

Multi-Institutional Registry of Large Bowel Cancer in Japan

Vol. 36

Cases treated in 2010

Japan Society for Cancer of the Colon and Rectum

全国登録委員会

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まえがき

全国大腸癌登録調査報告書第 36 号 (Multi-Institutional Registry of Large Bowel Cancer in Japan, Vol. 36) をお届けします。本号は 2010 年に大腸癌研究会の会員施設において初回治療された大腸悪性腫瘍 6806 例の調査報告書です。臨床病理学的事項は、大腸癌取り扱い規約第 7 版に従って記載されております。オンラインのみでの公開となり、これまでの部位別の検討を一部省略する一方で、数値のみでなく生存曲線も掲載しました。それに伴い、従来は生命表法で集計していた生存分析は、Kaplan-Meier 法で集計しました。

全国がん登録や院内がん登録、National Clinical Database (NCD) など、様々な registry が本邦で行われていますが、大腸癌研究会が行ってきた大腸癌全国登録、いわゆる臓器がん登録の重要性は今後益々大きくなっていくものと考えます。本邦の質の高い大腸癌の治療は、大腸癌取り扱い規約や大腸癌治療ガイドラインに支えられている面があります。これら大腸癌取り扱い規約や大腸癌治療ガイドラインの作成や改訂において、本全国登録で得られた高質なデータの果たす役割は重要です。

会員施設に勤務されている先生方におかれましては、本登録の意義をご理解いただき、引き続き登録へのご協力をお願い申し上げます。また、登録いただいた会員施設の先生方には、全国登録データ利用の門戸が広く開かれています。是非積極的にご活用いただきますようお願い申し上げます。

2022 年 1 月

大腸癌研究会

会長 杉原 健一

全国大腸癌登録委員会

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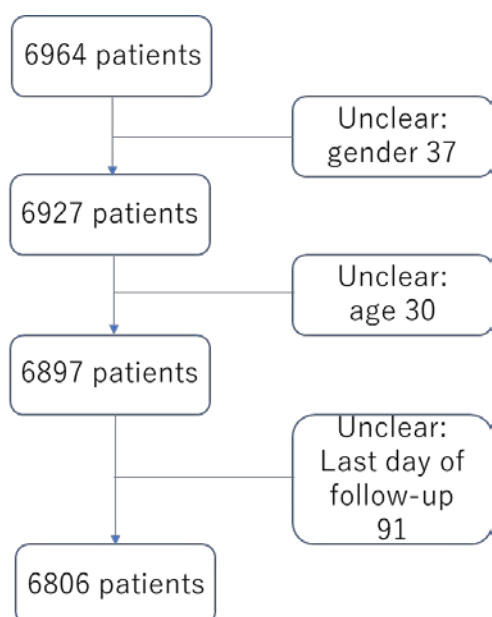
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Data-flow chart (Algorithm of data cleaning)

Analyses were basically performed including the patients who had some missing data, because the percentage of missing data would be helpful to interpret the data more precisely.

Table 1-Treatment

Treatment	Number	Percentage
Endoscopic excision	395	5.8
Surgery after endoscopic excision	343	5
Surgery	6042	88.8
Non-surgery	26	0.4
Total	6806	100

Table 2-1 Endoscopic excision-Gender

Gender	Number	Percentage
Male	235	59.5
Female	160	40.5
Total	395	100

Table 2-2 Endoscopic excision-Age

Age (median)	68 (29-95)
Age (mean)	66.4 ± 11.3

Table 2-3 Endoscopic excision-Age classification

Age classification	Number	Percentage
20-29	1	0.3
30-39	4	1
40-49	27	6.8
50-59	69	17.5
60-69	118	29.9
70-79	129	32.7
80-89	46	11.6
90=<	1	0.3
Total	395	100

Table 2-4 Endoscopic excision-Tumor location

Tumor location	Number	Percentage
Cecum	18	4.6
Ascending	48	12.2
Transverse	35	8.9
Descending	18	4.6
Sigmoid	164	41.5
Rectosigmoid	32	8.1
Upper rectum	28	7.1
Lower rectum	48	12.2
Unknown	4	1.0
Total	395	100

Table 2-5 Endoscopic excision-Procedure

Procedure	Number	Percentage
Polypectomy	55	13.9
EMR	294	74.4
ESD	40	10.1
Others	1	0.3
Unknown	5	1.3
Total	395	100

Table 2-6 Endoscopic excision-En bloc or piecemeal

Resection type	Number	Percentage
En bloc	304	77.0
Piecemeal	32	8.1
Unknown	59	14.9
Total	395	100

Table 2-7 Endoscopic excision-Macroscopic type

Macroscopic type	Number	Percentage
Ip	93	23.5
Isp	104	26.3
Is	44	11.1
Ila	31	7.8
Ilb	0	0
Ilc	0	0
Ila+Ilc	7	1.8
Ilc+Ila	0	0
Others	40	10.1
Unknown	76	19.2
Total	395	100

Table 2-8 Endoscopic excision-Tumor size

Median	15 (4-150) mm
Mean	18.1 ± 14.8 mm

Table 2-9 Endoscopic excision-Tumor size 2

Tumor size	Number	Percentage
≤5 mm	15	3.8
6-10 mm	81	20.5
11-15 mm	84	21.3
16-20 mm	48	12.2
21-30 mm	39	9.9
31-40 mm	17	4.3
>40 mm	12	3
Unknown	99	25.1
Total	395	100

Table 2-10 Endoscopic excision-Histologic type

Histologic type	Number	Percentage
Well differentiated	328	83
Moderately differentiated	31	7.8
Poorly differentiated	1	0.3
Neuroendocrine tumor	5	1.3
Others	24	6.1
Unknown	6	1.5
Total	395	100

Table 2-11 Endoscopic excision-Depth of tumor invasion

Depth of tumor invasion	Number	Percentage
pM	338	85.6
pSM	46	11.6
Unknown	11	2.8
Total	395	100

Table 2-12 Endoscopic excision-Distance of submucosal invasion

Distance of submucosal invasion	Number	Percentage
<1000 μ m	13	28.3
\geq 1000 μ m	11	23.9
Unknown	22	47.8
Total	46	100

Table 2-13 Endoscopic excision-Lymphatic invasion

Lymphatic invasion	Number	Percentage
ly0	363	91.9
ly1	4	1
ly2	3	0.8
ly3	1	0.3
Unknown	24	6.1
Total	395	100

Table 2-14 Endoscopic excision-Venous invasion

Venous invasion	Number	Percentage
v0	367	92.9
v1	2	0.5
v2	3	0.8
v3	0	0
Unknown	23	5.8
Total	395	100

Table 2-15 Endoscopic excision-Horizontal margin

Horizontal margin	Number	Percentage
HM0	340	86.1
HM1	18	4.6
Unknown	37	9.4
Total	395	100

Table 2-16 Endoscopic excision-Vertical margin

Vertical margin	Number	Percentage
VM0	350	88.6
VM1	6	1.5
Unknown	39	9.9
Total	395	100

Table 2-17 Endoscopic excision-Curability

Curability	Number	Percentage
cur EA	352	89.1
cur EC	9	2.3
Unknown	34	8.6
Total	395	100

