

Multi-Institutional Registry of Large Bowel Cancer in Japan

Vol. 35

Cases treated in 2009

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 35 号 (Multi-Institutional Registry of Large Bowel Cancer in Japan, Vol. 35) をお届けします。本号は 2009 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 6987 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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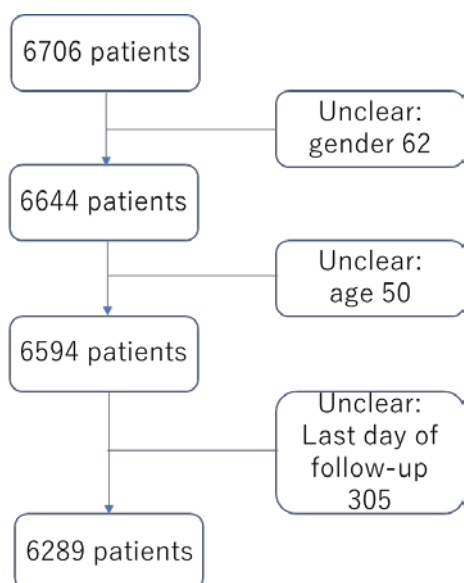
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Data-flow chart (Algorithm of data cleaning)

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	397	6.3
Surgery after endoscopic excision	295	4.7
Surgery	5565	88.5
Non-surgery	32	0.5
Total	6289	100

Table 2-1 Endoscopic excision-Gender

Gender	Number	Percentage
Male	258	65
Female	139	35
Total	397	100

Table 2-2 Endoscopic excision-Age

Age (median)	67 (30-92)
Age (mean)	66.5 ± 10.7

Table 2-3 Endoscopic excision-Age classification

Age classification	Number	Percentage
20-29	0	0
30-39	6	1.5
40-49	21	5.3
50-59	70	17.6
60-69	140	35.3
70-79	117	29.5
80-89	41	10.3
90=<	2	0.5
Total	397	100

Table 2-4 Endoscopic excision-Tumor location

Tumor location	Number	Percentage
Cecum	9	2.3
Ascending	65	16.4
Transverse	32	8.1
Descending	24	6.0
Sigmoid	144	36.3
Rectosigmoid	38	9.6
Upper rectum	33	8.3
Lower rectum	36	9.1
Unknown	16	4.0
Total	397	100

Table 2-5 Endoscopic excision-Procedure

Procedure	Number	Percentage
Polypectomy	58	14.6
EMR	286	72.0
ESD	48	12.1
Others	3	0.8
Unknown	2	0.5
Total	397	100

Table 2-6 Endoscopic excision-En bloc or piecemeal

Resection type	Number	Percentage
En bloc	329	82.9
Piecemeal	45	11.3
Unknown	23	5.8
Total	397	100

Table 2-7 Endoscopic excision-Macroscopic type

Macroscopic type	Number	Percentage
Ip	76	19.1
Isp	95	23.9
Is	54	13.6
Ila	42	10.6
IIb	1	0.3
IIc	2	0.5
Ila+IIc	10	2.5
IIc+Ila	2	0.5
Others	40	10.1
Unknown	75	18.9
Total	397	100

Table 2-8 Endoscopic excision-Tumor size

Median	15 (4-80) mm
Mean	17.2 ± 11.6 mm

Table 2-9 Endoscopic excision-Tumor size 2

Tumor size	Number	Percentage
≤5 mm	15	3.8
6-10 mm	79	19.9
11-15 mm	80	20.2
16-20 mm	49	12.3
21-30 mm	38	9.6
31-40 mm	15	3.8
>40 mm	9	2.3
Unknown	112	28.2
Total	397	100

Table 2-10 Endoscopic excision-Histologic type

Histologic type	Number	Percentage
Well differentiated	358	90.2
Moderately differentiated	29	7.3
Poorly differentiated	0	0
Neuroendocrine tumor	7	1.8
Others	2	0.5
Unknown	1	0.3
Total	397	100

Table 2-11 Endoscopic excision-Depth of tumor invasion

Depth of tumor invasion	Number	Percentage
pM	328	82.6
pSM	60	15.1
pMP	1	0.3
Unknown	8	2
Total	397	100

Table 2-12 Endoscopic excision-Distance of submucosal invasion

Distance of submucosal invasion	Number	Percentage
<1000 μ m	7	2.0
\geq 1000 μ m	32	9.4
Unknown	303	88.6
Total	397	100

Table 2-13 Endoscopic excision-Lymphatic invasion

Lymphatic invasion	Number	Percentage
ly0	360	90.7
ly1	6	1.5
ly2	1	0.3
ly3	0	0
Unknown	30	7.6
Total	397	100

Table 2-14 Endoscopic excision-Venous invasion

Venous invasion	Number	Percentage
v0	365	91.9
v1	4	1
v2	4	1
v3	0	0
Unknown	24	6
Total	397	100

Table 2-15 Endoscopic excision-Horizontal margin

Horizontal margin	Number	Percentage
HM0	338	85.1
HM1	11	2.8
Unknown	48	12.1
Total	397	100

Table 2-16 Endoscopic excision-Vertical margin

Vertical margin	Number	Percentage
VM0	342	86.1
VM1	4	1
Unknown	51	12.8
Total	397	100

Table 2-17 Endoscopic excision-Curability

Curability	Number	Percentage
cur EA	356	89.7
cur EC	13	3.3
Unknown	28	7.1
Total	397	100

Table 3-1 Surgery after endoscopic excision-Gender

Gender	Number	Percentage
Male	191	64.7
Female	104	35.3
Total	295	100

Table 3-2 Surgery after endoscopic excision-Age

Age (median)	65 (24-83)
Age (mean)	63.8 ± 10.0

Table 3-3 Surgery after endoscopic excision-Age classification

Age classification	Number	Percentage
20-29	2	0.7
30-39	2	0.7
40-49	23	7.8
50-59	65	22.0
60-69	109	36.9
70-79	87	29.5
80-89	7	2.4
90=<	0	0
Total	295	100

Table 3-4 Surgery after endoscopic excision-Tumor location

Tumor location	Number	Percentage
Cecum	9	3.1
Ascending	26	8.8
Transverse	24	8.1
Descending	10	3.4
Sigmoid	107	36.3
Rectosigmoid	34	11.5
Upper rectum	26	8.8
Lower rectum	35	11.9
Proctos	0	0
Unknown	24	8.1
Total	295	100

Table 3-5 Surgery after endoscopic excision-Endoscopic procedure

Procedure	Number	Percentage
Polypectomy	13	4.4
EMR	222	75.3
ESD	42	14.2
Others	1	0.3
Unknown	17	5.8
Total	295	100

