

**Multi-Institutional Registry of Large Bowel Cancer
in Japan**

Vol. 24
Cases treated in 1998
(Prospective Registry Data)

Japanese Society for Cancer of the Colon and Rectum

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Preface

This booklet, the 24th annual report, provides summary data on clinical and pathological characteristics of patients with large bowel cancer treated at 95 member hospitals of the Japanese Society for Cancer of the Colon and Rectum (JSCCR) in 1998. Of 6960 cases registered originally at our central registration office, 6516 cases with known histology, tumor site and age at treatment were retrieved and used in this report.

Our multi-institutional registry introduced a new registration system using computer software in 1998 for cases treated in 1996 while the former registration paper form is still in use. Increasing number of hospitals has employed the electronic registration, and 54 hospitals provided computerized information for this issue. The electronic registration is expected to reduce input error and to be an efficient measure for rapid data compilation and analysis. Unfortunately, however, such gains have not yet been obtained. Incompleteness of registration is more remarkable in this report than in previous ones.

The registry committee recognizes collection of the detailed clinical and pathological information according to the rules of the JSCCR is a key role. Meaningful analyses would be feasible following such construction of a dependable database. Further collaboration is strongly required for our member hospitals in order to improve quality of the registration.

We hope this booklet will be helpful for patient care and research.

Acknowledgement

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April 2003

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DEFINITIONS OF ABBREVIATIONS AND SYMBOLS

CRC	colorectal cancer
DI	depth of invasion
Dig	digestive
GE	gastroenterological
Gen	general
GI	gastrointestinal
IM	internal medicine
NOS	not otherwise specified
mm	millimeter
OC	oncology
OTH	others
Surg	surgery or surgical
X	not recorded or uncertain findings
<	less than
>	greater than
<=	less than or equal to
>=	greater than or equal to

Tumor site

The colon, rectum, and anus are anatomically divided into the following portions. If more than one portion or part is involved, all involved portions or parts were recorded in order of involvement, first indicating the portion or part in which the bulk of the tumor is mainly situated.

V	processus vermiformis	C	cecum
A	ascending colon	T	transverse colon
D	descending colon	S	sigmoid colon
Rs	rectosigmoid	Ra	upper rectum
Rb	lower rectum	P	proctos (anal canal)

In this report, the "Site of the tumor" represented the main portion in which tumor was located. In each table, "Colon" included "V, C, A, T, D, and S" and "Rectum" included "Rs, Ra, Rb, and P."

Refer to "Japanese Classification of Colorectal Carcinoma" on terminology and classification used in this report.

Table 1-1
Patients registered
Number of registered patients, by institute

Institute	Department	Males	Females	Total
Aichi Cancer Center	GI Surg	77	56	133
Aomori City Hospital	Surg	59	57	116
Cancer Institute Hospital	GI Surg	67	53	120
Chiba Cancer Center	GI Surg	50	42	92
Coloproctology Center, Hidaka Hospital		64	46	110
Dokkyo University School of Medicine	Surg I	25	21	46
Dokkyo University School of Medicine	Surg II	23	23	46
Faculty of Medicine, University of Tokyo	Surg OC	70	39	109
Fujikoshi Hospital	Surg	13	6	19
Fujita Health University, School of Medicine	Surg	44	29	73
Fukui Prefectural Hospital	Surg	76	58	134
Fukuoka University, Chikushi Hospital	Surg	44	37	81
Fukushima Medical University	Surg I	16	17	33
Gifu Municipal Hospital	Surg	49	47	96
Gihoku General Hospital	Surg	7	18	25
Gunma Cancer Center	Surg	52	39	91
Gunma University School of Medicine	Surg I	34	23	57
Hamamatsu Medical Center	Surg	32	23	55
Hirosaki University, School of Medicine	Surg II	41	29	70
Hirosaki University, School of Medicine	IM I	12	5	17
Hiroshima University School of Medicine	Surg II	18	13	31
Hyogo Medical Center for Adults	GI	20	7	27
Iwakuni National Hospital	Surg	42	16	58
Iwate Medical University, School of Medicine	Surg I	34	18	52
Iwate Medical University, School of Medicine	IM I	1	3	4
Izushi Municipal Hospital	Surg	3	3	6
Jichi Medical School, School of Medicine	GI Gen Surg	70	51	121
Kagawa Medical University	Surg I	29	11	40
Kaizuka City Hospital	Surg	21	19	40
Kanazawa Medical University	GI Gen Surg	37	32	69

Table 1-2
Number of registered patients, by institute

Institute	Department	Males	Females	Total
Kanazawa National Hospital	Surg	28	30	58
Kansai Medical University	Surg II	53	40	93
Kanto Rosai Hospital	Surg	31	27	58
Karasawa Hospital		17	14	31
Kariya General Hospital	Surg	53	24	77
Kasukabe City Hospital	Surg	34	14	48
Kawasaki Medical School	GI Surg	45	27	72
Kenseikai Nara Coloproctology Center		121	89	210
Kinki University School of Medicine	Surg I	45	31	76
Kobe University School of Medicine	Surg I	13	7	20
Kokura Memorial Hospital	Surg	39	19	58
Kumamoto University School of Medicine	Surg II	12	11	23
Kurume University, Medical Center	Surg	45	32	77
Kyoto University, Graduate School of Medicine, Faculty of Medicine	Surg OC	34	24	58
Kyoundo Hospital	Surg	19	9	28
Matsuda Hospital		68	43	111
Matsushita Memorial Hospital	Surg	20	22	42
Medical Institute of Bioregulation Kyushu University	Surg	8	5	13
Medical School, Nagoya City University	Surg I	38	28	66
Mito Kyodo General Hospital	Surg	34	19	53
Miyagi Cancer Center	Surg	36	24	60
Nagasaki University, School of Medicine	Surg I	52	30	82
Nagoya University, School of Medicine	Surg II	27	20	47
Nara Medical University	Surg I	31	15	46
National Cancer Center Hospital	Surg	224	118	342
National Defense Medical College	Surg I	85	55	140
National Kyushu Medical Center Hospital	Surg	50	55	105
National Sapporo Hospital Hokkaido Cancer Center	Surg	25	13	38
National Tochigi Hospital	Surg	13	7	20
Nihon University, School of Medicine	Surg III	60	41	101

Table 1-3
Number of registered patients, by institute

Institute	Department	Males	Females	Total
Niigata Cancer Center Hospital	Surg	71	54	125
NTT East Kanto Hospital	Surg	48	34	82
Oita Medical University	Surg I	11	9	20
Okayama University Graduate School of Medicine and Dentistry	Cancer & Thoracic Surg	10	8	18
Oomoto Hospital	Surg	30	33	63
Osaka Medical Center of Cancer and Cardiovascular Diseases	Surg	71	59	130
Osaka Prefectural Hospital	GI Gen Surg	64	55	119
Osaka University, Graduate School of Medicine	Surg Clinical OC	45	18	63
Red Cross Oomiya Hospital	Surg	63	42	105
School of Medicine, Chiba University	Surg II	29	11	40
School of Medicine, Keio University, Ise Keio Hospital	Surg	6	8	14
School of Medicine, Kitasato University, East Hospital	GI Surg	70	65	135
School of Medicine, The University of Tokushima	Surg I	16	11	27
School of Medicine, Tokai University	Surg II	50	28	78
Second Teaching Hospital, Fujita Health University	Surg	27	12	39
Shikoku Cancer Center Hospital	Surg	51	49	100
Showa University, Fujigaoka Hospital	Surg	20	11	31
Tachikawa Hospital	Surg	35	27	62
Takano Hospital Coloproctology Center		138	73	211
Teikyo University School of Medicine	Surg I	34	24	58
Teikyo University School of Medicine	Surg II	32	20	52
Terada Hospital	Surg	18	12	30
The Institute of Gastroenterology, Tokyo Women's Medical University	GE Surg	73	39	112
Tochigi Cancer Center		72	53	125
Tohoku University Graduate School of Medical Science	GE Surg	46	25	71
Tokyo Kyosai Hospital		158	69	227
Tokyo Medical and Dental University, Graduate School	Dig Surg	43	30	73

Table 1-4
Number of registered patients, by institute

Institute	Department	Males	Females	Total
Tokyo Metropolitan Komagome Hospital	Surg	105	68	173
Toride Kyodo General Hospital	Surg	35	28	63
Tottori University, Faculty of Medicine	Surg I	38	21	59
Urayasu Hospital, Juntendo University, School of Medicine	Surg	8	1	9
Uwajima City Hospital	Surg	33	20	53
Yaizu Municipal General Hospital	Surg	43	21	64
Yokohama City University, School of Medicine	Surg II	41	27	68
Yokohama Hospital, Gastrointestinal Center		25	12	37
Total		4,149	2,811	6,960

Table 2-1

Histological type, site and sex

Hisotology	Site	Males	Females	Total
Adenocarcinoma	Colon	2,323	1,699	4,022
	Rectum	1,588	931	2,519
	Unknown	24	16	40
	Total	3,935	2,646	6,581
Other malignancies	Colon	17	10	27
	Rectum	32	28	60
	Unknown	2	1	3
	Total	51	39	90
Unknown	Colon	63	75	138
	Rectum	87	43	130
	Unknown	13	8	21
	Total	163	126	289
Grand total		4,149	2,811	6,960

Adenocarcinoma: well-, moderately and poorly differentiated adenocarcinoma, mucinous carcinoma, and signet-ring cell carcinoma.

Other malignancies: carcinomas other than adenocarcinoma and non-epithelial malignancies.

Sixty-four patients with a malignancy of unknown site were exculded from subsequent analysis.

Table 2-2
Number of patients treated by surgery
Histology and site of the tumor

Histology	Site	Surgery		Total
		Yes	No	
Adenocarcinoma	Colon	4,017	(631)	4,022
	Rectum	2,515	(194)	2,519
	Total	6,532	(825)	6,541
Other malignancies	Colon	27	(6)	27
	Rectum	59	(7)	60
	Total	86	(13)	87
Unknown	Colon	137	(13)	138
	Rectum	128	(8)	130
	Total	265	(21)	268
Grand total		6,883	(859)	6,896

The figures in parentheses represent the number of patients treated by endoscopic excision, and those are included in the number in the left column. A total of 380 patients with a malignancy of unknown histology (268 patients) and age at treatment (112 patients) was excluded from subsequent analysis.

Table 3
Modality of principal treatment*
by histology and site

Modality	Adenocarcinoma			Other malignancies		
	Colon	Rectum	Total	Colon	Rectum	Total
Surgery	3,318	2,255	5,573	20	52	72
Endoscopic excision	633	193	826	6	7	13
Radiation (RT)	2	6	8	0	0	0
Chemotherapy (CT)	5	4	9	1	0	1
RT and CT	0	0	0	0	1	1
OTH	1	3	4	0	0	0
No treatment	6	3	9	0	0	0
Total	3,965	2,464	6,429	27	60	87

* Modalities regarded as the most effective and beneficial treatment for cancer. A total of 173 patients who had surgery after endoscopic treatment were classified in the "Endoscopic excision" group in this report.

Adenocarcinoma

A total of 6,429 patients with adenocarcinoma was classified into five groups.

- I) All----- 6,429 cases
- II) Surgery----- 5,573 cases
- III) Surgical resection----- 5,514 cases
- IV) Endoscopic excision----- 826 cases
- V) Surgery after endoscopic excision----- 173 cases

A total of 173 patients who had surgery after endoscopic treatment were classified into "Endoscopic excision group" in this report, although they should be classified into "Surgery" group*. Their information about surgery was described independently in detail (pp.77-83).