Table 3-1 Surgery after endoscopic excision-Gender

Gender	Number	Percentage
Male	205	59.8
Female	138	40.2
Total	343	100

Table 3-2 Surgery after endoscopic excision-Age

Age (median)	67 (29-95)
Age (mean)	65.6 ± 11.0

Table 3-3 Surgery after endoscopic excision-Age classification

Age classification	Number	Percentage
20-29	1	0.3
30-39	8	2.3
40-49	23	6.7
50-59	56	16.3
60-69	124	36.2
70-79	105	30.6
80-89	23	6.7
90=<	3	0.9
Total	343	100

Table 3-4 Surgery after endoscopic excision-Tumor location

Tumor location	Number	Percentage
Cecum	9	2.6
Ascending	26	7.6
Transverse	23	6.7
Descending	9	2.6
Sigmoid	102	29.7
Rectosigmoid	26	7.6
Upper rectum	26	7.6
Lower rectum	32	9.3
Proctos	3	0.9
Unknown	87	25.4
Total	343	100

Table 3-5 Surgery after endoscopic excision-Endoscopic procedure

Procedure	Number	Percentage
Polypectomy	26	7.6
EMR	223	65.0
ESD	23	6.7
Unknown	71	20.7
Total	343	100

Table 3-6 Surgery after endoscopic excision-En bloc or piecemeal

Resection	Number	Percentage
En bloc	192	56
Piecemeal	32	9.3
Unknown	119	34.7
Total	343	100

Table 3-7 Surgery after endoscopic excision-Macroscopic type

Macroscopic type	Number	Percentage
Ip	43	12.5
Isp	81	23.6
Is	44	12.8
Ila	35	10.2
Ilb	1	0.3
Ilc	2	0.6
Ila+Ilc	10	2.9
Ilc+Ila	1	0.3
Others	10	2.9
Unknown	116	33.8
Total	343	100

Table 3-8 Surgery after endoscopic excision-Tumor size

Median	15 (5-100) mm
Mean	18.0 ± 12.9 mm

Table 3-9 Surgery after endoscopic excision-Tumor size 2

Tumor size	Number	Percentage
<=5 mm	9	2.6
6-10 mm	50	14.6
11-15 mm	51	14.9
16-20 mm	50	14.6
21-30 mm	27	7.9
31-40 mm	7	2
>40 mm	8	2.3
Unknown	141	41.1
Total	343	100

Table 3-10 Surgery after endoscopic excision-Histologic type

Histologic type	Number	Percentage
Well differentiated	174	50.7
Moderately differentiated	64	18.7
Poorly differentiated	1	0.3
Mucinous	2	0.6
Signet ring cell	0	0
Neuroendocrine tumor	4	1.2
Others	2	0.6
Unknown	96	28.0
Total	343	100

Table 3-11 Surgery after endoscopic excision-Depth of tumor invasion (endoscopic)

Depth of tumor invasion	Number	Percentage
pM	22	6.4
pSM	229	66.8
pMP	3	0.9
pAI	1	0.3
Unknown	88	25.7
Total	343	100

Table 3-12 Surgery after endoscopic excision-Distance of submucosal invasion

Distance of submucosal invasion	Number	Percentage
<1000 μ m	10	4.4
\geq 1000 μ m	135	59
Unknown	84	36.7
Total	229	100

Table 3-13 Surgery after endoscopic excision-Lymphatic invasion

Lymphatic invasion	Number	Percentage
ly0	167	48.7
ly1	60	17.5
ly2	9	2.6
ly3	1	0.3
Unknown	106	30.9
Total	343	100

Table 3-14 Surgery after endoscopic excision-Venous invasion

Venous invasion	Number	Percentage
v0	169	49.3
v1	56	16.3
v2	9	2.6
v3	1	0.3
Unknown	108	31.5
Total	343	100

Table 3-15 Surgery after endoscopic excision-Horizontal margin

Horizontal margin	Number	Percentage
HM0	179	52.2
HM1	19	5.5
Unknown	145	42.3
Total	343	100

Table 3-16 Surgery after endoscopic excision-Vertical margin

Vertical margin	Number	Percentage
VM0	156	45.5
VM1	42	12.2
Unknown	145	42.3
Total	343	100

Table 3-17 Surgery after endoscopic excision-Endoscopic curability

Endoscopic curability	Number	Percentage
cur EA	157	45.8
cur EC	56	16.3
Unknown	130	37.9
Total	343	100

Table 3-18 Surgery after endoscopic excision-Operative approach

Operative approach	Number	Percentage
Transanal	5	1.5
Laparoscopic	266	77.6
Open	69	20.1
Unknown	3	0.9
Total	343	100

Table 3-19 Surgery after endoscopic excision-Type of anastomosis

Type of anastomosis	Number	Percentage
End-to-end	169	49.3
Side-to-end	14	4.1
End-to-side	7	2
Side-to-side	4	1.2
Functional end-to-end	48	14
Unknown	101	29.4
Total	343	100

Table 3-20 Surgery after endoscopic excision-Type of anastomosis 2

Type of anastomosis	Number	Percentage
Handsewn	41	12
Stapling	206	60.1
Unknown	96	28
Total	343	100

Table 3-21 Surgery after endoscopic excision-Lymph node dissection

Type of anastomosis	Number	Percentage
D0	6	1.8
D1	17	5
D2	244	71.1
D3	52	15.2
Unknown	24	7
Total	343	100

Table 3-22 Surgery after endoscopic excision-Histologic type after surgery

Histologic type	Number	Percentage
Well differentiated	196	57.1
Moderately differentiated	70	20.4
Poorly differentiated	4	1.2
Mucinous	2	0.6
Signet ring cell	0	0
Neuroendocrine tumor	3	0.9
Others	2	0.6
Unknown	66	19.2
Total	343	100

Table 3-23 Surgery after endoscopic excision-Depth of tumor invasion after surgery

Depth of tumor invasion	Number	Percentage
pM	15	4.4
pSM	262	76.4
pMP	7	2
pSS	9	2.6
pSE	1	0.3
pA	1	0.3
Unknown	48	14
Total	343	100

Table 3-24 Surgery after endoscopic excision-Lymph node metastasis

Lymph node metastasis	Number	Percentage
pN0	295	86
pN1	43	12.5
pN2	0	0
pN3	0	0
Unknown	5	1.5
Total	343	100

Table 3-25 Surgery after endoscopic excision-Number of lymph node retrieved

Number of lymph node retrieved (median)	12 (0-82)
Number of lymph node retrieved (mean)	15.1 ± 10.3

Table 3-26 Surgery after endoscopic excision-Number of positive lymph node

Number of positive node (median)	0 (0-3)
Number of positive node (mean)	0.2 ± 0.5

