

Supplementary Table 1. Study Characteristics

Author, yr	Country	Design	Sample size, No.	Age, yr	Male gender, %	Inclusion criteria	Exclusion criteria	Colonoscopy follow-up	Endpoint definition of advanced neoplasia	Conclusion
Winawer et al., ⁶ 1993 National Polyp Study	USA	Multi-center, RCT for timing of surveillance	1,418	61.2±10.2 ^{a)}	70	First diagnosis of adenoma; complete clearing colonoscopy; no family or personal history of FAP, IBD	CRC or malignant polyps (invading beyond the muscularis mucosa); sessile adenoma with a base > 3 cm; non-neoplastic polyp; no polyps	At 1+3 yr vs. at 3 yr	Advanced colorectal neoplasia: adenoma >1 cm, high grade dysplasia, or CRC	After colonoscopy with removal of all polyps, colorectal examination at 4 yr resulted in a similar risk of new adenomas and significant neoplasia compared with examinations at 2 and 4 yr.
Jorgensen et al., ⁹ 1995 Funen Adenoma Follow-up Study	Denmark	Single center, RCT for timing of surveillance	673	28-77 ^{b)}	56.8	Newly diagnosed pedunculated adenomas and small sessile tubular or tubulovillous adenomas	CRC; history of colorectal neoplasia; FAP	Every 2 yr vs. every 4 yr	Significant neoplasia: CRC or adenoma with villous structure, severe dysplasia, or a diameter >10 mm	Colonoscopy performed 3 yr after colonoscopic removal of adenomatous polyps detects important colonic lesions as effectively as follow-up colonoscopy after both 1 and 3 yr.
van Stolk et al., ⁵⁰ 1998 Antioxidant Polyp Prevention Trial	USA	Multi-center, analysis of chemoprevention RCT data	479	60 (25-78) ^{c)}	77	First diagnosis of adenoma within 3 mo of enrollment; <80 yr; in good health	CRC; FAP; malabsorption syndromes; any condition potentially worsened by vitamins C or E	At 1 (clearing colonoscopy) +4 yr	Clinically important adenoma: adenoma ≥1 cm, villous, or severe dysplasia	Patients with 1 or 2 tubular adenomas constitute a low-risk group for whom follow-up might be extended beyond 3 yr.
Noshirvani et al., ³¹ 2000 Cleveland Clinic Foundation Adenoma Registry	USA	Single-center, prospective cohort study	697	NA	73.3	Patients with adenoma removal; surveillance colonoscopy within 10-42 mo	CRC; UC; FAP	10-42 mo (mean, 18 mo)	Significant outcome 1: tubulovillous adenoma, villous adenoma, high grade dysplasia/carcinoma <i>in situ</i> , invasive cancer or size of ≥1 cm	Patients with 1 or 2 adenomas all measuring less than 1 cm are an identified low risk group and their first surveillance examination may be delayed beyond the standard 3 yr.
Martinez et al., ⁵¹ 2001 Wheat bran fiber trial	USA (Arizona)	Multi-center, analysis of chemoprevention RCT data	1,287	66.2 (40-80) ^{d)}	66.8	Patients with adenomas (≥3 mm); 40-80 yr	IBD; hereditary colon cancer syndromes	At 1 (clearing colonoscopy) +3 yr	Advanced lesion: adenoma ≥10 mm, tubulovillous/villous histology, or all colon cancers	Large or proximally located adenomas are important indicators of recurrence of advanced lesions.
Nusko et al., ³² 2002 Erlangen Registry of Colorectal Polyps	German	Prospective cohort study	1,159	NA	NA	First diagnosis of adenoma	CRC; family history of FAP, HNPCC, IBD	Single adenoma: every 4 yr/multiple adenomas: every 2 yr	Adenoma of advanced pathology: >10 mm in size, with high grade dysplasia, or invasive carcinoma	Surveillance intervals can be scheduled for low risk (10 yr) and high risk (3 yr) patients.