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

Resection	Number	Percentage
En bloc	176	59.7
Piecemeal	71	24.1
Unknown	48	16.3
Total	295	100

Table 3-7 Surgery after endoscopic excision-Macroscopic type

Macroscopic type	Number	Percentage
Ip	42	14.2
Isp	83	28.1
Is	58	19.7
Ila	34	11.5
Ilb	1	0.3
Ilc	5	1.7
Ila+Ilc	10	3.4
Ilc+Ila	1	0.3
Others	7	2.4
Unknown	54	18.3
Total	295	100

Table 3-8 Surgery after endoscopic excision-Tumor size

Median	15 (4-100) mm
Mean	17.9 ± 11.8 mm

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

Tumor size	Number	Percentage
<=5 mm	6	2
6-10 mm	47	15.9
11-15 mm	60	20.3
16-20 mm	33	11.2
21-30 mm	41	13.9
31-40 mm	6	2
>40 mm	7	2.4
Unknown	95	32.2
Total	295	100

Table 3-10 Surgery after endoscopic excision-Histologic type

Histologic type	Number	Percentage
Well differentiated	194	65.8
Moderately differentiated	58	19.7
Poorly differentiated	2	0.7
Mucinous	0	0
Signet ring cell	0	0
Neuroendocrine tumor	2	0.7
Others	1	0.3
Unknown	38	12.9
Total	295	100

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

Depth of tumor invasion	Number	Percentage
pM	17	5.8
pSM	244	82.7
pMP	6	2
pSS	0	0
pSE	1	0.3
Unknown	27	9.2
Total	295	100

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

Distance of submucosal invasion	Number	Percentage
<1000 μ m	14	4.7
\geq 1000 μ m	149	50.5
Unknown	132	44.7
Total	295	100

Table 3-13 Surgery after endoscopic excision-Lymphatic invasion

Lymphatic invasion	Number	Percentage
ly0	171	58
ly1	70	23.7
ly2	4	1.4
ly3	0	0
Unknown	50	16.9
Total	295	100

Table 3-14 Surgery after endoscopic excision-Venous invasion

Venous invasion	Number	Percentage
v0	180	61
v1	63	21.4
v2	7	2.4
v3	1	0.3
Unknown	44	14.9
Total	295	100

Table 3-15 Surgery after endoscopic excision-Horizontal margin

Horizontal margin	Number	Percentage
HM0	173	58.6
HM1	36	12.2
Unknown	86	29.2
Total	295	100

Table 3-16 Surgery after endoscopic excision-Vertical margin

Vertical margin	Number	Percentage
VM0	154	52.2
VM1	53	18
Unknown	88	29.8
Total	295	100

Table 3-17 Surgery after endoscopic excision-Endoscopic curability

Endoscopic curability	Number	Percentage
cur EA	126	42.7
cur EC	95	32.2
Unknown	74	25.1
Total	295	100

Table 3-18 Surgery after endoscopic excision-Operative approach

Operative approach	Number	Percentage
Transanal	3	1
Laparoscopic	220	74.6
Open	68	23.1
Others	2	0.7
Unknown	2	0.7
Total	295	100

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

Type of anastomosis	Number	Percentage
End-to-end	147	49.8
Side-to-end	15	5.1
End-to-side	9	3.1
Side-to-side	6	2
Functional end-to-end	42	14.2
Unknown	76	25.8
Total	295	100

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

Type of anastomosis	Number	Percentage
Handsewn	35	11.9
Stapling	229	77.6
Unknown	31	10.5
Total	295	100

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

Type of anastomosis	Number	Percentage
D0	6	2
D1	13	4.4
D2	219	74.2
D3	47	15.9
Unknown	10	3.4
Total	295	100

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

Histologic type	Number	Percentage
Well differentiated	154	52.2
Moderately differentiated	59	20
Poorly differentiated	2	0.7
Mucinous	1	0.3
Signet ring cell	0	0
Neuroendocrine tumor	2	0.7
Others	0	0
Unknown	77	26.1
Total	295	100

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

Depth of tumor invasion	Number	Percentage
pM	12	4.1
pSM	186	63.1
pMP	16	5.4
pSS	10	3.4
pSE	1	0.3
pA	2	0.7
Unknown	68	23.1
Total	295	100

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

Lymph node metastasis	Number	Percentage
pN0	254	86.1
pN1	35	11.9
pN2	2	0.7
pN3	0	0
Unknown	4	1.4
Total	295	100

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

Number of lymph node retrieved (median)	12 (0-93)
Number of lymph node retrieved (mean)	14.0 ± 9.8

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

Number of positive node (median)	0 (0-5)
Number of positive node (mean)	0.2 ± 0.6

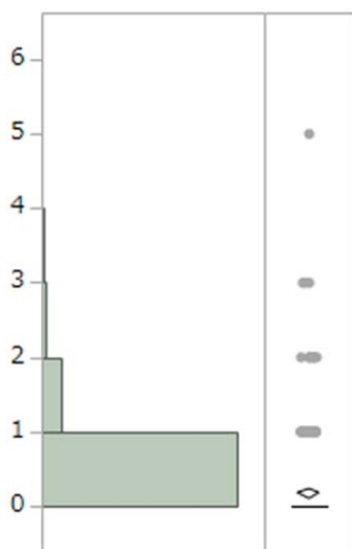


Table 3-27 Surgery after endoscopic excision-Liver metastasis

Liver metastasis	Number	Percentage
H0	294	99.7
H1	0	0
H2	1	0.3
H3	0	0
Unknown	0	0
Total	295	100

Table 3-28 Surgery after endoscopic excision-Peritoneal metastasis

Peritoneal metastasis	Number	Percentage
P0	295	100
P1	0	0
P2	0	0
P3	0	0
Unknown	0	0
Total	295	100

Table 3-29 Surgery after endoscopic excision-Pulmonary metastasis

Peritoneal metastasis	Number	Percentage
LM0	269	91.2
LM1	0	0
LM2	0	0
LM3	0	0
Unknown	26	8.8
Total	295	100

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

Distant m	Number	percentage
M0	281	95.3
M1	0	0
Unknown	14	4.7
Total	295	100

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

Curability	Number	Percentage
Cur A	285	96.6
Cur B	0	0.0
Cur C	1	0.3
Unknown	9	3.1
Total	295	100

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

Recurrence	Number	Percentage
Absent	267	90.5
Present	10	3.4
Unknown	18	6.1
Total	295	100