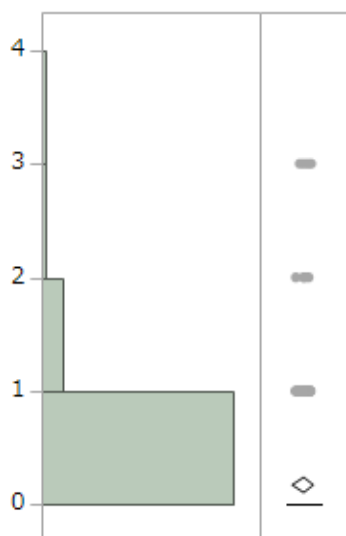


Table 3-27 Surgery after endoscopic excision-Liver metastasis

Liver metastasis	Number	Percentage
H0	326	95
H1	3	0.9
H2	0	0
H3	0	0
Unknown	14	4.1
Total	343	100

Table 3-28 Surgery after endoscopic excision-Peritoneal metastasis

Peritoneal metastasis	Number	Percentage
P0	328	95.6
P1	0	0
P2	0	0
P3	1	0.3
Unknown	14	4.1
Total	343	100

Table 3-29 Surgery after endoscopic excision-Pulmonary metastasis

Peritoneal metastasis	Number	Percentage
LM0	315	91.8
LM1	0	0
LM2	0	0
LM3	0	0
Unknown	28	8.2
Total	343	100

Table 3-30 Surgery after endoscopic excision-Distant metastasis other than liver

Distant m	Number	percentage
M0	299	87.2
M1	1	0.3
Unknown	43	12.5
Total	343	100

Table 3-31 Surgery after endoscopic excision-Curability after surgery

Curability	Number	Percentage
Cur A	333	97.1
Cur B	1	0.3
Cur C	2	0.6
Unknown	7	2.0
Total	343	100

Table 3-32 Surgery after endoscopic excision-Recurrence after surgery

Recurrence	Number	Percentage
Absent	310	90.4
Present	10	2.9
Unknown	23	6.7
Total	343	100

Table 3-33 Surgery after endoscopic excision-Recurrence site after surgery

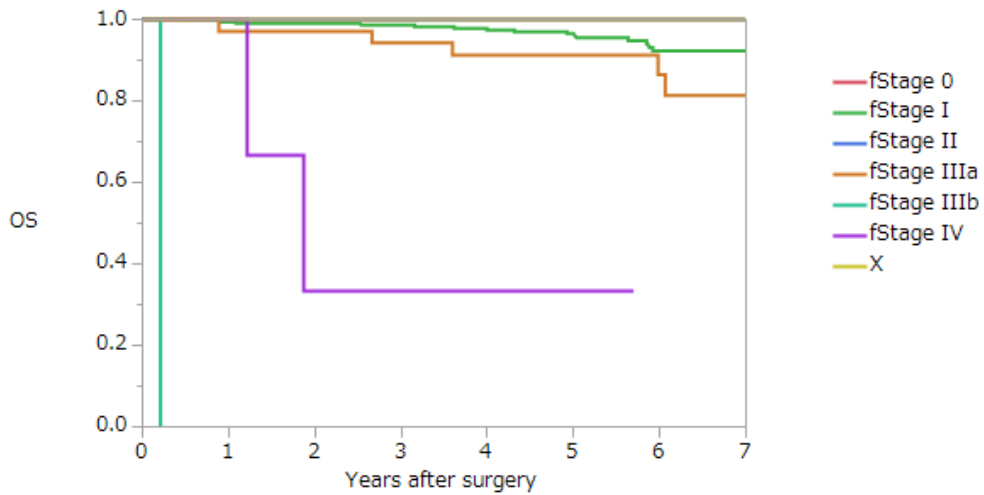
First recurrence site	Number
Anastomosis	1
Regional lymph node	1
Local	0
Lymph node (not regional)	1
Liver	4
Lung	3
Peritoneum	0
Bone	0
Brain	0
Adrenal gland	0
Skin	0
Others	0
(overlapping+)	

Table 3-34 Surgery after endoscopic excision-Treatment after recurrence

Treatment	Number
None	0
Curative s	6
Palliative s	0
Radiothera	0
Chemothe	3
Unknown	1
Total	10

Table3-35 Surgery after endoscopic excision-Overall survival rates after surgery (%)

Group	Number of patients	1 year	2 years	3 years	4 years	5 years
Stage 0	20	100	100	100	100	100
Stage I	272	99.3	98.9	98.5	97.7	96.4
Stage II	8	100	100	100	100	100
Stage IIIa	35	97.1	97.1	94.3	91.3	91.3
Stage IIIb	1	0	0	0	0	0
Stage IV	3	100	33.3	33.3	33.3	33.3
Unknown	4					
All	343	98.8	97.9	97.3	96.3	95.3



Overall survival of all patients with surgery after endoscopic excision

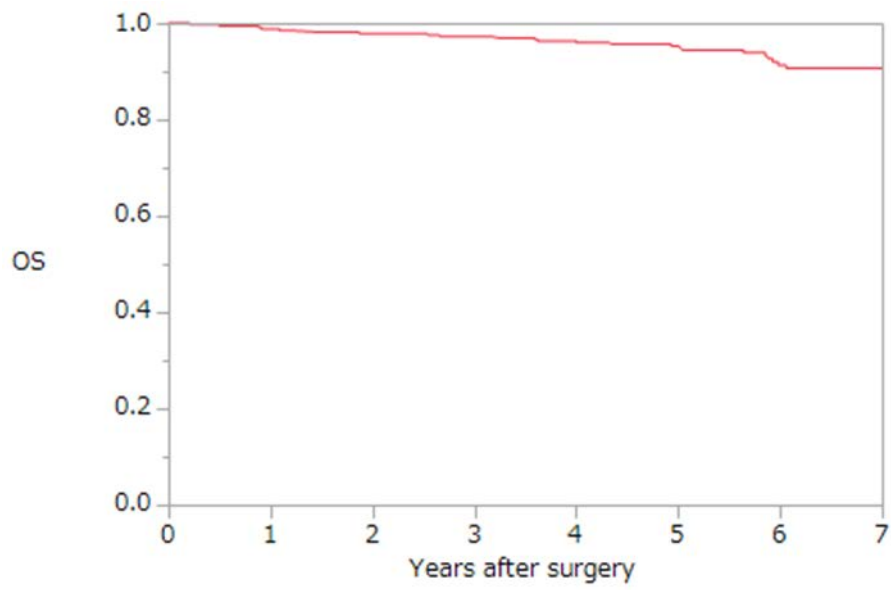


Table 4-1 Surgery-Gender

Gender	Number	Percentage
Male	3498	57.9
Female	2544	42.1
Total	6042	100

Table 4-2 Surgery-Age

Age (median)	68 (20-101)
Age (mean)	67.6 ± 11.7

Table 4-3 Surgery-Age classification

Age classification	Number	Percentage
<20	0	0
20-29	17	0.3
30-39	96	1.6
40-49	308	5.1
50-59	925	15.3
60-69	1921	31.8
70-79	1848	30.6
80-89	851	14.1
90=<	96	1.3
Total	6042	100

Table 4-4 Surgery-Tumor location

Tumor location	Number	Percentage
Processus vermiformis	34	0.60
Cecum	427	7.1
Ascending	904	15.0
Transverse	555	9.2
Descending	255	4.2
Sigmoid	1395	23.1
Rectosigmoid	702	11.6
Upper rectum	714	11.8
Lower rectum	894	14.8
Proctos (anal canal)	49	1.80
Unknown	113	1.9
Total	6042	100