Supplementary Table 1. Continued

Author, yr	Country	Design	Sample size, No.	Age, yr	Male gender, %	Inclusion criteria	Exclusion criteria	Colonoscopy follow-up	Endpoint definition of advanced neoplasia	Conclusion
Bertario et al., ¹⁰ 2003	Italy	Single-center, prospective cohort study	1,086	61 (24-87) ^(c)	55	Patients were referred for colonoscopies because of either positive FOBT or family history of CRC	History of adenoma or CRC; non-neoplastic polyps; history or suspected pt with possible genetic syndrome	At 1 yr → if negative: every 3 yr if negative.	Advanced metachronous features: CRC or severe dysplasia	Endoscopic polypectomy is able to reduce by 50% the incidence of CRC in patients with large bowel adenomas.
Bonithon-Kopp et al., ⁴⁹ 2004	Europe	Multi-center, analysis of chemoprevention RCT data	552	58.8±8.8 for calcium group 59.1±8.9 for fiber group 59.3±8.4 for placebo group	NA	≥2 adenomas or a single adenoma >5 mm in diameter; complete index colonoscopy; 35-75 yr; no debilitating or life threatening disease	CRC; FAP; IBD; colonic resection; contraindications to calcium or fiber; current calcium treatment or fiber supplementation	At 3 yr	Advanced adenoma: adenoma ≥10 mm, moderate/severe dysplasia, or tubulovillous/villous adenoma	Follow-up colonoscopies in patients with adenomas should include careful examination of the proximal colon. The time interval between follow-up examinations could probably be extended beyond 3 yr in patients who have only one or two distal adenomas.
Kim et al., ³³ 2004	Korea	Single-center, retrospective cohort study	97	NA	72.2	Patients with adenoma	CRC; non-neoplastic polyp; incomplete colonoscopy; colonic resection	At least 6 mo later after polypectomy	Advanced polyp: polyp ≥10 mm, adenoma with severe dysplasia, or villous adenoma	Recurrence of advanced polyp is very rare within one year after polypectomy. Patients with single polyp have low risk and thus, their surveillance may be delayed beyond the standard 3 yr.
Yamaji et al., ⁸⁷ 2004	Japan	Multi-center, prospective cohort study	6,225	48.1±9.4 ^(d)	74.8	Annual medical health checkup subject who underwent ≥ 3 annual colonoscopies	CRC; history of CRC; polyps; IBD	Every 1 yr	Advanced adenoma: carcinoma <i>in situ</i> , or adenoma with severe dysplasia, and adenomas ≥10 mm	Although recurrence rates after polypectomy were elevated, the incidence rates in subjects with no neoplastic lesions initially were quite high.
Lieberman et al., ⁵² 2007	USA	Multi-center, prospective cohort study	895	62.9 (50-75) ^(b)	96.8	50-75 yr; no lower gastrointestinal tract symptoms; no prior history of colon disease; no structural examination of the colon within 10 yr	Declined to participate; incomplete colonoscopy	Within 5.5 yr (most patients with advanced neoplasia had colonoscopy within 3 yr)	Advanced neoplasia: adenoma ≥10 mm, villous adenoma, high-grade dysplasia or invasive cancer	Patients with 1 or 2 tubular adenomas less than 10 mm represent a low-risk group compared with other patients with colon neoplasia.

Supplementary Table 1. Continued

Author, yr	Country	Design	Sample size, No.	Age, yr	Male gender, %	Inclusion criteria	Exclusion criteria	Colonoscopy follow-up	Endpoint definition of advanced neoplasia	Conclusion
Laiyemo et al., ⁵³ 2008 Polyp Prevention Trial	USA	Multi-center, analysis of chemoprevention RCT data	1,905	61 ^{a)}	64.5	Patients with adenoma removal within 6 mo of randomization; ≥35 yr	CRC; surgical adenoma resection; FAP; IBD; bowel resection; obesity; taking lipid-lowering medication; dietary restriction	At 1 (clearing colonoscopy)+4 yr	Advanced adenoma: adenoma ≥10 mm, villous/tubulovillous adenoma, or high-grade dysplasia	Although the risk for recurrence of advanced adenoma within 4 yr is greater for patients with high-risk adenomas at baseline than for those with low-risk adenomas, the discrimination of this risk stratification scheme is relatively low.
Laiyemo et al., ⁸⁶ 2009 Continued follow-up Study of the Polyp Prevention Trial	USA	Multi-center, prospective cohort study	774	65.3±9.6 ^{b)}	67	Among participant in Polyp Prevention Trial, patients had a willingness to participate	NA	Usual care of primary physicians and endoscopists	Advanced adenoma: adenoma ≥10 mm, villous/tubulovillous adenoma, or high-grade dysplasia	Surveillance colonoscopy was overused for low-risk subjects and underused for high-risk subjects.
Martinez et al., ³⁰ 2009	North America	Pooled analyses used patient-level data from 8 North American studies	9,167	62.0 (22-80) ^{b)}	71	Included studies 1) ≥800 study participants; 2) complete baseline colonoscopy with removal of ≥1 adenomas and all visualized lesions; 3) specified schedule of surveillance follow-up colonoscopies; 4) available endpoint data regarding the number, size, and histopathology of adenomas and CRCs detected in follow-up exam.	CRC; no follow-up colonoscopy after the first 6 mo of study	1-5 yr	Advanced neoplasia: adenoma ≥10 mm, high grade dysplasia, >25% villous features or invasive cancer	Occurrence of advanced colorectal neoplasia is common after polypectomy. Factors that are associated most strongly with risk of advanced neoplasia are patient age and the number and size of prior adenomas.