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

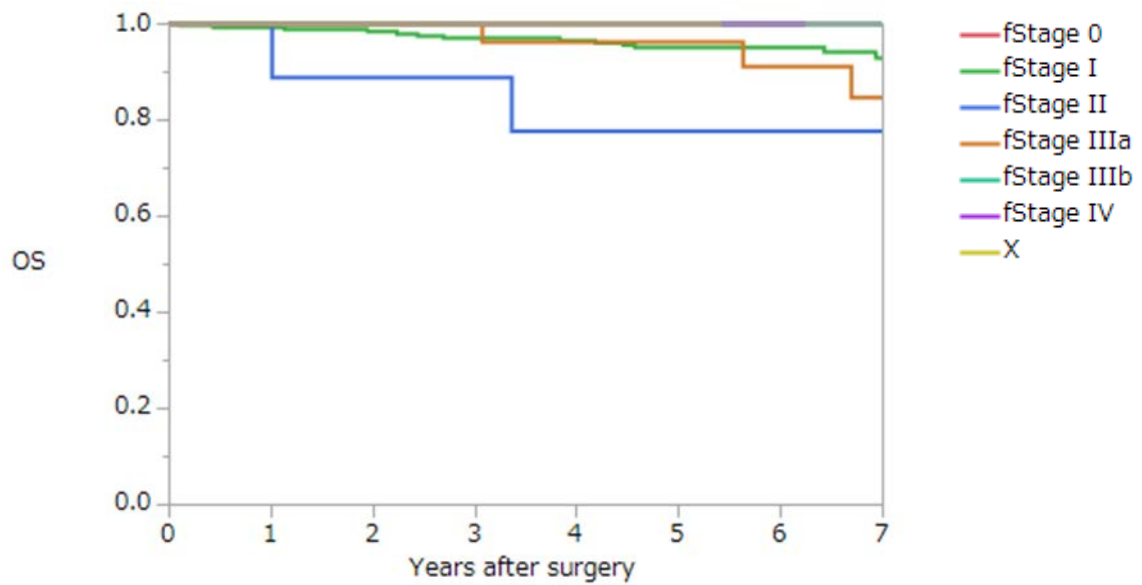
First recurrence site	Number
Anastomosis	1
Regional lymph node	1
Local	0
Lymph node (not regional)	1
Liver	3
Lung	5
Peritoneum	1
Bone	0
Brain	0
Adrenal gland	0
Skin	0
Others	0
(overlapping+)	

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

Treatment	Number
None	0
Curative s	2
Palliative s	0
Radiothera	1
Chemothe	4
Unknown	2
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	12	100	100	100	100	100
Stage I	235	99.1	98.2	96.9	96.4	95.0
Stage II	10	100	88.9	88.9	77.8	77.8
Stage IIIa	31	100	100	100	96.3	96.3
Stage IIIb	2	100	100	100	100	100
Stage IV	1	100	100	100	100	100
Unknown	4					
All	295	99.3	98.2	97.1	96	94.8



Overall survival of all patients with surgery after endoscopic excision

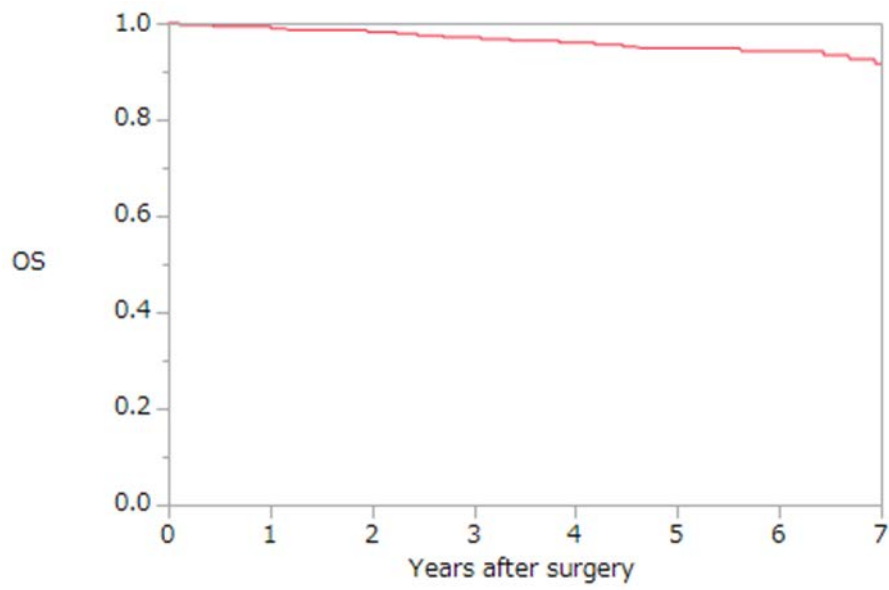


Table 4-1 Surgery-Gender

Gender	Number	Percentage
Male	3190	57.3
Female	2375	42.7
Total	5565	100

Table 4-2 Surgery-Age

Age (median)	68 (19-99)
Age (mean)	66.8 ± 11.7

Table 4-3 Surgery-Age classification

Age classification	Number	Percentage
<20	4	0.07
20-29	24	0.4
30-39	102	1.8
40-49	282	5.1
50-59	914	16.4
60-69	1812	32.6
70-79	1678	30.2
80-89	702	12.6
90=<	47	0.8
Total	5565	100

Table 4-4 Surgery-Tumor location

Tumor location	Number	Percentage
Processus vermiformis	24	0.43
Cecum	383	6.9
Ascending	804	14.4
Transverse	521	9.4
Descending	237	4.3
Sigmoid	1317	23.7
Rectosigmoid	726	13.0
Upper rectum	599	10.8
Lower rectum	812	14.6
Proctos (anal canal)	55	0.99
Unknown	132	2.1
Total	5565	100

Table 4-5 Surgery-Preoperative serum CEA value

Preoperative serum CEA value	Number	Percentage
Normal	3272	58.8
<2 x ULN	800	14.4
<4 x ULN	457	8.2
<8 x UNL	256	4.6
>=8 x UNL	504	9.1
Unknown	276	5.0
Total	5565	100

Table 4-6 Surgery-Multiple primary cancers

Multiple primary cancers	Number	Percentage
Absent	4741	85.2
Synchronous	280	5
Metachronous	435	7.8
Synchronous and metachronous	22	0.4
Unknown	87	1.6
Total	5565	100

Table 4-7 Surgery-Synchronous multiple colorectal cancers

Synchronous multiple CRC	Number	Percentage
Absent	4092	73.5
Present	376	6.8
Unknown	1097	19.7
Total	5565	100

Table 4-8 Surgery-Metachronous multiple colorectal cancers

Metachronous multiple CRC	Number	Percentage
Absent	4348	78.1
Present	116	2.1
Unknown	1101	19.8
Total	5565	100