* Japanese Society for Cancer of the Colon and Rectum: Japanese Classification of Colorectal Carcinoma. 1st English ed., p.69, Yasutomi, M. (Editor), Kanehara & Co., Ltd., Tokyo, 1997

Table 4-1
Age-specific incidence, males

Site	Age									Total
	<20	20-29	30-39	40-49	50-59	60-69	70-79	80-89	90-99	
V	0	0	1	1	0	3	1	0	0	6
C	1	0	3	16	38	53	59	18	1	189
A	0	1	6	32	91	148	144	44	3	469
T	1	1	6	24	65	107	104	27	1	336
D	0	0	8	14	37	74	58	7	1	199
S	0	2	14	73	251	402	279	77	1	1,099
Rs	0	0	8	43	112	167	110	30	1	471
Ra	1	1	5	40	94	158	108	26	1	434
Rb	0	1	8	79	155	202	130	32	2	609
P	0	0	2	2	8	10	9	4	0	35
Colon	2	4	38	160	482	787	645	173	7	2,298
Rectum	1	2	23	164	369	537	357	92	4	1,549
Total	3	6	61	324	851	1,324	1,002	265	11	3,847

Table 4-2
Age-specific incidence, females

Site	Age									Total
	<20	20-29	30-39	40-49	50-59	60-69	70-79	80-89	90-99	
V	0	0	0	0	2	2	1	0	1	6
C	0	1	0	12	30	65	73	28	2	211
A	0	2	6	22	69	115	142	56	2	414
T	0	0	0	13	48	90	67	36	6	260
D	0	1	3	6	22	25	33	9	1	100
S	0	3	19	59	153	217	165	57	3	676
Rs	0	1	5	36	64	98	62	19	0	285
Ra	0	0	7	21	72	76	69	12	0	257
Rb	1	1	12	37	87	120	76	21	2	357
P	0	1	0	1	3	3	5	3	0	16
Colon	1	7	28	112	324	514	481	186	15	1,667
Rectum	1	3	24	95	226	297	212	55	2	915
Total	2	10	52	207	550	811	693	241	17	2,582

Table 5-1
Family history of CRC, by site

Site	Family history of CRC			Total
	No	Yes	X	
V	10	0	2	12
C	323	43	34	400
A	722	79	82	883
T	468	68	60	596
D	234	29	36	299
S	1,458	130	187	1,775
Rs	628	66	62	756
Ra	589	51	51	691
Rb	814	79	73	966
P	42	2	7	51
Colon	3,215	349	401	3,965
Rectum	2,073	198	193	2,464
Total	5,288	547	594	6,429

Table 5-2
Family history of CRC, by age

Age	Family history of CRC			Total
	No	Yes	X	
<20	3	1	0	4
20-29	12	3	1	16
30-39	83	16	14	113
40-49	425	67	39	531
50-59	1,153	125	123	1,401
60-69	1,757	185	193	2,135
70-79	1,409	118	168	1,695
80-89	422	31	53	506
90-99	24	1	3	28
Total	5,288	547	594	6,429

Table 5-3Family history of CRC, by number of family members with CRC

Site	Number of family members with CRC					Total
	1	2	3	>=4	X	
V	0	0	0	0	0	0
C	31	5	1	0	6	43
A	57	9	4	0	9	79
T	46	10	2	1	9	68
D	24	0	1	0	4	29
S	105	12	1	0	12	130
Rs	56	8	1	0	1	66
Ra	42	3	2	0	4	51
Rb	60	6	4	0	9	79
P	2	0	0	0	0	2
Colon	263	36	9	1	40	349
Rectum	160	17	7	0	14	198
Total	423	53	16	1	54	547

Table 5-4Family history of CRC, by family member with CRC (multi-answers)

Site	Family member with CRC						Total
	F	M	S	C	G	UA	
V	0	0	0	0	0	0	0
C	12	12	17	1	1	2	45
A	13	17	41	4	1	4	80
T	20	12	32	1	0	2	67
D	9	6	5	3	0	2	25
S	30	30	55	0	4	6	125
Rs	16	20	26	2	3	2	69
Ra	11	14	17	1	1	4	48
Rb	21	19	27	0	1	11	79
P	0	0	0	0	0	1	1
Colon	84	77	150	9	6	16	342
Rectum	48	53	70	3	5	18	197
Total	132	130	220	12	11	34	539

F father
 M mother
 S sibling
 C child
 G grandparent
 UA uncle and/or aunt

Table 6-1Family history of cancers other than CRC, by site

Site	Family history of other cancers			Total
	No	Yes	X	
V	7	3	2	12
C	269	95	36	400
A	548	253	82	883
T	353	179	64	596
D	190	71	38	299
S	1,111	453	211	1,775
Rs	504	174	78	756
Ra	450	180	61	691
Rb	615	262	89	966
P	30	12	9	51
Colon	2,478	1,054	433	3,965
Rectum	1,599	628	237	2,464
Total	4,077	1,682	670	6,429

Table 6-2Family history of cancers other than CRC, by age

Age	Family member with other cancers			Total
	No	Yes	X	
<20	1	3	0	4
20-29	11	3	2	16
30-39	68	29	16	113
40-49	348	146	37	531
50-59	903	350	148	1,401
60-69	1,312	607	216	2,135
70-79	1,072	441	182	1,695
80-89	344	97	65	506
90-99	18	6	4	28
Total	4,077	1,682	670	6,429

Table 6-3

Family history of cancers other than CRC, by number of family members
with cancers

Site	Number of family members with other cancers					Total
	1	2	3	>=4	X	
V	2	1	0	0	0	3
C	66	18	7	1	3	95
A	179	44	11	3	16	253
T	131	30	4	3	11	179
D	46	20	1	1	3	71
S	320	80	26	4	23	453
Rs	127	26	7	0	14	174
Ra	129	33	10	1	7	180
Rb	182	52	13	4	11	262
P	11	1	0	0	0	12
Colon	744	193	49	12	56	1,054
Rectum	449	112	30	5	32	628
Total	1,193	305	79	17	88	1,682

Table 6-4

Family history of cancers other than CRC, by family member with cancers
(multi-answers)

Site	Family member with other cancers						Total
	F	M	S	C	G	UA	
V	0	1	2	0	0	0	3
C	29	28	36	8	3	2	106
A	78	64	93	10	6	24	275
T	62	50	51	8	10	8	189
D	22	20	26	2	3	3	76
S	164	124	179	13	7	20	507
Rs	64	47	67	1	2	9	190
Ra	67	60	60	3	5	6	201
Rb	93	76	87	8	8	16	288
P	3	4	2	0	0	0	9
Colon	355	287	387	41	29	57	1,156
Rectum	227	187	216	12	15	31	688
Total	582	474	603	53	44	88	1,844

F father
M mother
S sibling
C child
G grandparent
UA uncle and/or aunt

Table 7-1Past history of colorectal disease, by site (multi-answers)

Site	Past history								Total
	None	Adenoma	Adenom- atosis	Ulcera- tive colitis	Radiat- ion colitis	Anal fistula	OTH	X	
V	9	1	0	0	0	0	0	2	12
C	313	18	1	0	1	5	29	34	401
A	702	33	1	1	0	11	47	88	883
T	458	34	0	1	2	3	44	59	601
D	223	12	0	1	0	5	19	40	300
S	1,390	67	4	2	2	18	110	189	1,782
Rs	615	19	2	1	0	7	55	58	757
Ra	569	15	0	1	1	7	49	50	692
Rb	760	21	2	1	1	11	75	97	968
P	31	0	0	0	0	7	4	9	51
Colon	3,095	165	6	5	5	42	249	412	3,979
Rectum	1,975	55	4	3	2	32	183	214	2,468
Total	5,070	220	10	8	7	74	432	626	6,447

Table 7-2Past history of colorectal disease, by age (multi-answers)

Age	Past history								Total
	None	Adenoma	Adenom- atosis	Ulcera- tive colitis	Radiat- ion colitis	Anal fistula	OTH	X	
<20	4	0	0	0	0	0	0	0	4
20-29	13	1	0	0	0	0	0	2	16
30-39	85	3	0	4	0	2	2	17	113
40-49	434	9	4	1	0	8	30	46	532
50-59	1,096	36	0	2	4	25	101	141	1,405
60-69	1,685	83	2	1	1	20	145	201	2,138
70-79	1,330	73	3	0	1	16	119	161	1,703
80-89	398	15	1	0	1	3	34	56	508
90-99	25	0	0	0	0	0	1	2	28
Total	5,070	220	10	8	7	74	432	626	6,447

Table 8-1Measurement of serum carcinoembryonic antigen (CEA), preoperative

Site	Serum CEA			Total
	Examined	Not examined	X	
V	11	0	1	12
C	333	44	23	400
A	695	110	78	883
T	478	71	47	596
D	236	31	32	299
S	1,361	262	152	1,775
Rs	635	74	47	756
Ra	594	58	39	691
Rb	811	83	72	966
P	42	3	6	51
Colon	3,114	518	333	3,965
Rectum	2,082	218	164	2,464
Total	5,196	736	497	6,429

Table 8-2Serum CEA value, preoperative

Site	Serum CEA value					Total
	Normal	<2	<4	<8	>=8	
V	5	0	3	2	1	11
C	207	43	17	31	35	333
A	426	101	46	45	77	695
T	314	63	38	19	44	478
D	143	40	18	9	26	236
S	827	236	91	63	144	1,361
Rs	384	84	56	36	75	635
Ra	356	99	52	31	56	594
Rb	506	138	76	39	52	811
P	17	12	6	4	3	42
Colon	1,922	483	213	169	327	3,114
Rectum	1,263	333	190	110	186	2,082
Total	3,185	816	403	279	513	5,196

Table 9-1Multiple primary cancers, by sex

Multiple primary cancers	Males	Females	Total
No	3,233	2,223	5,456
Synchronous	199	69	268
Metachronous	214	159	373
X	201	131	332
Total	3,847	2,582	6,429

Table 9-2Synchronous multiple primary cancers

Organ	Synchronous cancer		Total
	Males	Females	
Oral cavity	1	0	1
Pharynx and larynx	1	0	1
Esophagus	9	1	10
Stomach	95	29	124
Small intestine	2	1	3
Liver	30	11	41
Biliary tree	2	1	3
Pancreas	4	1	5
Lung	10	3	13
Breast	1	4	5
Uterine cervix	0	2	2
Uterine corpus	0	1	1
Uterus, NOS	0	2	2
Ovary	0	8	8
Prostate	14	0	14
Kidney	8	2	10
Bladder	3	1	4
Hematopoietic system	2	0	2
OTH	4	1	5
Multiple sites	6	0	6
X	7	1	8
Total	199	69	268

Table 9-3Metachronous multiple primary cancers

Organ	Metachronous cancer		Total
	Males	Females	
Oral cavity	4	2	6
Pharynx and larynx	6	1	7
Thyroid	0	6	6
Esophagus	11	3	14
Stomach	104	26	130
Small intestine	1	0	1
Liver	12	4	16
Biliary tree	2	0	2
Pancreas	1	0	1
Lung	20	5	25
Breast	0	44	44
Uterine cervix	0	6	6
Uterine corpus	0	18	18
Uterus, NOS	0	13	13
Ovary	0	7	7
Vagina	0	1	1
Prostate	15	0	15
Kidney	2	2	4
Bladder	7	1	8
Hematopoietic system	2	1	3
Skin	3	4	7
Bone and soft tissue	1	0	1
Brain	1	1	2
OTH	9	1	10
Multiple sites	11	12	23
X	2	1	3
Total	214	159	373

Table 10-1Metachronous multiple CRC, by sex

Sex	Metachronous CRC					Total
	No	Early cancer	Advanced cancer	Both	X	
Males	3,554	35	89	3	166	3,847
Females	2,414	13	48	3	104	2,582
Total	5,968	48	137	6	270	6,429

Table 10-2Metachronous multiple CRC, by age

Age	Metachronous CRC			Total
	Early cancer	Advanced cancer	Both	
30-39	0	1	1	2
40-49	2	4	0	6
50-59	11	16	3	30
60-69	20	36	2	58
70-79	11	63	0	74
80-89	4	17	0	21
Total	48	137	6	191