Supplementary Table 1. Continued

Author, yr	Country	Design	Sample size, No.	Age, yr	Male gender, %	Inclusion criteria	Exclusion criteria	Colonoscopy follow-up	Endpoint definition of advanced neoplasia	Conclusion
Pinsky et al., ³⁴ 2009	USA	Multi-center, prospective cohort study (study of colonoscopy utilization)	2,607	63 ^{a)}	60	Screening-arm PLCO subjects had a positive baseline sigmoidoscopy screen with a follow-up colonoscopy within 18 months; no CRC	Subjects whose first post-baseline colonoscopy was performed as a result of having a positive yr 3 or yr 5 PLCO FSG screen	6 mo-10 yr	Advanced adenoma: an adenoma \geq 10 mm, villous or tubulovillous, or severe dysplasia	Subjects with baseline advanced adenomas are more likely to have recurrent advanced adenomas at initial surveillance.
Huang et al., ³⁵ 2010	China	Single-center, retrospective cohort study	1,356	52.4 \pm 12.5 ^{a)}	63.6	>20 yr; complete colonoscopy; clearing colonoscopy within 6 mo after the initial colonoscopy to remove missed adenomas	History of CRC; FAP; IBD	Within 6 mo (clearing colonoscopy) +1-20 yr	Advanced adenoma: villous/tubulovillous adenoma, or high-grade dysplasia	3-yr follow-up of patients after polypectomy could be effective in preventing the recurrence of advanced adenoma in high-risk patients.
Chung et al., ³⁶ 2011	Korea	Single-center, prospective cohort study	3,803	52.7 \pm 9.6 ^{a)}	63.5	First screening colonoscopy; asymptomatic volunteers aged 50-69; complete clearing colonoscopy; \geq 1 follow-ups within 5 yr	History of CRC or poly; colorectal disease-related symptoms or signs; surgical resection of the colon; IBD or intestinal tuberculosis; coagulopathy; incomplete colonoscopy d/t inadequate preparation or technical difficulties	Normal group: at 5 yr/low-risk group (1 or 2 adenomas <10 mm); <3+5 yr or at 5 yr/high risk group (adv. adenoma or \geq 3 adenomas); <3+5 yr	Advanced adenoma: \geq 10 mm in diameter, containing >25% villous structure or high-grade dysplasia (intramucosal carcinoma or carcinoma <i>in situ</i> was categorized as a high-grade dysplasia)	The surveillance interval for low-risk patients could be extended beyond 5 yr. Colonoscopic surveillance should be targeted to high-risk patients, and 3-yr follow-up after initial polypectomy may be appropriate.

RCT, randomized controlled trial; FAP, familial adenomatous polyposis; IBD, inflammatory bowel disease; CRC, colorectal cancer; NA, not available; UC, ulcerative colitis; HNPCC, hereditary non-polyposis colorectal cancer; FOBT, fecal occult blood test; PLCO, Prostate, Lung, Colorectal, and Ovarian Cancer Screening trial; FSG, flexible sigmoidoscopy.
^{a)}Values are presented as mean \pm SD; ^{b)}Range only; ^{c)}Median and range.