Table 4-9 Operative procedure

Operative procedure	Number	Percentage
Polypectomy	2	0.04
Tumorectomy	38	0.7
Local excision	20	0.4
Appendectomy	3	0.05
Ileocecal resection	359	6.5
Partial colectomy	479	8.6
Right hemicolectomy	876	15.7
Left hemicolectomy	195	3.5
Sigmoidectomy	1056	19.0
Subtotal colectomy	14	0.3
Total colectomy	7	0.1
Total proctocolectomy	26	0.5
High anterior resection	544	9.8
Low anterior resection	1124	20.2
Hartmann's operation	194	3.5
Abdominoperineal resection	346	6.2
Others	101	1.8
Unknown	181	3.3
Total	5565	100

Table 4-10 Surgery-Operative approach

Operative approach	Number	Percentage
Transanal	61	1.1
Laparoscopic	1885	33.9
Open	3477	62.5
Others	14	0.3
Unknown	128	2.3
Total	5565	100

Table 4-11 Surgery-Type of anastomosis

Type of anastomosis	Number	Percentage
End-to-end	2545	45.7
Side-to-end	213	3.8
End-to-side	163	2.9
Side-to-side	110	2
Functional end-to-end	892	16
Unknown	1642	29.5
Total	5565	100

Table 4-12 Surgery-Type of anastomosis 2

Type of anastomosis	Number	Percentage
Handsewn	814	14.6
Stapling	3517	63.2
Unknown	1234	22.2
Total	5565	100

Table 4-13 Surgery- Lymph node dissection

Lymph node dissection	Number	Percentage
D0	167	3.0
D1	296	5.3
D2	1875	33.7
D3	2809	50.5
Unknown	418	7.5
Total	5565	100

Table 4-14 Surgery-Tumor size

Tumor size	Number	Percentage
≤20 mm	726	13
21-40 mm	1810	32.5
41-60 mm	1486	26.7
61-80 mm	614	11
81-100 mm	212	3.8
>100 mm	78	1.4
Unknown	639	11.5
Total	5565	100

Table 4-15 Surgery-Histologic type

Histologic type	Number	Percentage
Well differentiated	2154	38.7
Moderately differentiated	2721	48.9
Poorly differentiated	213	3.8
Mucinous	211	3.8
Signet ring cell	16	0.3
Neuroendocrine tumor	29	0.5
Others	39	0.7
Unknown	182	3.3
Total	5565	100

Table 4-16 Surgery-Histologic type 2

Histologic type	Number	Percentage
adenocarcinoma	5310	95.4
other malignancies	68	1.2
Unknown	182	3.3
Total	5565	100

Table 4-17 Surgery-Depth of tumor invasion

Depth of tumor invasion	Number	Percentage
pTis	219	3.9
pM	594	10.7
pSM	795	14.3
pMP	1937	34.8
pSS	977	17.6
pSI	252	4.5
pA	494	8.9
pAI	51	0.9
Unknown	246	4.4
Total	5565	100

Table 4-18 Surgery-Number of invaded organs

Number of invaded organs	Number	Percentage
0	1362	24.5
1	420	7.5
2	95	1.7
3 or more	30	0.5
Unknown	3658	65.7
Total	5565	100

Table 4-19 Surgery-Lymphatic invasion

Lymphatic invasion	Number	Percentage
ly0	2291	41.2
ly1	2049	36.8
ly2	397	12.5
ly3	263	4.7
Unknown	265	4.8
Total	5565	100

Table 4-20 Surgery-Venous invasion

Venous invasion	Number	Percentage
v0	1768	31.8
v1	2112	38
v2	1014	18.2
v3	410	7.4
Unknown	261	4.7
Total	5565	100

Table 4-21 Surgery-Interstitialium

Interstitialium	Number	Percentage
Medullary pattern	332	6
Intermediate pattern	3142	56.5
Scirrhus pattern	40	0.7
Unknown	2051	36.9
Total	5565	100

Table 4-22 Surgery-Infiltrative growth pattern

Infiltrative growth pattern	Number	Percentage
INF α	476	8.6
INF β	3778	67.9
INF γ	153	2.7
Unknown	1158	20.8
Total	5565	100

Table 4-23 Surgery-Proximal margin

Proximal margin	Number	Percentage
PM0	5177	93
PM1	12	0.2
Unknown	376	6.8
Total	5565	100

Table 4-24 Surgery-Distal margin

Distal margin	Number	Percentage
DM0	5165	92.8
DM1	16	0.3
Unknown	384	6.9
Total	5565	100

Table 4-25 Surgery-Circumferential resection margin

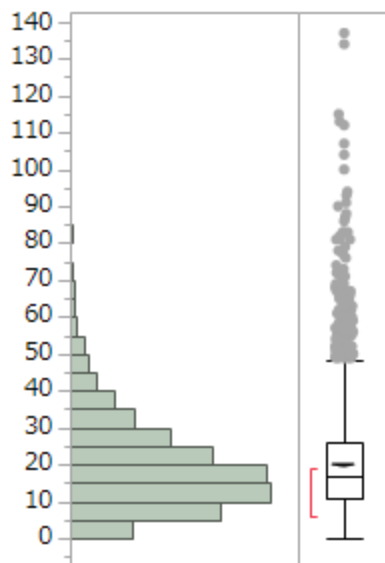
Circumferential resection margin	Number	Percentage
RM0	4629	83.2
RM1	156	2.8
Unknown	780	14
Total	5565	100

Table 4-26 Surgery-lymph node metastasis

Lymph node metastasis	Number	Percentage
pN0	3072	55.2
pN1	1383	24.9
pN2	574	10.3
pN3	207	3.7
Unknown	329	5.9
Total	5565	100

Table 4-27 Surgery-number of lymph node retrieved (N = 4812)

Number of lymph node retrieved (median)	17 (0-137)
Number of lymph node retrieved (mean)	19.8 ± 13.4



* 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 = 4773)

Number of positive node (median)	0 (0-49)
Number of positive node (mean)	1.5 ± 3.1

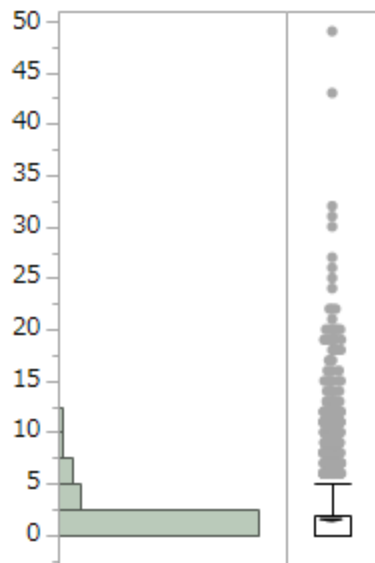


Table 4-29 Surgery-number of paracolic lymph node retrieved (N = 4773)

