.9%)
가
70.5% 80.3% (Table 3). Table 4
54
. 2
17 (31.5%) , 가 1 cm
21 (38.9%) .

Table 3. Probability of Synchronous Distal Colorectal Polyps in 183 Patients with Proximal Colon Cancer

	No. of patients (n=183)	%
Adenoms	33	18.1
Tubular	27	
Tubulovillous	4	
Villous	2	
Synchronous carcinoma	3	1.6
Hyperplastic polyp	9	4.9
Other polyp	9	4.9
No polyps	129	70.5

Table 4. Characteristics of Distal Colorectal Polyps

	No. of patients (n=54)	%
No. of polyps		
1	37	68.5
2	10	18.5
3	7	13.0
Size of largest polyp		
< 1 cm	33	61.1
1-2 cm	18	33.3
> 2 cm	3	5.6
Advanced or non-advanced		
Advanced*	22	40.7
Non-advanced	32	59.3

*, lesion with villous component, high-grade dysplasia, or 1 cm in diameter.

Table 5-1. Characteristics of Colon Cancer Proximal to Splenic Flexure According to the Presence or Absence of Distal Colorectal Polyps

	Distal polyp		P-value
	Presence	Absence	
Site			0.464
Ascending	41	86	
Hepatic flexure	7	23	
Transverse	6	20	
Size*			
Longitudinal	6.3±2.6	6.7±3.0	0.434
Transverse	4.8±1.9	5.2±2.1	0.199
Gross			0.215
Polypoid	4	2	
Villous	1	0	
Ulcerative	9	24	
Fungating	9	27	
Ulcerofungating	21	57	
Annular constrictive	6	17	
Infiltration			0.548
Expanding	7	19	
Expanding & infiltrative	17	53	
Infiltrative	24	50	
Histology			0.238
Well differentiated TA †	12	18	
Moderately differentiated TA	32	75	
Poorly differentiated TA	1	12	
Undifferentiated TA	0	1	
Mucinous adenocarcinoma	9	21	

*, mean ± standard deviation (mm); †, Tubular adenocarcinoma.

Table 5-2. Characteristics of Colon Cancer Proximal to Splenic Flexure According to the Presence or Absence of Distal Colorectal Polyps

	Distal polyp		P-value
	Presence	Absence	
Depth of invasion			0.694
Proper muscle	3	4	
Subserosa	33	93	
Serosa exposure	7	13	
Serosa infiltration	5	12	
Lymph node invasion			0.935
Positive	20	50	
Negative	28	72	
Vessle invasion			0.977
Positive	7	18	
Negative	41	104	
Stage			0.698
B1	2	3	
B2	23	60	
B3	1	6	
C2	13	38	
C3	2	2	
D	11	19	

가 가

13

10

180

(staging)

- 가

1 cm

54

40.7% 가

3.

183

170

, 3

10

13

가

가

가가 가

170

가

2

S

,7 Schoen 8

0.05)(Table 5-1, 5-2).

(p >

S

가

가

	가	가	S
:	1,250		
	269 (21.5%)	183	: 183
(29.5%)	1	54	
33 (18.1%)	3 (1.6%)	가	
	36 (19.7%)		
	가	70.5%	80.3%
		54	
		22 (40.7%)	
	가	:	
	S		
S			
	가		가
		S	

1. Levin B, Murphy GP. Revision in American Cancer Society

recommendation for the early detection of colorectal cancer. CA Cancer J Clin 1992;42:296-299.

- Warden MJ, Petrelli NJ, Herrera L, Mittelman A. The role of colonoscopy and flexible sigmoidoscopy in screening for colorectal carcinoma. Dis Colon Rectum 1987;30:52-54.
- Lehman GA, Buchner DM, Lappas JC. Anatomical extent of fiberoptic sigmoidoscopy. Gastroenterology 1983;84:803-808.
-
-
- Bresalier RS, Kim YS. Malignant neoplasms of the large intestine. In: Feldman M, Scharschmidt BF, Sleisenger MH, eds. Gastrointestinal and liver disease. Philadelphia: WB Saunders, 1998:1906-1942.
- Konishi F, Morson BC. Pathology of colorectal adenomas: a colonoscopic survey. J Clin Pathol 1982;35:830-841.
- Zarchy TM, Ershoff D. Do characteristics of adenomas of flexible sigmoidoscopy predict advanced lesions of baseline colonoscopy? Gastroenterology 1994;106:1501-1504.
- Schoen RE, Corle D, Cranston L, et al. Is colonoscopy needed for the nonadvanced adenoma found on sigmoidoscopy? Gastroenterology 1998;114:533-541.
- Atkin WS, Cuzick J, Northover JMA, Whynes DK. Prevention of colorectal cancer by once-only sigmoidoscopy. Lancet 1993; 341:736-740.
- Dinning JP, Hixson LJ, Clark LC. Prevalence of distal colonic neoplasia associated with proximal colon cancers. Ann Intern Med 1994;124:853-856.
- Castiglione G, Ciatto S, Mazzotta A, Grazzini G. Sensitivity of screening sigmoidoscopy for proximal colorectal tumors. Lancet 1995;345:726-727.
- Lemmel GT, Haseman JH, Rex DK, Rahmani E. Neoplasia distal to the splenic flexure in patients with proximal colon cancer. Gastrointest Endosc 1996;44:109-111.
- Mandel JS, Bond JH, Church TR, et al. Reducing mortality from colorectal cancer by screening for fecal occult blood. N Engl J Med 1993;328:1365-1371.
- Lang CA, Ransohoff DF. Fecal occult blood screening for colorectal cancer: Is mortality reduced by chance selection for screening colonoscopy. JAMA 1994;271:1011-1013.
-

가 () 1998;18:108.