Supplementary Table 2. The Number of Colorectal Adenomas as a Risk Factor of Advanced Neoplasia

Study, yr	Country	No. of adenoma at index colonoscopy	Enrolled total patients, No.	Patients with metachronous advanced neoplasia, No. (%)	Adjusted OR/RR (95% CI)
Jorgensen et al., ⁹ 1995	Denmark	1			1
		2			1.3 (0.6-3.0)
		≥3			3.0 (1.2-7.1)
Noshirwani et al., ³¹ 2000	USA	Per 1 increase	697	63 (9)	1.25 (1.13-1.38)
Nusko et al., ³² 2002	Germany	1			1
		≥2			1.54 (1.12-2.12)
Bonithon-Kopp et al., ⁴⁹ 2004	Europe	1	360	18 (5)	1
		2	109	8 (7.3)	1.4 (0.59-3.51)
		≥3	83	15 (18.1)	3.6 (1.64-7.89)
Kim et al., ³³ 2004	Korea	1			0.24 (0.08-0.73)
		≥2			1
Martinez et al., ³⁰ 2009	North America	1	5,465	497 (9.1)	1
		2	2,054	271 (13.2)	1.39 (1.17-1.66)
		3	890	146 (16.4)	1.85 (1.46-2.34)
		4	326	68 (20.9)	2.41 (1.71-3.40)
		≥5	377	94 (24.9)	3.87 (2.76-5.42)
Pinsky et al., ³⁴ 2009	USA	1-2 small TA	650	42 (6.5)	1
		≥3 small TA	153	16 (10.5)	1.5 (0.8-2.6)
Below studies were included in pooled analysis (Martinez et al., ³⁰ 2009).					
Winawer et al., 1993	USA	1	541	6 (1.1)	1
		2	200	4 (2)	1.5 (0.4-5.6)
		≥3	197	18 (9.1)	6.9 (2.6-18.3)
van Stolk et al., ⁵⁰ 1998	USA	1 or 2	393	13 (3.3)	1
		≥3	84	5 (6)	1.13 (0.40-3.18)
Martinez et al., ⁵¹ 2001	USA (Arizona)	1	742	86 (11.6)	1
		2	284	28 (9.9)	0.76 (0.43-1.36)
		≥3	261	32 (12.3)	1.01 (0.54-2.10)
Lieberman et al., ⁵² 2007	USA	0	298	7 (2.3)	
		1 or 2	617	40 (6.5)	
		3 or 4	145	23 (15.9)	
		5-9	64	11 (17.2)	
		10+	8	1 (12.5)	
Laiyemo et al., ⁵³ 2008	USA	1	1,218	66 (5.4)	
		2	405	31 (7.7)	
		≥3	282	28 (9.9)	
Outcome measures using HR					Adjusted HR (95% CI)
Bertario et al., ¹⁰ 2003	Italy	1	736	7 (1)	1
		≥2	350	7 (2)	2.0 (0.7-5.8)
Huang et al., ³⁵ 2010	China	1	808	37 (4.6)	1
		2	244	15 (6.1)	1.92 (1.04-3.54)
		≥3	304	70 (23)	1.87 (1.12-3.10)
Chung et al., ³⁶ 2011	Korea	1 or 2			1
		≥3			3.06 (1.51-6.57)

OR, odds ratio; RR, relative risk; CI, confidence interval; HR, hazard ratio.

Supplementary Table 3. The Size of Colorectal Adenoma as a Risk Factor of Advanced Neoplasia