Number of lymph node retrieved (median)	10 (0-108)
Number of lymph node retrieved (mean)	11.7 ± 8.5

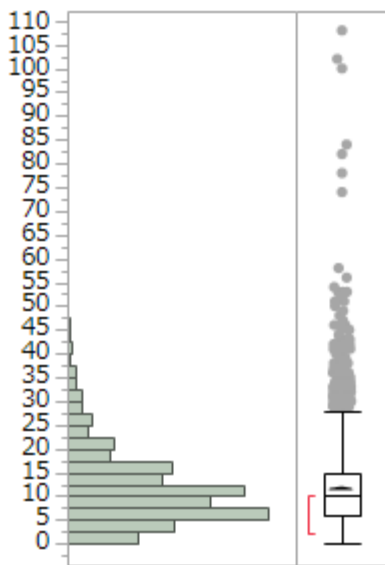


Table 4-30 Surgery-number of positive paracolic lymph node (N = 4874)

Number of positive node (median)	0 (0-49)
Number of positive node (mean)	1.2 ± 2.4

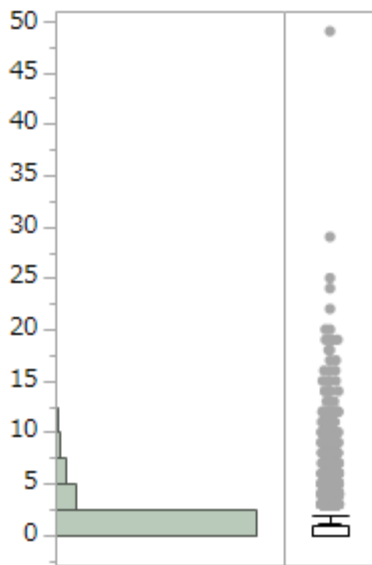


Table 4-31 Surgery-number of intermediate lymph node retrieved (N = 4518)

Number of lymph node retrieved (median)	4 (0-54)
Number of lymph node retrieved (mean)	5.7 ± 4.8

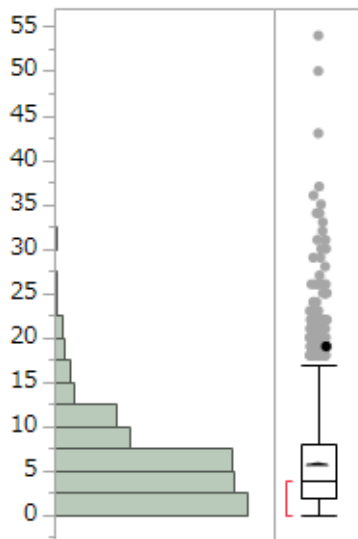


Table 4-32 Surgery-number of positive intermediate lymph node (N = 4618)

Number of positive node (median)	0 (0-12)
Number of positive node (mean)	0.2 ± 0.8

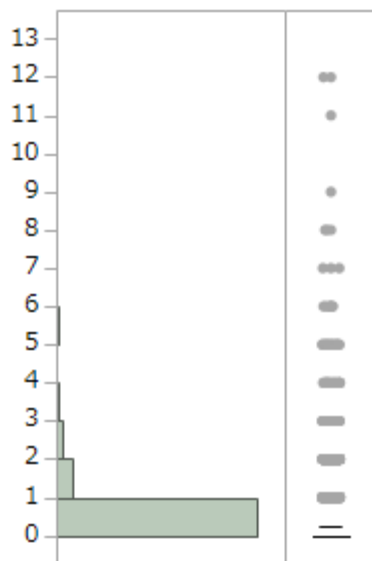


Table 4-33 Surgery-number of main lymph node retrieved (N = 3128)

Number of lymph node retrieved (median)	2 (0-41)
Number of lymph node retrieved (mean)	3.0 ± 3.0

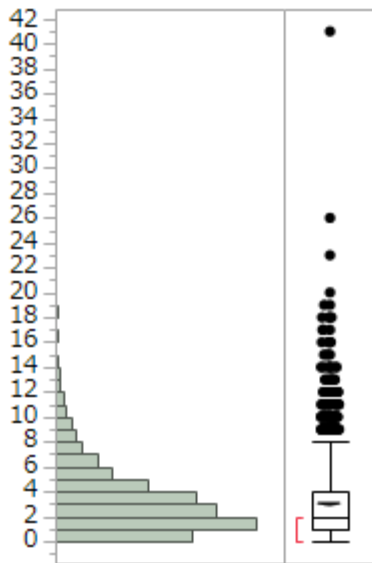


Table 4-34 Surgery-number of positive main lymph node (N = 3204)

Number of positive node (median)	0 (0-11)
Number of positive node (mean)	0.1 ± 0.5

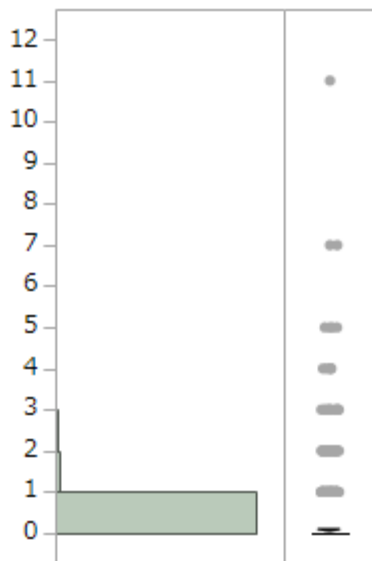


Table 4-35 Surgery-number of lateral pelvic lymph node retrieved (N = 594)

Number of lymph node retrieved (median)	4 (0-61)
Number of lymph node retrieved (mean)	7.9 ± 10.1

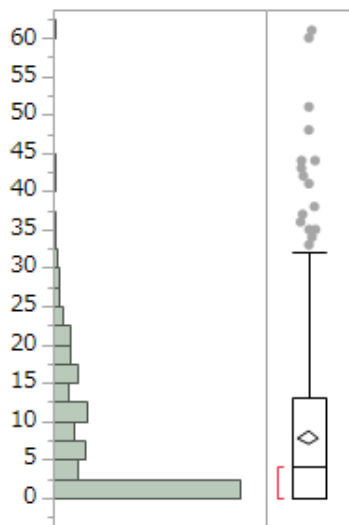


Table 4-36 Surgery-number of positive lateral pelvic lymph node (N = 600)

Number of positive node (median)	0 (0-29)
Number of positive node (mean)	0.3 ± 1.7