Table 10-3Metachronous multiple CRC, by site

Site	Metachronous CRC			Total
	Early cancer	Advanced cancer	Both	
C	2	8	0	10
A	8	23	1	32
T	10	43	0	53
D	4	8	2	14
S	16	23	1	40
Rs	2	6	0	8
Ra	2	9	1	12
Rb	4	17	1	22
P	0	0	0	0
Colon	40	105	4	149
Rectum	8	32	2	42
Total	48	137	6	191

Table 10-4Metachronous multiple CRC, by number of cancers

Number of cancers	Metachronous CRC			Total
	Early cancer	Advanced cancer	Both	
1	41	130	6	177
2	0	4	0	4
3	1	2	0	3
4	0	0	0	0
X	6	1	0	7
Total	48	137	6	191

Table 10-5Metachronous multiple CRC, by site of metachronous cancer

Site	Metachronous CRC			Total
	Early cancer	Advanced cancer	Both	
Colon	29	86	4	119
Rectum	5	46	2	53
Both	1	4	0	5
X	13	1	0	14
Total	48	137	6	191

Table 11-1Number of synchronous multiple CRC, by site

Site	Number of cancers							Total
	1	2	3	4	5	6	>=7	
V	12	0	0	0	0	0	0	12
C	352	14	1	0	1	0	0	368
A	710	32	10	2	1	0	0	755
T	488	25	4	2	1	1	0	521
D	232	14	3	0	0	0	0	249
S	1,326	74	11	1	1	0	0	1,413
Rs	633	33	8	1	0	0	0	675
Ra	604	28	1	0	0	0	0	633
Rb	853	40	1	2	0	1	0	897
P	49	0	1	0	0	0	0	50
Colon	3,120	159	29	5	4	1	0	3,318
Rectum	2,139	101	11	3	0	1	0	2,255
Total	5,259	260	40	8	4	2	0	5,573

Table 11-2Number of synchronous multiple CRC, by age

Age	Number of cancers							Total
	1	2	3	4	5	6	>=7	
<20	4	0	0	0	0	0	0	4
20-29	13	0	1	0	0	0	0	14
30-39	92	1	0	1	1	0	0	95
40-49	439	13	5	0	0	1	0	458
50-59	1,114	50	3	0	0	0	0	1,167
60-69	1,737	87	9	4	1	0	0	1,838
70-79	1,402	85	15	2	1	1	0	1,506
80-89	438	23	7	0	1	0	0	469
90-99	20	1	0	1	0	0	0	22
Total	5,259	260	40	8	4	2	0	5,573

Table 11-3Number of synchronous multiple CRC, males, by age

Age	Number of cancers							Total
	1	2	3	4	5	6	>=7	
<20	3	0	0	0	0	0	0	3
20-29	5	0	0	0	0	0	0	5
30-39	48	1	0	0	1	0	0	50
40-49	257	6	4	0	0	1	0	268
50-59	646	37	3	0	0	0	0	686
60-69	1,039	62	6	3	1	0	0	1,111
70-79	793	63	12	2	1	1	0	872
80-89	225	15	4	0	0	0	0	244
90-99	8	0	0	0	0	0	0	8
Total	3,024	184	29	5	3	2	0	3,247

Table 11-4Number of synchronous multiple CRC, females, by age

Age	Number of cancers							Total
	1	2	3	4	5	6	>=7	
<20	1	0	0	0	0	0	0	1
20-29	8	0	1	0	0	0	0	9
30-39	44	0	0	1	0	0	0	45
40-49	182	7	1	0	0	0	0	190
50-59	468	13	0	0	0	0	0	481
60-69	698	25	3	1	0	0	0	727
70-79	609	22	3	0	0	0	0	634
80-89	213	8	3	0	1	0	0	225
90-99	12	1	0	1	0	0	0	14
Total	2,235	76	11	3	1	0	0	2,326

Table 12-1
Macroscopic type of tumor, by site

Site	Macroscopic type						X	Total
	Type 0	Type 1	Type 2	Type 3	Type 4	Type 5		
V	1	1	2	0	0	6	2	12
C	57	47	182	63	1	5	13	368
A	96	57	488	81	0	12	21	755
T	90	45	301	54	3	6	22	521
D	32	16	157	29	2	2	11	249
S	165	128	918	120	7	13	62	1,413
Rs	54	66	462	55	2	12	24	675
Ra	75	59	423	45	5	6	20	633
Rb	158	83	512	84	9	15	36	897
P	6	2	14	13	1	8	6	50
Colon	441	294	2,048	347	13	44	131	3,318
Rectum	293	210	1,411	197	17	41	86	2,255
Total	734	504	3,459	544	30	85	217	5,573

- Type 0 Superficial, flat tumors with or without minimal elevation or depression
- Type 1 Protuberant type
- Type 2 Ulcerated type with clear margin
- Type 3 Ulcerated type with infiltration
- Type 4 Diffusely infiltrating type
- Type 5 Unclassified type

Table 12-2
Macroscopic type of Type 0 cancer

Site	Macroscopic type										Total
	Ip	Isp	Is	IIa	IIa+IIc	IIb	IIc	IIc+IIa	OTH	X	
V	0	0	0	0	0	0	0	0	1	0	1
C	4	3	14	19	7	1	1	1	7	0	57
A	9	14	19	26	20	1	1	1	3	2	96
T	6	8	13	35	7	1	13	1	4	2	90
D	5	6	3	9	5	0	2	0	1	1	32
S	31	42	29	22	21	1	5	2	7	5	165
Rs	5	17	11	4	7	0	4	0	4	2	54
Ra	8	13	12	21	10	0	2	2	7	0	75
Rb	9	43	34	34	18	0	4	3	9	4	158
P	0	2	1	1	1	0	0	0	0	1	6
Colon	55	73	78	111	60	4	22	5	23	10	441
Rectum	22	75	58	60	36	0	10	5	20	7	293
Total	77	148	136	171	96	4	32	10	43	17	734

Type 0 Superficial, flat tumors with or without minimal elevation or depression

Type 0 I Protruded type
 Ip Pedunculated type
 Isp Semipedunculated type
 Is Sessile type
 Type 0 II Superficial type
 IIa Superficial elevated type
 IIb Superficial flat type
 IIc Superficial depressed type
 Type 0 III Excavated type

Table 13Tumor location, by circumferential division of the bowel wall

Site	Circumferential division of the bowel wall						X	Total
	Dorsal or post.	Ventral or ant.	Medial or right	Lateral or left	Circular			
V	1	0	0	0	9		2	12
C	68	80	19	27	122		52	368
A	156	127	40	47	223		162	755
T	116	73	24	17	191		100	521
D	60	37	3	12	97		40	249
S	297	267	58	56	417		318	1,413
Rs	143	160	22	34	215		101	675
Ra	114	155	43	40	164		117	633
Rb	213	197	98	98	138		153	897
P	8	5	5	6	12		14	50
Colon	698	584	144	159	1,059		674	3,318
Rectum	478	517	168	178	529		385	2,255
Total	1,176	1,101	312	337	1,588		1,059	5,573

Dorsal mesenteric side
 Ventral side opposite to the mesenterium
 post. posterior side
 ant. anterior side

Table 14-1Tumor size, by circumferential division of the bowel wall

Site	Circumferential occupancy of the bowel wall						Total
	<1/3	<1/2	<2/3	Semi-circular	Circular	X	
V	0	3	0	1	7	1	12
C	74	46	49	51	133	15	368
A	156	109	101	131	232	26	755
T	118	72	52	66	199	14	521
D	39	29	24	40	109	8	249
S	316	200	175	202	447	73	1,413
Rs	130	94	93	134	205	19	675
Ra	136	104	95	119	155	24	633
Rb	256	201	135	136	125	44	897
P	10	8	6	11	8	7	50
Colon	703	459	401	491	1,127	137	3,318
Rectum	532	407	329	400	493	94	2,255
Total	1,235	866	730	891	1,620	231	5,573

Table 14-2Tumor size, the greatest diameter of the tumor, by site

Site	Tumor size (mm)						X	Total
	<=20	21-40	41-60	61-80	81-100	>100		
V	2	4	4	1	1	0	0	12
C	22	104	106	55	35	9	37	368
A	72	210	195	97	50	30	101	755
T	85	164	118	65	22	12	55	521
D	28	79	75	28	4	6	29	249
S	182	485	389	141	33	18	165	1,413
Rs	62	182	200	90	25	13	103	675
Ra	59	177	175	103	29	9	81	633
Rb	104	300	236	106	40	7	104	897
P	4	19	9	4	1	2	11	50
Colon	391	1,046	887	387	145	75	387	3,318
Rectum	229	678	620	303	95	31	299	2,255
Total	620	1,724	1,507	690	240	106	686	5,573

Table 14-3Tumor size, the greatest diameter of the tumor, by DI

DI	Tumor size (mm)						X	Total
	<=20	21-40	41-60	61-80	81-100	>100		
m	117	138	39	8	1	3	45	351
sm	277	148	33	7	3	3	66	537
mp	113	368	120	33	8	3	92	737
ss/a1	76	672	706	323	91	34	248	2,150
se/a2	26	336	501	237	93	37	138	1,368
si/ai	3	42	82	75	39	24	47	312
X	8	20	26	7	5	2	50	118
Total	620	1,724	1,507	690	240	106	686	5,573

Table 15-1
Metastasis, peritoneum

Site	Peritoneal metastasis					Total
	P0	P1	P2	P3	PX	
V	7	1	2	2	0	12
C	323	12	13	18	2	368
A	695	18	11	26	5	755
T	486	9	4	19	3	521
D	238	5	1	5	0	249
S	1,337	32	24	9	11	1,413
Rs	640	15	11	8	1	675
Ra	598	13	6	1	15	633
Rb	838	6	4	2	47	897
P	49	0	0	0	1	50
Colon	3,086	77	55	79	21	3,318
Rectum	2,125	34	21	11	64	2,255
Total	5,211	111	76	90	85	5,573

P0 No peritoneal metastasis

P1 Metastasis only to adjacent peritoneum, which are removable by a combined resection

P2 A few metastases to distant peritoneum

P3 Numerous metastases to distant peritoneum

PX No information on peritoneal metastasis

Ovarian metastasis without peritoneal dissemination is classified as "P2."

Table 15-2
Metastasis, liver

Site	Liver metastasis					Total
	H0	H1	H2	H3	HX	
V	10	0	0	2	0	12
C	325	12	7	20	4	368
A	664	26	17	41	7	755
T	466	15	4	33	3	521
D	221	8	4	15	1	249
S	1,222	46	36	97	12	1,413
Rs	578	26	20	48	3	675
Ra	547	19	19	36	12	633
Rb	807	21	15	15	39	897
P	48	0	1	0	1	50
Colon	2,908	107	68	208	27	3,318
Rectum	1,980	66	55	99	55	2,255
Total	4,888	173	123	307	82	5,573

H0 No liver metastasis

H1 Metastasis limited to one lobe

H2 Some metastases to both lobes (4 lesions or less)

H3 Numerous metastases to both lobes (5 lesions or more)

HX No information on liver metastasis

Table 15-3Metastasis, lungPulmonary metastasis

Site	LM0	LM1	LM2	LM3	LMX	Total
V	12	0	0	0	0	12
C	339	5	0	1	23	368
A	677	10	4	5	59	755
T	474	1	0	4	42	521
D	233	2	0	1	13	249
S	1,280	15	7	7	104	1,413
Rs	614	7	4	4	46	675
Ra	567	3	2	8	53	633
Rb	797	9	3	2	86	897
P	45	0	0	0	5	50
Colon	3,015	33	11	18	241	3,318
Rectum	2,023	19	9	14	190	2,255
Total	5,038	52	20	32	431	5,573

LM0 No pulmonary metastasis

LM1 Metastasis only to one lobe

LM2 Metastases to multiple lobes but not meeting "LM3"

LM3 Numerous metastases to bilateral lungs, lymphangitis carcinomatosa, pleuritis carcinomatosa, or, metastasis to hilar lymph nodes