Study, yr	Country	Adenoma size measurement	Size of index adenoma, mm	Enrolled total patients, No.	Patients with metachronous advanced neoplasia	Adjusted OR/RR (95% CI)
Jorgensen et al., ⁹ 1995	Denmark	Pathologic evaluation	≤5			1
			6-10			1.2 (0.5-2.9)
			>10			1.2 (0.5-2.9)
Noshirwani et al., ³¹ 2000	USA	Endoscopic estimation	<10			1
			≥10			3.68 (2.01-6.76)
Nusko et al., ³² 2002	Germany	Small adenomas (≤5 mm): endoscopic estimation/ larger adenoma: pathologic evaluation	≤10			1
			>10			1.81 (1.42-2.31)
			>10			1.81 (1.42-2.31)
Bonithon-Kopp et al., ⁴⁹ 2004	Europe	Endoscopic estimation	<10	243	19 (7.8)	1
			≥10	309	22 (7.1)	1.06 (0.54-2.06)
Martinez et al., ³⁰ 2009	North America		<5	2,540	209 (8.2)	1
			5-10	3,115	287 (9.2)	1.17 (0.95-1.42)
			10-20	2,487	415 (16.7)	2.27 (1.84-2.78)
			≥20	672	138 (20.5)	2.99 (2.24-4.00)
Pinsky et al., ³⁴ 2009	USA		<10			1
			≥10 TA			1.5 (1.03-2.3)
Below studies were included in pooled analysis (Martinez et al., ³⁰ 2009).						
Winawer et al., 1993	USA	Endoscopic estimation	≤5	228	3 (1.3)	1
			6-10	354	8 (2.3)	1.3 (0.3-5.2)
			>10	356	17 (4.8)	2.2 (0.6-7.8)
van Stolk et al., ⁵⁰ 1998	USA	Endoscopic estimation	<10	258	11 (4.3)	1
			≥10	219	7 (3.2)	0.49 (0.16-1.51)
Martinez et al., ⁵¹ 2001	USA (Arizona)	Endoscopic estimation	<5	395	36 (9.1)	1
			6-10	543	52 (9.6)	0.88 (0.52-2.14)
			10	349	58 (16.6)	2.27 (1.25-4.14)
Lieberman et al., ⁵² 2007	USA	Endoscopic estimation	No adenoma	298	7 (2.3)	1
			<10	622	38 (6.1)	2.56 (1.16-5.67)
			≥10	123	19 (15.5)	6.40 (2.74-14.94)
Laiyemo et al., ⁵³ 2008	USA	Endoscopic estimation	<10	1,204	67 (5.6)	
			≥10	560	44 (7.9)	
Outcome measures using HR						Adjusted HR (95% CI)
Bertario et al., ¹⁰ 2003	Italy	Pathologic evaluation	≤10	700	6 (0.9)	1
			10-20	256	4 (1.6)	1.9 (0.5-6.6)
			>20	107	4 (3.7)	4.0 (1.1-14.4)
Huang et al., ³⁵ 2010	China		≤10			1
			10-19			1.25 (0.60-2.62)
			≥20			2.35 (1.09-5.06)
Chung et al., ³⁶ 2011	Korea	Endoscopic estimation or pathologic evaluation	<10			1
			≥10			3.02 (1.80-5.06)

OR, odds ratio; RR, relative risk; CI, confidence interval; TA, tubular adenoma; HR, hazard ratio.

Supplementary Table 4. The Villous/Tubulovillous Adenoma as a Risk Factor for Advanced Neoplasia

Study, yr	Country	Definition of tubulovillous or villous adenoma	Histology of adenoma at index polyp	Enrolled total patients, No.	Patients with metachronous advanced neoplasia, No. (%)	Adjusted OR/RR (95% CI)
Jorgensen et al., ⁹ 1995	Denmark	Tubulovillous adenoma: $\geq 20\%$ composed of villous structure	Tubular Tubulovillous			1 1.2 (0.6-2.7)
Noshirwani et al., ³¹ 2000	USA		Tubular Others			1 1.37 (0.72-2.62)
Bonithon-Kopp et al., ⁴⁹ 2004	Europe	According to a standard protocol	Tubular Tubulovillous/Villous	455 97	31 (6.8) 10 (10.3)	1 1.67 (0.76-3.67)
Martinez et al., ³⁰ 2009	North America	Tubulovillous adenoma: 26-75% composed of villous component/villous adenoma: >75% composed	Tubular Tubulovillous/Villous	7,268 1,899	749 (10.3) 336 (17.7)	1 1.28 (1.07-1.52)
Pinsky et al., ³⁴ 2009	USA		Tubular Tubulovillous/Villous			1 2.2 (1.5-3.1)
Below studies were included in pooled analysis (Martinez et al., ³⁰ 2009).						
Martinez et al., ⁵¹ 2001	USA (Arizona)	Tubulovillous adenoma: 26-75% composed of villous component/villous adenoma: >75% composed	Tubular Tubulovillous Villous	842 317 59	92 (10.9) 41 (12.9) 9 (15.3)	1 1.10 (0.64-1.87) 0.41 (0.15-1.13)
Lieberman et al., ⁵² 2007	USA	Adenoma with villous histology: $\geq 25\%$ composed of villous histology	Unspecified/Incipient Control (no neoplasia) adenoma with villous histology	69 298 81	4 (5.8) 7 (2.3) 13 (16.1)	0.47 (0.09-2.62) 1 6.05 (2.48-14.71)
Outcome measures using HR						Adjusted HR (95% CI)
Bertario et al., ¹⁰ 2003	Italy	According to WHO Classification	Tubular Tubulovillous Villous	772 205 80	10 (1.3) 3 (1.5) 1 (1.3)	1 1.5 (0.4-5.6) 1.2 (0.2-10.2)
Huang et al., ³⁵ 2010	China	According to WHO Classification	Tubular Tubulovillous/Villous	961 395	20 (2.1) 103 (26.1)	1 2.57 (1.24-5.32)
Chung et al., ³⁶ 2011	Korea	According to WHO Classification	Tubular Tubulovillous/Villous			1 1.48 (0.74-2.95)