Table 4-5 Surgery-Preoperative serum CEA value

Preoperative serum CEA value	Number	Percentage
Normal	3254	53.9
<2 x ULN	910	15.1
<4 x ULN	472	7.8
<8 x UNL	293	4.8
>=8 x UNL	502	8.3
Unknown	611	10.1
Total	6042	100

Table 4-6 Surgery-Multiple primary cancers

Multiple primary cancers	Number	Percentage
Absent	4899	81.1
Synchronous	317	5.2
Metachronous	542	9
Synchronous and metachronous	31	0.5
Unknown	253	4.2
Total	6042	100

Table 4-7 Surgery-Synchronous multiple colorectal cancers

Synchronous multiple CRC	Number	Percentage
Absent	4235	70.1
Present	382	6.3
Unknown	1425	23.6
Total	6042	100

Table 4-8 Surgery-Metachronous multiple colorectal cancers

Metachronous multiple CRC	Number	Percentage
Absent	4448	73.6
Present	118	2
Unknown	1476	24.4
Total	6042	100

Table 4-9 Operative procedure

Operative procedure	Number	Percentage
Polypectomy	2	0.03
Tumorectomy	30	0.5
Local excision	40	0.7
Appendectomy	2	0.03
Ileocecal resection	455	7.5
Partial colectomy	446	7.4
Right hemicolectomy	983	16.3
Left hemicolectomy	199	3.3
Sigmoidectomy	1132	18.7
Subtotal colectomy	39	0.6
Total colectomy	9	0.1
Total proctocolectomy	15	0.2
High anterior resection	535	8.9
Low anterior resection	1230	20.4
Hartmann's operation	225	3.7
Abdominoperineal resection	364	6.0
Others	106	1.8
Unknown	230	3.8
Total	6042	100

Table 4-10 Surgery-Operative approach

Operative approach	Number	Percentage
Transanal	59	1.0
Laparoscopic	2098	34.7
Open	3575	59.1
Others	15	0.2
Unknown	295	4.9
Total	6042	100

Table 4-11 Surgery-Type of anastomosis

Type of anastomosis	Number	Percentage
End-to-end	2531	41.9
Side-to-end	146	2.4
End-to-side	147	2.4
Side-to-side	100	1.7
Functional end-to-end	1100	18.2
Unknown	2018	33.4
Total	6042	100

Table 4-12 Surgery-Type of anastomosis 2

Type of anastomosis	Number	Percentage
Handsewn	766	12.7
Stapling	3391	56.1
Unknown	1885	31.2
Total	6042	100

Table 4-13 Surgery- Lymph node dissection

Lymph node dissection	Number	Percentage
D0	202	3.3
D1	338	5.6
D2	1948	32.2
D3	3060	50.6
Unknown	494	8.2
Total	6042	100

Table 4-14 Surgery-Tumor size

Tumor size	Number	Percentage
<=20 mm	864	14.3
21-40 mm	1944	32.2
41-60 mm	1612	26.7
61-80 mm	714	11.8
81-100 mm	227	3.8
>100 mm	104	1.7
Unknown	574	9.5
Total	6042	100

Table 4-15 Surgery-Histologic type

Histologic type	Number	Percentage
Well differentiated	2443	40.4
Moderately differentiated	2810	46.5
Poorly differentiated	242	4.0
Mucinous	244	4.0
Signet ring cell	15	0.2
Neuroendocrine tumor	22	0.4
Others	61	1.0
Unknown	205	3.4
Total	6042	100

Table 4-16 Surgery-Histologic type 2

Histologic type	Number	Percentage
adenocarcinoma	5754	95.2
other malignancies	83	1.4
Unknown	205	3.4
Total	6042	100

Table 4-17 Surgery-Depth of tumor invasion

Depth of tumor invasion	Number	Percentage
pTis	225	3.7
pM	706	11.7
pSM	833	13.8
pMP	2237	37.0
pSS	923	15.3
pSI	301	5.0
pA	486	8.0
pAI	73	1.2
Unknown	258	4.3
Total	6042	100

Table 4-18 Surgery-Number of invaded organs

Number of invaded organs	Number	Percentage
0	1467	24.2
1	435	7.2
2	92	1.5
3 or more	41	0.7
Unknown	4007	66.3
Total	6042	100

Table 4-19 Surgery-Lymphatic invasion

Lymphatic invasion	Number	Percentage
ly0	2666	44.1
ly1	2146	35.5
ly2	668	11.1
ly3	261	4.3
Unknown	301	5
Total	6042	100

Table 4-20 Surgery-Venous invasion

Venous invasion	Number	Percentage
v0	2036	33.7
v1	2126	35.2
v2	1154	19.1
v3	432	7.2
Unknown	294	4.9
Total	6042	100

Table 4-21 Surgery-Interstitium

Interstitium	Number	Percentage
Medullary pattern	254	4.2
Intermediate pattern	3304	54.7
Scirrhous pattern	70	1.2
Unknown	2414	40
Total	6042	100

Table 4-22 Surgery-Infiltrative growth pattern

Infiltrative growth pattern	Number	Percentage
INF α	378	6.3
INF β	4133	68.4
INF γ	196	3.2
Unknown	1335	22.1
Total	6042	100

Table 4-23 Surgery-Proximal margin

Proximal margin	Number	Percentage
PM0	5322	88.1
PM1	16	0.3
Unknown	704	11.7
Total	6042	100

Table 4-24 Surgery-Distal margin

Distal margin	Number	Percentage
DM0	5314	88
DM1	21	0.3
Unknown	707	11.7
Total	6042	100

Table 4-25 Surgery-Circumferential resection margin

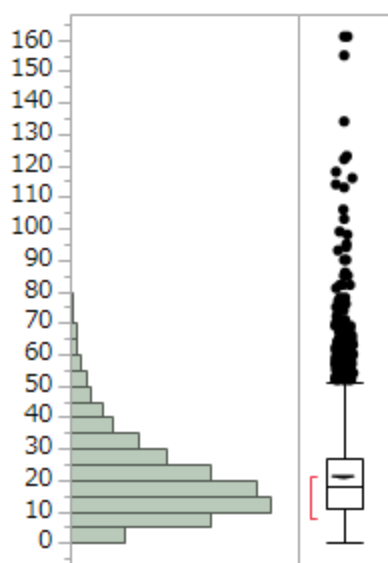
Circumferential resection margin	Number	Percentage
RM0	4765	78.9
RM1	177	2.9
Unknown	1100	18.2
Total	6042	100

Table 4-26 Surgery-lymph node metastasis

Lymph node metastasis	Number	Percentage
pN0	3336	55.2
pN1	1500	24.8
pN2	616	10.2
pN3	247	4.1
Unknown	301	5
Total	6042	100

Table 4-27 Surgery-number of lymph node retrieved (N = 4675)

Number of lymph node retrieved (median)	18 (0-161)
Number of lymph node retrieved (mean)	20.9 ± 14.8