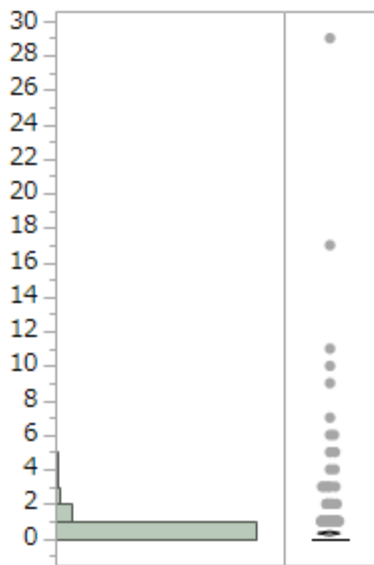


Table 4-37 Surgery-liver metastasis

Liver metastasis	Number	Percentage
H0	4919	88.4
H1	226	4.1
H2	171	3.1
H3	186	3.3
Unknown	63	1.1
Total	5565	100

Table 4-38 Surgery-Peritoneal metastasis

Peritoneal metastasis	Number	Percentage
P0	5205	93.5
P1	156	2.8
P2	45	0.8
P3	84	1.5
Unknown	75	1.3
Total	5565	100

Table 4-39 Surgery-Distant metastasis other than liver

Distant metastasis	Number	Percentage
M0	4894	87.9
M1	348	6.3
Unknown	323	5.8
Total	5565	100

Table 4-40 Surgery-Lung metastasis

Lung metastasis	Number	Percentage
LM0	5026	90.3
LM1	100	1.8
LM2	22	0.4
LM3	72	1.3
Unknown	345	5.2
Total	5565	100

Table 4-41 Surgery-Curability after surgery

Curability	Number	Percentage
Cur A	4387	78.8
Cur B	227	4.1
Cur C	699	12.6
Unknown	252	4.5
Total	5565	100

Table 4-42 Surgery-Recurrence after surgery

recurrence	Number	Percentage
Absent	3861	69.4
Present	1073	19.3
Unknown	631	11.3
Total	5565	100

Table 4-43 Surgery-Recurrence rate according to stage

	Stage 0	Stage I	Stage II	Stage IIIa	Stage IIIb	Stage IV	Unknown
Absent	196 (85.2)	1015 (87.8)	1280 (78.1)	734 (66.7)	266 (51.8)	342 (39.3)	28 (50)
Present	2(0.9)	60 (5.2)	257 (15.7)	277 (25.2)	205 (39.9)	264 (30.3)	8 (14.3)
Unknown	32 (13.9)	81 (7.0)	102 (6.2)	89 (8.1)	43 (8.4)	264 (30.3)	20 (35.7)
Total	230	1156	1639	1100	514	870	56

Table 4-44 Surgery-Recurrence site after surgery

First recurrence site	Number
Anastomosis	42
Regional lymph node	115
Local	97
Lymph node (not regional)	109
Liver	335
Lung	343
Peritoneum	123
Bone	46
Brain	14
Adrenal gland	2
Skin	4
Others	54
(overlapping+)	

Table 4-45 Surgery-Treatment after recurrence

Treatment for recurrence	Number	Percentage
None	164	15.3
Curative surgery	331	30.8
Palliative surgery	40	3.7
Radiation	41	3.8
Chemotherapy	395	36.8
Others	19	1.8
Unknown	83	7.7
Total	1073	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	227	99.5	98.0	97.0	94.1	93.4
Stage I	1144	98.4	97.1	95.8	94.4	92.5
Stage II	1610	96.7	93.6	91.3	87.6	84.7
Stage IIIa	1083	97.4	92.7	88.2	83.3	80.5
Stage IIIb	510	92.8	84.0	75.2	69.5	64.9
Stage IV	848	75.3	52.6	40.5	31.3	25.7
Unknown	143					
All	5565	93.7	87.6	81.4	76.8	72.9

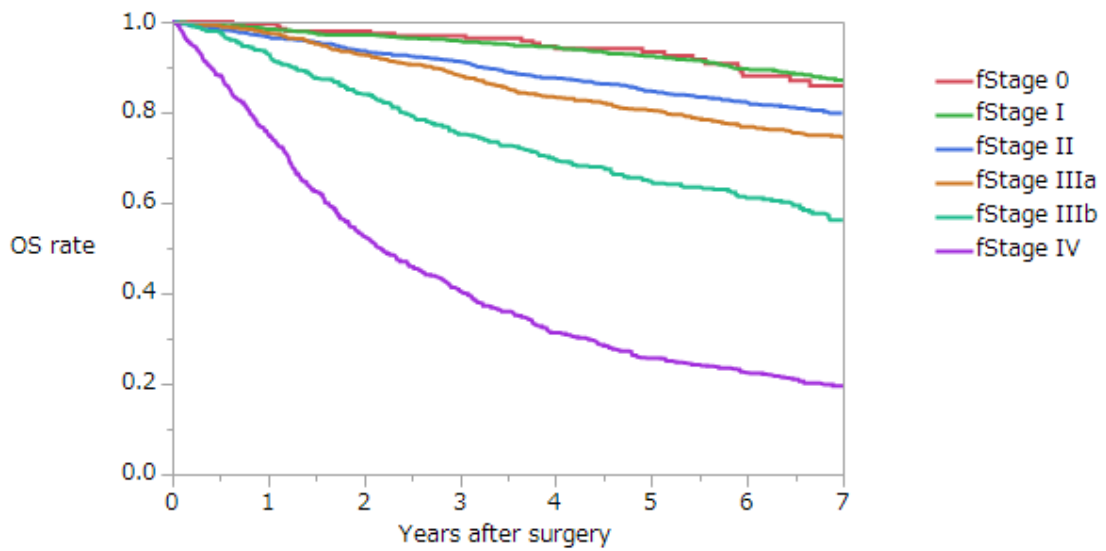


Table 4-47 Surgery-Overall survival rates after surgery (colon) (%)

Group	Number of patients	1 year	2 years	3 years	4 years	5 years
Stage 0	150	100	97.7	97.7	94.3	94.3
Stage I	623	98.7	97.8	97.0	95.7	93.6
Stage II	1035	96.8	93.6	90.8	86.8	84.1
Stage IIIa	643	97.3	93.0	89.0	85.0	82.0
Stage IIIb	251	90.6	80.6	72.7	67.8	64.9
Stage IV	554	73.3	52.1	41.7	33.2	27.2
All	3256	93.0	86.6	82.4	78.2	75.0