OR, odds ratio; RR, relative risk; CI, confidence interval; HR, hazard ratio; WHO, World Health Organization.

Supplementary Table 5. The High Grade Dysplasia as a Risk Factor for Advanced Neoplasia

Study, yr	Country	Classification of dysplasia	Degree of atypia of index polyp	Enrolled total patients, No.	Patients with metachronous advanced neoplasia, No. (%)	Adjusted OR/RR (95% CI)
Jorgensen et al., ⁹ 1995	Denmark	According to Konishi & Morson (J Clin Pathol 1982;35:830-41)	Mild			1
			Moderate			1.0 (0.4-2.2)
			Severe			2.1 (0.6-7.1)
Bonithon-Kopp et al., ⁴⁹ 2004	Europe	According to a standard protocol	Mild	308	17 (5.5)	1
			Moderate/Severe	244	24 (9.8)	1.86 (0.96-3.64)
Martinez et al., ³⁰ 2009	North America		Low grade dysplasia	6,485	719 (11.1)	1
			High grade dysplasia	683	118 (17.3)	1.05 (0.81-1.35)
Below Study was included in pooled analysis (Martinez et al. ³⁰ 2009).						
Lieberman et al., ⁵² 2007	USA	Patients with intramucosal carcinoma or carcinoma <i>in situ</i> were classified as having high-grade dysplasia	No neoplasia	298	7 (2.3)	1
			High grade dysplasia	46	8 (17.4)	6.87 (2.61-18.07)
			CRC	23	8 (34.8)	13.56 (5.54-33.18)
Outcome measures using HR						Adjusted HR (95% CI)
Bertario et al., ¹⁰ 2003	Italy	According to WHO classification	Low/Moderate	1,050	11 (1.0)	1
			Severe	36	1 (2.8)	3.3 (0.7-15.5)
Huang et al., ³⁵ 2010	China	According to WHO classification	Low grade dysplasia	1,150	66 (5.7)	1
			High grade dysplasia	206	57 (27.7)	1.61 (1.07-2.42)

OR, odds ratio; RR, relative risk; CI, confidence interval; CRC, colorectal cancer; HR, hazard ratio; WHO, World Health Organization classification.

Supplementary Table 6. The Large Serrated Polyp at Index Colonoscopy as a Risk Factor for Advanced Neoplasia

Study (yr)	Country	Definition of large serrated adenoma	Large serrated adenoma	Enrolled total patients, No.	Patients with metachronous advanced neoplasia, No. (%)	Adjusted OR/RR (95% CI)
Hiraoka et al., ⁶⁸ 2010	Japan	Large serrated polyps: serrated polyps ≥ 10 mm	No	10,059	1,511 (15.0)	1
			Yes	140	62 (44.3)	4.01 (2.83-5.69)
Li et al., ⁷⁰ 2009	USA	Large serrated polyps: serrated polyps ≥ 10 mm	No	4,710	467 (9.9)	1
			Yes	109	27 (5.8)	3.24 (2.05-5.13)
Schreiner, 2010	USA	Large non-dysplastic serrated polyp: hyperplastic polyps and sessile serrated adenomas ≥ 10 mm	No	3,121		1
			Yes	44		1.90 (1.33-2.70)

Definition of serrated polyps: hyperplastic polyps, sessile serrated adenomas, and traditional serrated adenomas.
OR, odds ratio; RR, relative risk; CI, confidence interval.