LMX No information on pulmonary metastasis

Table 15-4
Metastasis, distant organs

Site	Distant metastasis								Total
	M(-)	Bone	Brain	Adrenal	Skin	Virchow	OTH	X	
V	12	0	0	0	0	0	0	0	12
C	356	1	1	0	0	0	0	10	368
A	718	6	0	0	0	0	5	26	755
T	508	1	0	0	0	2	1	9	521
D	245	1	0	0	1	0	0	2	249
S	1,369	3	1	0	0	3	5	32	1,413
Rs	653	7	0	1	0	0	3	11	675
Ra	607	3	0	0	0	0	3	20	633
Rb	845	4	1	1	0	0	4	42	897
P	48	0	0	0	0	0	0	2	50
Colon	3,208	12	2	0	1	5	11	79	3,318
Rectum	2,153	14	1	2	0	0	10	75	2,255
Total	5,361	26	3	2	1	5	21	154	5,573

M(-) No distant metastasis

Adrenal adrenal gland

Virchow Virchow's lymph node

Table 16
Histological classification, by site

Site	Histological classification						Total
	w/d	m/d	p/d	muc	sig	NOS	
V	3	3	0	0	6	0	12
C	180	144	19	4	21	0	368
A	339	327	47	2	38	2	755
T	238	210	33	5	34	1	521
D	129	98	10	3	9	0	249
S	662	690	25	12	22	2	1,413
Rs	303	338	15	2	16	1	675
Ra	283	316	18	2	14	0	633
Rb	403	427	36	5	24	2	897
P	21	12	5	0	12	0	50
Colon	1,551	1,472	134	26	130	5	3,318
Rectum	1,010	1,093	74	9	66	3	2,255
Total	2,561	2,565	208	35	196	8	5,573

w/d well-differentiated adenocarcinoma
m/d moderately differentiated adenocarcinoma
p/d poorly differentiated adenocarcinoma
muc mucinous adenocarcinoma
sig signet-ring cell carcinoma
NOS adenocarcinoma not otherwise specified

Table 17-1Depth of tumor invasion (DI), macroscopic, by site

Site	DI							Total
	M	SM	MP	SS/A1	SE/A2	Si/Ai	X	
V	0	0	0	4	1	5	2	12
C	29	34	24	89	135	52	5	368
A	42	63	73	223	253	92	9	755
T	37	55	42	137	179	60	11	521
D	13	22	20	74	89	26	5	249
S	45	153	145	424	472	143	31	1,413
Rs	16	47	79	172	282	71	8	675
Ra	32	46	96	196	210	46	7	633
Rb	60	117	174	230	222	82	12	897
P	4	3	2	10	25	4	2	50
Colon	166	327	304	951	1,129	378	63	3,318
Rectum	112	213	351	608	739	203	29	2,255
Total	278	540	655	1,559	1,868	581	92	5,573

Intesitine with serosa, macroscopic

M	Tumor invasion of mucosa
SM	Tumor invasion of submucosa
MP	Tumor invasion of muscularis propria
SS	Tumor invasion of subserosa
SE	Tumor invasion of serosa
Si	Tumor invasion of other organs or structures

Intesitine without serosa

M	Tumor invasion of mucosa
SM	Tumor invasion of submucosa
MP	Tumor invasion of muscularis propria
A1	Tumor invasion through muscularis propria into non-peritonealized part
A2	Tumor invasion of non-peritonealized, pericolic or perirectal tissues
Ai	Direct tumor invasion of other organs or structures

Table 17-2

Depth of tumor invasion (DI), histological, by site

Site	DI							Total
	m	sm	mp	ss/a1	se/a2	si/ai	X	
V	0	1	0	4	2	4	1	12
C	34	35	34	134	99	26	6	368
A	63	50	71	325	189	40	17	755
T	45	54	49	210	112	36	15	521
D	16	23	20	123	60	7	0	249
S	65	145	166	625	302	88	22	1,413
Rs	24	43	80	270	199	36	23	675
Ra	36	51	107	246	158	19	16	633
Rb	65	131	205	199	229	52	16	897
P	3	4	5	14	18	4	2	50
Colon	223	308	340	1,421	764	201	61	3,318
Rectum	128	229	397	729	604	111	57	2,255
Total	351	537	737	2,150	1,368	312	118	5,573

Intesitine with serosa, histological

m Tumor invasion of mucosa
 sm Tumor invasion of submucosa
 mp Tumor invasion of muscularis propria
 ss Tumor invasion of subserosa
 se Tumor invasion of serosa
 si Tumor invasion of other organs or structures

Intesitine without serosa

m Tumor invasion of mucosa
 sm Tumor invasion of submucosa
 mp Tumor invasion of muscularis propria
 a1 Tumor invasion through muscularis propria into non-peritonealized part
 a2 Tumor invasion of non-peritonealized, pericolic or perirectal tissues
 ai Direct tumor invasion of other organs or structures

Table 18Number of organs or structures with cancer invasion, histological

Site	Number of organs with cancer invasion					Total
	1	2	3	4	X	
V	2	2	0	0	0	4
C	20	2	0	0	4	26
A	27	7	3	1	2	40
T	27	4	0	0	5	36
D	5	1	1	0	0	7
S	61	7	5	0	15	88
Rs	28	3	1	0	4	36
Ra	14	1	1	1	2	19
Rb	37	10	2	0	3	52
P	1	0	0	0	3	4
Colon	142	23	9	1	26	201
Rectum	80	14	4	1	12	111
Total	222	37	13	2	38	312

Table 19-1Lymph node metastasis, macroscopic, by site

Site	Lymph node metastasis						Total
	N0	N1	N2	N3	N4	NX	
V	5	1	2	1	1	2	12
C	131	113	87	24	8	5	368
A	300	230	132	39	35	19	755
T	232	148	71	32	21	17	521
D	116	91	25	5	7	5	249
S	658	426	202	38	50	39	1,413
Rs	281	216	99	23	32	24	675
Ra	286	216	70	21	10	30	633
Rb	445	204	110	46	26	66	897
P	26	8	13	1	0	2	50
Colon	1,442	1,009	519	139	122	87	3,318
Rectum	1,038	644	292	91	68	122	2,255
Total	2,480	1,653	811	230	190	209	5,573

N0 No lymph node metastasis

N1 Metastasis to Group 1

N2 Metastasis to Group 2

N3 Metastasis to Group 3

N4 Metastasis to Group 4

NX Unknown lymph node metastasis

Table 19-2Lymph node metastasis, histological, by site

Site	Lymph node metastasis						Total
	n0	n1	n2	n3	n4	nX	
V	6	0	3	1	1	1	12
C	195	88	57	7	8	13	368
A	444	165	75	26	21	24	755
T	314	99	56	18	12	22	521
D	157	56	22	2	3	9	249
S	832	307	177	20	30	47	1,413
Rs	341	187	79	17	20	31	675
Ra	335	179	63	11	14	31	633
Rb	461	170	104	39	26	97	897
P	26	6	8	3	0	7	50
Colon	1,948	715	390	74	75	116	3,318
Rectum	1,163	542	254	70	60	166	2,255
Total	3,111	1,257	644	144	135	282	5,573

n0 No lymph node metastasis
 n1 Metastasis to Group 1
 n2 Metastasis to Group 2
 n3 Metastasis to Group 3
 n4 Metastasis to Group 4
 nX Unknown lymph node metastasis

Table 19-3Lymph node metastasis, histological, by DI

DI	Lymph node metastasis						Total
	n0	n1	n2	n3	n4	nX	
m	297	1	0	0	0	53	351
sm	437	40	13	0	2	45	537
mp	545	132	37	9	1	13	737
ss/a1	1,157	602	255	54	37	45	2,150
se/a2	519	402	279	62	66	40	1,368
si/ai	124	64	51	19	24	30	312
X	32	16	9	0	5	56	118
Total	3,111	1,257	644	144	135	282	5,573

Table 19-4Lymph node metastasis, histological, by DI, colon

DI	Lymph node metastasis						Total
	n0	n1	n2	n3	n4	nX	
m	215	1	0	0	0	7	223
sm	270	20	9	0	1	8	308
mp	253	61	21	2	0	3	340
ss/a1	812	356	174	32	19	28	1,421
se/a2	297	229	149	31	36	22	764
si/ai	83	39	33	9	17	20	201
X	18	9	4	0	2	28	61
Total	1,948	715	390	74	75	116	3,318

Table 19-5Lymph node metastasis, histological, by DI, rectum

DI	Lymph node metastasis						Total
	n0	n1	n2	n3	n4	nX	
m	82	0	0	0	0	46	128
sm	167	20	4	0	1	37	229
mp	292	71	16	7	1	10	397
ss/a1	345	246	81	22	18	17	729
se/a2	222	173	130	31	30	18	604
si/ai	41	25	18	10	7	10	111
X	14	7	5	0	3	28	57
Total	1,163	542	254	70	60	166	2,255

Table 20-1
Lymphatic invasion, by site

Site	Lymphatic invasion						Total
	ly0	ly1	ly2	ly3	ly(+)	X	
V	4	1	3	2	0	2	12
C	116	131	80	22	9	10	368
A	230	289	147	55	16	18	755
T	186	184	99	30	7	15	521
D	81	88	52	15	1	12	249
S	408	573	285	81	24	42	1,413
Rs	157	269	167	46	10	26	675
Ra	181	222	141	45	19	25	633
Rb	280	310	189	58	28	32	897
P	19	12	15	0	0	4	50
Colon	1,025	1,266	666	205	57	99	3,318
Rectum	637	813	512	149	57	87	2,255
Total	1,662	2,079	1,178	354	114	186	5,573

Table 20-2
Lymphatic invasion, by DI, colon

DI	Lymphatic invasion						Total
	ly0	ly1	ly2	ly3	ly(+)	X	
m	212	2	0	0	0	9	223
sm	195	94	9	0	0	10	308
mp	123	157	44	6	7	3	340
ss/a1	357	651	309	61	23	20	1,421
se/a2	101	279	241	102	26	15	764
si/ai	28	71	56	34	1	11	201
X	9	12	7	2	0	31	61
Total	1,025	1,266	666	205	57	99	3,318

Table 20-3Lymphatic invasion, by DI, rectum

DI	Lymphatic invasion						Total
	ly0	ly1	ly2	ly3	ly(+)	X	
m	118	1	0	0	0	9	128
sm	128	70	15	2	4	10	229
mp	133	175	66	4	11	8	397
ss/a1	152	323	179	44	25	6	729
se/a2	85	203	213	76	13	14	604
si/ai	16	30	31	21	4	9	111
X	5	11	8	2	0	31	57
Total	637	813	512	149	57	87	2,255

ly0 No lymphatic invasion
 ly1 Minimal lymphatic invasion
 ly2 Moderate lymphatic invasion
 ly3 Severe lymphatic invasion
 ly+ Positive lymphatic invasion

Table 21-1
Venous invasion, by site

Site	Venous invasion						Total
	v0	v1	v2	v3	v(+)	X	
V	6	2	2	0	0	2	12
C	168	110	49	19	8	14	368
A	337	221	119	38	17	23	755
T	247	160	65	26	7	16	521
D	115	76	31	16	1	10	249
S	605	479	201	66	20	42	1,413
Rs	254	231	117	36	8	29	675
Ra	239	206	100	44	17	27	633
Rb	356	258	152	63	28	40	897
P	19	13	12	1	0	5	50
Colon	1,478	1,048	467	165	53	107	3,318
Rectum	868	708	381	144	53	101	2,255
Total	2,346	1,756	848	309	106	208	5,573

Table 21-2
Venous invasion, by DI, colon

DI	Venous invasion						Total
	v0	v1	v2	v3	v(+)	X	
m	211	3	0	0	0	9	223
sm	242	50	4	1	0	11	308
mp	196	116	16	2	6	4	340
ss/a1	541	544	221	62	25	28	1,421
se/a2	221	255	176	77	22	13	764
si/ai	53	68	46	22	0	12	201
X	14	12	4	1	0	30	61
Total	1,478	1,048	467	165	53	107	3,318