* 外れ値検出のある箱ひげ図には次のものが表示されます。

- IQR = 第 3 四分位点- 第 1 四分位点
- 箱の端から $1.5 \times \text{IQR}$ までの範囲にある一番遠くの点までのひげ
- 外れ値の可能性のある点
- 半分のオブザベーションが含まれる最も短い範囲を示す赤い括弧

Table 4-28 Surgery-number of positive lymph node (N = 4674)

Number of positive node (median)	0 (0-57)
Number of positive node (mean)	1.6 ± 3.7

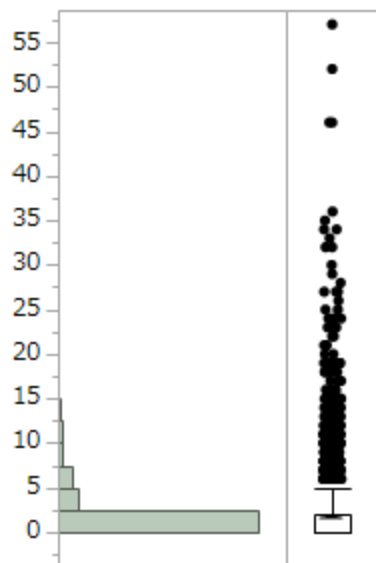


Table 4-29 Surgery-number of paracolic lymph node retrieved (N = 4648)

Number of lymph node retrieved (median)	10 (0-154)
Number of lymph node retrieved (mean)	12.5 ± 9.8

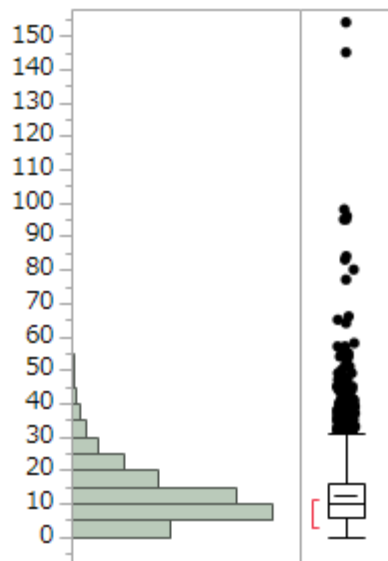


Table 4-30 Surgery-number of positive paracolic lymph node (N = 4650)

Number of positive node (median)	0 (0-47)
Number of positive node (mean)	1.3 ± 2.8

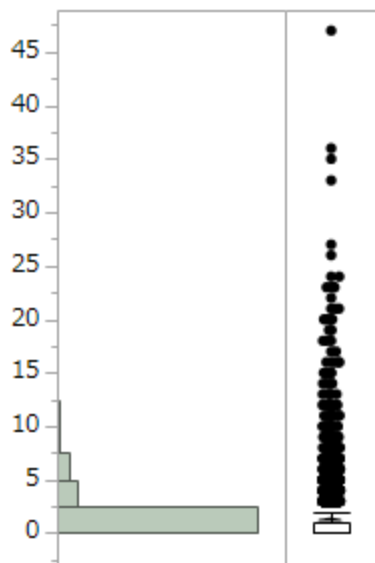


Table 4-31 Surgery-number of intermediate lymph node retrieved (N = 4386)

Number of lymph node retrieved (median)	4 (0-161)
Number of lymph node retrieved (mean)	5.5 ± 4.9

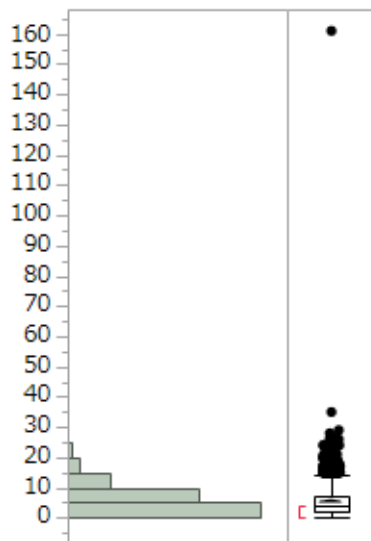


Table 4-32 Surgery-number of positive intermediate lymph node (N = 4382)

Number of positive node (median)	0 (0-19)
Number of positive node (mean)	0.3 ± 1.1

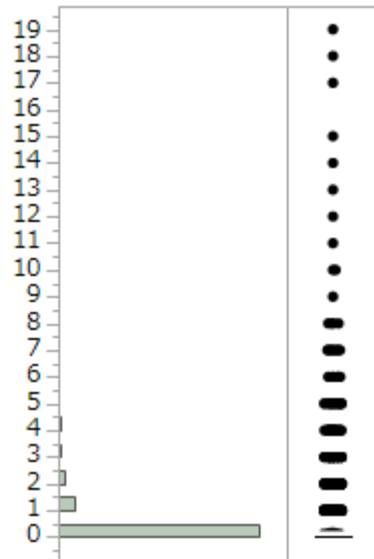


Table 4-33 Surgery-number of main lymph node retrieved (N = 3239)

Number of lymph node retrieved (median)	2 (0-33)
Number of lymph node retrieved (mean)	3.2 ± 3.1

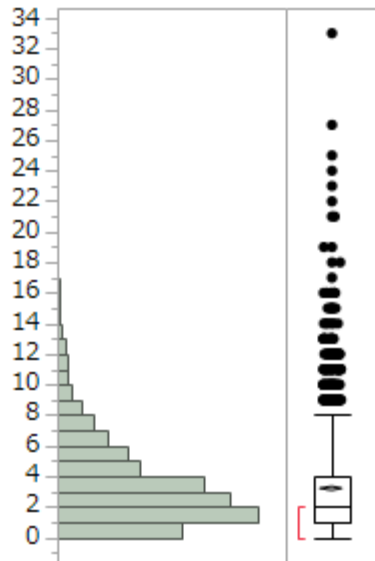


Table 4-34 Surgery-number of positive main lymph node (N = 3237)

Number of positive node (median)	0 (0-10)
Number of positive node (mean)	0.1 ± 0.5

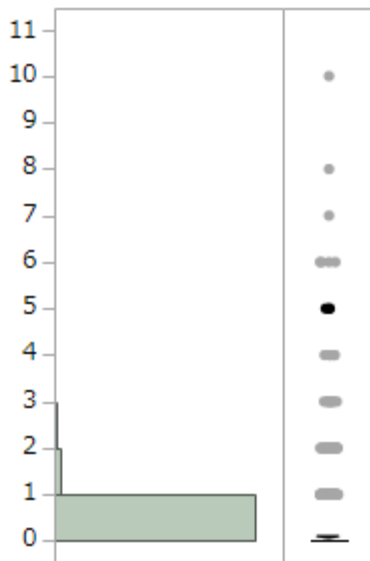


Table 4-35 Surgery-number of lateral pelvic lymph node retrieved (N = 433)

Number of lymph node retrieved (median)	9 (0-84)
Number of lymph node retrieved (mean)	11.6 ± 11.4