Supplementary Table 7. The Location of Index Polyp as a Risk Factor for Advanced Neoplasia

Study, yr	Country	Definition of proximal colon	Location of index adenoma	Enrolled total patients, No.	Patients with metachronous advanced neoplasia, No. (%)	Adjusted OR/RR (95% CI)
Bonithon-Kopp et al., ⁴⁹ 2004	Europe	Cecum-transverse colon	No proximal location	438	23 (5.3)	1
			Proximal location	114	18 (15.8)	2.63 (1.31-5.3)
Martinez et al., ³⁰ 2009	North America	Cecum-splenic flexure	Distal	4,434	395 (8.9)	1
			Proximal only	2,620	330 (12.6)	Any proximal:
			Both	1,754	325 (18.5)	1.68 (1.43-1.98)
Pinsky et al., ³⁴ 2009	USA	Not mentioned	Distal colon only			1
			Proximal colon only			1.8 (1.1-2.7)
Below study was included in pooled analysis (Martinez et al., ³⁰ 2009).						
Martinez et al., ⁵¹ 2001	USA	Cecum-transverse colon	Distal colon	701	68 (9.7)	1
			Proximal colon	349	44 (12.6)	1.65 (1.02-2.67)
			Both	234	33 (14.1)	2.69 (1.34-5.42)
Outcome measures using HR						Adjusted HR (95% CI)
Huang et al., ³⁵ 2010	China	Cecum-splenic flexure	Any proximal	562	77 (13.7)	1
			Distal only	794	46 (5.8)	0.77 (0.48-1.22)

OR, odds ratio; RR, relative risk; CI, confidence interval; HR, hazard ratio.

Supplementary Table 8. Age as a Risk Factor for Advanced Neoplasia

Study, yr	Country	Age	Age at time of polypectomy, yr	Enrolled total patients, No.	Patients with metachronous advanced neoplasia, No. (%)	Adjusted OR/RR (95% CI)
Jorgensen et al., ⁹ 1995	Denmark	Range, 28-77	≤60			1
			>60			1.5 (0.8-3.0)
Noshirwani et al., ³¹ 2000	USA		Per 10-yr increase			1.10 (0.82-1.45)
Laiyemo et al., ⁸⁶ 2009	USA	65.3±9.6	≤65			1
			>65			1.3 (0.7-2.5)
Martinez et al., ³⁰ 2009	North America	Mean, 62.0 yr (range, 22-80)	<40	154	6 (3.9)	0.41 (0.18-0.94)
			40-49	804	52 (6.5)	0.67 (0.48-0.93)
			50-59	2,397	213 (8.9)	1
			60-69	3,676	460 (12.5)	1.39 (1.16-1.68)
			70-79	2,074	328 (15.8)	1.72 (1.40-2.11)
			≥80	62	12 (19.4)	2.70 (1.31-5.57)
Outcome measures using HR						Adjusted HR (95% CI)
Bertario et al., ¹⁰ 2003	Italy	Mean, 61 yr (range, 24-87)	<60	503	5 (1.0)	1
			60-69	339	5 (1.5)	2.1 (0.6-7.5)
			≥70	244	4 (1.6)	4.1 (1.0-16.0)
Yamaji et al., ⁸⁷ 2004	Japan	48.1±9.4	<40	154	6 (3.9)	1
			40-49	804	52 (6.5)	2.3 (0.7-7.6)
			50-59	2,397	213 (8.9)	3.6 (1.1-12)
			≥60	62	12 (19.4)	5.5 (1.6-19)
Huang et al., ³⁵ 2010	China	52.4±12.5 (range, 20-84)	<50	554	20 (3.6)	1
			50-59	393	43 (10.9)	1.81 (1.05-3.12)
			>60	409	60 (14.7)	4.81 (2.80-8.25)
Chung et al., ³⁶ 2011	Korea	52.7±69.6 (range, 50-69)	50-59			1
			60-69			1.51 (0.86-2.65)

OR, odds ratio; RR, relative risk; CI, confidence interval; HR, hazard ratio.