Table 21-3Venous invasion, by DI, rectum

Venous invasion

DI	v0	v1	v2	v3	v(+)	X	Total
m	119	0	0	0	0	9	128
sm	157	42	13	3	3	11	229
mp	191	137	44	5	9	11	397
ss/a1	227	282	136	44	24	16	729
se/a2	146	204	156	71	13	14	604
si/ai	19	32	27	20	4	9	111
X	9	11	5	1	0	31	57
Total	868	708	381	144	53	101	2,255

v0 No venous invasion
v1 Minimal venous invasion
v2 Moderate venous invasion
v3 Severe venous invasion
v+ Positive venous invasion

Table 22-1Tumor invasion of surgical margin, macroscopic, by site

Site	Proximal cut end (OW)			Total
	OW(-)	OW(+)	X	
V	11	0	1	12
C	361	0	7	368
A	741	0	14	755
T	504	0	17	521
D	248	0	1	249
S	1,405	0	8	1,413
Rs	664	1	10	675
Ra	622	0	11	633
Rb	866	1	30	897
P	47	0	3	50
Colon	3,270	0	48	3,318
Rectum	2,199	2	54	2,255
Total	5,469	2	102	5,573

Table 22-2Tumor invasion of surgical margin, macroscopic, by site

Site	Distal cut end (AW)			Total
	AW(-)	AW(+)	X	
V	11	0	1	12
C	361	0	7	368
A	739	0	16	755
T	503	0	18	521
D	248	0	1	249
S	1,403	2	8	1,413
Rs	663	1	11	675
Ra	621	0	12	633
Rb	864	4	29	897
P	46	0	4	50
Colon	3,265	2	51	3,318
Rectum	2,194	5	56	2,255
Total	5,459	7	107	5,573

Table 22-3Tumor invasion of surgical margin, macroscopic, by siteSurgical cut end (EW)

Site	EW(-)	EW(+)	X	Total
V	9	0	3	12
C	350	2	16	368
A	684	13	58	755
T	474	9	38	521
D	234	3	12	249
S	1,306	21	86	1,413
Rs	628	13	34	675
Ra	597	3	33	633
Rb	815	23	59	897
P	45	1	4	50
Colon	3,057	48	106	3,318
Rectum	2,085	40	130	2,255
Total	5,142	88	236	5,573

OW(-) No tumor invasion on proximal cut end

OW(+) Tumor invasion on proximal cut end

AW(-) No tumor invasion on distal cut end

AW(+) Tumor invasion on distal cut end

EW(-) No tumor invasion on surgical cut end

EW(+) Tumor invasion on surgical cut end

Table 22-4Distance between tumor and proximal cut end, by site

Site	Distance between tumor and proximal cut end (mm)				Total
	<=50	51-100	>100	X	
V	2	2	7	1	12
C	74	130	135	29	368
A	111	256	321	67	755
T	110	159	216	36	521
D	52	100	76	21	249
S	275	598	450	90	1,413
Rs	94	225	309	47	675
Ra	65	129	391	48	633
Rb	93	82	613	109	897
P	7	3	33	7	50
Colon	624	1,245	1,205	244	3,318
Rectum	259	439	1,346	211	2,255
Total	883	1,684	2,551	455	5,573

Table 22-5Distance between tumor and distal cut end, by site, colon

Site	Distance between tumor and distal cut end (mm)				Total
	<=50	51-100	>100	X	
V	2	3	5	2	12
C	63	100	177	28	368
A	123	235	331	66	755
T	127	219	136	39	521
D	54	96	77	22	249
S	438	613	275	87	1,413
Total	807	1,266	1,001	244	3,318

Table 22-6Distance between tumor and distal cut end, by site, rectum

Site	Distance between tumor and distal cut end (mm)							X	Total
	<=10	11-20	21-30	31-40	41-50	51-60	>60		
Rs	20	76	123	102	118	72	119	45	675
Ra	68	122	177	85	65	18	50	48	633
Rb	171	171	155	100	71	46	69	114	897
P	10	7	14	5	1	1	2	10	50
Total	269	376	469	292	255	137	240	217	2,255

Table 22-7Distance between tumor and proximal cut end, and distance between tumor and distal cut end, colon

proximal length (mm)	distal length (mm)			X	Total
	<=50	51-100	>100		
<=50	359	156	104	5	624
51-100	165	506	528	6	1,205
>100	276	602	367	0	1,245
X	7	2	2	233	244
Total	807	1,266	1,001	244	3,318

Table 22-8Distance between tumor and proximal cut end, and distance between tumor and distal cut end, rectum

proximal length (mm)	distal length (mm)							X	Total
	<=10	11-20	21-30	31-40	41-50	51-60	>60		
<=50	99	33	32	11	14	8	58	4	259
51-100	40	78	106	57	71	29	55	3	439
>100	128	262	325	224	167	100	124	16	1,346
X	2	3	6		3		3	194	211
Total	269	376	469	292	255	137	240	217	2,255

Proximal length: distance between the proximal margin of tumor and the proximal cut end.

Distal length: distance between the distal margin of tumor and the distal cut end.

Table 22-9Tumor invasion of surgical margin, histological, by site

Site	Proximal cut end (OW)			Total
	ow(-)	ow(+)	X	
V	11	0	1	12
C	359	0	9	368
A	736	1	18	755
T	507	0	14	521
D	243	0	6	249
S	1,386	1	26	1,413
Rs	650	0	25	675
Ra	617	1	15	633
Rb	869	3	25	897
P	48	0	2	50
Colon	3,242	2	74	3,318
Rectum	2,184	4	67	2,255
Total	5,426	6	141	5,573

Table 22-10Tumor invasion of surgical margin, histological, by site

Site	Distal cut end (aw)			Total
	aw(-)	aw(+)	X	
V	11	0	1	12
C	360	0	8	368
A	733	3	19	755
T	508	0	13	521
D	243	0	6	249
S	1,378	6	29	1,413
Rs	644	5	26	675
Ra	617	1	15	633
Rb	863	11	23	897
P	46	1	3	50
Colon	3,233	9	76	3,318
Rectum	2,170	18	67	2,255
Total	5,403	27	143	5,573

Table 22-11Tumor invasion of surgical margin, histological, by siteSurgical cut end (ew)

Site	ew(-)	ew(+)	X	Total
V	9	1	2	12
C	340	8	20	368
A	674	23	58	755
T	468	12	41	521
D	227	3	19	249
S	1,271	24	118	1,413
Rs	605	20	50	675
Ra	577	18	38	633
Rb	783	51	63	897
P	42	5	3	50
Colon	2,989	71	258	3,318
Rectum	2,007	94	154	2,255
Total	4,996	165	412	5,573

ow(-) No tumor invasion on proximal cut end

ow(+) Tumor invasion on proximal cut end

aw(-) No tumor invasion on distal cut end

aw(+) Tumor invasion on distal cut end

ew(-) No tumor invasion on surgical cut end

ew(+) Tumor invasion on surgical cut end

Table 22-12Tumor invasion of surgical margin, histological

Proximal cut end	Distal cut end			Total
	aw(-)	aw(+)	X	
ow(-)	5,395	24	7	5,426
ow(+)	3	3	0	6
X	5	69	67	141
Total	5,403	96	74	5,573

Table 22-13Tumor invasion of surgical margin, histological

Proximal cut end	Surgical cut end			Total
	ew(-)	ew(+)	X	
ow(-)	4,982	164	280	5,426
ow(+)	4		2	6
X	10	1	130	141
Total	4,996	165	412	5,573

Table 22-14Tumor invasion of surgical margin, histological

Distal cut end	Surgical cut end			Total
	ew(-)	ew(+)	X	
aw(-)	4,973	155	275	5,403
aw(+)	15	9	3	27
X	8	1	134	143
Total	4,996	165	412	5,573

Table 23-1Histological examination of peritoneal metastasis, by site

Site	Histological or cytological examination				Total
	Not examined	Positive histology	Positive cytology	X	
V	8	4	0	0	12
C	271	23	6	68	368
A	569	22	9	155	755
T	402	14	4	101	521
D	186	4	1	58	249
S	1,016	30	8	359	1,413
Rs	509	13	7	146	675
Ra	484	10	3	136	633
Rb	673	8	4	212	897
P	32	0	0	18	50
Colon	2,452	97	28	741	3,318
Rectum	1,698	31	14	512	2,255
Total	4,150	128	42	1,253	5,573

Table 23-2Histological examination of peritoneal metastasis

Peritoneal metastasis	Histological or cytological examination				Total
	Not examined	Positive histology	Positive cytology	X	
P0	4,011	22	19	1,159	5,211
P1	54	34	7	16	111
P2	20	33	2	21	76
P3	25	37	14	14	90
PX	40	2	0	43	85
Total	4,150	128	42	1,253	5,573

Table 24Additional and/or adjuvant therapy, by site (multi-answers)

Additional and/or adjuvant therapy										
Site	None	Radiation			Chemotherapy			OTH	X	Total
		pre	intra	post	pre	intra	post			
V	6	0	0	0	0	0	4	0	2	12
C	194	0	0	1	10	2	121	3	48	379
A	412	1	1	6	17	4	216	4	106	767
T	283	0	1	7	14	1	150	2	69	527
D	126	0	0	2	5	2	81	1	38	255
S	698	3	0	14	27	11	455	5	232	1,445
Rs	291	2	1	8	21	9	287	7	72	698
Ra	311	11	1	7	17	7	221	0	80	655
Rb	421	25	2	44	26	9	288	0	136	951
P	20	3	0	4	1	1	15	0	13	57
Colon	1,719	4	2	30	73	20	1,027	15	495	3,385
Rectum	1,043	41	4	63	65	26	811	7	301	2,361
Total	2,762	45	6	93	138	46	1,838	22	796	5,746

pre preoperative therapy
intra intraoperative therapy
post postoperative therapy

Table 25-1Operative procedures, patients without tumor resection, by site

Site	Explora- tory	Enterostomy				Bypass	OTH	X	Total
		Ileum	Right colon	Transve- rse	Left colon				
V	0	0	0	0	0	0	0	0	0
C	1	0	0	0	0	4	0	0	5
A	0	2	0	0	0	7	1	0	10
T	1	1	1	2	0	6	0	0	11
D	0	0	0	2	0	0	0	0	2
S	0	0	0	2	0	0	0	1	3
Rs	1	0	0	1	6	0	0	1	9
Ra	0	0	0	3	5	1	0	0	9
Rb	1	0	0	4	3	0	0	1	9
P	0	0	0	0	1	0	0	0	1
Colon	2	3	0	6	0	17	1	1	31
Rectum	2	0	0	8	15	1	0	2	28
Total	4	3	0	14	15	18	1	3	9

Exploratory exploratory laparotomy
 Ileum ileostomy
 Right colon Colostomy on the right colon
 Transverse Colostomy on the transverse colon
 Left colon Colostomy on the left colon

III) Adenocarcinoma, Surgical resection

Table 25-2

Operative procedures, laparoscopic surgery

Laparoscopic surgery (LS)

Site	No	Yes		OTH	Total
		LS only	LS assisted		
V	11	0	1	0	12
C	321	5	37	0	363
A	697	3	45	0	745
T	467	9	34	0	510
D	226	5	16	0	247
S	1,315	10	84	1	1,410
Rs	647	4	15	0	666
Ra	610	5	8	1	624
Rb	883	3	1	1	888
P	48	1	0	0	49
Colon	3,037	32	217	1	3,287
Rectum	2,188	13	24	2	2,227
Total	5,225	45	241	3	5,514