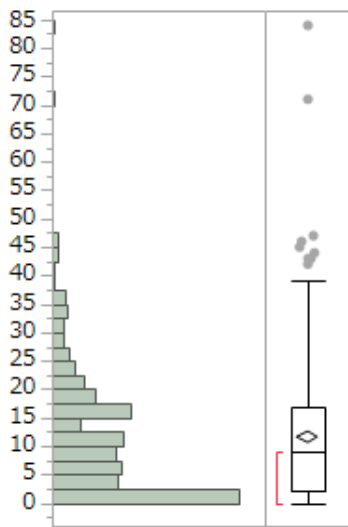


Table 4-36 Surgery-number of positive lateral pelvic lymph node (N = 432)

Number of positive node (median)	0 (0-10)
Number of positive node (mean)	0.3 ± 1.2

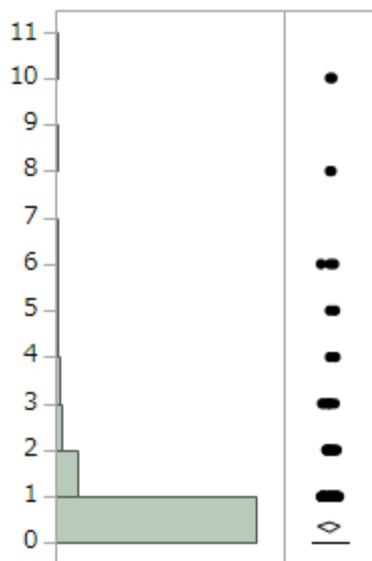


Table 4-37 Surgery-liver metastasis

Liver metastasis	Number	Percentage
H0	5204	86.1
H1	278	4.6
H2	154	2.5
H3	214	3.5
Unknown	192	3.2
Total	6042	100

Table 4-38 Surgery-Peritoneal metastasis

Peritoneal metastasis	Number	Percentage
P0	5556	92.0
P1	119	2.2
P2	60	1
P3	99	1.6
Unknown	208	3.4
Total	6042	100

Table 4-39 Surgery-Distant metastasis other than liver

Distant metastasis	Number	Percentage
M0	4986	87.3
M1	345	5.7
Unknown	711	11.8
Total	6042	100

Table 4-40 Surgery-Lung metastasis

Lung metastasis	Number	Percentage
LM0	5272	87.3
LM1	93	1.5
LM2	19	0.3
LM3	68	1.1
Unknown	590	9.8
Total	6042	100

Table 4-41 Surgery-Curability after surgery

Curability	Number	Percentage
Cur A	4798	79.4
Cur B	295	4.9
Cur C	719	11.9
Unknown	230	3.8
Total	6042	100

Table 4-42 Surgery-Recurrence after surgery

recurrence	Number	Percentage
Absent	4251	70.4
Present	1158	19.2
Unknown	633	10.5
Total	6042	100

Table 4-43 Surgery-Recurrence rate according to stage

	Stage 0	Stage I	Stage II	Stage IIIa	Stage IIIb	Stage IV	Unknown
Absent	201 (86.6)	1126 (89.9)	1364 (78.3)	814 (69.0)	318 (50.7)	400 (42.2)	28 (45.9)
Present	4(1.7)	62 (5.0)	247 (14.2)	287 (24.3)	258 (41.2)	288 (30.4)	12 (19.7)
Unknown	27 (11.6)	64 (5.1)	131 (7.5)	79 (6.7)	51 (8.1)	260 (27.4)	21 (34.4)
Total	232	1252	1742	1180	627	948	61

Table 4-44 Surgery-Recurrence site after surgery

Fisrt recurrence site	Number
Anastomosis	49
Regional lymph node	95
Local	108
Lymph node (not regional)	143
Liver	409
Lung	332
Peritoneum	145
Bone	39
Brain	13
Adrenal gland	8
Skin	5
Others	55
(overlapping+)	

Table 4-45 Surgery-Treatment after recurrence

Treatment for recurrence	Number	Percentage
None	132	11.4
Curative surgery	354	30.6
Palliative surgery	38	3.3
Radiation	41	3.5
Chemotherapy	429	37.1
Others	21	1.8
Unknown	143	12.4
Total	1158	100

Table 4-46 Surgery-Overall survival rates after surgery (%)

Group	Number of patients	1 year	2 years	3 years	4 years	5 years
Stage 0	232	98.2	96.7	94.6	93.5	92.3
Stage I	1252	98.6	97.2	95.3	93.5	91.7
Stage II	1742	97.4	94.4	91.7	88.0	85.8
Stage IIIa	1180	96.0	91.3	86.0	82.2	78.1
Stage IIIb	627	92.3	82.3	74.7	67.7	63.6
Stage IV	948	77.0	55.8	41.1	30.2	24.2
Unknown	61					
All	6402	93.7	87.2	81.8	77.1	74

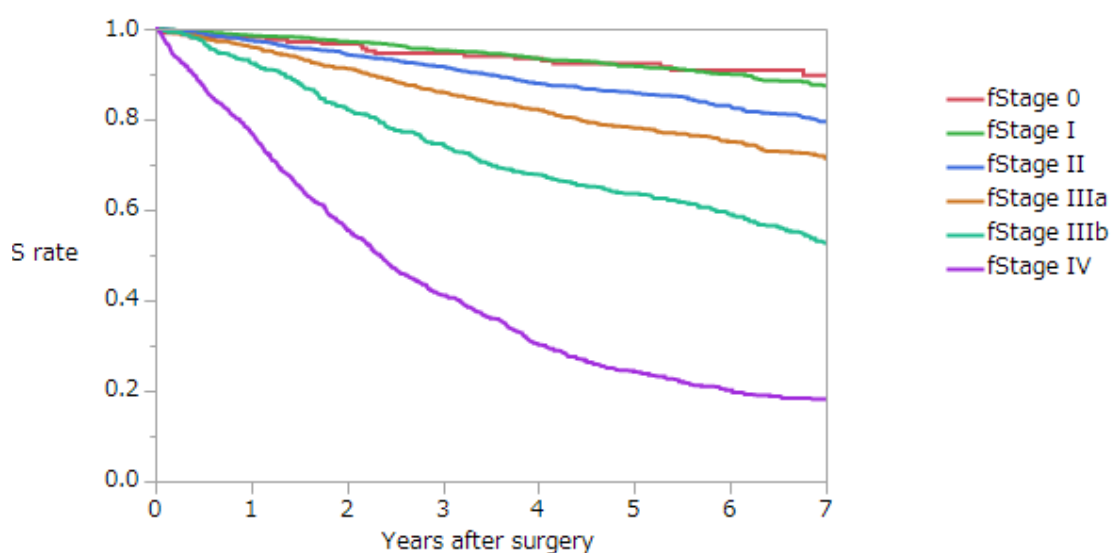


Table 4-47 Surgery-Overall survival rates after surgery (colon) (%)

Group	Number of patients	1 year	2 years	3 years	4 years	5 years
Stage 0	156	98.0	95.8	93.5	92.7	91.9
Stage I	656	98.6	96.7	94.0	91.9	90.2
Stage II	1148	97.3	93.8	90.6	86.5	84.6
Stage IIIa	677	95.7	90.4	84.9	81.1	77.5
Stage IIIb	316	91.3	81.4	75.3	68.0	62.6
Stage IV	601	75.7	57.3	41.5	31.6	25.1
All	3555	93.1	86.6	80.8	76.1	72.9