Supplementary Table 9. Gender as a Risk Factor for Advanced Neoplasia

Study, yr	Country	Gender	Enrolled total patients, No.	Patients with metachronous advanced neoplasia, No. (%)	Adjusted OR/RR (95% CI)
Jorgensen et al., ⁹ 1995	Denmark	Female			0.9 (0.4-1.7)
		Male			1
Noshirwani et al., ³¹ 2000	USA	Female			1
		Male			1.48 (0.74-2.93)
Laiyemo et al., ⁸⁶ 2009	USA	Female			1
		Male			2.0 (0.9-4.6)
Martinez et al., ³⁰ 2009	North America	Female	2,642	267 (10.1)	1
		Male	6,525	815 (12.5)	1.40 (1.19-1.65)
Pinsky et al., ³⁴ 2009	USA	Female			1
		Male			1.2 (0.9-1.8)
Outcome measures using HR					Adjusted HR (95% CI)
Bertario et al., ¹⁰ 2003	Italy	Female	487	2 (0.4)	1
		Male	599	12 (2.0)	6.5 (1.4-29.9)
Yamaji et al., ⁸⁷ 2004	Japan	Female			1
		Male			0.9 (0.5-1.5)
Huang et al., ³⁵ 2010	China	Female	493	18 (3.7)	1
		Male	863	105 (12.2)	2.11 (1.27-3.53)
Chung et al., ³⁶ 2011	Korea	Female			1
		Male			1.00 (0.57-1.77)

OR, odds ratio; RR, relative risk; CI, confidence interval; HR, hazard ratio.

Supplementary Table 10. The Family History of CRCs as a Risk Factor for Advanced Neoplasia

Study, yr	Country	Definition of positive family history	Family history of CRC	Enrolled total patients, No.	Patients with metachronous advanced neoplasia, No. (%)	Adjusted OR/RR (95% CI)
Nusko et al., ³² 2002	Germany	Parental history of CRC	No Yes			1 2.32 (1.77-3.04)
Laiyemo et al., ⁸⁶ 2009	USA	CRC in a first-degree relative	No Yes			1 1.0 (0.5-2.0)
Martinez et al., ³⁰ 2009	North America		No Yes	6,547 2,089	759 (11.6) 255 (12.2)	1 1.17 (0.99-1.38)
Outcome measures using HR						Adjusted HR (95% CI)
Bertario et al., ¹⁰ 2003	Italy	CRC in a first-degree relative	No Yes	787 299	10 (1.3) 4 (1.3)	1 1.3 (0.4-4.1)
Chung et al., ³⁶ 2011	Korea	At least one first-degree relative with CRC diagnosed at any age	No Yes			1 1.14 (0.48-2.76)

OR, odds ratio; RR, relative risk; CI, confidence interval; HR, hazard ratio; CRC, colorectal cancer.

Supplementary Table 11. Smoking as a Risk factor for Advanced Neoplasia

Study, yr	Country	Smoking status	Enrolled total patients, No.	Patients with metachronous advanced neoplasia, No. (%)	Adjusted OR/RR (95% CI)
Martinez et al., ³⁰ 2009	North America	Never Former Current	2,805 4,081 1,299	325 (11.6) 531 (13.0) 156 (12.0)	1 1.08 (0.92-1.27) 1.13 (0.90-1.42)
Outcome measures using HR					Adjusted HR (95% CI)
Chung et al., ³⁶ 2011	Korea	Never Current smoking			1 1.55 (0.97-2.50)

OR, odds ratio; RR, relative risk; CI, confidence interval; HR, hazard ratio.

Supplementary Table 12. Obesity as a Risk Factor for Advanced Neoplasia

Study, yr	Country	Obesity	Enrolled total patients, No.	Patients with metachronous advanced neoplasia, No. (%)	Adjusted OR/RR (95% CI)	
Martinez et al., ³⁰ 2009	North America	BMI <25 BMI 25-30 BMI ≥30	2,332 3,771 2,110	285 463 262	12.2 12.3 12.4	1 1.00 (0.84-1.19) 1.13 (0.93-1.38)
Outcome measures using HR					Adjusted HR (95% CI)	
Chung et al., ³⁶ 2011	Korea	BMI <25 BMI ≥25			1 1.10 (0.74-1.35)	

OR, odds ratio; RR, relative risk; CI, confidence interval; BMI, body mass index; HR, hazard ratio.