III) Adenocarcinoma, Surgical resection

Table 25-3

Operative procedures

Polypectomy	trans-abdominal	3
	trans-anal	30
	trans-sacral	9
	trans-sphinteric	1
Tumorectomy	trans-abdominal	8
	trans-anal	78
	trans-sacral	6
	trans-sphinteric	3
Segmental resection	colon	136
	rectum	10
Appendectomy		1
Ileocecal resection		219
Ascending colectomy		90
Right hemicolectomy		908
Transverse colectomy		257
Descending colectomy		76
Left hemicolectomy		207
Sigmoidectomy		1,125
Subtotal colectomy		12
Total colectomy		13
Shincter preserving operation	high anterior resection	451
	low anterior resection	1,177
	posterior resection	2
	invagination method	0
	pull through procedure	3
	abdomionosacral resection	10
Hartmann's operation		140
Amputation of the rectum	abdominoperineal	453
	abdominosacral	14
Total pelvic exenteration		24
Total resection of the colon and rectum		
	with ileostumy	1
	with ileoanal anastomosis	3
OTH		26
X		18
Total		5,514

III) Adenocarcinoma, Surgical resection

Table 26-1

Lymph node dissection, paraintestinal, by site

Site	Lymph node dissection, paraintestinal nodes				Total
	D0	D1	D2	X	
V	1	2	8	1	12
C	12	72	269	10	363
A	17	128	558	42	745
T	14	141	328	27	510
D	4	63	171	9	247
S	44	370	935	61	1,410
Rs	18	162	454	32	666
Ra	31	146	415	32	624
Rb	97	202	528	61	888
P	7	7	31	4	49
Colon	92	776	2,269	150	3,287
Rectum	153	517	1,428	129	2,227
Total	245	1,293	3,697	279	5,514

Table 26-2

Lymph node dissection, mesenteric, by site

Site	Lymph node dissection, mesenteric nodes				Total
	D0	D2	D3	X	
V	2	6	3	1	12
C	28	127	197	11	363
A	53	250	409	33	745
T	72	207	206	25	510
D	22	112	103	10	247
S	129	517	706	58	1,410
Rs	63	226	350	27	666
Ra	56	239	300	29	624
Rb	129	271	424	64	888
P	7	11	26	5	49
Colon	306	1,219	1,624	138	3,287
Rectum	255	747	1,100	125	2,227
Total	561	1,966	2,724	263	5,514

III) Adenocarcinoma, Surgical resection

Table 26-3

Lymph node dissection, rectum, lateral, by site

Site	Lymph node dissection, lateral nodes				Total
	D0	D2	D3	X	
Rs	379	40	45	202	666
Ra	321	86	96	121	624
Rb	333	148	279	128	888
P	15	10	15	9	49
Total	1,048	284	435	460	2,227

- D0 No dissection or incomplete dissection of Group 1 lymph nodes
- D1 Dissection of Group 1 lymph nodes
- D2 Dissection of Group 1 and 2 lymph nodes
- D3 Dissection of Group 1, 2, and 3 lymph nodes

III) Adenocarcinoma, Surgical resection

Table 27-1

Combined resection, by site

Site	Number of organs resected						Total
	0	1	2	3	4	>=5	
V	6	4	1	0	1	0	12
C	315	38	8	1	1	0	363
A	652	77	12	4	0	0	745
T	433	64	10	2	1	0	510
D	216	26	3	2	0	0	247
S	1,234	136	30	7	3	0	1,410
Rs	585	63	11	4	2	1	666
Ra	554	50	11	4	4	1	624
Rb	778	75	22	8	4	1	888
P	44	3	2	0	0	0	49
Colon	2,856	345	64	16	6	0	3,287
Rectum	1,961	191	46	16	10	3	2,227
Total	4,817	536	110	32	16	3	5,514

III) Adenocarcinoma, Surgical resection

Table 27-2

Combined resection, by site (multi-answers)

Organ	Site										Total
	V	C	A	T	D	S	Rs	Ra	Rb	P	
Abdominal wall	1	13	17	3	6	7	1	0	2	0	50
Pelvic wall	0	0	0	0	0	1	0	1	3	0	5
Uterus	2	2	3	0	0	11	10	12	22	1	63
Ovary & tube	2	8	9	3	4	32	12	14	15	1	100
Vagina	0	0	0	0	0	1	1	5	27	2	36
Seminal vesicle	0	0	2	0	2	1	3	7	15	0	30
Prostate	0	0	0	0	0	1	2	4	15	2	24
Bladder	1	1	2	0	0	46	12	14	7	0	83
Ureter	0	2	1	0	0	5	2	2	2	0	14
Stomach	0	4	8	11	3	9	7	2	4	0	48
Duodenum	1	1	9	3	0	0	1	0	0	0	15
Small intestine	0	5	7	11	2	23	18	3	3	0	72
Colon	0	5	7	6	3	6	7	3	4	0	41
Rectum	0	0	0	0	0	5	0	0	1	0	6
Liver	0	2	11	8	2	16	8	8	9	0	64
Omentum	0	4	4	7	0	2	0	0	0	0	17
Remote organ	0	0	0	0	0	0	1	0	0	0	1
OTH	1	11	22	26	10	44	15	14	20	3	166
Total	8	58	102	78	32	210	100	89	149	9	835

III) Adenocarcinoma, Surgical resection

Table 28-1

Treatment for liver metastasis, by site

Site	Resection of liver metastasis			Total
	Complete	Incomplete	X	
V	1	0	0	1
C	4	1	0	5
A	17	3	3	23
T	9	4	1	14
D	6	1	0	7
S	38	11	2	51
Rs	19	1	2	22
Ra	21	4	1	26
Rb	11	1	1	13
P	0	0	0	0
Colon	75	20	6	101
Rectum	51	6	4	61
Total	126	26	10	162

Table 28-2

Treatment for liver metastasis

Liver metastasis	Resection of liver metastasis			Total
	Complete	Incomplete	X	
H1	86	3	3	92
H2	30	8	1	39
H3	10	15	6	31
Total	126	26	10	162

III) Adenocarcinoma, Surgical resection

Table 28-3

Treatment for liver metastasis, by site

Treatment modality other than hepatectomy

Site	Ethanol	MCT	OTH	Total
V	0	0	0	0
C	1	0	6	7
A	0	2	12	14
T	0	1	5	6
D	0	0	3	3
S	1	6	38	45
Rs	0	3	19	22
Ra	2	1	13	16
Rb	1	1	13	15
P	0	0	0	0
Colon	2	9	64	75
Rectum	3	5	45	53
Total	5	14	109	128

Table 28-4

Treatment for liver metastasis

Treatment modality other than hepatectomy

Liver metastasis	Ethanol	MCT	OTH	Total
H1	1	5	39	45
H2	2	0	23	25
H3	2	9	47	58
Total	5	14	109	128

Ethanol ethanol injection therapy

MCT microwave coagulothrapy

Table 29-1Curability of surgical resection, macroscopic, by siteCurability of surgical resection

Site	Cur A	Cur B	Cur C	Not resected	X	Total
V	5	2	5	0	0	12
C	272	35	50	5	6	368
A	590	47	103	10	5	755
T	405	34	63	11	8	521
D	198	18	27	2	4	249
S	1,103	100	190	3	17	1,413
Rs	496	58	105	9	7	675
Ra	508	40	71	9	5	633
Rb	735	56	79	9	18	897
P	39	3	3	1	4	50
Colon	2,573	236	438	31	40	3,318
Rectum	1,778	157	258	28	34	2,255
Total	4,351	393	696	59	74	5,573

Cur A No residual tumors

Cur B No residual tumors but not evaluable as "Cur A"

Cur C Definite residual tumors

Table 29-2Curability of surgical resection, microscopic, by site

Site	Curability of surgical resection					Total
	cur A	cur B	cur C	Not resected	X	
V	6	2	4	0	0	12
C	285	26	50	5	2	368
A	590	41	100	10	14	755
T	407	31	59	11	13	521
D	200	12	26	2	9	249
S	1,090	87	197	3	36	1,413
Rs	489	58	105	9	14	675
Ra	494	47	73	9	10	633
Rb	704	67	86	9	31	897
P	35	9	3	1	2	50
Colon	2,578	199	436	31	74	3,318
Rectum	1,722	181	267	28	57	2,255
Total	4,300	380	703	59	131	5,573

cur A No residual tumors

cur B No residual tumors but not evaluable as "cur A"

cur C Definite residual tumors

Table 30-1
Histological stage, by site

Site	Histological stage							Total
	0	I	II	IIIa	IIIb	IV	X	
V	1	1	2	1	1	6	0	12
C	35	54	90	66	43	73	7	368
A	61	101	243	139	65	121	25	755
T	43	84	157	97	44	77	19	521
D	15	37	89	47	14	34	13	249
S	63	245	419	270	136	224	56	1,413
Rs	25	96	175	158	59	127	35	675
Ra	35	119	153	159	42	95	30	633
Rb	61	229	165	165	103	86	88	897
P	3	6	17	7	11	1	5	50
Colon	218	522	1,000	620	303	535	120	3,318
Rectum	124	450	510	489	215	309	158	2,255
Total	342	972	1,510	1,109	518	844	278	5,573

Table 30-2
Histological stage, by curability of surgical resection

Curability	Histological stage							Total
	0	I	II	IIIa	IIIb	IV	X	
cur A	331	957	1,461	1,023	404	14	110	4,300
cur B	6	4	19	52	84	183	32	380
cur C	2	1	19	25	24	602	30	703
Not resected	0	0	0	0	0	40	19	59
X	3	10	11	9	6	5	87	131
Total	342	972	1,510	1,109	518	844	278	5,573

Table 31

Accompanied lesion, by site (multi-answers)

Site	Accompanied lesions							Total
	Adenoma	Adenom- atosis	Ulcera- tive colitis	Radiat- ion colitis	Anal fistula	OTH	X	
V	1	0	0	0	0	0	0	1
C	53	0	1	1	0	10	16	81
A	121	7	1	0	0	25	28	182
T	96	4	2	1	0	15	22	140
D	42	2	0	0	0	7	11	62
S	195	5	0	1	0	33	50	284
Rs	102	4	2	0	0	18	20	146
Ra	85	2	0	0	0	14	31	132
Rb	126	6	2	3	2	25	30	194
P	5	0	0	0	3	0	3	11
Colon	508	18	4	3	0	90	127	750
Rectum	318	12	4	3	5	57	84	483
Total	826	30	8	6	5	147	211	1,233

IV) Adenocarcinoma, Endoscopic excision

Table 32Site and number of cancers

Site	Number of cancers						Total
	1	2	3	4	>=5	X	
C	25	2	0	0	0	5	32
A	92	4	4	0	0	23	123
T	53	6	0	1	1	11	72
D	40	1	0	0	0	8	49
S	296	15	4	0	0	42	357
Rs	72	2	0	0	0	3	77
Ra	51	3	0	0	0	1	55
Rb	52	2	1	0	0	6	61
Colon	506	28	8	1	1	89	633
Rectum	175	7	1	0	0	10	193
Total	681	35	9	1	1	99	826

Table 33-1Endoscopic excision

Site	Modality of endoscopic resection			Total
	Electric cautery	OTH	X	
C	27	0	5	32
A	98	0	25	123
T	60	0	12	72
D	40	0	9	49
S	300	6	51	357
Rs	70	1	6	77
Ra	49	2	4	55
Rb	55	0	6	61
Colon	525	6	102	633
Rectum	174	3	16	193
Total	699	9	118	826

IV) Adenocarcinoma, Endoscopic excision

Table 33-2

Endoscopic excision, evaluation of the excision

Site	Excision				Total
	Complete	Incomplete	Undecidable	X	
C	23	1	3	5	32
A	77	10	11	25	123
T	49	5	4	14	72
D	35	3	2	9	49
S	273	23	14	47	357
Rs	63	3	4	7	77
Ra	43	5	3	4	55
Rb	46	9	2	4	61
Colon	457	42	34	100	633
Rectum	152	17	9	15	193
Total	609	59	43	115	826