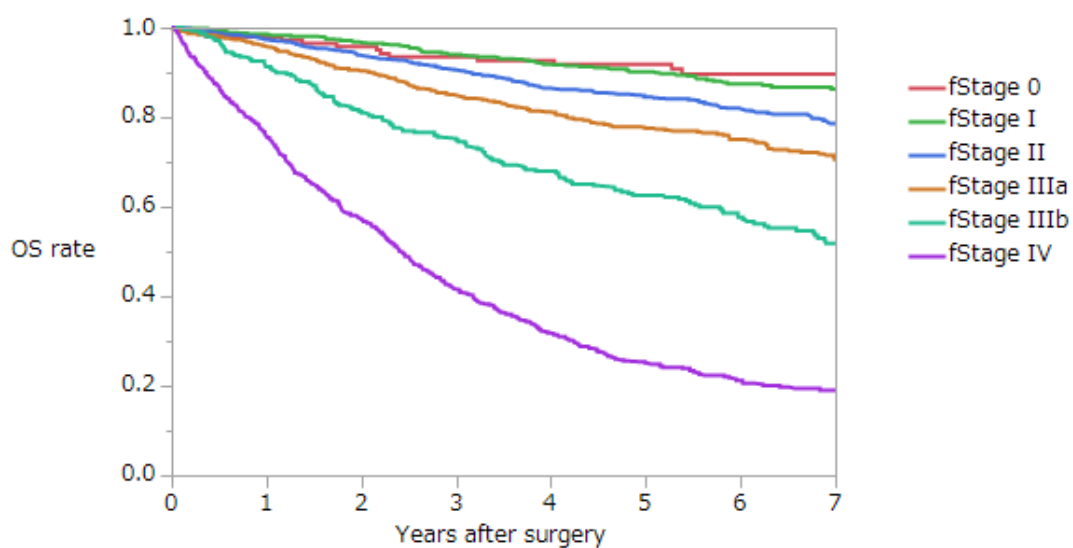


Table 4-48 Surgery-Overall survival rates after surgery (rectum) (%)

Group	Number of patients	1 year	2 years	3 years	4 years	5 years
Stage 0	67	98.4	98.4	96.7	94.8	92.9
Stage I	592	98.6	97.7	96.7	95.2	93.4
Stage II	575	97.5	95.3	93.6	90.4	88.2
Stage IIIa	479	96.2	93.1	88.2	84.4	79.9
Stage IIIb	305	93.6	83.7	74.6	67.9	65.2
Stage IV	321	80.9	55.7	41.8	28.3	23.8
All	2339	94.8	88.6	83.8	79.2	76.3

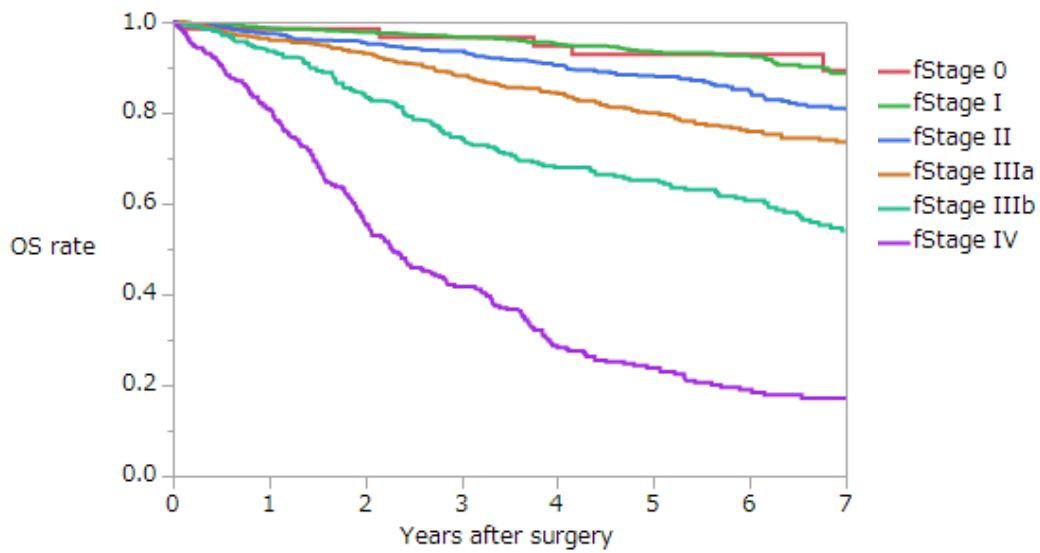


Table 4-49 Surgery-Overall survival rates according to liver metastasis (%)

Group	Number of patients	1 year	2 years	3 years	4 years	5 years
H0	5204	95.9	91.4	87.0	83.0	80.2
H1	278	87.1	69.0	56.4	42.5	35.3
H2	154	75.7	51.4	35.0	24.2	15.8
H3	214	63.0	35.6	18.7	12.8	8.7
Unknown	192					
All except for unknown	5850	93.8	87.3	81.9	77.2	74.0

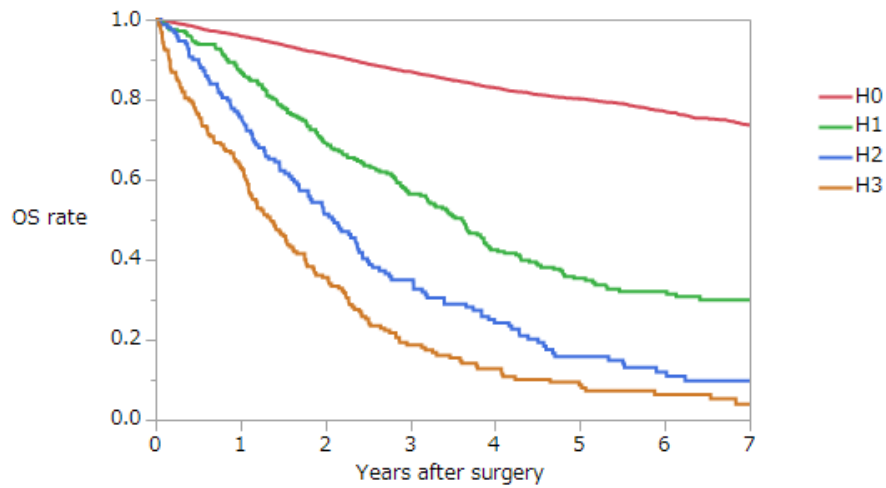


Table 4-50 Surgery-Overall survival rates according to peritoneal metastasis (%)

Group	Number of patients	1 year	2 years	3 years	4 years	5 years
P0	5556	95.1	89.3	84.6	80.1	76.9
P1	119	77.4	57.5	37.0	27.3	22.2
P2	60	72.8	51.4	29.1	21.3	19.2
P3	99	52.6	22.6	16.8	8.4	5.6
Unknown	208					
All except for unknown	5834	93.9	87.4	82.0	77.3	74.1