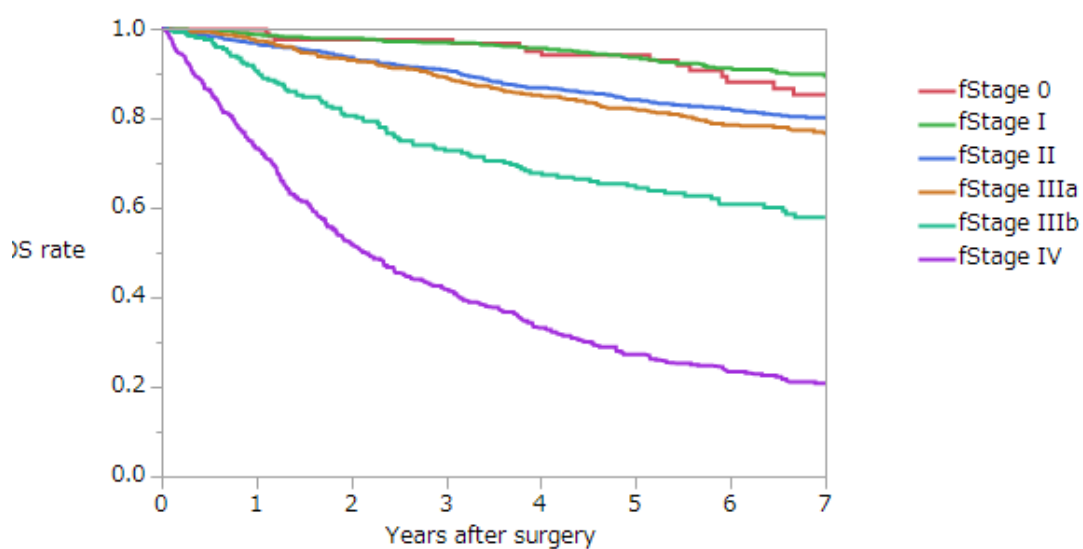


Table 4-48 Surgery-Overall survival rates after surgery (rectum) (%)

Group	Number of patients	1 year	2 years	3 years	4 years	5 years
Stage 0	77	98.6	98.6	95.3	93.5	93.5
Stage I	521	98.0	96.2	94.3	92.7	91.1
Stage II	575	96.8	94.0	92.5	89.6	86.3
Stage IIIa	440	97.5	92.5	87.1	81.1	78.4
Stage IIIb	259	94.9	87.2	77.3	70.9	64.5
Stage IV	294	79.1	54.5	39.3	28.6	23.3
All	2166	94.7	88.2	83.0	78.3	74.9

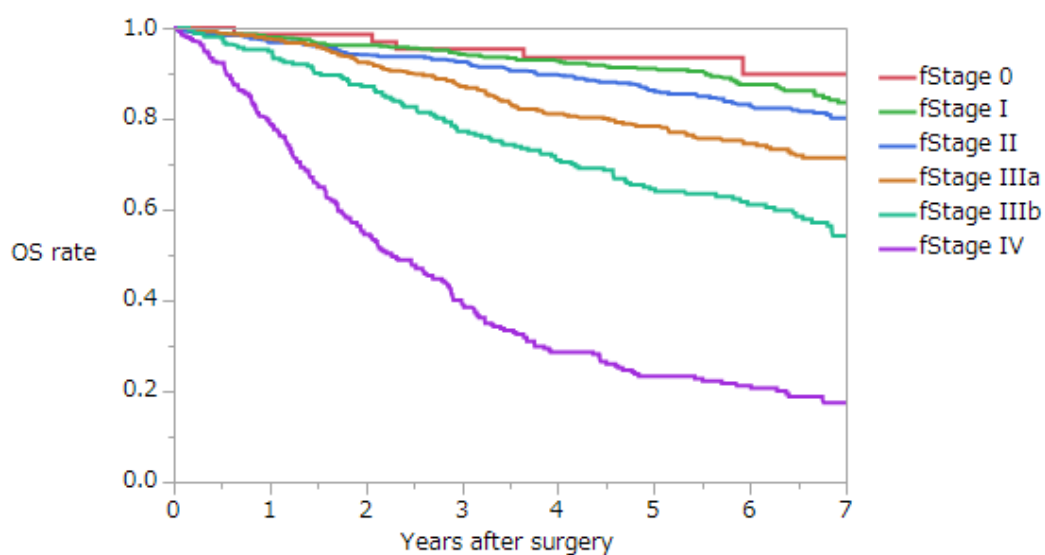


Table 4-49 Surgery-Overall survival rates according to liver metastasis (%)

Group	Number of patients	1 year	2 years	3 years	4 years	5 years
H0	4919	95.8	91.5	87.6	83.7	80.9
H1	226	85.4	67.6	56	46.6	42.3
H2	171	76.2	50.5	42.4	30.8	23.9
H3	186	59.6	31.1	18.8	12.5	7.0
Unknown	63					
All except for unknown	5502	93.6	87.3	82.7	78.3	75.1

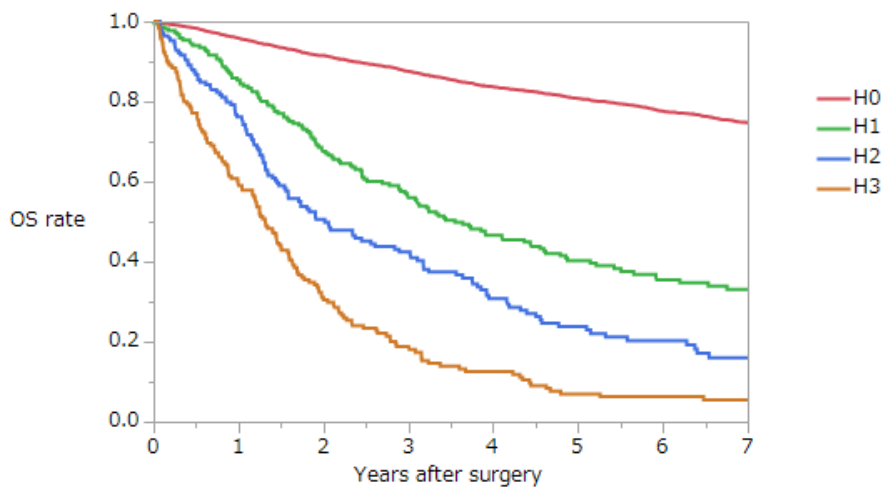


Table 4-50 Surgery-Overall survival rates according to peritoneal metastasis (%)

Group	Number of patients	1 year	2 years	3 years	4 years	5 years
P0	5205	95.2	90.0	85.8	81.5	78.3
P1	156	69.0	40.4	32.0	26.8	25.2
P2	45	67.5	42.8	25.1	18.8	15.7
P3	84	57.5	29.5	13.8	6.1	3.1
Unknown	75					
All except for unknown	5490	93.7	87.5	81.4	76.8	72.9