Table 33-3

Endoscopic excision, evaluation of the retrieval of resected specimens

Site	Specimens				Total
	Complete	Incomplete	No retrieval	X	
C	29	0	0	3	32
A	115	2	0	6	123
T	69	0	0	3	72
D	46	0	0	3	49
S	335	6	1	15	357
Rs	68	0	2	7	77
Ra	52	0	0	3	55
Rb	54	0	0	7	61
Colon	594	8	1	30	633
Rectum	174	0	2	17	193
Total	768	8	3	47	826

IV) Adenocarcinoma, Endoscopic excision

Table 34-1Gross appearance, by site

Site	Gross appearance										Total
	Ip	Isp	Is	IIa	IIa+IIc	IIb	IIc	IIc+IIa	OTH	X	
C	1	10	3	10	1	0	0	0	6	1	32
A	30	33	23	21	1	0	0	0	12	3	123
T	14	21	11	11	5	1	1	0	4	4	72
D	18	19	5	3	1	0	0	0	2	1	49
S	142	127	43	23	3	1	0	0	9	9	357
Rs	15	40	10	6	2	1	0	0	1	2	77
Ra	8	22	11	7	2	0	0	1	3	1	55
Rb	4	24	13	12	1	0	0	0	3	4	61
Colon	205	210	85	68	11	2	1	0	33	18	633
Rectum	27	86	34	25	5	1	0	1	7	7	193
Total	232	296	119	93	16	3	1	1	40	25	826

Table 34-2Gross appearance, by DI

DI	Gross appearance										Total
	Ip	Isp	Is	IIa	IIa+IIc	IIb	IIc	Iic+IIa	OTH	X	
m	166	196	75	69	5	3	1	0	31	8	554
sm	54	79	32	15	8	0	0	1	6	13	208
mp	0	0	0	0	0	0	0	0	1	0	1
>ss/al	0	1	0	0	0	0	0	0	0	0	1
X	12	20	12	9	3	0	0	0	2	4	62
Total	232	296	119	93	16	3	1	1	40	25	826
Depth of submucosal invasion											
slight	23	23	13	5	1	0	0	1	1	0	67
massive	24	40	13	9	5	0	0	0	3	7	101
NOS	7	16	6	1	2	0	0	0	2	6	40

IV) Adenocarcinoma, Endoscopic excision

Table 35
DI, by site

Site	m	sm	mp	>ss/al	X	Total	Grade of sm invasion		
							slight	massive	NOS
C	25	3	0	0	4	32	2	1	0
A	87	22	0	0	14	123	7	13	2
T	52	11	0	0	9	72	5	4	2
D	34	8	0	1	6	49	1	6	1
S	228	109	0	0	20	357	38	53	18
Rs	54	20	0	0	3	77	6	8	6
Ra	38	14	1	0	2	55	2	6	6
Rb	36	21	0	0	4	61	6	10	5
Colon	426	153	0	1	53	633	53	77	23
Rectum	128	55	1	0	9	193	14	24	17
Total	554	208	1	1	62	826	67	101	40

Table 36-1
Histological classification, by site

Site	Histological classification			X	Total
	Carcinoma in adenoma	Carcinoma with adenomatous component	Carcinoma without adenomatous component		
C	13	8	8	3	32
A	46	33	33	11	123
T	25	18	20	9	72
D	18	12	16	3	49
S	154	86	88	29	357
Rs	36	18	14	9	77
Ra	25	17	8	5	55
Rb	20	21	13	7	61
Colon	256	157	165	55	633
Rectum	81	56	35	21	193
Total	337	213	200	76	826

Table 36-2Histological classification, by site

Site	Histological classification						Total
	w/d	m/d	p/d	muc	sig	NOS	
C	25	2	0	0	0	5	32
A	96	14	0	0	0	13	123
T	57	7	0	0	0	8	72
D	37	5	0	1	0	6	49
S	273	59	0	2	0	23	357
Rs	66	5	1	0	0	5	77
Ra	42	11	0	0	0	2	55
Rb	41	14	0	0	0	6	61
Colon	488	87	0	3	0	55	633
Rectum	149	30	1	0	0	13	193
Total	637	117	1	3	0	68	826

w/d: well-differentiated adenocarcinoma, m/d: moderately differentiated adenocarcinoma, p/d: poorly differentiated adenocarcinoma, muc: mucinous adenocarcinoma, sig: signet-ring cell carcinoma, NOS: adenocarcinoma not otherwise specified

Table 37Lymphatic invasion and sm invasion

sm invasion	Lymphatic invasion						Total
	ly0	ly1	ly2	ly3	ly(+)	X	
slight	51	5		1	2	8	67
massive	47	24	3	1	5	21	101
NOS	13	9	0	0	1	17	40
Total	111	38	3	2	8	46	208

Table 38Venous invasion and sm invasion

sm invasion	Venous invasion						Total
	V0	V1	V2	V3	v(+)	X	
slight	54	1	2	0	1	9	67
massive	58	15	1	0	3	24	101
NOS	18	3	1	0	1	17	40
Total	130	19	4	0	5	50	208

IV) Adenocarcinoma, Endoscopic excision

Table 39-1Tumor size, by gross appearance

Size	Gross appearance										X	Total
(mm)	Ip	Isp	Is	IIa	IIa+IIc	IIb	IIc	IIc+IIa	OTH			
<=5	3	19	18	3	1	2	0	0	0	0	46	
6-10	55	110	44	26	7	0	1	0	5	3	251	
11-15	81	81	30	26	3	0	0	0	3	2	226	
16-20	58	38	14	11	2	1	0	1	6	4	135	
21-30	25	26	9	14	0	0	0	0	18	1	93	
31-40	4	2	0	6	0	0	0	0	5	0	17	
>40	0	3	0	2	0	0	0	0	3	0	8	
X	6	17	4	5	3	0	0	0	0	15	50	
Total	232	296	119	93	16	3	1	1	40	25	826	

Table 39-2Tumor size, by DI

Size (mm)	DI					Total
	m	sm	mp	ss/al	X	
<=5	35	3	0	0	8	46
6-10	172	52	0	0	27	251
11-15	161	54	0	0	11	226
16-20	76	51	0	0	8	135
21-30	75	16	1	0	1	93
31-40	13	4	0	0	0	17
>40	8	0	0	0	0	8
X	14	28	0	1	7	50
Total	554	208	1	1	62	826

IV) Adenocarcinoma, Endoscopic excision

Table 40Cut end of the specimen, mucosal and submucosal

		DI							
		m	sm		mp	>ss/al	X		
		sm-ce						Total	
m-ce		-	+	X	+	+			
-		457	110	14	1	0	0	41	623
+		20	5	10	1	0	0	1	37
X		77	16	14	37	1	1	20	166
Total		554	131	38	39	1	1	62	826

m-ce mucosal cut end of the specimen

sm-ce submucosal cut end of the specimen

A tumor free margin of <0.5mm in width from the cut end was classified as positive.

Table 41-1Metastasis, by site

Site	Any metastasis			Total
	No	Yes	X	
C	26	0	6	32
A	93	2	28	123
T	57	0	15	72
D	40	0	9	49
S	301	5	51	357
Rs	69	0	8	77
Ra	50	0	5	55
Rb	52	1	8	61
Colon	517	7	109	633
Rectum	171	1	21	193
Total	688	8	130	826

IV) Adenocarcinoma, Endoscopic excision

Table 41-2Metastasis, by DI

DI	Any metastasis			Total
	No	Yes	X	
m	503	1	50	554
sm	166	7	35	208
mp	0	0	1	1
>ss/al	0	0	1	1
X	19	0	43	62
Total	688	8	130	826

Table 42-1Curability of endoscopic excision, by site

Site	Evaluation of colorectal endoscopy				Total
	cur A	cur B	cur C	X	
C	26	3	0	3	32
A	99	14	2	8	123
T	58	6	2	6	72
D	42	3	1	3	49
S	297	29	6	25	357
Rs	61	7	0	9	77
Ra	44	4	3	4	55
Rb	45	4	2	10	61
Colon	522	55	11	44	633
Rectum	150	15	5	20	193
Total	672	70	16	64	826

Table 42-2Curability of endoscopic excision, by DI

DI	Evaluation of colorectal endoscopy				Total
	cur A	cur B	cur C	X	
m	494	34	4	22	554
sm	136	25	11	36	208
mp	0	0	0	1	1
>ss/al	0	0	0	1	1
X	42	11	1	8	62
Total	672	70	16	68	826

IV) Adenocarcinoma, Endoscopic excision

Table 43-1

Additional surgery

Additional surgical resection

	Yes	No	Total
Site			
C	3	29	32
A	20	103	123
T	11	61	72
D	11	38	49
S	80	277	357
Rs	12	65	77
Ra	14	41	55
Rb	22	39	61
DI			
m	23	531	554
sm	135	73	208
mp	1	0	1
>ss/a1	1	0	1
X	13	49	62
sm invasion (sm cancers)			
slight	21	46	67
massive	86	15	101
NOS	28	12	40
Histology, Adenomatous component			
Carcinoma in adenoma	37	300	337
Carcinoma with adenomatous component	41	172	213
Carcinoma without adenomatous component	60	140	200
X	35	41	76
Histological classification			
w/d	123	514	637
m/d	40	77	117
p/d	0	1	1
muc	2	1	3
sig	5	27	32
NOS	8	60	68

IV) Adenocarcinoma, Endoscopic excision

Table 43-2Additional surgery

Additional surgical resection

	Yes	No	Total
m-ce			
-	94	529	623
+	19	18	37
X	60	106	166
sm-ce (sm cancers)			
-	77	54	131
+	31	7	38
X	27	12	39
ly (sm cancers)			
ly0	56	55	111
ly1	33	5	38
ly2	2	1	3
ly3	2	0	2
ly(+)	7	1	8
X	35	11	46
v (sm cancers)			
v0	73	57	130
v1	17	2	19
v2	3	1	4
v3	0	0	0
v(+)	5	0	5
X	37	13	50
Evaluation of colorectal endoscopy			
cur A	97	575	672
cur B	23	47	70
cur C	12	4	16
X	41	27	68

V) Adenocarcinoma, Surgery after endoscopic excision

Table 44

Laparoscopic surgery as additional surgery

Laparoscopic surgery (LS)

Site	Yes				Total
	No	LS only	LS assisted	OTH	
C	2	0	1	0	3
A	13	0	7	0	20
T	9	1	1	0	11
D	9	0	2	0	11
S	56	4	20	0	80
Rs	9	0	3	0	12
Ra	12	1	1	0	14
Rb	21	0	1	0	22
Colon	89	5	31	0	125
Rectum	42	1	5	0	48
Total	131	6	36	0	173

Table 45

Residual cancer in surgically resected specimen, additional surgery

Residual cancer in the resected specimen

Site	No	Yes	X	Total
C	1	0	2	3
A	8	1	11	20
T	7	1	3	11
D	3	2	6	11
S	53	7	20	80
Rs	7	0	5	12
Ra	7	3	4	14
Rb	9	2	11	22
Colon	72	11	42	125
Rectum	23	5	20	48
Total	95	16	62	173

V) Adenocarcinoma, Surgery after endoscopic excision

Table 46

DI, by site, additional surgery

Site	DI						X	Total
	m	sm	mp	ss/a1	se/a2	si/ai		
C	1	2	0	0	0	0	0	3
A	0	9	2	2	2	0	5	20
T	2	7	1	0	1	0	0	11
D	2	5	1	2	0	1	0	11
S	5	56	7	2	3	0	7	80
Rs	0	10	0	1	0	0	1	12
Ra	2	8	2	0	1	0	1	14
Rb	2	11	2	4	0	0	3	22
Colon	10	79	11	6	6	0	30	125
Rectum	4	29	4	5	1	0	10	48
Total	14	108	15	11	7	0	40	173

Table 47-1

Lymph node metastasis, macroscopic, by site, additional surgery

Site	Lymph node metastasis						Total
	N0	N1	N2	N3	N4	NX	
C	3	0	0	0	0	0	3
A	13	2	3	1	0	1	20
T	10	0	1	0	0	0	11
D	8	1	2	0	0	0	11
S	71	5	2	2	0	0	80
Rs	12	0	0	0	0	0	12
Ra	13	1	0	0	0	0	14
Rb	14	2	1	4	0	1	22
Colon	105	8	8	3	0	1	125
Rectum	39	3	1	4	0	1	48
Total	144	11	9	7	0	2	173