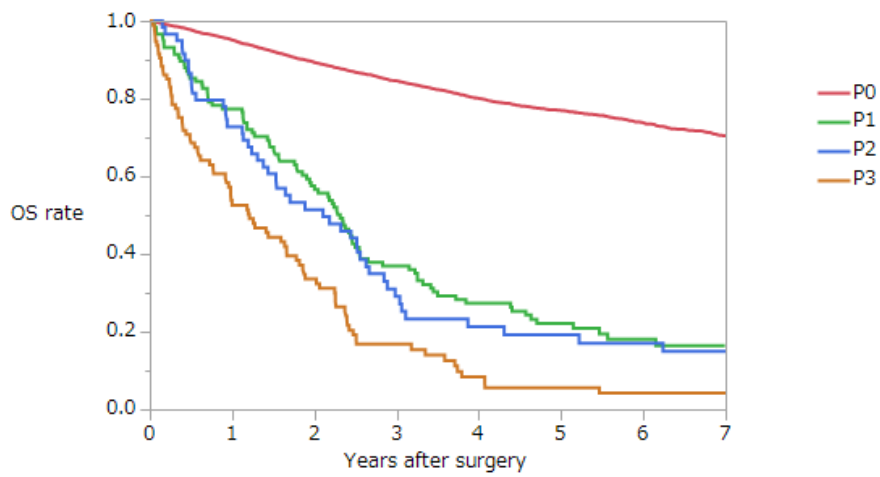


Table 4-51 Surgery-Overall survival rates according to lung metastasis (%)

Group	Number of patients	1 year	2 years	3 years	4 years	5 years
LM0	5272	94.5	88.7	83.6	79.2	76.1
LM1	93	76.4	55.1	39.2	34.2	26.5
LM2	19	73.7	56.7	45.3	11.3	5.7
LM3	68	70.5	44.0	24.4	4.9	4.9
Unknown	590					
All except for unknown	5452	93.8	87.5	82.1	77.4	74.3

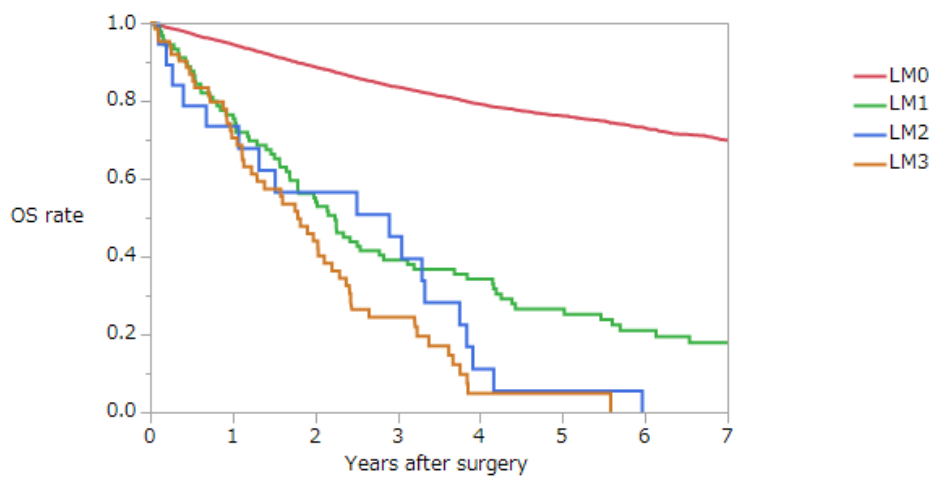


Table 4-52 Surgery-Overall survival rates according to distant metastasis other than liver metastasis (%)

Group	Number of patients	1 year	2 years	3 years	4 years	5 years
M0	4986	95.3	90.0	85.3	81.2	78.1
M1	345	71.2	49.3	33.4	23.1	19.6
Unknown	711					
All except for unknown	5331	93.8	87.4	82.0	77.5	74.3

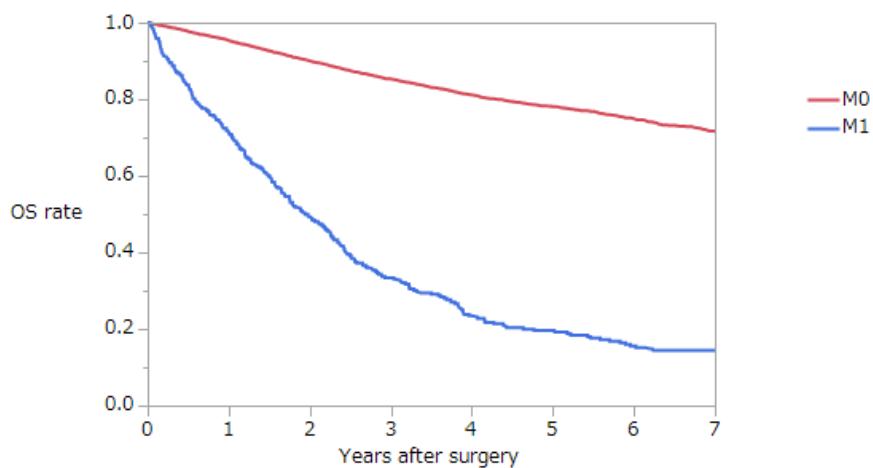
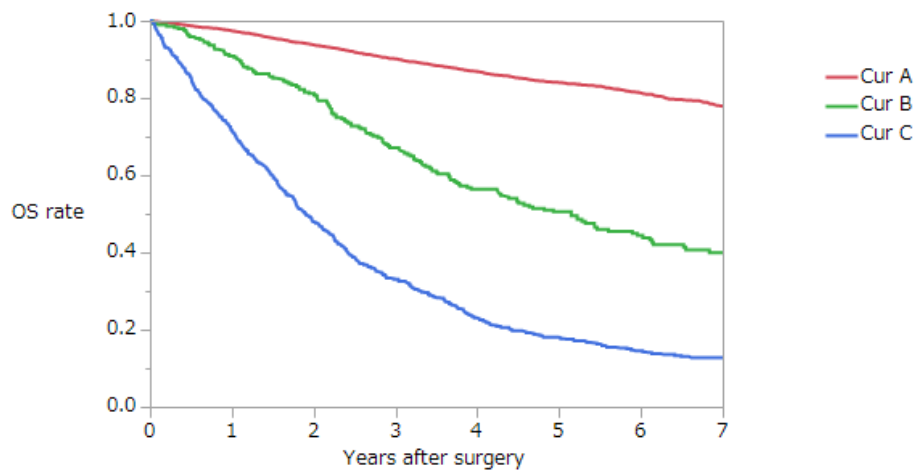


Table 4-53 Surgery-Overall survival rates according to curability (%)

Group	Number of patients	1 year	2 years	3 years	4 years	5 years
Cur A	4798	97.4	93.8	90.2	86.9	84
Cur B	295	90.9	81.2	67.2	56.4	50.6
Cur C	719	71.5	48.0	33.0	22.8	17.9
Unknown	230					
All except for unknown	5812	94	87.7	82.2	77.8	74.5



Participating institutions

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Multi-institutional Registry of Large Bowel Cancer
in Japan

Vol. 36
Cases treated in 2010

2022年（令和4年）1月31日発行

発行者
大腸癌研究会

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