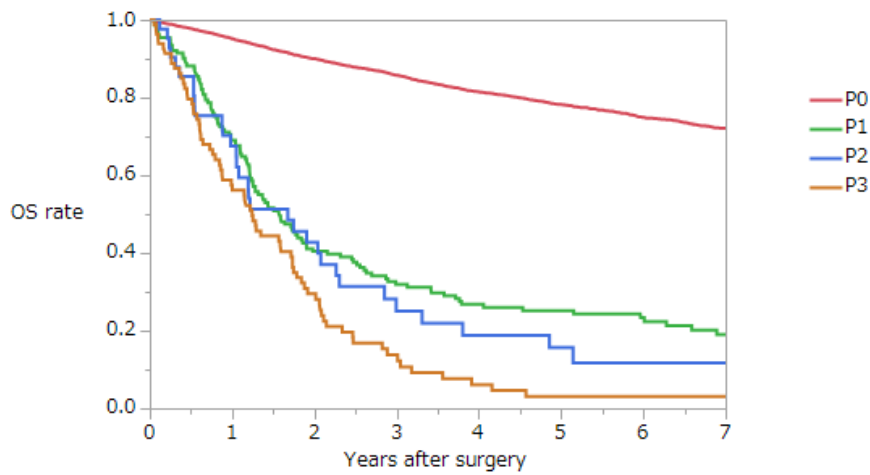


Table 4-51 Surgery-Overall survival rates according to lung metastasis (%)

Group	Number of patients	1 year	2 years	3 years	4 years	5 years
LM0	5026	94.1	88.5	84.0	79.7	76.4
LM1	100	80.7	58.0	47.3	37.6	33.8
LM2	22	85.2	63.1	51.6	28.7	22.9
LM3	72	58.0	30.2	19.1	12.7	9.5
Unknown	345					
All except for unknown	5220	93.4	87.0	82.3	77.9	74.5

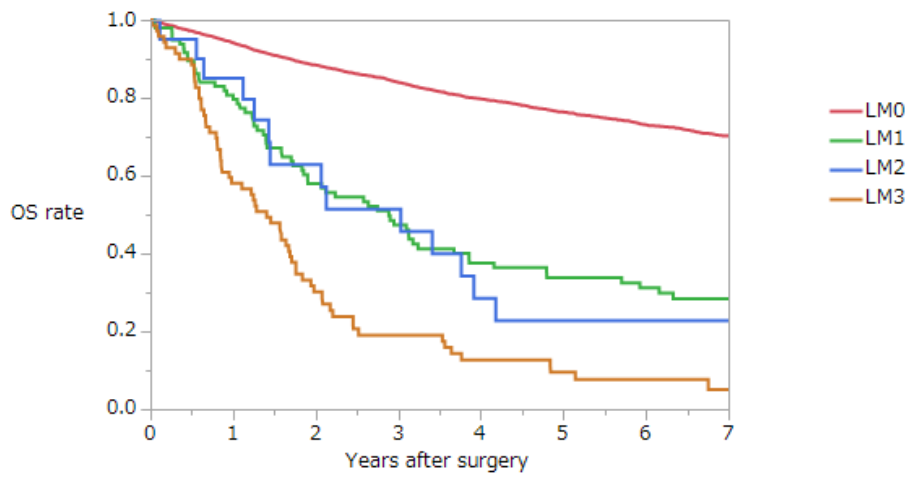


Table 4-52 Surgery-Overall survival rates according to distant metastasis other than liver metastasis (%)

Group	Number of patients	1 year	2 years	3 years	4 years	5 years
M0	4894	95.2	90.1	86.0	81.9	79.0
M1	348	72.2	47.5	36.9	26.3	19.8
Unknown	323					
All except for unknown	5242	93.7	87.4	82.8	78.3	75.2

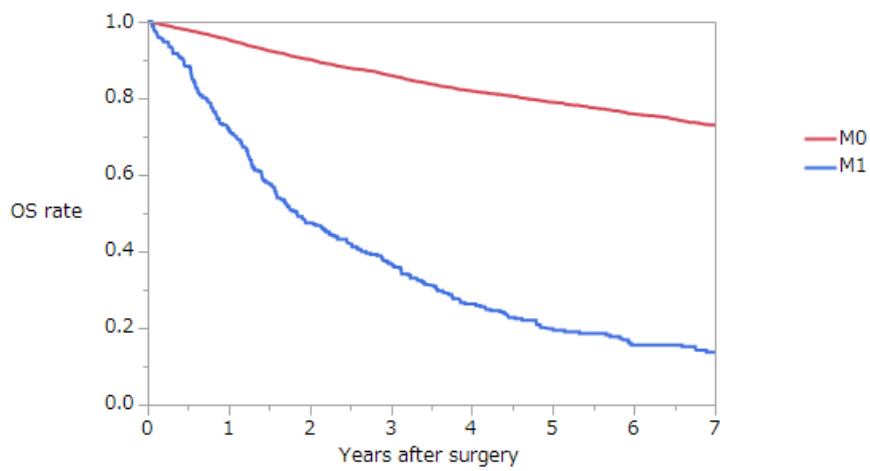
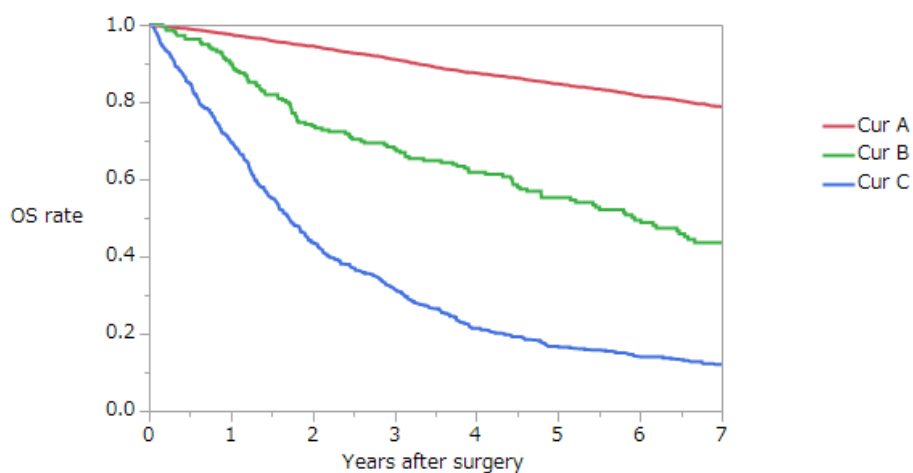


Table 4-53 Surgery-Overall survival rates according to curability (%)

Group	Number of patients	1 year	2 years	3 years	4 years	5 years
Cur A	4387	97.5	94.5	91.1	87.5	84.7
Cur B	227	89.9	73.8	67.9	61.8	55.2
Cur C	699	69.8	43.7	31.5	21.4	16.7
Unknown	252					
All except for unknown	5313	93.6	87.2	82.6	78.1	74.9



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