V) Adenocarcinoma, Surgery after endoscopic excision

Table 47-2

Lymph node metastasis, histological, by site, additional surgery

Site	Lymph node metastasis						Total
	n0	n1	n2	n3	n4	nX	
C	3	0	0	0	0	0	3
A	15	2	1	0	0	2	20
T	10	0	1	0	0	0	11
D	8	0	2	0	0	1	11
S	64	7	3	0	0	6	80
Rs	12	0	0	0	0	0	12
Ra	12	2	0	0	0	0	14
Rb	10	3	1	0	0	8	22
Colon	100	9	7	0	0	9	125
Rectum	34	5	1	0	0	8	48
Total	134	14	8	0	0	17	173

Table 48

Lymphatic invasion in surgically resected specimen, additional surgery

Site	Lymphatic invasion						Total
	ly0	ly1	ly2	ly3	ly(+)	X	
C	2	1	0	0	0	0	3
A	6	4	1	0	3	6	20
T	9	2	0	0	0	0	11
D	7	3	1	0	0	0	11
S	36	23	4	3	0	14	80
Rs	5	4	0	1	0	2	12
Ra	6	5	1	0	0	2	14
Rb	10	6	2	0	0	4	22
Colon	60	33	6	3	3	20	125
Rectum	21	15	3	1	0	8	48
Total	81	48	9	4	3	28	173

V) Adenocarcinoma, Surgery after endoscopic excision

Table 49

Venous invasion in surgically resected specimen, additional surgery

Site	Venous invasion						Total
	v0	v1	v2	v3	v(+)	X	
C	3	0	0	0	0	0	3
A	10	1	1	0	1	7	20
T	10	1	0	0	0	0	11
D	6	4	0	0	0	1	11
S	51	13	1	0	0	15	80
Rs	7	1	2	0	0	2	12
Ra	11	1	0	0	0	2	14
Rb	14	1	3	0	0	4	22
Colon	80	19	2	0	1	23	125
Rectum	32	3	5	0	0	8	48
Total	112	22	7	0	1	31	173

Table 50

Curability of surgical resection, additional surgery

Site	Curability				Total
	cur A	cur B	cur C	X	
C	3	0	0	0	3
A	17	1	1	1	20
T	11	0	0	0	11
D	11	0	0	0	11
S	75	2	0	3	80
Rs	12	0	0	0	12
Ra	14	0	0	0	14
Rb	20	0	1	1	22
Colon	117	3	1	4	125
Rectum	46	0	1	1	48
Total	163	3	2	5	173

V) Adenocarcinoma, Surgery after endoscopic excision

Table 51
Histological stage, additional surgery

Site	Histological stage							Total
	0	I	II	IIIa	IIb	IV	X	
C	1	2	0	0	0	0	0	3
A	1	11	2	1	0	2	3	20
T	3	6	1	0	1	0	0	11
D	3	5	0	2	1	0	0	11
S	12	50	2	6	3	2	5	80
Rs	0	10	1	0	0	0	1	12
Ra	4	6	2	2	0	0	0	14
Rb	6	6	2	3	1	0	4	22
Colon	20	74	5	9	5	4	8	125
Rectum	10	22	5	5	1	0	5	48
Total	30	96	10	14	6	4	13	173

Table 52
Operative procedures, additional surgery

Operative procedure	C	A	T	D	S	Rs	Ra	Rb	Total
Trans-abdominal resection	0	0	0	0	0	0	0	1	1
Trans-anal resection	0	0	0	0	0	0	0	7	2
Partial colectomy	0	1	1	1	10	0	0	0	13
Partial proctomy	0	0	0	0	1	1	0	0	2
Ileocecal resection	2	5	0	0	0	0	0	0	7
Ascending colectomy	0	3	0	0	0	0	0	0	3
Right colectomy	1	11	2	0	0	0	0	0	14
Transverse colectomy	0	0	8	0	0	0	0	0	8
Descending colectomy	0	0	0	6	0	0	0	0	6
Left colectomy	0	0	0	3	1	0	0	0	4
Sigmoidectomy	0	0	0	1	63	0	0	0	64
HAR	0	0	0	0	3	10	1	0	14
LAR	0	0	0	0	1	1	13	12	27
APR	0	0	0	0	0	0	0	1	1
OTH	0	0	0	0	1	0	0	1	2
Total	3	20	11	11	80	12	14	22	173

Malignant neoplasms other than adenocarcinoma

A total of 87 patients with malignancies other than adenocarcinoma was classified into 3 groups.

I)	All-----	87 cases
II)	Surgery-----	74 cases
III)	Endoscopic excision-----	13 cases

Abbreviations of histological typing in this report.

sq	squamous cell carcinoma
as	adenosquamous carcinoma
ud	undifferentiated carcinoma
bsl	basaloid carcinoma
OEM	other eptithelial malignancies
cd	carcinoid
MM	malignant melanoma
LMS	leiomyosarcoma
NHL	non-Hodgkin lymphomas

Table 53-1Age-specific incidence, males

Site	Age									Total
	<20	20-29	30-39	40-49	50-59	60-69	70-79	80-89	90-99	
V	0	0	0	1	1	0	1	0	0	3
C	0	0	0	0	0	0	1	2	0	3
A	0	0	0	2	0	0	0	0	0	2
T	0	0	0	0	1	0	1	0	0	2
D	0	0	0	0	0	0	1	0	0	1
S	0	0	0	0	1	4	1	0	0	6
Rs	0	0	0	0	0	2	0	0	0	2
Ra	0	0	0	0	3	3	0	0	0	6
Rb	0	1	3	2	9	2	2	1	0	20
P	0	0	1	0	1	1	0	1	0	4
Colon	0	0	0	3	3	4	5	2	0	17
Rectum	0	1	4	2	13	8	2	2	0	32
Total	0	1	4	5	16	12	7	4	0	49

Table 53-2Age-specific incidence, females

Site	Age									Total
	<20	20-29	30-39	40-49	50-59	60-69	70-79	80-89	90-99	
V	0	0	0	0	0	0	0	0	0	0
C	0	0	0	0	0	0	1	0	0	1
A	0	0	0	0	0	1	1	1	0	3
T	0	0	0	0	0	1	0	0	0	1
D	1	0	0	0	0	0	1	0	0	2
S	0	0	0	1	0	2	0	0	0	3
Rs	0	0	0	0	0	2	1	0	0	3
Ra	0	0	0	0	1	1	0	0	0	2
Rb	0	0	0	5	3	4	4	1	0	17
P	0	0	0	1	1	2	2	0	0	6
Colon	1	0	0	1	0	4	3	1	0	10
Rectum	0	0	0	6	5	9	7	1	0	28
Total	1	0	0	7	5	13	10	2	0	38

Table 54
Histological typing, by site

Site	Histology										Total
	sq	as	ud	bsl	OEM	cd	MM	LMS	NHL	OTH	
V	0	0	0	0	0	2	0	0	0	1	3
C	0	0	0	0	1	0	0	0	2	1	4
A	1	1	0	0	0	0	0	0	0	2	4
T	0	2	0	0	0	0	0	0	0	1	3
D	0	0	0	0	0	0	0	1	0	0	1
S	0	0	0	0	0	0	0	0	0	6	6
Rs	0	1	1	0	0	0	0	0	0	3	5
Ra	0	0	0	0	1	3	0	0	2	1	7
Rb	4	1	3	0	2	11	3	2	1	4	31
P	4	0	2	1	0	0	1	0	0	2	10
Colon	1	3	0	0	1	2	0	1	2	11	21
Rectum	8	2	6	1	3	14	4	2	3	10	53
Total	9	5	6	1	4	16	4	3	5	21	74

Table 55Modality of principal treatmetHistology

Treatment	sq	as	ud	bsl	OEM	cd	MM	LMS	NHL	OTH	Total
None	0	0	0	0	0	0	0	0	0	0	0
Surgery	8	5	6	1	4	16	4	3	5	20	72
Chemotherapy	1	0	0	0	0	0	0	0	0	0	1
Radiation	0	0	0	0	0	0	0	0	0	1	1
Total	9	5	6	1	4	16	4	3	5	21	74

Table 56DIHistology

DI	sq	as	ud	bsl	OEM	cd	MM	LMS	NHL	OTH	Total
m	0	0	0	0	0	0	0	0	0	4	4
sm	0	1	1	1	1	12	1	1	0	3	21
mp	2	0	3	0	0	2	1	1	0	0	9
ss/a1	2	2	0	0	0	1	0	0	1	1	7
se/a2	3	2	2	0	2	1	2	0	2	3	17
si/ai	1	0	0	0	1	0	0	1	1	0	4
X	1	0	0	0	0	0	0	0	1	10	12
Total	9	5	6	1	4	16	4	3	5	21	74

Table 57Lymph node metastasis, histological

Lymph node	Histology										Total
	sq	as	ud	bsl	OEM	cd	MM	LMS	NHL	OTH	
n0	2	2	3	0	0	5	1	2	2	13	30
n1	1	0	1	1	3	1	0	0	2	1	10
n2	3	1	0	0	0	1	1	0	0	1	7
n3	0	1	1	0	0	0	1	0	0	2	5
n4	1	1	1	0	1	0	0	1	0	0	5
nX	2	0	0	0	0	9	1	0	1	4	17
Total	9	5	6	1	4	16	4	3	5	21	74

Table 58Tumor size (mm)

Size (mm)	Histology										Total
	sq	as	ud	bsl	OEM	cd	MM	LMS	NHL	OTH	
<=20	0	0	0	0	1	12	0	0	0	5	18
21-40	3	0	3	1	1	0	3	2	0	2	15
41-60	3	2	1	0	1	0	1	0	0	3	11
61-80	0	1	2	0	0	2	0	0	1	2	8
>80	1	1	0	0	1	0	0	1	3	2	9
X	2	1	0	0	0	2	0	0	1	7	13
Total	9	5	6	1	4	16	4	3	5	21	74

Table 59Curability of surgical resection, histological

Histology

Curability	sq	as	ud	bsl	OEM	cd	MM	LMS	NHL	OTH	Total
cur A	5	1	4	1	2	16	1	2	3	14	49
cur B	1	2	0	0	0	0	3	0	1	0	7
cur C	2	2	2	0	2	0	0	1	1	2	12
Not resected	0	0	0	0	0	0	0	0	0	2	2
X	1	0	0	0	0	0	0	0	0	3	4
Total	9	5	6	1	4	16	4	3	5	21	74

III) Other malignancies, Endoscopic excision

Table 60
Histological typing, by site

Site	Histology		Total
	cd	OTH	
A	0	1	1
T	0	0	0
D	0	1	1
S	0	4	4
Rs	0	0	0
Ra	0	1	1
Rb	6	0	6
P	0	0	0
Colon	0	6	6
Rectum	6	1	7
Total	6	7	13

Table 61
Endoscopic excision

Excision	Histology		Total
	cd	OTH	
Complete	3	4	7
Undecidable	2	3	5
X	1	0	1
Total	6	7	13

Table 62

DI

DI	Histology		Total
	cd	OTH	
m	1	1	2
sm	4	6	10
X	1	0	1
Total	6	7	13

III) Other malignancies, Endoscopic excision

Table 63

Cut end of the specimen, mucosal and submucosal

		DI				Total	
		m	sm		mp		
		sm-ce					
m-ce		-	+	X	X		
-		2	5	1	1	0	9
+		0	0	0	1	0	1
X		0	0	2	0	1	3
Total		2	5	3	2	1	13

Table 64

Curability of endoscopic excision

Curability	Histology		Total
	cd	OTH	
cur A	2	6	8
cur B	1	1	2
cur C	2	0	2
X	1	0	1
Total	6	7	13

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